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CHAPTER 4
THE ROLE OF DISCLOSURE TIMING

ABSTRACT
This study investigates whether the timing of sponsorship disclosure affects viewers’ processing of sponsored content, and whether a disclosure influences the persuasive effect of the sponsored content. A model is proposed in which sponsorship disclosure enhances the recognition of sponsored television content as advertising, which leads to critical processing of the sponsored content. Ultimately, this negatively affects the attitude toward the brand in the sponsored content. This model was supported, but only when the disclosure was displayed prior to, or concurrent with the sponsored content. These effects were not found for a sponsorship disclosure shown at the end of the program after the sponsored content. Theoretically, the findings emphasize the importance of disclosure timing. A disclosure displayed prior to, or concurrent with the sponsored content, primes the sponsored content and provides sufficient processing time, so viewers recognize the content as advertising and can process it critically. In addition, the findings show that persuasion knowledge and critical processing are important underlying mechanisms for the effect of sponsorship disclosure on brand attitude. Regarding the practical implications for legislators and advertisers, this research demonstrates that sponsorship disclosure can make viewers aware of the sponsored content in television programs. Furthermore, this changes the processing of sponsored content and can also ultimately lead to resistance against persuasion.
INTRODUCTION

To inform audiences and guarantee fair communication, recent regulations in the EU require broadcasters to disclose sponsored content in television programs (Audiovisual Media Services Directive, 2010). Because sponsorship disclosure in television programs is a recent and ongoing development, very little research has investigated its effects until now (Boerman, Van Reijmersdal & Neijens, 2012). To understand the impact of disclosing the persuasive intent of a message on persuasion, it is vital to know how disclosures influence information processing (Jacks & Devine, 2000; McCarthy, 2004). Therefore, this study aims to understand how sponsorship disclosure changes the processing of the sponsored program content. With this focus on processing, it is important to consider the timing of the disclosure. The moment at which a disclosure is shown in a program determines whether it primes the sponsored content, as well as the amount of time and opportunity a viewer has to (critically) process the content. Therefore, this research compares the effects of three different disclosure timings: disclosure prior to, concurrent with, and after the sponsored content.

Furthermore, to elaborate and critically process sponsored content, people need to be aware of the persuasion attempt (Boush, Friestad, & Rose, 1994; Buijzen, Van Reijmersdal, & Owen, 2010). Therefore, an important underlying mechanism might be the activation of persuasion knowledge. Persuasion knowledge is the set of theories and beliefs about persuasion and its tactics that people develop throughout their lives (Friestad & Wright, 1994; Friestad & Wright, 1999). Prior research has shown that sponsorship disclosure can activate different dimensions of persuasion knowledge, among others the recognition of advertising (Boerman et al., 2012). However, no study has tested a model that incorporates the effects of both the recognition of advertising and critical processing on persuasion.

Altogether, the present study investigates whether the timing of sponsorship disclosure affects the processing of sponsored content, and whether this influences the persuasive effect of the sponsored content. In addition, this research looks into the role of the recognition of advertising (which is a dimension of persuasion knowledge) in this process.

BACKGROUND

Sponsored content is the intentional incorporation of brands, products or persuasive messages into traditionally non-commercial, editorial content (Van Reijmersdal, Neijens, & Smit, 2007). The concept ranges from traditional brand placement—that is, the appearance of a brand or product in a television program—to more extensive brand integration, where a brand or product is more ‘part of the show’ and plays a key role in plotlines and the creative development of programs (Cain, 2011; Hudson & Hudson, 2006; Wenner, 2004). Examples of sponsored content are the red Coca Cola cups placed on the table in front of the Idol judges (i.e., brand placement), or the TV series Chuck in which a
character’s love for Subway sandwiches returns in the storyline of multiple episodes (i.e., brand integration).

Advertisers continue to recognize the benefits of sponsored content in television programs, and its use is still increasing (Law & Braun, 2000; Ong, 2011). However, as this form of advertising is embedded into program content, the commercial intent is kept hidden (Bhatnagar, Aksoy, & Malkoc, 2004). Consequently, viewers are not always aware of the persuasive intent of sponsored program content. Hence, they do not activate their cognitive defenses and can be influenced without being aware (Kuhn, Hume, & Love, 2010; Lee, 2008). This is assumed to be a violation of consumers’ right to know when they are being subjected to an advertisement (Lee, 2008; Nebenzahl & Jaffe, 1998). Therefore, the use of sponsored content has attracted criticism from consumer advocacy groups, public policy officials, the media and consumers, claiming it is unethical and deceptive (Cain, 2011; Kuhn et al., 2010). To guarantee fair communication, the EU decided in 2010 to make sponsorship disclosure obligatory. In the US, it is sufficient to identify the use of sponsored content in the end credits of the program. However, due to the ambiguous nature of disclosure rules, disclosures are often unreadable and incomprehensible (Ong, 2011). Therefore, the Federal Communication Commission (FCC) proposed new revised regulations to make sponsorship identification disclosures more obvious to consumers (Federal Communications Commission, 2008), and consumer organizations suggested various sponsorship disclosure guidelines in the US (Cain, 2011). Since the EU already has specific guidelines with regard to sponsorship disclosure, this study will focus on the disclosures used in the EU in particular. However, as similar regulations are being proposed in the US, the findings of this study are not only relevant to the EU market, but may also be of interest to the US.

