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Brand in focus: Activating adolescents' persuasion knowledge using disclosures for embedded advertising in music videos

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Abstract: Many artists and music labels rely on partnerships with brands to pay for the production costs of their music videos. In exchange, the brands are featured in those videos. To enhance the transparency of these embedded forms of advertising, sponsorship disclosures are required. However, it remains unknown what the content of these disclosures in music videos should be to enhance sponsor transparency for adolescents. We examined how disclosure type affected adolescents' conceptual and attitudinal persuasion knowledge. In addition, effects on responses toward the brand, music video, and artist were examined. An experiment ($N = 279$, ages 14–17) showed that none of the tested disclosures enhanced adolescents' conceptual persuasion knowledge. However, disclosures explaining that the embedded brand helped pay for the production cost of the video led to lower attitudinal persuasion knowledge and, consequently, to more positive attitudes toward the brand, video, and artist, and to increased intentions to purchase the brand.

Keywords: adolescents, brand placement, product placement, music videos, disclosures, persuasion knowledge, embedded advertising

1 Introduction

Although embedded advertising – the purposeful incorporation of a product into third-party content in exchange for a form of compensation by the advertiser – has been around for quite a while, it continues to be on the rise (Voorveld, Fakkert,

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and Van Reijmersdal, 2017). In 2017, this marketing industry was estimated to have surpassed 100 billion dollars for the first time (PQ Media, 2018). Embedded advertising is popular in a variety of media that target youths, including music videos (Hobbs, 2015). Music videos are deemed 'the place to go for any brand looking to engage with a younger audience' (Edwards, 2018). The practice may be perceived as a positive development by youths, as sponsorship by brands helps artists to get the budget they need to create music videos (Edwards, 2018; Hobbs, 2015; Ruth and Spangardt, 2017; Schemer, Matthes, Wirth, and Textor, 2008).

Although the industry experiences positives from embedded advertising, there are negatives as well, especially when young consumers are concerned. Although some adolescents seem to understand the persuasive nature of embedded advertising (Van Dam and Van Reijmersdal, 2019; Van Reijmersdal, Boerman, Buijzen, and Rozendaal, 2017; Vanwesenbeeck, Ponnet, and Walrave, 2017; Vanwesenbeeck, Walrave, and Ponnet, 2016), it is still being debated whether their overall levels of persuasion knowledge are equal to those of adults (Boush, Friestad, and Rose, 1994; Nairn and Fine, 2008). For example, Boush et al. (1994) and Rozendaal, Buijzen, and Valkenburg (2010) showed that adolescents' understanding of persuasive intent and of advertising tactics was lower than that of adults. Moreover, adolescents' levels of attitudinal persuasion knowledge regarding embedded advertising have been found to be rather low (Van Dam and Van Reijmersdal, 2019; Van Wesenbeeck et al., 2017).

Without a good understanding that someone is trying to persuade them (i.e., persuasion knowledge), some adolescents are susceptible to forming more positive attitudes towards brands they are exposed to (Rozendaal, Buijzen, and Valkenburg, 2009; Verhellen, Oates, De Pelsmacker, and Dens, 2014). Adolescents spend a lot of time watching online videos, including music videos (Lella, 2015), which are often heavily sponsored (Burkhalter and Thornton, 2014). Thus, adolescents' proclivity to watching music videos without fully developed persuasion knowledge may result in them being highly susceptible to the influences of embedded advertising in music videos.

To enhance the transparency of the presence of embedded advertising in media content, several countries have enacted laws or regulations that require disclosure of the use of embedded advertising (Federal Trade Commission, 2015; Ginosar and Levi-Faur, 2010; Ofcom, 2017). Embedded advertising disclosures have been found to be an effective method of activating persuasion knowledge, thereby informing individuals about the persuasive nature of seemingly entertaining media content (for a review, see Boerman and Van Reijmersdal, 2016). However, most of these studies focused on disclosures in television programs, movies, or social media (e.g., Boerman, Van Reijmersdal, and Neijens, 2012; Evans, Phua, Lim, and Jun, 2017; Guo, Ye, Duffy, Li, and Ding, 2018; Hwang and

Jeong, 2016; Liljander, Gummerus, and Söderlund, 2015; Van Reijmersdal, 2016). The one study that focused on disclosures for music videos found that disclosures enhanced adults' persuasion knowledge (Matthes and Naderer, 2015).

