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## Brand placement disclosure effects on persuasion: The moderating role of consumer self-control

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### ABSTRACT

The inclusion of branded products in media entertainment has become a popular marketing strategy, because viewers are less likely to recognize the persuasive intent of sponsored content as compared with traditional advertising. To guarantee fair communication and protect consumers against unobtrusive persuasion attempts, European media policy has obligated broadcasters to disclose the presence of brand placement in their television shows. Recent studies demonstrate that disclosures raise viewers' persuasion knowledge; however, the circumstances under which brand placement disclosures may affect brand evaluations and resistance to the persuasive impact of brand placement are still unclear. In two experiments, we uncovered self-control depletion as an important moderator of disclosure effects on brand evaluations and resistance to brand placement influence. Whereas disclosures increase resistance and decrease persuasion for viewers not depleted of their self-control, disclosures do not affect resistance and even result in more favorable brand evaluations when viewers' self-control is depleted by a previous self-control task. Because a state of self-control depletion can be perceived as the "couch-potato" mindset in which people expose themselves to entertaining television content, our findings imply that instead of protecting consumers from hidden persuasion, disclosures may unintentionally increase the persuasive effects of brand placement. We discuss several possible mechanisms that could explain our findings. Copyright © 2016 John Wiley & Sons, Ltd.

In one of the latest James Bond movies, 007 abandons his beloved Martini and asks the bartender to serve him the Dutch beer brand Heineken instead. The inclusion of branded products in movies or television programming, a marketing strategy called brand placement or product placement, is increasingly used by advertisers to reach their target audience (Smit *et al.*, 2009). Brand placement combines characteristics of both advertising and publicity and is therefore classified as a hybrid message (Balasubramanian, 1994). Because of the combination of the two formats, viewers are less likely to recognize the persuasive intent of brand placement, which may result in involuntary persuasion (Nebenzahl and Jaffe, 1998; Boerman *et al.*, 2012). As a consequence, brand placement is often perceived as unfair and deceptive (Cain, 2011). To guarantee fair communication and protect consumers from hidden persuasion, European broadcasters are required to disclose sponsored content to their viewers in the form of warning messages at the beginning of a television show (Boerman *et al.*, 2014a).

Academic researchers have recently started to investigate the effects of these brand placement disclosures and show that they increase viewers' awareness of persuasive intent and induce a more critical evaluation of the placements, thus significantly raising viewers' persuasion knowledge (Boerman *et al.*, 2012, 2014a). However, previous work has remained inconclusive about disclosure effects on persuasion, such as brand attitudes. The limited number of studies that has investigated the effects of brand placement disclosures on brand evaluations presents mixed findings, with disclosures either resulting in less favorable brand attitudes and decreased purchase intention (Boerman *et al.*, 2012, 2014a; Campbell *et al.*, 2013; Tessitore and Geuens, 2013) or not

altering the persuasive effect of sponsored content (Bennett *et al.*, 1999; Dekker and Van Reijmersdal, 2013). In addition, the circumstances under which disclosures may affect brand evaluations are still unclear. Therefore, it is of vital importance to enhance our theoretical understanding of disclosure effects by examining whether and when brand placement disclosures may ultimately influence the persuasion process. These insights are also crucial for advertisers, media policy makers, and consumer organizations.

In the present research, we aim to shed more light on the impact of disclosures on the persuasive effects of brands placed in television shows, by focusing on an important viewer characteristic that may be key to disclosure effects. Specifically, we argue that the influence of disclosures on (resistance to) brand placement persuasion depends for an important part on consumers' ability and motivation to regulate their responses, better known as *self-control* (Baumeister *et al.*, 1998). In two studies, we examine whether disclosure effects on brand evaluations (i.e., brand preference, brand attitude, and purchase intent), and resistance to brand placement influence, are moderated by viewers' state of self-control. We will demonstrate that (i) disclosures result in less favorable brand evaluations and increased resistance to brand placement persuasion for viewers whose self-control is left unaffected, whereas (ii) disclosures do not affect resistance, and even result in *more*, instead of less favorable brand evaluations when viewers' self-control has been depleted by a previous self-control activity. Because a state of self-control depletion can be perceived as the "couch-potato" mindset in which people are likely to expose themselves to entertaining television content (Gillespie *et al.*, 2012; Reinecke *et al.*, 2014), the present findings imply that disclosures may often fail to protect consumers against hidden persuasion. Instead, disclosures may backfire and unintentionally *increase*, instead of decrease, the persuasive effects of brand placements.

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## BRAND PLACEMENT AND DISCLOSURE EFFECTS

A considerable number of studies have investigated the effectiveness of brand placement and show that promoting a branded product in the editorial content of a movie or television series can positively affect viewers' brand attitude and brand choice (e.g., Law and Braun, 2000; Russell, 2002; Yang and Roskos-Ewoldsen, 2007; for reviews see Balasubramanian *et al.*, 2006; Van Reijmersdal *et al.*, 2009). Furthermore, brand placements generally enhance viewers' explicit and implicit memory for the brand, particularly when a brand is prominently placed (e.g., Gupta and Lord, 1998; Brennan *et al.*, 1999; Bressoud *et al.*, 2010).

Whereas advertisers cherish the benefits of brand placement as a promotional tool, the disguised persuasive intent of this marketing strategy has raised public policy concerns about the ethicality of the approach (Bennett *et al.*, 1999). By blurring the distinction between advertising and editorial content, brand placements aim to slip under the radar of increasingly marketing-wary consumers who tend to avoid or resist traditional advertising messages with obvious persuasive intent (Sagarin *et al.*, 2002; Van Reijmersdal *et al.*, 2007). However, exposing consumers to commercial messages without them recognizing it as such has been considered deceitful (Cain, 2011). To protect viewers against unobtrusive persuasion attempts, the European Union has regulated the practice and obligates media programmers to disclose sponsored content in their television shows (Audio-visual Media Services Directive, 2010). Informing viewers that programming contains product placement should increase awareness of persuasive intent and enable viewers to activate their "schemer schemas" (Friestad and Wright, 1994) as to cognitively defend against potentially unwanted persuasion. Recent studies demonstrate that disclosures indeed facilitate recognition of the persuasive intent of sponsored content. Although previous studies have demonstrated that people hold generally positive attitudes towards brand placement (for reviews, see Balasubramanian, 1994, and Van Reijmersdal *et al.*, 2009), studies on disclosures do show that disclosures activate a more critical stance towards brand placement (Boerman *et al.*, 2012, 2014a; Campbell *et al.*, 2013; Dekker and Van Reijmersdal, 2013; Tessitore and Geuens, 2013). However, under what circumstances more critical processing of sponsored content affects brand evaluations is less clear.

Boerman *et al.* (2012, 2014a) tested whether disclosures that either differed in duration or timing affected viewers' attitude towards a brand placed in a television program. They did not find any general effects of disclosure–presence on brand attitude, but a 6-second disclosure (versus a 3-second disclosure or no disclosure) and a disclosure presented at the beginning of the program or concurrent with the placement (versus a disclosure at the end) resulted in less favorable brand attitudes through higher rates of persuasion knowledge. In research by Campbell *et al.* (2013), brand placement disclosures in a TV show or blog only resulted in more negative brand attitudes when participants were able to infer unwanted influence by the placement. Furthermore, Tessitore and Geuens (2013) showed that the European

brand placement disclosure symbol "PP" increased persuasion knowledge and lowered viewers' purchase intention, but only when participants recalled seeing the brand and had received training that explained the logo.