EFFECTS OF DISCLOSURE TIMING ON THE RECOGNITION OF ADVERTISING

To be able to interpret, evaluate, and respond to persuasive messages, people develop general knowledge about how, why, and when a message is intended to influence them. This persuasion knowledge is formed by experience and continues to develop over time. Its development starts during childhood and adolescence, when fundamental insights about mental events and social encounters emerge and information-processing capabilities increase (Friestad & Wright, 1994). John (1999) argues that there are five steps of persuasion knowledge that emerge in a developmental sequence from preschool to adolescence: (1) distinguishing commercials from programs, (2) understanding advertising intent, (3) recognizing bias and deception in advertising (skepticism), (4) using cognitive defenses against advertising, and (5) comprehending advertising tactics and appeals. Although persuasion knowledge is developmentally contingent, research on the development of persuasion knowledge shows that all steps are well established at adulthood (Friestad & Wright, 1994; John, 1999). Adults can access their persuasion knowledge whenever they want to understand what is going on as they observe a persuasive message (Friestad &
When a persuasion attempt is recognized, people can retrieve and apply their persuasion knowledge to cope with the attempt. However, because sponsored content blurs the boundaries between editorial and commercial content, the persuasion attempt may not be obvious, and even adults may not access their persuasion knowledge. In this situation, viewers are not able to identify the commercial content and to distinguish it from editorial content. Sponsorship disclosure is introduced to inform television viewers and make them aware of sponsored content. In other words, the goal of sponsorship disclosure is to help viewers access their persuasion knowledge by making it easier to distinguish commercial from editorial content. Because the recognition of advertising is the first step of persuasion knowledge, eventually, this may lead to the activation of other steps of persuasion knowledge. Therefore, this study focuses only on the effect of sponsorship disclosure on the recognition of advertising. Forewarning and sponsorship disclosure research has shown that message cues that increase the salience of the manipulative intent are likely to activate different levels of persuasion knowledge, such as the recognition of advertising (e.g., Boerman et al., 2012; Campbell & Kirmani, 2000; Kirmani & Zhu, 2007). Hence, by making the persuasion attempt salient, a sponsorship disclosure most likely increase the chance viewers recognize that program content is sponsored. Therefore, the following hypothesis is proposed:

**H1a: Sponsorship disclosure increases the recognition of advertising.**

The degree to which people access their persuasion knowledge, and hence recognize advertising, may shift over the course of a particular persuasion episode (Friestad & Wright, 1994). This means that the moment in the program a disclosure is displayed may influence whether and when viewers recognize sponsored program content as advertising. The current legislation in the EU is clear about the timing of sponsorship disclosure:

“Programmes containing product placement shall be appropriately identified at the start and the end of the programme, and when a programme resumes after an advertising break, in order to avoid any confusion on the part of the viewer.”

(Audiovisual Media Services Directive, 2010, p. 17)

Different from these specific European regulations, broadcasters in the US are obliged to disclose sponsorship at least once -at any time- during the program (Ong, 2011). Because US regulations do not mention its timing, sponsored content is usually disclosed in the end credits. To test which disclosure timing is most effective, this study compares the effect

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1 Note that the term product placement used in the EU Directive is not the same concept as product placement in advertising research. Product placement in the EU Directive refers to the same broader concept as sponsored content, ranging from brand placement to brand integration.
of a sponsorship disclosure displayed prior to, concurrent with, and after the sponsored program content.

The effect of disclosure timing can be explained by priming theories and delay mechanisms. When a sponsorship disclosure is shown before the sponsored content, it could function as a prime (Bennett, Pecotich, & Putrevu, 1999). According to priming theory, the priming or activation of a concept can affect information processing and judgments (Roskos-Ewoldsen, Roskos-Ewoldsen, & Carpentier, 2009). When working as a prime, a sponsorship disclosure prior to the sponsored content could enhance attention to the sponsored content. This enhanced attention could then lead to the recognition of the program content as being advertising (i.e., activate persuasion knowledge), and change the way viewers process the content. However, the effect of priming is time dependent and fades quickly (Roskos-Ewoldsen et al., 2009). This means that the priming effect of a sponsorship disclosure displayed prior to the sponsored content could fade. Therefore, a disclosure displayed concurrently with the sponsored content may have a larger effect on the recognition of advertising because it not only primes the sponsored content, but this priming effect will also not have faded. In this case, the disclosure may even directly attract attention to the sponsored content, enhancing its effect on the recognition of advertising.