The literature shows that the effectiveness of disclosures is a function of their content (Evans et al., 2017; Van Reijmersdal, 2016), showing that disclosures explicitly referring to advertising, paid content, or persuasive intentions of embedded advertising are more effective in activating persuasion knowledge among adults than more implicit disclosures (e.g., using 'presented by ...', 'partnered content', or not stating the persuasive intent). However, emphasis cannot only be placed on the persuasive or paid nature of advertising but also on the fact that embedded advertising supports the artist and music label, as the brand pays for (part of) the video cost in exchange for visibility in the music video. This offers a different perspective on the goals of the persuasion agent, in this case the sponsoring brand, than in the disclosures studied so far (e.g., Boerman et al., 2012; Campbell, Mohr, and Verlegh, 2013; Dekker and Van Reijmersdal, 2013; Krouwer, Poels, and Paulussen, 2017; Kruikemeier, Sezgin, and Boerman, 2016; Milne, Rohm, and Bahl, 2009; Wojdynski and Evans, 2016). According to the persuasion knowledge model, knowledge about the goals of the agent determines consumers' responses to the persuasion attempt (Friestad and Wright, 1994). Little is known about the consequence of various disclosure types for adolescents' persuasion knowledge and persuasion. The first aim of this study is to explore how the different types of disclosure (i.e., highlighting embedded advertising's benefits to the brand versus highlighting the benefits to the artist and video) affect adolescents' persuasion knowledge.

In the literature, embedded advertising and its disclosures have been linked to persuasion knowledge and, consequently, to evaluations of the brand (for a review, see Boerman and Van Reijmersdal, 2016). However, far fewer studies have focused on the consequences of disclosures for the sender (e.g., the blogger) or the content itself (e.g., the post, the program). Although some studies found negative effects of disclosure on sender or content evaluations (e.g., Hwang and Jeong, 2016; Wojdynski and Evans, 2016), others did not find any effects (Krouwer et al., 2017; Kruikemeier et al., 2016; Liljander et al., 2015). The second aim of the present study is to understand how the different types of disclosures indirectly affect not only brand responses but also attitudes towards the artist and video via persuasion knowledge.

By exploring the effects of sponsorship disclosures for music videos among adolescents, the present study offers new theoretically and practically relevant insights into how a younger target audience can be empowered by revealing media sponsorships. This study provides evidence-based implications that can feed the debate on how to disclose sponsored content for minors.

Effects of disclosures on conceptual persuasion knowledge

When faced with overt persuasive messages – like standard television commercials –, individuals tend to activate a specific type of knowledge pertaining to their understanding of persuasion mechanisms to cope with being advertised towards and to form valid attitudes (Friestad and Wright, 1994). When an individual activates persuasion knowledge, one can decide to be persuaded by the message or to resist it. Embedded advertising presents a unique challenge to audience's ability to activate persuasion knowledge because this type of advertising obscures the lines between purely entertaining or informative content and advertising. The advertised message is hidden – often without individuals consciously recognizing the advertised brand (Wojdynski and Evans, 2016). According to Friestad and Wright (1994), when individuals are unaware of or unable to recognize that a persuasive attempt is being made (e. g., by an embedded advertisement), they fail to activate their persuasion knowledge. Consequently, many consumers are being advertised towards without having the opportunity to critically reflect upon it (Kuhn, Hume, and Love, 2010). To facilitate the opportunity to recognize advertising and thereby the ability to critically reflect upon the message, disclosures have been shown to be helpful in media ranging from television, movies, games, blogs, and Instagram posts to music videos (An and Stern, 2011; Boerman, Van Reijmersdal, and Neijens, 2014; De Pauw, Hudders, and Cauberghe, 2017; Evans et al., 2017; Hwang and Jeong, 2016; Matthes and Naderer, 2015; Vanwesenbeeck, Opree, and Smits, 2017).

Matthes and Naderer (2015) found that disclosures for embedded advertising in music videos activated adults' persuasion knowledge. The question is whether these effects also hold for adolescents. Van Reijmersdal et al. (2017) showed there were no effects of disclosures for brand placement in television programs on adolescents' persuasion knowledge. However, when limiting the analyses to only those adolescents who remembered seeing the disclosure, the disclosure did enhance their understanding of the persuasive intent (Van Reijmersdal et al., 2017). Following persuasion knowledge theory and the vast majority of research on disclosure effects among adults, we hypothesize that disclosures can aid persuasion knowledge activation among adolescents (see Figure 1 for the full conceptual model):

H1: Disclosure of embedded advertising in music videos leads to higher activation of conceptual persuasion knowledge among adolescents than no disclosure.