In contrast to these findings, Bennett *et al.* (1999) did not find any effects of brand placement disclosures on liking for products placed in a movie, and Dekker and Van Reijmersdal (2013) did not demonstrate any effects of disclosures on brand attitude. In this last study, participants watched a fragment of *The Oprah Winfrey Show* in which Oprah promotes a Samsung video camera, and this sponsored placement was either or not disclosed. A disclosure did lower viewers' acceptance of the product claims, but only when the disclosure explicitly mentioned the sponsors persuasive intent, and only among those participants for whom Oprah scored low on trust or expertise.

Together, these findings seem to suggest that brand placement disclosures only attenuate persuasion when viewers are able and motivated to actively muster a resistance response. Less favorable brand attitudes were only reported when disclosures were presented long enough or at the right time for participants to infer persuasive intent and correct for this influence (Boerman *et al.*, 2012, 2014a; Campbell *et al.*, 2013). Moreover, when disclosures proved too subtle to affect brand attitude, they did lower product claim acceptance, but only among the most wary participants, and provided that they explicitly stated the placement's persuasive intent (Dekker and Van Reijmersdal, 2013). Even though disclosures may encourage the activation of persuasion knowledge, we argue that viewers have to be able and motivated to apply this knowledge to resist the persuasive influence of brand placements.

In previous research, resistance to persuasion has often been operationalized as the lack of attitudinal or behavioral change in response to a persuasive attempt. However, Knowles and Linn (2004) made a distinction between resistance as an outcome (i.e., lack of persuasion) and motivated resistance. Motivated resistance refers to a state in which people aim to reduce or prevent persuasion. In doing so, people can adopt various strategies such as counter arguing or attitude bolstering to attenuate the impact of a persuasive message (see Fransen *et al.*, 2015 for an overview of resistance strategies). In the present research, we examine not only whether disclosures affect persuasion (evaluation of the placed brand) but also whether disclosures might have an impact on the activation of resistance strategies.

## THE PRESENT RESEARCH: A SELF-CONTROL PERSPECTIVE

To further our understanding of disclosure effects on brand evaluations and gain more insight in when disclosing sponsored content may or may not result in resistance to brand placement influence, the present research examines disclosure effects from a self-control perspective. Self-control, or self-regulation, is people's ability or motivation to override initial (impulsive) responses in order to adhere to goals, norms, or other standards (Vohs and Heatherton, 2000).

Numerous studies have shown that people's self-control strength is limited and after an initial act of regulating thoughts, emotions, or behavior, one's performance on a subsequent self-control task will suffer (for a review, see Baumeister *et al.*, 2007). For example, in a classic study by Schmeichel *et al.* (2003), participants who had to suppress their emotional responses while watching an emotionally upsetting video demonstrated a subsequent impairment in intellectual performance, such as logic reasoning and active problem solving. In addition to the notion of self-control as a limited resource, a more recent motivational perspective suggests that performing an initial act of self-control shifts people's motivation and attention away from engaging in further self-control to engaging in activities that are more personally rewarding and enjoyable (Inzlicht and Schmeichel, 2012). Whether the result of a decrease in capacity or a decrease in motivation, relevant to the present research is that a state of low self-control, or *self-control depletion*, makes regulating our behavior in the face of influence attempts significantly more difficult (Burkley *et al.*, 2011).

Previous work in the domain of behavioral compliance and attitude change processes has shown that self-control plays a key role in (resistance to) persuasion. Specifically, when self-control is depleted by an initial self-control task, people are more likely to adjust their attitudes and behavior in line with a persuasive message (Burkley *et al.*, 2011). Depleted people appear to be less able or motivated to activate resistance strategies such as counter arguing (e.g., Wheeler *et al.*, 2007; Fennis *et al.*, 2009), and disclosing the persuasive intent of an upcoming message is less likely to be converted into resistance. Supporting this notion, a meta-analysis studying forewarning effects on attitude change has shown that forewarnings do not affect persuasion when people are unable or unmotivated to employ their cognitive resources to defend themselves against a persuasive attack (Wood and Quinn, 2003). This work underscores the theoretical relevance of studying the impact of brand placement disclosures on persuasion under conditions of relatively high and low self-control. Yet adopting a self-control perspective is also highly relevant from a practical point of view. A state of self-control depletion closely resembles the mental state in which the majority of consumers expose themselves to entertaining media. The most popular TV shows are aired and watched during prime time, at the end of a day in which viewers have engaged in self-control demanding activities at work or at home, and are likely to experience a reduction in self-regulatory behavior (Gillespie *et al.*, 2012; Hofmann *et al.*, 2012; Media:Tijd, 2014; Reinecke *et al.*, 2014). Although disclosures may increase attention to brand placements and raise awareness of persuasive intent, resisting persuasion and adjusting responses away from the direction of inferred influence might be too laborious under these circumstances (cf. Gillespie *et al.*, 2012).

In addition, as compared with nondepleted viewers, those in a state of self-control depletion are expected to seek release from the strain on their self-control resources (Inzlicht and Schmeichel, 2012) and will find it significantly more gratifying to sit back, relax, and enjoy a television

show than controlling and modifying their responses to hidden commercial messages (Derrick, 2013). Indeed, individuals low in self-control are highly likely to give in to the desire of entertaining media use when they experience a conflict between this hedonically rewarding and low-effort activity, and exerting control over cognitions or behavior (Hofmann *et al.*, 2012; Reinecke *et al.*, 2014). Because brand placements are integrated in the entertaining media content, controlling for their persuasive influence may interfere with viewers' more hedonically relevant goal to enjoy the show.

We conducted two experiments to test our central hypothesis that brand placement disclosures will result in (i) decreased persuasion and (ii) increased resistance to the persuasive impact of brand placement when viewers' self-control is left unaffected but will not attenuate persuasion, nor increase resistance when viewers' self-control is depleted by a previous self-control activity. In the present studies, persuasion was operationalized as (more positive) brand attitudes, and (increased) brand preference and purchase intent, and we expected to find similar results for these different measures. Resistance to brand placement persuasion was measured by the extent to which viewers activated resistance strategies.

We suggest that disclosures may paradoxically even result in *more* persuasion and *less* resistance under conditions of self-control depletion. Previous studies have reported a significant increase in brand memory after disclosure (e.g., Bennett *et al.*, 1999; Van Reijmersdal *et al.*, 2013). Disclosures thus seem to increase (unconscious) awareness of the placements and may function as a prime for the placed product brands (cf. Boerman *et al.*, 2012). Mere exposure to a brand may unconsciously result in more favorable brand evaluations (Matthes *et al.*, 2011), and with depleted viewers unable or unmotivated to override these positive brand responses, disclosures may unintentionally foster persuasive effects of brand placements.

## OVERVIEW OF EXPERIMENTAL STUDIES

To test these notions, in both studies, we had half our participants engage in a self-control task previous to exposure to a television series containing brand placement. The series did or did not include a disclosure, which explicitly stated that the show that viewers were about to watch contained product placement. In both studies, we assessed participants' brand attitude, as well as brand preference and purchase intent in Experiment 1, and the extent to which resistance strategies were activated in Experiment 2. To explore the effects of disclosure presence and self-control on brand memory, we additionally included measures of brand recall and brand recognition in both studies.