A disclosure at the end of the program is shown after the sponsored content and hence does not work as a prime. Based on priming theory, this means that disclosure concurrent with the sponsored content would have the best chance of affecting the recognition of advertising followed by a disclosure prior to the sponsored content. A disclosure after the sponsored content at the end of the program is less likely to be effective.

However, due to delay mechanisms, it may also be that a disclosure prior to the sponsored content is most effective. The advantage of a disclosure displayed prior to, or concurrent with the sponsored content, is emphasized by earlier research concerning forewarning of noncommercial persuasive messages, such as political statements. Forewarning research revealed that the temporal delay between a disclosure and persuasive message enables individuals to generate cognitive defenses and reduces the amount of persuasion produced by the communication (Freedman & Sears, 1965; Hass & Grady, 1975). In line with these results, a disclosure displayed after the sponsored content does not facilitate viewers sufficient time to create awareness of the advertising and process the program content critically. Hence, the further the disclosure is displayed to the beginning of the sponsored content, the more time a viewer has to recognize the content as advertising.

Thus, based on priming theories, a disclosure concurrent the sponsored content would be most effective in enhancing the recognition of advertising, because its message does not fade. However, based on the time between the disclosure and sponsored content, one could also assume that a disclosure prior to the sponsored content may be most effective. Since it is unknown which of these mechanisms will prevail, no prediction can be made about whether the disclosure prior to or concurrent with the sponsored content will be most effective. However, it is expected that these disclosure timings will be more
effective than a disclosure after the sponsored content. Therefore, this study tests a hypothesis that does not propose a difference in effectiveness between the prior to and concurrent with, but does assume both disclosure timings will be more effective than a disclosure displayed after the sponsored content:

\[H_{ib}: \text{A sponsorship disclosure prior to or concurrent with the sponsored content has a larger effect on the recognition of advertising than a disclosure after the sponsored content.}\]

**CRITICAL PROCESSING**

Knowing the intent of a persuasive message can influence individuals’ processing of information (McGuire & Papageorgis, 1962; Petty & Cacioppo, 1977; Wentzel, Tomczak, & Herrmann, 2010). When viewers are aware of a persuasion attempt and persuasion knowledge is activated, they may use this knowledge to process the message. In the Persuasion Knowledge Model, this is called the ‘if-then’ procedure, that is, if people are made aware of a persuasion attempt, they then have to figure out how to effectively manage their response to this attempt (Friestad & Wright, 1994). As a result, the awareness of the persuasion attempt encourages more systematic and biased processing (Janssen, Fennis & Pruyn, 2010). In line with this reasoning, Wentzel et al. (2010) found that when the manipulative intent of an advertisement was salient, consumers were more suspicious and adopted an analytical, critical processing style to evaluate the ad. Hence, the recognition of content as advertising may induce a more critical processing style of that content. Viewers who process content critically are prone to adopt an evaluative style of processing, in which they criticize the content.

With regard to sponsorship disclosure, the recognition of sponsored program content as advertising may also elicit a more critical form of processing of the sponsored content. According to reactance theory (Brehm, 1966), people want to maintain their freedom and do not want to be manipulated. Hence, when people realize they are being influenced, they tend to resist the persuasion attempt (Sagarin, Cialdini, Rice, & Serna, 2002; Wei, Fischer, & Main, 2008). Although people may not always try to resist every persuasion attempt, it is very likely this process does occur for sponsored program content. When a sponsorship disclosure enhances the recognition of the sponsored content as advertising, viewers may realize that the program is not neutral and has a commercial purpose. Given the hidden, embedded nature of sponsored content, people may feel deceived. Because of this awareness and feeling of deception, viewers are more likely to cope with this advertising by criticizing the content and watch it with more skepticism.

This mechanism of the recognition of advertising (i.e., activated persuasion knowledge) leading to critical processing has been demonstrated in various earlier studies. Research has shown that a sponsorship disclosure can enhance the recognition of program content as sponsored (i.e., activation of conceptual persuasion knowledge), and that this leads to more critical feelings toward the sponsored content (i.e., higher attitudinal
persuasion knowledge; Boerman et al., 2012). Furthermore, studies on disclosure (or forewarning) of persuasive messages revealed that awareness of the persuasive intent of a message leads to different types of resistance, such as counter arguing (Quinn & Wood, 2004; Petty & Cacioppo, 1977), suspicion (Kirmani & Zhu, 2007), less favorable perceptions of the communicator (Allyn & Festinger, 1961; Campbell & Kirmani, 2000; Wei et al., 2008), and less favorable attitudes toward the message (Jacks & Devine, 2000; Wood & Quinn, 2003).