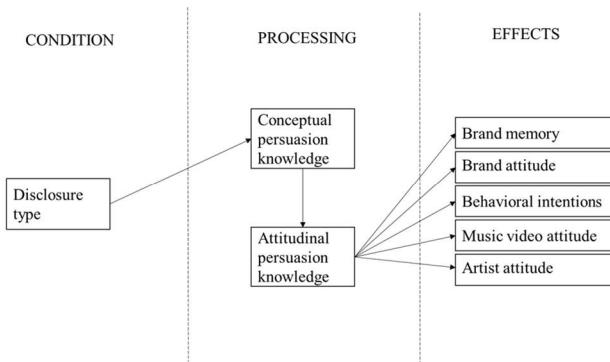


Figure 1: Sequential path model.

Effects of disclosure types on conceptual persuasion knowledge

In recent literature, the effects of various disclosure contents have been tested (Dekker and Van Reijmersdal, 2013; Hwang and Jeong, 2016; Van Reijmersdal, 2016). Van Reijmersdal (2016) tested two disclosures for product placement in a movie: one that disclosed the fact that the movie contained advertising for a specific brand and the other stating the same but adding the persuasive intent of the placement. Results showed that the more elaborate the disclosure including the persuasive intent, the greater the negative effect on adults' brand attitudes compared to both the control and first disclosure message. This is explained by a greater activation of persuasion knowledge due to a more elaborate disclosure. Because the disclosure emphasizes the persuasive intent, people's knowledge about the intentions of advertising could be activated. This may imply that disclosing both embedded advertising and the persuasive intent of embedded advertising results in higher activation of persuasion knowledge than only disclosing embedded advertising.

Disclosures that highlight the benefits of embedded advertising to the artist, music label, or content may also elicit persuasion knowledge activation. Embedded advertising has contributed financially towards many programs and music videos, so that most programs and videos rely on embedded advertising as a source of income (Edwards, 2018; Ruth and Spangardt, 2017). Disclosing the fact that a brand paid for its exposure may trigger adolescents to think about the brand's presence in terms of advertising or sponsoring. Because little is known about the effects of various disclosure types on the activation of ado-

lescents' conceptual persuasion knowledge, the following research question is formulated:

RQ1: What are the effects of types of disclosures (i. e., disclosure of product placement, disclosure of persuasive intent, and disclosure of support intent vs. no disclosure) on the activation of conceptual persuasion knowledge among adolescents?

Effect of conceptual persuasion knowledge on attitudinal persuasion knowledge

Research among adults and children has shown that the activation of conceptual persuasion knowledge due to a disclosure can subsequently activate attitudinal persuasion knowledge (Boerman et al., 2014). That is, when people realize that content is advertising, they become more critical toward that content because a change of meaning is evoked by the disclosure (Friestad and Wright, 1994). A change in meaning would mean that the audience no longer observes the program or video as regular content but one that is intended to manipulate them to change their behavior or attitudes. When individuals see this and feel that the content intends to limit their freedom of choice, they may become more critical and negative toward the message (Burgoon, Alvaro, Grandpre, and Voulovakis, 2002). However, the question remains whether these effects also occur for adolescents and music video disclosures. Van Reijmersdal et al. (2017) studied effects of disclosing embedded advertising in a television program and showed that although the disclosure enhanced adolescents' understanding of persuasive intent, it did not affect their attitudinal persuasion knowledge. Thus, adolescents did not become more critical toward the embedded advertising due to the disclosure. This may be due to their enhanced susceptibility to brand symbolism and to their peers, including media personalities (Valkenburg and Piotrowski, 2017). This susceptibility may overrule any critical attitudes toward the sponsorship that can be triggered by conceptual persuasion knowledge. To further test whether conceptual persuasion knowledge enhances adolescents' critical attitudes toward embedded advertising (i. e., their attitudinal persuasion knowledge), we hypothesize the following:

H2: Activation of conceptual persuasion knowledge due to a disclosure leads to activation of attitudinal persuasion knowledge among adolescents.