### EXPERIMENT 1

#### Participants and design

A convenience sample of 219 Dutch consumers (171 female, 48 male,  $M_{\text{age}} = 35.08$  years,  $SD = 12.75$ ) voluntarily

participated in this study, which was administered online. The study used a 2 (self-control depletion condition: depletion versus no depletion)  $\times$  2 (disclosure condition: disclosure present versus disclosure absent) between-subjects factorial design, and a baseline control condition in which participants simply rated the target product.

### Procedure

Participants enrolled in the study by clicking the link in an e-mail that was sent to them by the experimenter and were then randomly assigned to one of the four experimental conditions or the control condition. The study was introduced as consisting of two separate, unrelated parts, to reduce suspicion about the relation between the self-control task and answering questions about a fragment of a television series. The control condition was introduced as a simple product rating.

### Self-control depletion

The four experimental conditions started with a self-control manipulation adopted from Janssen and Fennis (2015). Participants were presented with 15 well-known Dutch expressions and proverbs, and in every sentence, one word was missing. The missing word contained one or multiple instances of the letter “e”, and participants had to fill in the blanks (e.g., “As \_\_\_\_\_ as grass”, in which the word “green” is missing). Whereas participants in the no depletion condition were simply asked to complete the sentences, participants in the self-control depletion condition were not allowed to use a word containing the letter “e”. Avoiding the use of a commonly used letter has been shown to require self-control, because one has to actively override using the word that first comes to mind, and think of another word that makes a meaningful and grammatically correct sentence (cf. Schmeichel *et al.*, 2010). Immediately following the self-control task, participants completed a single-item measure of their current mood state (1 = *very negative*; 7 = *very positive*), to control for unintended effects of the task on participants’ mood ( $M = 5.07$ ;  $SD = 1.08$ ).

### Disclosure

Subsequently, participants watched a 7.5-minute fragment of the Dutch soap opera *Goede Tijden, Slechte Tijden*. At 4 minutes and 35 seconds, the fragment contains a scene in which one of the main characters is drinking a yogurt snack of the brand *Breaker*. The snack with the printed brand logo is prominently displayed several times within a 30-second timeframe. This placement was chosen because television series typically contain placements of “fast-moving consumer goods” (e.g., convenience food), which most consumers would frequently purchase and use for daily consumption (Toland Frith and Mueller, 2010). In the disclosure conditions, during the first 3 seconds of the fragment, a disclosure was displayed in the upper-right part of the screen, consisting of a logo with two P’s and the sentence “This show contains product placement.” This is the original disclosure developed for Dutch television, which is presented for 3 seconds at the start of every episode of the respective TV series.

### Brand preference

After participants watched the fragment, they were shown pictures of eight different snacks (in random order) and were asked to indicate which snack they would prefer to buy if they would feel like eating a snack right now (cf. Law and Braun, 2000; Yang and Roskos-Ewoldsen, 2007). Among the snacks was the target brand placed in the TV series. Brand preference was coded 1 (preference for *Breaker*) or 0 (preference for other product brand). Overall, 19.4 per cent of the participants preferred *Breaker* over another snack.

### Brand recall and recognition

Brand recall was measured by asking participants to recall whether they had seen any product brands in the fragment of the soap opera. If they recalled seeing brands, they were asked to list all brand names they remembered seeing (cf. Matthes *et al.*, 2011; Boerman *et al.*, 2012). Brand recall was coded 1 (recalling *Breaker*) or 0 (not recalling *Breaker*). Overall, more than half of the participants (53%) recalled the placed brand. To measure brand recognition, participants were shown a list of 10 brand names of different snacks, including the placed brand, and asked to indicate whether they had seen any of these brands (cf. Van Reijmersdal *et al.*, 2013). Brand recognition was coded 1 (recognizing *Breaker*) or 0 (not recognizing *Breaker*). Overall brand recognition was 68 per cent.

### Brand attitude

Next, participants indicated their attitude towards the placed brand on three 7-point semantic differential scales (*very negative* – *very positive*; *not interesting* – *very interesting*; and *very unattractive* – *very attractive*; cf. Dekker and Van Reijmersdal, 2013; Matthes *et al.*, 2007). The three items were averaged into one brand attitude measure ( $\alpha = 0.91$ ;  $M = 3.49$ ,  $SD = 1.37$ ).

### Purchase intention

Two items measured participants’ intention to buy the target brand (cf. Tessitore and Geuens, 2013). Specifically, participants indicated the likelihood of buying *Breaker* (1 = *very unlikely*; 7 = *very likely*), and how much they would like to try out the product (1 = *do not agree at all*; 7 = *agree very much*). The two items were averaged into one measure ( $r = 0.80$ ,  $p < 0.001$ ;  $M = 3.04$ ,  $SD = 1.88$ ).

### Disclosure recall

Subsequently, participants were asked whether they had seen a disclosure about product placement, while they were watching the fragment of the TV series (yes or no).

### Manipulation check

Furthermore, serving as a manipulation check for the depletion-inducing task, we assessed participants’ self-control efforts with four items adopted from Janssen *et al.* (2010). Participants indicated to what extent they found the task difficult and effortful, how much energy they spent on suppressing automatic responses, and how much they needed to control themselves during the task (1 = *not at all*; 7 = *very much*).

### Familiarity with the brand and the TV series

Finally, we asked participants to indicate their familiarity with the brand *Breaker* by asking them whether or not they had eaten *Breaker* before (yes or no). Overall, 54.6 per cent of the participants indicated that they were familiar with the product brand. We also assessed how often they watched the *GTST* show (1 = never; 7 = every show;  $M = 2.11$ ,  $SD = 1.93$ ; 64.4% indicated to never watch the show).

### Results and discussion

We first examined whether participants correctly remembered seeing (or not seeing) a disclosure about product placement. In both disclosure conditions, a substantial percentage of participants did not remember seeing a disclosure. However, failing to recall the disclosure did not vary by depletion condition (depletion: 75%; no depletion: 75%),  $\chi^2(1) = 0.0$ ,  $p = 1.0$ . Because the effects of warning messages may occur on an implicit level and conscious awareness or memory of the warning is not a precondition for effects to occur (Stewart and Martin, 1994), participants not recalling the disclosure were retained for the upcoming analyses. We did exclude three participants in the depletion – disclosure absent condition (8.8%) who falsely reported having seen a disclosure, leaving a sample of 216 participants.<sup>1</sup> Between the four experimental conditions, there were no differences in participants' frequency of viewing the *GTST* show,  $F < 1$ . The five conditions of our experiment also did not differ in familiarity with the brand *Breaker*,  $\chi^2(4) = 7.2$ ,  $p = 0.13$ .

### Manipulation checks

*t*-tests showed that participants in the depletion condition who had to complete sentences without using the letter "e" considered this task more difficult ( $M = 4.36$ ,  $SD = 1.69$ ),  $t(144) = 10.71$ ,  $p < 0.001$ ,  $d = 1.76$ , and effortful ( $M = 4.06$ ,  $SD = 1.58$ ),  $t(144) = 10.33$ ,  $p < 0.001$ ,  $d = 1.69$ , than participants in the no depletion condition who did not have to apply such a rule ( $M = 1.71$ ,  $SD = 1.30$ ;  $M = 1.67$ ,  $SD = 1.22$ , respectively). In addition, participants in the depletion condition indicated that they had to put more effort into suppressing automatic responses ( $M = 5.07$ ,  $SD = 1.94$ ),  $t(144) = 8.53$ ,  $p < 0.001$ ,  $d = 1.41$ , and controlling themselves during this task ( $M = 4.61$ ,  $SD = 1.65$ ),  $t(144) = 8.28$ ,  $p < 0.001$ ,  $d = 1.37$ , than participants in the no depletion control condition ( $M = 2.48$ ,  $SD = 1.73$ ;  $M = 2.39$ ,  $SD = 1.58$ , respectively). We may thus assume that our self-control manipulation was successful. Participants in the depletion and no depletion conditions did not significantly differ in reported mood state,  $t(144) = -0.09$ ,  $p = 0.93$ , which renders it unlikely that mood induced by the self-control task could account for the upcoming findings.