Therefore, this research proposes that the recognition of advertising, due to sponsorship disclosure, elicits critical processing of the sponsored content. In addition, because the timing of the disclosure may influence the recognition of advertising, it may also affect the subsequent effect on critical processing. This leads to the following hypotheses:

H2a: As a result of the recognition of advertising, due to sponsorship disclosure, viewers process the sponsored content more critically.

H2b: A sponsorship disclosure prior to or concurrent with the sponsored content has a larger effect on the recognition of advertising and subsequently on critical processing than a disclosure after the sponsored content.

PERSUASION

Although not its primary intent, sponsorship disclosure may mitigate the persuasive effects of the sponsored content. There has been a lot of research on the effects of forewarnings of non-commercial persuasive messages on persuasion. These studies showed that disclosure of the persuasive intent of a message leads to resistance and reduced persuasion (e.g., Allyn & Festinger, 1961; Chen, Reardon, Rea, & Moore, 1992; Freedman & Sears, 1965; Hass & Grady, 1975; Quinn & Wood, 2004). In addition, disclosures of sponsored content in radio shows (Wei et al., 2008), forewarnings of the persuasive intent of a print ad (Lee, 2010), and online ad breaks (An & Stern, 2011) all demonstrated to negatively affect brand evaluations.

This effect of disclosure on persuasion may be due to the recognition of advertising and critical processing of the program content. When viewers recognize the advertising in a program and process this sponsored content critically, they are aware of the (hidden) advertising in the TV program and hence criticize this content. They are most likely critical because they do not want to be manipulated (Brehm, 1966). Therefore, viewers may feel threatened and try to resist persuasion. Because the sponsored content is trying to persuade them of the brand, viewers may counteract this and adapt their attitude toward the brand. This way, the critical processing of the sponsored content may lead to resistance to the brand that it is promoting.

Jacks and Devine (2000) emphasize the important, mediating role of biased-message processing in the effect of message content disclosure on resistance. Their research
showed that viewers felt more irritated while the persuasive message was played, when they were made aware of the manipulative intent of the communicator, which resulted in less favorable final attitudes.

In addition, other studies have demonstrated that persuasion knowledge mediates the effect of the disclosure of the persuasive intent of a message on brand attitude (Kirmani & Zhu, 2007; Boerman et al., 2012). Hence, there is evidence that the recognition of advertising and critical processing may function as mediators and can elicit resistance and reduce persuasion. Therefore, this study tests the model represented in Figure 1. This model proposes that sponsorship disclosure enhances the recognition of advertising, which leads to more critical processing, ultimately diminishing persuasion. This way, sponsorship disclosure leads to resistance of the sponsored content. In addition, because the timing of disclosure may influence the first step in this model—that is, the recognition of advertising—timing may also ultimately influence the effect of the disclosure on brand attitude. Therefore, the following hypotheses are formulated:

**H3a:** Sponsorship disclosure leads to a less favorable brand attitude through the recognition of advertising, which consequently leads to more critical processing.

**H3b:** A sponsorship disclosure prior to or concurrent with the sponsored content has a larger effect on the recognition of advertising, critical processing and consequently brand attitude than a disclosure after the sponsored content.

**METHOD**

**Procedure**

To test the proposed model, an experiment was conducted with a one factor (disclosure timing) between-subjects design. Four different levels of disclosure timing were investigated: no disclosure, disclosure prior to the sponsored content, disclosure concurrent with the sponsored content, or disclosure after the sponsored content. For this experiment, 209 college students (77% female, \(M_{\text{age}} = 22.21, \text{SD}_{\text{age}} = 3.36\)) were recruited using flyers and posters in the university building. Participants were randomly assigned to one of the conditions. Participation in the experiment took about half an hour, and participants received eight euros in cash when leaving.

On arrival, participants sat down behind a computer in an individual cubicle. First, they were asked to read the instructions, which stated that the study was about watching...
TV online. Then, participants were asked to watch an online TV program as they would do at home. After participants watched the entire program, they could click through to the questionnaire. The questionnaire started with questions about the program (program familiarity, program viewing frequency, and program involvement). Subsequently, brand attitude, familiarity and use were measured. Then, the questionnaire measured different dimensions of persuasion knowledge, such as the recognition of advertising, followed by self-reported critical processing. Next, questions about sponsorship disclosure were posed (familiarity and recall of the disclosure in the program). The questionnaire ended with demographic variables, such as age and sex.

**Stimuli**

Participants were asked to watch an edited episode of the television program *MTV Was Here*. This program usually consists of three or four items on gadgets, lifestyle, music, or festivals and is aired weekly. This program was chosen because its target audience corresponded to the study’s sample, but also because it was quite unfamiliar. This way, chances were low that participants would have already seen the program content, and that they would know that it can include sponsored content. Additionally, the original program does not show a sponsorship disclosure. When participants were (very) familiar with the program, they may notice the disclosure only because they know it is usually not in there.