Disclosure effects on brand responses through conceptual and attitudinal persuasion knowledge

Disclosures have been found to result in higher brand memory among adults (Guo et al., 2018; e.g., Matthes and Naderer, 2015) and adolescents (Van Reijmersdal et al., 2017). The disclosure may elicit more elaborate message processing because the audience is pointed toward the persuasive content. Eye-tracking studies have indeed shown that disclosures elicit heightened attention for the placed brand, explaining why disclosures can result in better brand memory (Guo et al., 2018; Wojdynski et al., 2017). At the same time, the activation of attitudinal persuasion knowledge is likely to lead to message scrutiny and negative brand evaluations (Rozendaal, Lapierre, Van Reijmersdal, and Buijzen, 2011). Due to critical attitudes toward the message itself (i.e., the activation of persuasion knowledge), audiences are more likely to resist persuasion to restore their freedom. As a consequence, brands may be evaluated more negatively, and purchase intentions may decrease. Contemporary research gives credence to these theories showing that disclosures negatively affect brand attitudes (e.g., Boerman et al., 2014; Campbell et al., 2013; Evans et al., 2017; Janssen, Fransen, Wulff, and Van Reijmersdal, 2016) and purchase intentions (e.g., Tessitore and Geuens, 2013). However, other studies did not find any effects of disclosures on brand responses (Matthes and Naderer, 2015; Wojdynski and Evans, 2016). One study conducted among adolescents did not find any effects of disclosures or persuasion knowledge on adolescents' brand attitude or purchase intentions (Van Reijmersdal et al., 2017). Although the findings are mixed, we formulate the following hypothesis:

H3: Activation of attitudinal persuasion knowledge leads to a) greater brand memory, b) more negative brand attitudes, and c) a lower level of behavioral intention among adolescents.

By extension, the effect of persuasion knowledge on brand attitude and the effects of a disclosure on persuasion knowledge should be such that disclosures have an effect on brand memory, brand attitude, and behavioral intentions via the activation of conceptual and attitudinal persuasion knowledge.

H4: The effects of disclosures on a) increased brand memory, b) more negative brand attitudes, and c) reduced behavioral intentions are mediated by conceptual persuasion knowledge and, subsequently, by attitudinal persuasion knowledge.

Disclosure effects on music video and artist attitudes through conceptual and attitudinal persuasion knowledge

The majority of disclosure studies have focused on persuasion knowledge and its influence on brand responses; yet, information is scant on whether or not disclosures and the activation of persuasion knowledge can influence other attitudes – namely those focused on the content and content creators. Previous literature has determined that, as a side-effect of the activation of persuasion knowledge, viewers may feel threatened in their autonomy regarding the freedom to choose a product (i. e., being told what they should buy), leading not only to negative attitudes towards the brand but also towards the source of the persuasion attempt (Friestad and Wright, 1994; Roessing, Jackob, and Renner, 2016). Recently, studies have begun to explore the effects of disclosures on the (credibility of the) sender (e. g., Hwang and Jeong, 2016; Krouwer et al., 2017; Kruikemeier et al., 2016; Liljander et al., 2015; Wang, Xu, and Wang, 2018) and on the content itself among adults (e. g., Carr and Hayes, 2014; Hwang and Jeong, 2016). Again, these studies showed mixed results with some studies showing negative effects (e. g., Hwang and Jeong, 2016; Wojdynski and Evans, 2016; Wojdynski, 2016), others showing no effects (Carr and Hayes, 2014; Krouwer et al., 2017; Kruikemeier et al., 2016; Liljander et al., 2015), and some even showing positive effects (Hwang and Jeong, 2016; Wang et al., 2018).

The negative effect on credibility may be explained by a viewer's sense of betrayal: Understanding that the content is not honest or unbiased but rather created to persuade the audience may feel like deception (Roessing et al., 2016). The concepts of betrayal and trustworthiness may extend personally onto the artist of the music. Often, the more people see content from a celebrity, band, or new media artist, the more they perceive themselves to be in a personal relationship with the artists (Hartmann and Goldhoorn, 2011). This may be the case for adolescents in particular, as music artists are important role models for adolescents (Valkenburg and Piotrowski, 2017). The study by Colliander and Erlandson (2015) found that third-party disclosure of embedded advertising (i. e., highlighting that the blogger failed to mention blogposts had embedded advertising) had negative repercussions of the audiences' perceived relationship with the blogger given that individuals felt personally betrayed. In consequence, negative effects on attitudes towards the blogger and its content were observed (Colliander and Erlandsson, 2015).

Still, positive effects of disclosures were found, for example, when the blogger stated that although the blog was sponsored, the opinions expressed were honest (Hwang and Jeong, 2016) or when the how and why of sponsoring was explained (Wang et al., 2018). We do not know whether attitudinal persuasion knowledge

affects adolescents' opinions of music videos or artists and whether disclosures affect these attitudes via persuasion knowledge. However, following persuasion knowledge theory, we propose the following hypotheses:

H5: Activation of attitudinal persuasion knowledge leads to a) more negative music video attitudes and b) more negative attitudes toward the artist among adolescents.

H6: The effects of disclosures on a) music video attitudes and b) artist attitudes are mediated by conceptual persuasion knowledge and, consequently, by attitudinal persuasion knowledge.