<sup>1</sup>Please note that removing these three participants did not change any of our results. In all the upcoming analyses, we also controlled for the influence of gender, because a large percentage of our sample was female (78.1%). The study used a fragment of a soap opera especially popular among women, which may have resulted in more favorable responses to the placed brand among women, as compared with men. Controlling for gender did not significantly change any of our results, and therefore, all analyses are reported without this factor.

### Brand memory

Logistic regression analyses were performed to assess the impact of self-control depletion condition (depletion versus no depletion) and disclosure condition (disclosure present versus disclosure absent) on participants' recall and recognition of the placed brand. For brand recall, there were no significant main effects of the predictors (depletion, Wald(1) = 0.21,  $p = 0.65$ ; disclosure, Wald(1) = 0.61,  $p = 0.44$ ) and their interaction, Wald(1) = 0.59,  $p = 0.44$ . The analysis for brand recognition did not show a main effect of depletion, Wald(1) = 0.62,  $p = 0.43$ , nor an interaction of depletion and disclosure, Wald(1) = 1.09,  $p = 0.30$ . Yet the analysis showed a significant main effect of disclosure, Wald(1) = 4.34,  $p = 0.037$ , indicating that participants receiving a disclosure were more likely to recognize the placed brand (75.0%) than participants not receiving a disclosure (60.0%).

### Brand preference

Another logistic regression analysis was performed to assess the impact of self-control depletion and the presence of a disclosure on preference for the placed brand. The analysis showed main effects of both predictors (depletion, Wald(1) = 5.62,  $p = 0.018$ ; disclosure, Wald(1) = 4.80,  $p = 0.028$ ), qualified by the expected significant interaction between the presence of a disclosure and self-control depletion, Wald(1) = 8.75,  $p = 0.003$  (Figure 1). Chi-squared tests confirmed that for participants whose self-control was not depleted, those who received the disclosure were less likely to prefer *Breaker* over another snack (10.0%) than participants not receiving the disclosure (28.2%),  $\chi^2(1) = 4.26$ ,  $p = 0.039$ . Thus, without depletion, the disclosure attenuated persuasion. However, this effect flipped for participants depleted of their self-control resources,  $\chi^2(1) = 5.36$ ,  $p = 0.021$ . Depleted participants who received the disclosure were more likely to prefer *Breaker* over another snack (33.3%) than depleted participants who did not receive the disclosure (9.7%). In the baseline control condition, 17.1 per cent of participants preferred *Breaker* over another snack, which differed marginally significant from the depletion – disclosure present condition,  $\chi^2(1) = 3.56$ ,  $p = 0.059$ , but not from any of the other three experimental conditions.

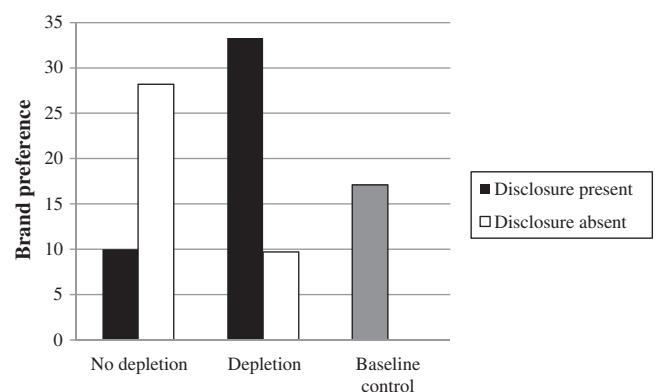


Figure 1. Percentage of participants preferring the placed brand over another brand in the same product category, as a function of self-control depletion and brand placement disclosure.

Strikingly, for depleted participants, the disclosure thus seems to increase brand preference as compared with participants not exposed to any placement.

This analysis confirms our hypothesis that the disclosure differentially affects participants either depleted or not depleted of their self-control resources. Whereas the disclosure *lowers* brand preference for nondepleted individuals, the disclosure *heightens* brand preference for depleted individuals, as compared with a condition where no disclosure was presented.

#### Brand attitude

To test whether a similar pattern of results applies to brand attitude, an analysis of variance (ANOVA) was performed with participants' attitude towards the placed brand as a function of self-control depletion condition (depletion versus no depletion) and disclosure condition (disclosure present versus disclosure absent). There were no main effects of depletion,  $F(1, 142)=0.77$ ,  $p=0.38$ , and disclosure,  $F(1, 142)=0.45$ ,  $p=0.50$ , but the expected interaction between depletion and disclosure was significant,  $F(1, 142)=10.71$ ,  $p=0.001$ ,  $\eta^2=0.07$  (Figure 2).

Additional simple main effects analyses showed that for participants whose self-control was not depleted, those who watched the show with a disclosure reported a less positive attitude towards *Breaker* ( $M=3.30$ ,  $SD=1.27$ ) than participants watching the show without a disclosure ( $M=4.10$ ,  $SD=1.21$ ),  $F(1, 142)=8.50$ ,  $p=0.004$ ,  $d=0.65$ . Again, the effect flipped for depleted participants, with those in the disclosure condition reporting a *more* positive brand attitude ( $M=3.79$ ,  $SD=1.23$ ) than participants in the condition without a disclosure ( $M=3.26$ ,  $SD=1.18$ ),  $F(1, 142)=3.12$ ,  $p=0.080$ ,  $d=0.44$  (marginally significant). Planned comparisons showed that participants in the no depletion – disclosure absent and depletion – disclosure present conditions reported a significantly more positive attitude towards the placed product than participants in the baseline control condition ( $M=3.20$ ,  $SD=1.53$ ),  $t(211)=-3.41$ ,  $p=0.001$ ,  $d=0.65$ ;  $t(211)=-2.17$ ,  $p=0.031$ ,  $d=0.43$ , respectively. For depleted participants, the disclosure thus seems to increase brand attitude as compared with participants not exposed to any placement, just as brand attitudes were heightened for nondepleted participants in

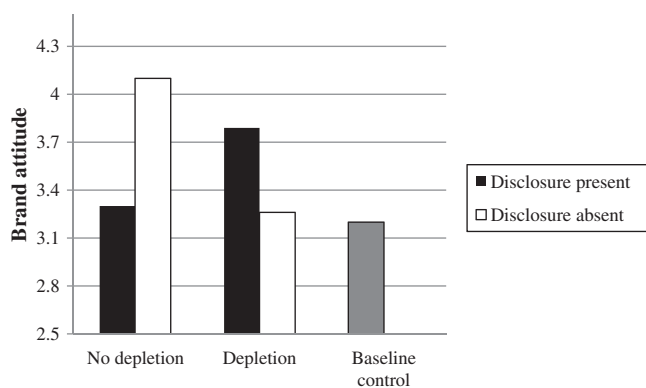


Figure 2. Attitude towards the placed brand (on a 7-point scale) as a function of self-control depletion and brand placement disclosure.

the absence of a disclosure. The baseline control condition did not significantly differ from the other two experimental conditions.