The episode used in this study consisted of original material stemming from three different episodes. The three original items were edited by a professional to create one short episode, with a total length of approximately 14 minutes, which is a little shorter than an original episode. The structure of the edited episode was similar to the original episodes. The middle item included the sponsored content. In this item, the presenter visits the store of a new brand of sneakers, Alive Shoes. The concept of the shoes is to mix social networking, art, gaming, and eco-friendly sneakers. In the item, the presenter talks to the creator of the brand who explains the concept. In addition, the presenter gets a pair of the shoes and links her shoes to her social networking sites. The item lasted four minutes and 20 seconds. The brand was mentioned seven times and the shoes were visible, either in the background or very prominently, for a total of one and a half minutes. The other two items consisted of an item about a dance improvisation festival and an interview with an international DJ.

The experiment included four conditions: a sponsorship disclosure was displayed at three different times, or the program did not contain any sponsorship disclosure (control group). In accordance with EU regulations (Audiovisual Media Services Directive, 2010), the disclosure was displayed either at the beginning of the program, just after the introduction (“Today in *MTV Was Here*...”) and opening leader, in the middle of the program concurrent with the sponsored item, or after the sponsored content 30 seconds before the end of the program. The disclosure stated: “This program contains advertising by Alive Shoes.” In this way, it mentioned both the brand and the fact that the brand is advertising. This is in accordance with new regulation proposals in the United States
4. THE ROLE OF DISCLOSURE TIMING

(Cain, 2011; Ong, 2011). The disclosure was displayed for three or six seconds (these conditions were taken together in the current analyses) in the upper right corner of the screen and was clearly readable. Its size was comparable to the size of common subtitles (covering approximately 2.5% of the screen).

Measures

Brand attitude
Participants’ attitude toward the brand was measured, to indicate a degree of the persuasive effect of the sponsored content. The dependent variable was measured using six 7-point semantic-differential scales: bad/good, unpleasant/pleasant, unfavorable/favorable, negative/positive, dislike/like, and poor quality/high quality (Bruner, 2009). Factor analysis revealed the items loaded on one factor (Eigenvalue = 4.10; explained variance = 68.27%; Cronbach’s alpha = 90). The mean score of the six items is used as a measurement of brand attitude (M = 4.81, SD = 1.11).

Recognition of advertising
To identify to what extent participants recognized the sponsored content embedded in the program as advertising, and hence to assess the activation of the first level of persuasion knowledge, participants were asked to indicate on a 7-point scale (1 = strongly disagree, 7 = strongly agree) to what extent they agreed with the statement: “The item about Alive Shoes was advertising” (M = 5.62, SD = 1.41). Similar one item measures have been used in earlier studies to estimate consumers’ ability to recognize advertising (e.g., Boerman et al., 2012; Rozendaal, Buijzen & Valkenburg, 2010; Van Reijmersdal, Neijens & Smit, 2005).

Critical processing
The extent to which viewers critically processed the sponsored content was measured by asking them to indicate to what extent (1 = strongly disagree, 7 = strongly agree) they agreed with the two statements: “While watching MTV Was Here, I criticized the message of the item about Alive Shoes” and “While watching MTV Was Here, I was skeptical toward the item about Alive Shoes.” These items were derived from a scale measuring counter arguing while watching a program (Moyer-Gusé & Nabi, 2010). The mean score of the two items is used as a measurement of self-reported critical processing (M = 4.13, SD = 1.62, r = .60).

Control variables
A number of control variables were measured to make sure that any effects found could not be caused by possible differences between the experimental groups. Regarding the program, participants were asked whether they were familiar with the television program MTV Was Here (0 = no, 1 = yes) and how often they watched the program (1 = never, 2 = once or less a month, 3 = twice or three times a month, 4 = weekly, 5 = daily). Most participants (58%) did not know the program and 68% (SD = 0.64) never watched the program. As was expected, these figures show that participants were quite unfamiliar with the program. Program involvement was measured using Zaichkowsky’s (1994) personal involvement
inventory (Eigenvalue = 5.16; explained variance = 51.56%; Cronbach’s alpha = .89, M = 4.23, SD = 0.89). Hence, although most participants did not know the program, the average mean of involvement with the program was quite positive. With respect to the brand, participants were asked whether they were familiar with the brand before participating in the study (96% said no) and whether they owned the shoes (100% said no). Participants’ interest in shoes was measured by asking to what extent they agreed (1 = strongly disagree, 7 = strongly agree) with the statements: “I am interested in shoes,” “I like to watch programs about shoes on television,” and “I like buying shoes” (Eigenvalue = 2.33; explained variance = 77.65%; Cronbach’s alpha = .86, M = 4.66, SD = 1.53; Van Reijmersdal et al., 2007). To check whether participants actually noticed the sponsorship disclosure, they were asked whether they recalled a disclosure for advertising in the episode of MTV Was Here (0 = no, 1 = yes).