2 Method

Sample and procedure

The participants in this experiment were recruited through four high schools in Canada. Two weeks prior to the experiment, the schools contacted the parents of the adolescents in the ninth, tenth, eleventh, and twelfth grades directly, sending them the fact sheet and passive consent form. Parents were notified that they could withdraw their child from the study if they so desired, but none opted to do so. The experiment was conducted in the computer labs in each of the respective schools. Approximately 20 to 30 students participated per sitting. Once seated, the students were sent a link to the study's fact sheet and active consent form. First, they were informed about the purpose of the study (i. e., to collect insights about adolescents' appreciation of music video content). Next, they read the statement of consent, which explained that their participation was voluntary and anonymous and that they could withdraw at any given time. All students signed the statement of consent, after which they were redirected to the actual experiment. The procedure as described above was granted IRB approval.¹

In total, 279 adolescents between the ages of 14 and 17 years participated in the study ($M_{age} = 15.74$, $SD_{age} = 0.90$), 52.3 % of whom identified as boys, 44.1 % as girls, and 3.5 % as 'other'. The adolescents were randomly assigned to one of four conditions. In all four conditions, adolescents were exposed to Ariana Grande's "Focus" music video. This video contains embedded advertising for the Samsung Note 5. The product appears twice. At the beginning of the video, Ariana holds the smartphone – with the brand clearly visible – for 3.15 seconds (see Figure A1). Halfway through the video, both the artist and her backup dancers use the smartphones to take pictures of themselves (see Figure A2). In this instance, the product is visible for approximately 7.5 seconds.

Before the start of the music video, all adolescents viewed a disclosure message. This message was displayed for eight seconds to ensure that the adolescents could read it in full – a prerequisite for the message to be effective (Boerman et al., 2012). The content of this disclosure message, however, varied across the experimental conditions: The message in the *control group* read: “You are now about to watch a music video” ($n = 74$); in the *product placement disclosure*: “This clip contains product placement” ($n = 74$); in the *persuasive intent disclosure*: “This clip contains product placement. The goal is to make you want to buy the product” ($n = 65$); and, finally, in the *support disclosure*: “This clip contains product placement, which can help artists pay for music video costs” ($n = 66$). After exposure to the music video, the adolescents filled out the online questionnaire. They first answered questions about the music video and the artist, followed by questions about the brand and their conceptual and attitudinal persuasion knowledge. Finally, the manipulation checks and control variables were measured. Data are available upon request.

Measurements

Conceptual persuasion knowledge was measured using nine items pertaining to several aspects of conceptual persuasion knowledge, for example, “The music video contained advertising”, “The use of the Samsung Note 5 in the clip was intended to make you want to buy the phone/product”, and “The use of the Samsung Note 5 in the clip was intended to help pay for the music video’s costs” (based on Boerman et al., 2014) on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores on the scale items were averaged to create a single measure of conceptual persuasion knowledge (Cronbach’s Alpha = .811, $M = 4.88$, $SD = 0.97$).

Attitudinal persuasion was measured using four items adapted from Boerman and colleagues (2012). Adolescents were asked to indicate on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*) whether they found the use of the Samsung Note 5 in the music video to be “honest”, “trustworthy”, “convincing”, and “credible”. Reverse coding was applied to ensure that higher item/scale scores reflected greater distrust and skepticism and scores on the items were averaged (Cronbach’s Alpha = .90, $M = 4.34$, $SD = 1.15$).

Brand memory was operationalized using two questions. First, we asked adolescents “Do you recall any brands featured in the music video?” with the answer options being “yes, I saw the brand ____” and “no”. Then, adolescents were asked to “Check the boxes of brands you remember seeing in the music video” with the boxes referring to Apple, Samsung, Toyota, and Nike (An and Stern, 2011; Matthes

and Naderer, 2015). If adolescents correctly recalled or recognized the Samsung brand, they received a score of 1 on the dummy variable brand memory (67.0 %). Adolescents who did not receive a score of 0 (33.0 %).

After the adolescents were informed that the music video featured the Samsung Note 5, they were asked to provide their opinion about the Samsung brand. They were presented with four 7-point differential items: bad/good, awful/nice, negative/positive, and boring/interesting (Bezjian-Avery, Calder, and Iacobucci, 1998). Again, item scores were averaged to create a single brand attitude index (Cronbach's Alpha = .95, $M = 4.87$, $SD = 1.45$).