#### Purchase intention

To provide another test of our hypothesis that the disclosure differentially affects participants either depleted or not depleted of their self-control resources, an ANOVA was performed with participants' intention to buy the placed brand as a function of self-control depletion condition (depletion versus no depletion) and disclosure condition (disclosure present versus disclosure absent). The analysis did not show main effects of depletion,  $F(1, 142)=1.38$ ,  $p=0.24$ , and disclosure,  $F(1, 142)=0.59$ ,  $p=0.44$ . Yet the expected interaction between depletion and disclosure was again significant,  $F(1, 142)=11.16$ ,  $p=0.001$ ,  $\eta^2=0.072$  (Figure 3). Additional simple main effects analyses showed that for participants whose self-control was not depleted, a disclosure lowered their intention to buy *Breaker* ( $M=2.83$ ,  $SD=1.60$ ) as compared with participants not receiving a disclosure ( $M=3.58$ ,  $SD=1.78$ ),  $F(1, 142)=3.62$ ,  $p=0.059$  (marginally significant),  $d=0.44$ . Once again, the effect flipped for depleted participants,  $F(1, 142)=7.78$ ,  $p=0.006$ ,  $d=0.66$ , with those in the disclosure condition *more* willing to purchase the placed brand ( $M=3.46$ ,  $SD=2.07$ ) than participants in the condition without a disclosure ( $M=2.26$ ,  $SD=1.50$ ). Planned comparisons showed that participants in the baseline control condition ( $M=3.00$ ,  $SD=2.03$ ) did not significantly differ from any of the experimental conditions.

In line with the results reported for brand preference and brand attitude, for nondepleted individuals, displaying (versus not displaying) a disclosure resulted in a decreased intention to purchase the target brand. However, the present study reveals that when people are depleted of their self-control resources, presenting a disclosure *increases* people's purchase intention, as compared with a condition without a disclosure. We conducted a second experiment to assess the robustness of these findings and to examine whether disclosure presence and self-control also affect resistance. Moreover, we tested whether our observed effects generalize to other instances of brand placement and other disclosures.

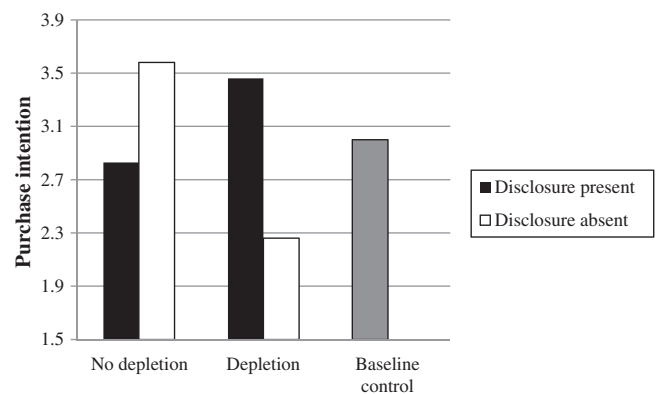


Figure 3. Purchase intention (on a 7-point scale) as a function of self-control depletion and brand placement disclosure.

## EXPERIMENT 2

In Experiment 2, participants were again confronted with brand placement in a TV series, after engaging (or not engaging) in a self-control task. Half the participants were shown a disclosure of brand placement prior to watching the TV series. In this study, we did not only assess persuasion by measuring participants' attitude towards the placed brand but we also measured the extent to which participants are motivated to resist persuasion by assessing activated resistance strategies towards the brand placement. We expected a disclosure to increase resistance to brand placement persuasion as compared with a condition without a disclosure, but only among nondepleted individuals. For depleted individuals, we expected a disclosure to not affect, or possibly even decrease, resistance.

**Participants and design**

A convenience sample of 161 consumers from different nationalities (14 Dutch; 79 German; 42 other European Union countries; and 26 non-European Union) voluntarily participated in this study (102 female, 59 male,  $M_{\text{age}}=25.79$  years,  $SD=6.54$ ). The study was administered online and used a 2 (self-control depletion condition: depletion versus no depletion)  $\times$  2 (disclosure condition: disclosure present versus disclosure absent) between-subjects factorial design.

**Procedure**

Participants enrolled in the study by clicking the link in an e-mail that was sent to them by the experimenter and were randomly assigned to one of the four conditions.

*Self-control depletion*

We induced a state of self-control depletion with a self-control task comparable with the one used in Experiment 1 (cf. Janssen and Fennis, 2015). Participants had to complete 12 well-known English expressions and proverbs that each had a missing word containing at least one "e" (e.g., "the apple does not fall far from the \_\_\_\_\_"). Whereas participants in the no depletion condition were simply asked to complete the sentences, participants in the self-control depletion condition were not allowed to use a word containing the letter "e".

*Manipulation check*

Participants subsequently indicated their self-control efforts on the same four items that were used in Experiment 1 (cf. Janssen *et al.*, 2010). They indicated to what extent they thought the task was difficult and effortful, how much they needed to control themselves during the task, and how much energy they spent on suppressing automatic responses (1 = *not at all*; 7 = *very much*).

*Disclosure*

After filling out the manipulation check, participants watched a 1.26-minute fragment of the TV series *Gossip Girl* containing a placement of the water beverage brand *Vitaminwater*. The brand name was shown for 9 seconds, and the characters

shortly discussed the *Vitaminwater* design competition. In line with Experiment 1, this placement was chosen because television series typically contain placements of "fast-moving consumer goods" (e.g., soft drinks; Toland Frith and Mueller, 2010). In the disclosure conditions, a disclosure was displayed for 6 seconds before the fragment started. Conform to brand placement disclosures that are used on Dutch television, the disclosure stated: "The show you are about to watch contains product placement." The disclosure was shown full screen in white letters on a black background.

*Brand recall and brand recognition*

As in Experiment 1, after watching the fragment, participants were asked whether they recalled seeing any product brands in the fragment and were instructed to list the brand names they remembered seeing (cf. Boerman *et al.*, 2012). Brand recall was coded 1 (recalling *Vitaminwater*) or 0 (not recalling *Vitaminwater*). Overall, 45 per cent of the participants recalled the placed brand. To measure brand recognition, participants were shown pictures of *Vitaminwater* and two other brands within the same product category (*Lipton Ice Tea* and *Innocent Fruit Juice*) and were asked to indicate whether they had seen any of these brands in the fragment they just watched (cf. Van Reijmersdal *et al.*, 2013). Brand recognition was coded 1 (recognizing *Vitaminwater*) or 0 (not recognizing *Vitaminwater*). Overall brand recognition was 75 per cent.

*Brand attitude*

Next, participants' attitude towards the placed brand was measured with seven items on a 5-point scale (1 = *strongly disagree*; 5 = *strongly agree*): I think *Vitaminwater* is *good/trustworthy/respectable/favourable/of high quality/interesting/relevant* (cf. Van Noort and Willemsen, 2012). The items were averaged into one brand attitude measure ( $\alpha=0.92$ ;  $M=2.79$ ,  $SD=0.72$ ).