RESULTS
Randomization
Because the focus of this study is on the effect of the timing of the disclosure, it is necessary that participants recalled seeing the disclosure in the television program. Therefore, all participants who were exposed to a disclosure but did not recall this (n = 93) were left out of the analyses, leaving a sample of 116 participants (no disclosure n = 30, prior to sponsored content n = 18, concurrent n = 35, and after n = 33).

ANOVA and Chi-square analyses showed there were no differences between the experimental groups with respect to program familiarity, χ²(3) = 4.91, p = .179, program viewing frequency, χ²(6) = 3.88, p = .693, program involvement, F(3, 112) = 0.27, p = .851, brand familiarity, χ²(3) = 3.43, p = .330, product interest, F(3, 112) = 0.08, p = .972, sex, χ²(3) = 1.07, p = .784, and age, F(3, 112) = 1.86, p = .140.

Serial multiple mediation analyses
The model with two serial mediators was tested using Hayes’ PROCESS macro (Hayes, 2012). PROCESS is a computational tool for SPSS that can be used for mediation, moderation, and conditional process analysis. It utilizes an ordinary least squares or logistic regression-based path analytical framework to estimate direct and indirect effects in mediator models. Additionally, the macro implements bootstrap methods for inference about indirect effects in mediation models. As the macro provides a formal test of indirect effects, it is particularly suited for the serial multiple mediation model in this study, since the model only assumes an indirect effect of sponsorship disclosure on brand attitudes and no direct effect. In the analyses for this study, 10,000 bootstrap samples were used to estimate the bias corrected bootstrap confidence intervals (BCBCI).

An alternative tool of analysis is structural equation modeling using AMOS. The results were checked using this method, which resulted in path coefficients that are almost identical to those in the PROCESS model, and a good model fit. Given the sample size and the focus on indirect effects, PROCESS is considered more appropriate in this study.
To be able to test the effect of each disclosure timing, dummy variables were created for each disclosure timing condition. Separate serial multiple mediation analyses were run for each timing condition with the control group as the reference category. In these analyses, one of the timings functioned as the independent variable, recognition of advertising as the first mediator, self-reported critical processing as the second mediator, and brand attitude as dependent variable. The other two disclosure timing dummy variables were included as covariates. Additionally, to test the differences between disclosure timings, the same analyses were performed with one of the timings as an independent variable. One of the timings and the control condition were included as covariates, making the excluded timing condition the reference category.

**Recognition of advertising, critical processing and brand attitude**

Figure 2 represents the tested serial multiple medial model with disclosure timing as the independent variable, recognition of advertising as the first mediator, self-reported critical processing as the second mediator, and brand attitude as the dependent variable. The paths in this figure correspond to the results in Table 1. The c-path in the model includes the direct effect of disclosure timing on brand attitude, independent of the effect of the mediators (c'), and the total effect of disclosure timing on brand attitude (c), which is the sum of the direct effect and the indirect effect via the mediators (Hayes, 2012).

The results in Table 1 show a significant effect of the disclosure, compared to no disclosure, on the recognition of advertising, but only when it is displayed prior to ($b_{ai} = 1.16, p = .003$) or concurrent with ($b_{ai} = 0.85, p = .022$) the sponsored content. The disclosure at the end did not appear to enhance viewers’ recognition of advertising ($b_{ai} = 0.40, p = .325$). Hence, H1a is supported, a sponsorship disclosure can enhance the recognition of advertising. Furthermore, in accordance with H2a, the extent to which viewers recognized the sponsored content as advertising did significantly elicit critical processing of the sponsored content ($b_{ai} = .24, p = .039$). In addition, critical processing did have a significant negative effect on brand attitude ($b_{b2} = -.41, p = .000$), in support of H3a.

Moreover, the results demonstrate that both the total (c) and the direct effect (c') were not significant for each disclosure timing. This means that there was no direct effect of a sponsorship disclosure for any timing on brand attitude. However, bootstrapping showed significant indirect effects via the two mediators for both the prior (Indirect effect = -.11, SE = .07, 95% BCBCI [-.302, -.016]) and concurrent condition (Indirect effect = -.08, SE = .06, 95% BCBCI [-.257, -.006]) compared to the no disclosure condition. This means that when a disclosure was displayed prior to, or concurrent with the sponsored content, it increased the recognition of advertising. Consequently, viewers reported that they were more critical toward the sponsored content while watching it, which led to less favorable brand attitudes.