For both music video attitudes and artist attitudes, we used the four 7-point differential items of Bezjian-Averay and colleagues (1998). Again, item scores were averaged to create a single index of attitude toward the music video (Cronbach's Alpha = .90, $M = 3.97$, $SD = 1.50$) and attitude toward the artist (Cronbach's Alpha = .93, $M = 4.40$, $SD = 1.62$).

Adolescents' behavioral intentions were measured using two items: "I would consider asking my parents to buy the Samsung Note 5 for me" and "If I had the money, I would consider buying the Samsung Note 5 if I needed a new phone" on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The first and latter part of the second statement were added to prevent socio-economic differences from interfering with the adolescents' scores. Together, the two items form a reliable scale (Cronbach's Alpha = .93, $M = 3.32$, $SD = 1.66$).

As control variable, we measured the number of YouTube videos and specifically how many music videos students watch on average. Responses ranged from 1 (*I do not watch videos on YouTube*) to 7 (*Multiple times per day*). On average, the majority of students indicated that they watched videos on YouTube once every one to three days ($M = 5.51$, $SD = 1.55$) and music videos on YouTube once per week ($M = 4.34$, $SD = 1.74$). The majority indicated that they had not seen the music video for "Focus" before (74.60 %). We also measured whether students liked the music genre with one question: "How much do you like/dislike the genre of the music that was played during the video?" on a scale ranging from 1 (*dislike*) to 7 (*like*; $M = 3.57$, $SD = 1.72$).

Students were asked whether they were familiar with the brand in the video (94.30 % familiar). The majority of students did not own a Samsung product (61.30 %), whereas the majority of students' parents did (73.10 %). We also asked whether the adolescents recalled seeing a message with a black screen and text before the music video began ($n = 193$, 69.2 % yes). In addition, students age, gender (male, female, trans*, or other), grade, and socio-economic status (In comparison to other families, does your family have: less money to spend on things than other families, no more/no less money to spend on things than other families, more money to spend on things than other families?) were recorded.

Finally, students' materialism was measured using the Material Values Scale (Richins and Dawson, 1992): "I admire people who have expensive homes, cars, and clothes", "I'd be happier if I could afford to buy more things", "My life would be better if I owned certain things I don't have", "I like to own things that impress people", "Buying things gives me a lot of pleasure", and "I like a lot of luxury in my life" on a scale ranging from 1 (*no, not at all*) to 7 (*yes, very much*) (Cronbach's Alpha = .86, $M = 4.04$, $SD = 1.25$).

3 Results

Randomization

Preliminary analyses were conducted to determine which of the potential control variables differed across the four conditions and predicted the mediating or dependent variables and, as a consequence, should be included as a covariate in the subsequent analyses. Chi-square tests of independence revealed that there was a slight difference in age composition ($\chi^2(9) = 17.914$, $p = .036$), grade composition ($\chi^2(9) = 17.694$, $p = .039$), SES (i.e., socio-economic status) composition ($\chi^2(6) = 12.630$, $p = .049$) between conditions. As expected, age and grade level highly correlate ($r = .912$, $p = .000$) and cannot simultaneously be controlled for. Because grade level is a better predictor of students' mental capacities and persuasion knowledge (Nelson, 2018), grade level is chosen as the more appropriate covariate. Further analyses showed that SES was related to brand memory, $\chi^2(2) = 10.308$, $p = .006$, grade was related to conceptual persuasion knowledge, $F(3, 271) = 2.827$, $p = .039$, $eta^2 = .030$, and music video attitudes, $F(3, 271) = 3.310$, $p = .021$, $eta^2 = .035$. Therefore, grade was added as a covariate in the analyses that included conceptual persuasion knowledge and music video attitudes; SES was included as a covariate in the analyses for brand memory.

With respect to the other control variables, no significant differences between conditions were found in adolescents' gender, liking of the music genre, their prior exposure to the music video, their frequency of watching YouTube and music videos on YouTube in particular, their familiarity with Samsung, and whether they themselves or their family members owned Samsung products, materialism, and recall of seeing the disclosure (all $p > .05$).

Hypothesis testing

To test H1 and to answer RQ1, an ANOVA was conducted with the experimental conditions as the independent variable, conceptual persuasion knowledge as the dependent variable, and grade as covariate. The results showed that there was no effect of disclosure type on conceptual persuasion knowledge, $F(3, 274) = 0.577$, $p = .630$, partial eta² = .006. This means that there were no effects of disclosing embedded advertising versus no disclosure on the activation of conceptual persuasion knowledge. In addition, the disclosure types had no effect either. Thus, H1 was not confirmed by the data.