*Resistance*

Resistance to brand placement influence was measured with a shortened version of a questionnaire developed by Fransen *et al.* (2013). The questionnaire inquires after different strategies one may use to resist advertising, such as counter arguing and source derogation. The items were adapted to fit the purpose of the present study, measuring resistance to brand placement influence instead of resistance to advertising in general. A total of 17 items was used to assess resistance to brand placement persuasion. Example items include the following: "I think of arguments that challenge the product placement", and "I have negative thoughts about the brand that sells the placed product" (1 = *very unlikely*; 7 = *very likely*;  $\alpha=0.79$ ,  $M=4.21$ ,  $SD=0.70$ ).

*Familiarity with the TV show*

Following, participants were asked to indicate whether they were familiar with the TV series *Gossip Girl* (yes or no). Overall, 56.1 per cent of the participants were familiar with the show.



### Disclosure recall

Finally, participants indicated whether they had seen a disclosure about product placement prior to the fragment of the TV series (yes or no).

### Results and discussion

As in Experiment 1, we first examined whether participants correctly remembered seeing (or not seeing) a disclosure about product placement. In contrast to Experiment 1, almost all participants in the disclosure conditions correctly remembered seeing a disclosure, which may have been due to the disclosure being displayed for 6 seconds, instead of 3 seconds as in Experiment 1. Failing to recall the disclosure did not vary by depletion condition (depletion: 8.8%; no depletion: 12.0%),  $\chi^2(1)=0.21$ ,  $p=0.64$ . Four participants in the no depletion–disclosure absent condition (8.0%) falsely reported having seen a disclosure and were therefore removed from all the upcoming analyses, leaving a sample of 157 participants.<sup>2</sup> The four conditions did not differ in familiarity with the TV series *Gossip Girl*,  $\chi^2 < 1$ .

### Manipulation check

*t*-tests showed that our self-control manipulation was successful: Participants in the depletion condition who had to complete sentences without using the letter “e” considered this task more difficult ( $M=4.91$ ,  $SD=1.65$ ),  $t(155)=6.72$ ,  $p < 0.001$ ,  $d=1.07$ , and effortful ( $M=5.13$ ,  $SD=1.33$ ),  $t(155)=8.93$ ,  $p < 0.001$ ,  $d=1.43$ , than participants in the no depletion condition who did not have to apply such a rule ( $M=3.13$ ,  $SD=1.68$ ;  $M=2.99$ ,  $SD=1.65$ , respectively). In addition, participants in the depletion condition indicated that they had to put more effort into controlling themselves during this task ( $M=5.01$ ,  $SD=1.41$ ),  $t(155)=9.27$ ,  $p < 0.001$ ,  $d=1.48$ , and suppressing automatic responses ( $M=5.48$ ,  $SD=1.62$ ),  $t(155)=10.90$ ,  $p < 0.001$ ,  $d=1.74$ , than participants in the no depletion control condition ( $M=2.68$ ,  $SD=1.73$ ;  $M=2.70$ ,  $SD=1.58$ , respectively).

### Brand memory

Logistic regression analyses were performed to assess the impact of self-control depletion condition (depletion versus no depletion) and disclosure condition (disclosure present versus disclosure absent) on participants’ brand recall and brand recognition. For brand recall, there were no main effects of both predictors (depletion,  $Wald(1)=0.39$ ,  $p=0.53$ ; disclosure,  $Wald(1)=0.24$ ,  $p=0.62$ ) and their interaction,  $Wald(1)=0.31$ ,  $p=0.58$ . For brand recognition, the analysis did not show main effects of depletion,  $Wald(1)=1.50$ ,  $p=0.22$ , and disclosure,  $Wald(1)=0.54$ ,  $p=0.46$ , but it did show a significant interaction between the two predictors,  $Wald(1)=4.07$ ,  $p=0.044$ . Whereas displaying a disclosure increased brand recognition among nondepleted

<sup>2</sup>Please note that removing these four participants did not change any of our results. As in Experiment 1, all the upcoming analyses were also controlled for the influence of gender, because a large percentage of our sample was female (63.4%), and the study used a fragment of a TV series especially popular among women. However, controlling for gender did not significantly change any of our results, and therefore, all analyses are reported without this factor.

participants (85.3%) as compared with not displaying a disclosure (63.0%),  $\chi^2(1)=4.86$ ,  $p=0.028$ , the number of depleted participants recognizing the *Vitaminwater* brand did not differ between the disclosure (74.0%) and no disclosure conditions (81.5%),  $\chi^2(1)=0.55$ ,  $p=0.46$ .

### Brand attitude

To test our hypothesis that a disclosure differentially affects people depleted or not depleted of their self-control resources, we conducted an ANOVA with participants’ attitude towards the placed brand as a function of self-control depletion condition (depletion versus no depletion) and disclosure condition (disclosure present versus disclosure absent). There were no main effects of depletion,  $F(1, 153)=0.57$ ,  $p=0.45$ , and disclosure,  $F(1, 153)=2.48$ ,  $p=0.12$ . Contrary to our expectations, the analysis neither showed a significant interaction between depletion and disclosure,  $F(1, 153)=0.12$ ,  $p=0.73$ .

### Resistance

Another ANOVA was conducted with resistance to brand placement influence as a function of self-control depletion condition (depletion versus no depletion) and disclosure condition (disclosure present versus disclosure absent). There were no main effects of depletion,  $F(1, 153)=0.82$ ,  $p=0.37$ , and disclosure,  $F(1, 153)=0.22$ ,  $p=0.64$ . Yet the expected interaction between depletion and disclosure was significant,  $F(1, 153)=7.82$ ,  $p=0.006$ ,  $\eta^2=0.048$  (Figure 4). Additional simple main effects analyses showed that for participants whose self-control was not depleted, those in the disclosure condition reported more resistance towards brand placement persuasion ( $M=4.38$ ,  $SD=0.54$ ) than participants in the disclosure absent condition ( $M=4.01$ ,  $SD=0.78$ ),  $F(1, 153)=5.63$ ,  $p=0.019$ ,  $d=0.55$ . Although not significant, the effect seemed to flip for depleted participants, with participants confronted with a disclosure reporting less resistance towards the persuasive impact of brand placement ( $M=4.16$ ,  $SD=0.67$ ) than participants in the disclosure absent condition ( $M=4.43$ ,  $SD=0.73$ ),  $F(1, 153)=2.57$ ,  $p=0.11$ ,  $d=0.39$ .

In contrast to the findings for brand attitude, this analysis confirms our hypothesis that the disclosure differentially affects resistance to the persuasive impact of brand placement for participants either depleted or not depleted of

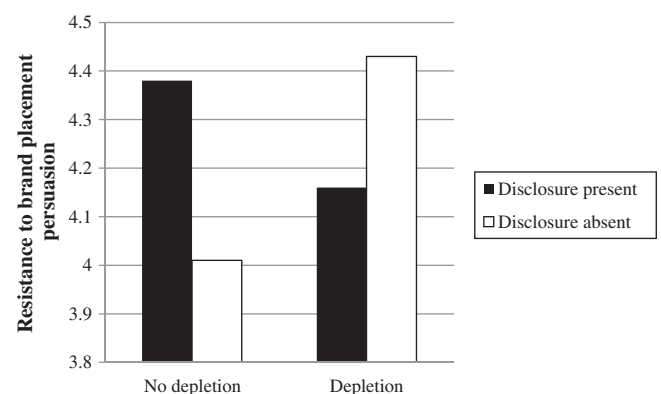


Figure 4. Resistance to brand placement persuasion (on a 7-point scale) as a function of self-control depletion and brand placement disclosure.

their self-control. Whereas the disclosure increases resistance to brand placement persuasion for nondepleted participants, those depleted of their self-control resources do not show increased resistance after a disclosure.