There was no evidence of an effect of a disclosure shown after the sponsored content (compared to no disclosure) on brand attitude through the recognition of advertising and critical processing (Indirect effect = -.04, SE = .05, 95% BCBCI [-.184, .024]). In other words, the model was not supported for the disclosure shown at the end of the program.
Table 1  Effect of disclosure timing on brand attitude via recognition of advertising and self-reported critical processing

<table>
<thead>
<tr>
<th>Timing (Reference)</th>
<th>Indirect effect</th>
<th>$a_1$</th>
<th>$a_2$</th>
<th>$a_3$</th>
<th>$b_1$</th>
<th>$b_2$</th>
<th>$c$ (total)</th>
<th>$c'$ (direct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior (No disclosure)</td>
<td>-.11 (.07)</td>
<td>1.16</td>
<td>.08</td>
<td>.24</td>
<td>.10</td>
<td>-.41</td>
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<td>Concurrent (No disclosure)</td>
<td>-.08 (.06)</td>
<td>.85</td>
<td>.25</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>-.18</td>
<td>-.09</td>
</tr>
<tr>
<td>After (No disclosure)</td>
<td>-.04 (.05)</td>
<td>.40</td>
<td>.35</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>-.16</td>
<td>-.02</td>
</tr>
<tr>
<td>Prior (After)</td>
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<td>...</td>
<td>...</td>
<td>...</td>
<td>.12</td>
<td>.01</td>
</tr>
<tr>
<td>Concurrent (After)</td>
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</tr>
</tbody>
</table>

Note  Unstandardized b-coefficients (with boot SE between parentheses); BCBCI = Bias corrected bootstrap confidence interval using 10,000 bootstrap samples; significant indirect effects are bold; ... = the scores are the same as the scores above; $N = 115$.
† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. 

Figure 2  Tested serial multiple mediation model: Effect of sponsorship disclosure timing on brand attitude via the recognition of sponsored content as advertising and critical processing
Analyses comparing the differences between disclosure timings only showed a significant indirect effect of a disclosure prior to the sponsored content compared to a disclosure shown after the sponsored content (Indirect effect = -.07, SE = .05, 95% BCBCI [-.225, -.007]). The model was not significantly different for the comparison of the disclosure concurrent with the sponsored content to the other timing conditions.

To make sure the order of mediators in the serial multiple mediation models could not be switched, all models were tested with the mediators (recognition of advertising and self-reported critical processing) reversed. This did not lead to any significant models, providing evidence that the data are in line with the order specified in the hypotheses.

To summarize, the results support H1a, H2a, and H3a: Compared to no sponsorship disclosure, a disclosure can enhance the recognition of advertising, which elicits critical processing of the sponsored content, and ultimately leads to a negative indirect effect on brand attitude. With regard to the different effects of the various timings of the disclosure, the results show partial support for H1b, H2b, and H3b. Compared to no sponsorship disclosure, the effects on the recognition of advertising (H1b), critical processing (H2b), and brand attitudes (H3b), only occurs when the disclosure was displayed prior to, or concurrent with the sponsored content. Comparing the disclosure timings to each other, only the disclosure prior to the sponsored content has a significant indirect effect compared to the disclosure after the sponsored content. Hence, only the disclosure prior to the sponsored content is significantly more effective than the disclosure after the sponsored content.

CONCLUSION AND DISCUSSION
This study aimed to understand the way sponsorship disclosure changes the processing of sponsored content and consequently its persuasive effects. Moreover, the effects of different timings of disclosure were compared. A model was proposed in which sponsorship disclosure enhances the recognition of advertising, which leads to critical processing of the sponsored content, ultimately reducing the persuasive effect of the sponsored content. This model was supported, but only for a sponsorship disclosure that is displayed prior to, or concurrent with the sponsored content, compared to no disclosure. These findings indicate that a sponsorship disclosure displayed prior to, or concurrent with the sponsored content primes the sponsored content so that viewers recognize the content as advertising. Although priming theory suggests that a prime fades quickly (Roskos-Ewoldsen et al., 2009), the priming effect of a sponsorship disclosure at the beginning of a program does not appear to fade during the program. In fact, a disclosure prior to, or concurrent with the sponsored content provides sufficient time for viewers to guard themselves against persuasion and process the sponsored content more critically. This ultimately leads to less favorable brand attitudes. These effects were not found for a sponsorship disclosure shown at the end of the program as compared to no disclosure. This means that viewers do not recognize the content as advertising, and hence do not
change the way they process the sponsored content due to a disclosure at the end. As a result, viewers’ evaluation of the brand does not change, compared to no disclosure.