Although there were no effects of disclosures on the activation of conceptual persuasion knowledge, we did test the other hypotheses, as not all direct paths need to be significant for a significantly mediated effect to occur (Hayes, 2013). To test H2 to H6, we used the PROCESS macro developed by Hayes (2013). This macro offers the possibility to test mediation effects using bootstrapping. We used 5000 bootstrapping sample (PROCESS V3.2, Model 6) and 95 % confidence intervals. We conducted five analyses, one for each dependent variable with disclosure type as a categorical independent variable (no disclosure as reference category), conceptual persuasion knowledge as the first mediator, attitudinal persuasion knowledge as the second mediator, and the appropriate covariates. With respect to H2, the analyses showed that conceptual persuasion knowledge did not affect attitudinal persuasion knowledge ($b = -0.090$, $se = .071$, $t = -1.264$, $p = .207$). Thus, H2 was not confirmed by the data.

With respect to H3, the analyses showed that, as expected, the activation of attitudinal persuasion knowledge resulted in more negative brand attitudes (H3b; $b = -0.350$, $se = 0.073$ $t = -4.786$, $p < .001$) and lower behavioral intentions (H3c; $b = -0.455$, $se = 0.084$, $t = -5.416$, $p < .001$). However, there was no significant effect on brand memory (H3a; $b = -0.105$, $se = 0.124$, $t = 0.844$, $p = .401$). This means that adolescents with stronger activated attitudinal persuasion knowledge became more negative toward the brand and showed lower purchase intentions but did not show higher or lower brand memory. Thus, H3a was rejected, while H3b and H3c were confirmed.

With respect to H4, the analyses showed no significant mediation effects of disclosure type via conceptual persuasion knowledge and subsequently attitudinal persuasion knowledge on brand memory, brand attitude, or behavioral intentions (H4a, H4b, H4c; see Table 1). However, the analyses did show a significant indirect effect of disclosing support intent (vs. no disclosure) via attitudinal persuasion knowledge on brand attitude ($b = 0.173$, $se = 0.081$, BCACI [.039; .355]), and behavioral intentions ($b = 0.225$, $se = 0.100$, BCACI [.044; .443]). The results showed that a disclosure of the support intent of embedded advertising (compared to no dis-

closure) led to lower levels of attitudinal persuasion knowledge (i.e., less critical attitudes, $b = -0.433$, $se = 0.197$, $t = -2.197$, $p = .029$), which in turn resulted in more positive brand attitudes and increased behavioral intentions (see test of H3). There were no other significant mediation effects. This means that H4 is not supported.

Table 1: Indirect effects of disclosure type via conceptual and attitudinal persuasion knowledge.

Dependent variable	Disclosure type (i.e., none vs.)	Indirect effect		95 % confidence interval
		<i>b</i>	<i>se</i>	
Brand memory	Product placement	0.001	0.004	-.005; .010
	Persuasive intent	-0.002	0.004	-.009; .006
	Support intent	0.001	0.004	-.005; .013
Brand attitude	Product placement	0.003	0.008	-.012; .022
	Persuasive intent	-0.001	0.008	-.020; .013
	Support intent	0.005	0.009	-.010; .028
Behavioral intentions	Product placement	0.004	0.010	-.013; .029
	Persuasive intent	-0.001	0.010	-.027; .029
	Support intent	0.007	0.012	-.012; .039
Music video attitude	Product placement	0.005	0.011	-.014; .030
	Persuasive intent	-0.001	0.010	-.028; .018
	Support intent	0.007	0.013	-.012; .039
Artist attitude	Product placement	0.004	0.011	-.014; .030
	Persuasive intent	-0.001	0.010	-.027; .017
	Support intent	0.007	0.012	-.012; .036

With respect to H5, the analyses showed similar results: The activation of attitudinal persuasion knowledge resulted in more negative music video attitudes (H5a; $b = -0.468$, $se = 0.073$, $t = -6.410$, $p < .001$) and more negative artist attitudes (H5b; $b = -0.439$, $se = 0.081$, $t = -5.461$, $p < .001$), confirming H5. With respect to H6, there were no mediation effects via conceptual persuasion knowledge and attitudinal persuasion knowledge on music video attitude or artist attitude (H6a, H6b; see Table 1). However, there were significant indirect effects of disclosing support intent (vs. no disclosure) via attitudinal persuasion knowledge on music video attitudes ($b = 0.231$, $se = 0.094$, BCACI [.056; .436]) and artist attitudes ($b = 0.217$, $se = 0.092$, BCACI [.047; .412]): Disclosing the support intent (vs. no disclosure) resulted in significantly less attitudinal persuasion knowledge, which in turn led to more positive music video attitudes and artist attitudes. Thus, seeing the support disclosure made the adolescents less critical about the embedded advertising in the music video, which had a positive effect on their attitudes toward both the music video and the artist.