## GENERAL DISCUSSION

Previous studies have shown that brand placement disclosures are generally effective in increasing viewers' persuasion knowledge (e.g., Boerman *et al.*, 2012, 2014a). Whereas informing consumers about the persuasive intent of sponsored content may be regulators' primary concern, from a theoretical as well as practical perspective, it is just, or even more essential to know, whether and when disclosures ultimately influence the persuasion process.

Because existing research reporting disclosure effects on brand evaluations presented mixed results, we conducted two experiments to increase our understanding of the effects of disclosing sponsored content on viewers' brand responses. Importantly, we aimed to shed more light on the circumstances under which disclosures may or may not affect brand evaluations and evoke resistance to the persuasive impact of brand placement by focusing on self-control, a viewer characteristic that previous research has shown to play a key role in resistance to persuasion (e.g., Wheeler *et al.*, 2007; Fennis *et al.*, 2009). Specifically, we tested the hypothesis that disclosures result in less positive brand evaluations and increased resistance to brand placement persuasion when viewers' self-control is left unaffected but disclosures do not affect resistance, and even result in *more*, instead of less favorable brand evaluations when viewers' self-control has been depleted by a previous self-control activity.

Our studies indeed showed that disclosures only attenuate persuasion and increase resistance when viewers are able to correct for the persuasive influence of brand placements, that is, when they are relatively high in self-control. Importantly, when viewers' self-control is lowered by a previous self-control task, disclosures may backfire, unintentionally increasing the persuasive effects of brand placements. We demonstrated these effects across two different instances of brand placement, using two different types of disclosures that differed in duration, employing various measures of persuasion, as well as measuring the activation of resistance strategies.

The present work contributes to the literature in several key ways. First, our research findings shed more light on previous mixed results and the circumstances under which disclosures affect brand placement persuasion. Second, whereas previous work mainly focused on features of the disclosures like timing and duration, our studies are one of the first to approach disclosure effects from a receiver point of view, taking into account the state of mind in which consumers may be confronted with disclosures of brand placement. Third, by demonstrating the role of self-control depletion as an important moderator of disclosure effects, we have uncovered circumstances under which disclosures may unintentionally backfire. Because consumers are most likely to be confronted with brand placement disclosures

during prime-time television shows, when their resources or motivation for self-regulation are not optimal (Gillespie *et al.*, 2012), our finding that disclosures may *increase*, instead of decrease, persuasion under conditions of lowered self-control is highly relevant from a theoretical, as well as practical point of view.

The finding that disclosures only seem to attenuate persuasion when viewers are able to correct for the persuasive influence of brand placements (i.e., when they are relatively high in self-control) concurs with previous work, showing that disclosures only resulted in a less favorable brand attitude when their features enabled viewers to muster a resistance response (e.g., presenting the disclosure at the beginning of a show or concurrent with the brand placement, instead of at the end; Boerman *et al.*, 2014a). The finding also aligns with previous work on self-control and resistance, demonstrating that people need self-control resources to protect themselves from unwanted persuasive attempts (Burkley, 2008). Our hypothesis that disclosures attenuate persuasion when self-control was left unaffected was confirmed on all but one of our brand evaluation measures. In Experiment 2, the disclosure did not affect participants' attitude towards *Vitaminwater*, irrespective of their state of self-control. Nevertheless, the results that were observed on the resistance measure in Experiment 2 do align with the results of our first experiment, with nondepleted participants reporting more resistance towards the persuasive impact of the *Vitaminwater* placement when they had seen a disclosure, than when they had not been exposed to a disclosure. Together, we may conclude that disclosures mitigate the persuasive effects of brand placement when self-control is left unaffected.

In contrast to disclosures attenuating persuasion when viewers' self-control is relatively high, disclosures appear to strengthen the persuasive effects of brand placement when viewers are low in self-control (Experiment 1). Interestingly, under conditions of self-control depletion, after a disclosure, viewers' brand preference and brand attitude even exceed those of viewers in a baseline control condition, who evaluated the brand without previous exposure to the placement. We argued that disclosures may unintentionally foster persuasive effects of brand placements, because they increase awareness of the placements and function as a prime for the placed product brands (cf. Boerman *et al.*, 2012). Whereas individuals whose self-control is left unaffected are able to (unconsciously) correct for the affective influence of mere exposure on their brand preferences, we expected depleted viewers to be unable or unmotivated to do so. Based on the present findings, we can only speculate on the exact process that is underlying the observed disclosure effects, although it seems plausible to suggest that the disclosures indeed increased viewers' attention for the placements. In line with previous research on disclosure effects (e.g., Van Reijmersdal *et al.*, 2013), viewers reported better memory for the placed brands after disclosure (provided that they were prompted by a list of brand names). In Experiment 2, an increase in brand recognition after disclosure was found only among nondepleted individuals, whereas in Experiment 1, this effect occurred independent of participants' state of

self-control. Although we did not directly measure attention for the placed brands, recent work suggests that better brand memory after disclosure is a result of increased visual attention for the placed brand (Boerman *et al.*, 2014b). To explore whether increased attention may positively affect brand evaluations for viewers experiencing self-control depletion, it is important for future research to include a direct measure of attention, such as tracking participants' eye movements when they are watching the television fragments (cf. Boerman *et al.*, 2014b).

Because our studies did not show any differences between depleted and nondepleted individuals in recall for the disclosures, we do not expect the observed increase in persuasion under conditions of self-control depletion to be a result of decreased attention for the disclosure. However, it seems plausible to suggest that the disclosure is processed in a different vein and results in different responses under conditions of relatively high and low self-control. When viewers' self-control is left unaffected, disclosures are likely to stimulate the activation of persuasion knowledge, and help viewers to infer the persuasive intent of the brand placement. As a result, viewers will become motivated to resist this influence, resulting in less positive brand evaluations (cf. Boerman *et al.*, 2012). In contrast, depleted viewers may lack sufficient resources to infer from a disclosure that the brand placement is a disguised persuasion attempt and a resistance response will not be activated. Alternatively, the (implicit) recognition of persuasive intent does predispose depleted viewers against the placed brand, but they are subsequently unable or unmotivated to activate resistance strategies and correct for the inferred influence. This could partly be due to low self-control viewers seeking release from the strain on their self-control resources (Inzlicht and Schmeichel, 2012) and experiencing an increased desire to indulge in entertaining media content (Hofmann *et al.*, 2012), and restore their depleted self-control (Derrick, 2013). Because the placed brands are integrated in the entertaining media content, controlling for their persuasive influence may interfere with viewers' more hedonically relevant goal to enjoy the show. To examine these suggestions, it is important for future research to test how different levels of self-control affect the activation of persuasion knowledge after disclosure. When disclosures indeed fail to activate persuasion knowledge for viewers experiencing self-control depletion, but do increase attention for the placed brands and the televised content, this may explain the increase in positive brand evaluations under these circumstances.

Future research may profitably explore what type of disclosures would help depleted viewers to resist potential unwanted persuasion effects. The risk of disclosures backfiring could possibly be decreased by making the process of inferring persuasive intent less cognitively demanding and use disclosures that more explicitly state the persuasive intent of brand placements (e.g., this program contains product placement *intended to influence your behaviour*; cf. Dekker and Van Reijmersdal, 2013). However, this strategy may not be sufficiently effective when self-control is mainly needed for the activation and appliance of resistance strategies in response to the disclosure.