Furthermore, when comparing disclosure timings to each other, the effects on the recognition of advertising, critical processing, and brand attitude are only significantly different for the disclosure prior to the sponsored content compared to the disclosure after the sponsored content. The effects of a disclosure concurrent with the sponsored content do not significantly differ from a disclosure prior to or after the sponsored content. This means that only a disclosure prior to the sponsored content is significantly more effective than the other two timings. These findings show the importance of the timing of a sponsorship disclosure. The moment at which a disclosure is shown in the program, relative to the sponsored content it is informing viewers about, influences its effect. The disclosure has to be shown at least concurrent with, and preferably prior to, the sponsored content to increase the recognition of advertising and make viewers watch the content more critically.

Given these findings, this study has important theoretical implications. First, the findings of this study emphasize the importance of the timing of sponsorship disclosure. Although forewarning studies had demonstrated that disclosing the persuasive intent of a message can diminish persuasion (e.g., Allyn & Festinger, 1961; Chen et al., 1992; Freedman & Sears, 1965; Hass & Grady, 1975; Quinn & Wood, 2004), no study had included the moment at which this disclosure should be given. This study shows that disclosure prior to exposure to the persuasive message, in this case sponsored content, is most effective in increasing the recognition of advertising. In addition, compared to no disclosure, a disclosure concurrent with the sponsored content also enhances the recognition of advertising. As suggested by earlier forewarning research (Freedman & Sears, 1965; Hass & Grady, 1975), viewers need time to start thinking about the sponsored content to recognize the commercial purpose of the program content. Because there is no significant difference between the disclosure prior to, and the disclosure concurrent with the sponsored content, viewers appear to have this time after both these disclosure timings. Hence, the results show no evidence of an effect of the temporal delay between the disclosure and the persuasive message. This is in accordance with the results of Wood and Quinn’s (2003) meta-analysis of the effects of forewarnings on attitudes. They also found that a time delay between the warning and persuasive message was not associated with increased resistance.

Second, along with the importance of timing, this study gives insight into the mechanisms that underlie the effect of sponsorship disclosure on the persuasive effect of the sponsored content. When a disclosure is shown at the right moment in the program, the awareness of the persuasive intent of the sponsored content consequently causes more skepticism and makes viewers criticize the sponsored content more. This critical processing ultimately causes resistance, making viewers’ attitude toward the brand less favorable. Therefore, the recognition of advertising (i.e., the activation of the first level of persuasion knowledge) and critical processing are vital underlying mechanisms that can cause resistance to persuasion and are all elicited by the disclosure.
Because this study is the first to emphasize the importance of disclosure timing, it also calls for future research. This study focused on the three timings that are specifically stated in EU regulations. These disclosures are displayed simultaneous to program content. However, sponsorship disclosure can also be performed by means of billboards before and after the program. Because this type of disclosure is not shown simultaneously with other content, this may influence the attention to the disclosure and its effects. Further research should compare the effects of sponsorship disclosure shown during the program or as billboards. In addition, research could test the effect of displaying the disclosure at all three timings. Furthermore, of all participants that were exposed to a disclosure in this study, only half of them recalled seeing the disclosure. This is an important insight that calls for more research into viewers’ attention to sponsorship disclosure, and how this is related to its characteristics and its effectiveness.

Further research is also needed to look into the possible moderating effect of viewers’ attitude importance. Jacks and Devine (2000) found that attitude importance was an important moderator for the effect of a forewarning on participants’ attitudes. In their study, the forewarning warned participants against an impending attack on their attitudes toward allowing gays to serve openly in the military. In the case of sponsorship disclosure, the disclosure warns the viewer about the impending attempt to persuade you of a product or brand. Although one may expect that prior attitudes about fundamental issues such as gay rights will be more important than brand attitudes, the perceived importance of brand attitudes may also moderate the effect of sponsorship disclosure. Given that the brand used in this study was (relatively) unfamiliar, prior attitudes may not have been vital here, but can be for well-known brands that consumers have strong attitudes towards.

Along with its important contribution to prior disclosure research and information processing theory, this study has important practical implications—especially because sponsorship disclosure is a new development in the EU and the US is still deciding on regulations concerning sponsored content. This study shows that sponsorship disclosure can achieve its goal of making viewers aware of the sponsored content in television programs. Furthermore, sponsorship disclosure changes the processing of the content and can also ultimately lead to resistance against the sponsored content. This means that sponsorship disclosure makes viewers less susceptible to persuasion and hence can be detrimental to advertisers. In addition, the results of this study demonstrate to legislators that the timing of disclosure influences its effects. Disclosure prior to, or concurrent with the sponsored content enhances the recognition of advertising and induces critical processing. However, disclosure after the sponsored content does not elicit these effects and thus, may be worthless. Therefore, in line with the current EU regulations, it is advised to display the disclosure at least at the beginning of the program and in the middle, preferably concurrent with the sponsored content. This provides the viewer the opportunity and time to recognize content as sponsored and to process it critically.
REFERENCES