Interestingly, recent research examined the effectiveness of warning strategies that rely less heavily on mental resources than the ones commonly used to disclose the persuasive intent of an advertisement. Fransen and Fennis (2014) demonstrated that individuals exposed to a persuasive intent prime were just as successful in resisting persuasion in response to an ad, as individuals explicitly warned of the persuasive intent of the ad. However, resistance in response to the persuasive intent prime seemed to operate on a more unconscious level and required less cognitive resources than resistance in response to the explicit warning. This research implies that the use of implicit warnings, such as disclosure symbols (i.e., the PP symbol, provided that it is correctly understood when used without the additional warning slogan), may benefit viewers low in self-control because they are easier to process (cf. Stewart and Martin, 1994; Fransen and Fennis, 2014).

Another point that deserves attention is that in the conditions where no disclosure was presented, depleted participants seemed to respond less favorably to the brand placements than nondepleted individuals. Although we did not hypothesize such an effect, it corroborates recent work by Gillespie *et al.* (2012). Their findings seem to suggest that under conditions of self-control depletion (which was induced with a self-control task that resembled the one used in our experiments), viewers of a television series respond less favorably to a blatantly placed brand than when self-control was left unaffected. In contrast with a brand that is subtly presented in the background, a blatant placement is clearly connected to the show's characters or narrative (Russell, 2002), and the placements used in our studies fit that category: In Experiment 1, the *Breaker* yogurt snack was consumed by the leading character of the *GTST* scene, and in Experiment 2, the *Vitaminwater* beverage was part of the plot with the *Gossip Girl* characters discussing the *Vitaminwater* design competition. Future research may further explore the process causing depleted individuals to be more negative towards (blatant) brand placements than nondepleted individuals. An explanation may be that an unexpected blatant intrusion of a brand in the television series interferes with viewers' engagement in the program's narrative. Depleted viewers may be especially sensitive to such an intrusion, because narrative immersion has been found to alleviate the demands on their self-control (Johnson *et al.*, 2015), and restore their self-control resources (Derrick, 2013). When this (valuable) process is interrupted, depleted viewers may experience more negative responses to the placed brand. Such an effect is not expected when a disclosure is presented, because the disclosure forewarns viewers of the presence of brand placement. When a disclosure is present, narrative engagement may even result in more positive brand evaluations for depleted versus nondepleted viewers, because narrative transportation and enjoyment may transfer to the placed brand that is now an expected part of the narrative (cf. Chen, 2014). Whether narrative engagement could indeed be an additional explanation for the "backfire effect" of disclosures found in one of the present studies would be an interesting venue for future research. Furthermore, when studying disclosure effects, one should

take into account that viewers' state of self-control may not only affect the way they respond to disclosures but also affects the way they respond to the placed brands (cf. Gillespie *et al.*, 2012), as well as their level of narrative engagement (Johnson *et al.*, 2015).

In sum, our studies imply that self-control plays a crucial role in the effects of brand placement disclosures. People's level of cognitive depletion determines whether disclosures have positive or negative effects on persuasion and resistance, and under conditions of low self-regulation, a disclosure may actually do more harm than good. Because it could be argued that most people watching prime-time television experience low levels of self-regulation (e.g., Hofmann *et al.*, 2012), the results found for depleted people in our studies may be a better representation of the effects of brand placement disclosures in real life than the results found in previous studies. Future studies investigating disclosure effects could benefit from taking consumers' cognitive resources into account.

Based on previous brand placement studies (Law and Braun, 2000; Auty and Lewis, 2004; Van Reijmersdal *et al.*, 2009), we used fragments of television programs as stimulus materials in the present study. Although our disclosure effects are in line with studies that used full versions of television programs (e.g., Boerman *et al.*, 2012), future research is needed to see whether the current findings generalize to watching the full program. It could be possible, for example, that the activation of resistance strategies diminishes or increases during the course of a television series. In addition, to further enhance the external validity of our findings, future studies could use a more "natural" simulation of self-control depletion, such as inviting participants to watch a television series in a living room setting, either in the morning after a night's rest or in the evening after self-control has become depleted throughout the day. Moreover, future studies may alternatively investigate the effects of disclosures when viewers engage in media multitasking. More specifically, it has become increasingly common to use one medium in conjunction with another, such as texting with friends on your mobile phone while watching a television series. This form of multitasking may tax your working memory during media use, and the resulting cognitive load and distraction may affect the functioning of a disclosure in a similar way as a state of self-control depletion does (resulting from cognitive effort *prior to* media use). However, please note that in contrast to cognitive load, self-control depletion also contains a motivational component, which may have been the main driver of our findings.

Furthermore, future studies would profit from using a more balanced sample of respondents (our experiments contained mainly women) and could test whether our effects generalize to placements featuring high involvement products (e.g., durable goods instead of fast-moving consumer goods), using different placement execution styles (e.g., modality, duration, and prominence of the placements), across different types of entertainment media (e.g., movies or video games). Moreover, because Experiments 1 and 2 used different measures of brand attitude, and the interaction

effect of disclosure presence and self-control was only established on the brand attitude measure of Experiment 1, and not on the brand attitude measure in Experiment 2, future studies may investigate to what extent the type of measurement has influenced our results.

Despite some limitations, our findings have important implications for media policy, as well as marketing practice. Although the main purpose of brand placement disclosures is to inform consumers about the presence of persuasive content in television programs (Cain, 2011), our research shows that disclosures may unintentionally enhance persuasion under conditions of depletion and fail to protect against unwanted persuasion attempts. With respect to media policy, our finding that disclosure effects depend on viewers' state of self-control implies that disclosures are thus not effective under all circumstances or for all audiences and may have undesired side effects. Specifically, our research implies that disclosures of brand placement are not desirable when viewers are depleted, such as during prime time or when they are engaging in media multitasking. Under those circumstances, viewers may be better off without disclosures, because a prime-time or multitasking audience is likely to lack sufficient ability or motivation to critically respond to them. Future research may profitably explore what types of disclosures are able to reach their goal without disadvantaging a low self-control audience.

For advertisers, our findings imply that brand placement disclosures may not be as harmful to their business as previous studies suggest. On the contrary, although disclosures mitigate persuasion among non-depleted viewers, disclosures seem to be beneficial by enhancing the persuasive effects of brand placement for depleted viewers. This finding implies that marketers will profit most from placing brands in shows that are broadcasted or watched later in the evening, when people can be expected to be most depleted and least resistant to brand placement influence. However, it is unknown what the long-term effects of disclosures will be. Although depleted viewers may evaluate a brand more favorably after being presented with a disclosure, this effect may wear out during the course of a program, because enjoying a television show may gradually replenish their self-control resources. In a similar vein, when viewers get used to the presence of disclosures and come to expect the practice of brand placement in television shows, the effect of disclosures mitigating persuasion among non-depleted viewers may eventually wear out, and transparency about the presence of commercial content may benefit marketers instead (cf. Aguirre *et al.*, 2015). In sum, it is important to keep monitoring the effects of brand placement disclosures, and keep on taking the role of self-control into account.

To conclude, the present studies uncovered self-control depletion as an important moderator of disclosure effects on brand evaluations and resistance to the persuasive impact of brand placement. Our research is one of the first to examine individual differences in susceptibility to disclosure effects and does not only shed more light on previous findings in this domain but also provides an important basis for future studies on the effects of disclosing sponsored content in entertaining media.

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