4 Discussion

This study pursued two aims, namely 1) to explore the effects of disclosure types, or more specifically, how highlighting embedded advertising's benefits to the brand versus the benefits to the artist or music label as a revenue source in a disclosure affects adolescents' persuasion knowledge and brand responses; and 2) to understand how disclosures affect artist and video evaluations among adolescents. In short, the study focused on disclosure effects on adolescents' understanding of the commercial nature of embedded advertising in music videos, their critical attitudes, brand responses, and artist and video attitudes.

With regard to its first aim, this study showed that the disclosures used in it did not affect adolescents' conceptual persuasion knowledge. In other words, disclosing that the video containing product placement had a persuasive intent or helped the artist or music label pay for video production cost did not help adolescents to better understand the persuasive nature of the embedded advertising. These findings are in line with the one study that did focus on disclosure effects on adolescents: Without distinguishing between respondents who did and respondents who did not remember the disclosure, they, too, found no effects of disclosures on conceptual persuasion knowledge (Van Reijmersdal et al., 2017). Interestingly, our study shows that adolescents score slightly above the mid-point of the scale ($M = 4.88$) of conceptual persuasion knowledge indicating some awareness of the embedded advertising. However, the disclosures did not further enhance this. This finding is similar to that of Van Reijmersdal et al. (2017), as they showed that adolescents' recognition of advertising was above their scale's mid-point and was unaffected by disclosures. It could be that, in order to further enhance adolescents' persuasion knowledge, different kinds of disclosure wording are needed than the ones currently tested.

Interestingly, even though the direct effect of conceptual persuasion knowledge on attitudinal persuasion knowledge was not significant, a disclosure that explains that embedded advertising helps to pay for music video production costs did directly result in *lower* levels of attitudinal persuasion knowledge than no disclosure – and, subsequently, more positive brand attitudes and increased behavioral intentions.

With regard to the second aim, we found that – through the lowered levels of activated attitudinal persuasion knowledge – the support disclosure resulted in *more* favorable attitudes towards the music video and artist. Hence, a support disclosure with embedded advertising in music videos can benefit both the brand and artist. An explanation for the positive brand effects may be that the emphasis on the benefactor role of the brand creates sympathy among the adolescents, which positively affects the image of the brand. Perhaps as a form of reciprocity,

the adolescents are even willing to buy the brand. With respect to the positive effects on attitudes toward the video and the artist itself, the disclosure of supportive sponsorship may enhance adolescents' perceptions of the video and the artist as something or someone that is worth spending money on or worth sponsoring. The image of the artist as being worthwhile and attractive for a large brand like Samsung may reflect positively on adolescents' own attitudes.

Limitations, suggestions for future research, and implications

The present study was the first to test various disclosure types for sponsorship of music videos among adolescents. As such, it provides new and interesting first insights into the working of disclosures for adolescents. However, future research is needed to see whether the current findings generalize beyond the video that was used in the present study. Future research may focus on other music genres, for example, hip-hop, where embedded advertising is very popular as well (Burkhalter and Thornton, 2014). More emphasis on the role of the music itself (Galan, 2009; Ruth and Spangardt, 2017), for example, the fit between the music and the placement and adolescents' liking of the music as a moderator of disclosure effects, may enhance our understanding of disclosing embedded advertising in music videos.

Other fruitful avenues may be to compare effects across different brands and product categories (e.g., perhaps adolescents approve of products placed by technology brands but not alcohol brands), across different types of artists (e.g., upcoming artists may be the ones to gain the most reputation by being perceived as worthwhile for sponsoring, whereas for established artists, adolescents' may wonder why they "sell-out"; see Dekker and Van Reijmersdal, 2013), and comparing effects of product placement in the different modalities of the music video (e.g., visual versus lyrics versus both).

An important implication of our findings is that some disclosures may have unexpected side effects. Policy makers require disclosures for embedded advertising in order to inform the audience. However, certain disclosures may not affect *conceptual* persuasion knowledge but do actually *lower* the audience's *attitudinal* persuasion knowledge, making them more susceptible to the persuasion attempt. This implies that the disclosure of the support intent does not enhance adolescents' understanding of embedded advertising but does make them more accepting of the embedded advertising and, therefore, more positive toward the brand, video, and artist.¹ A book chapter using the same

¹ Based on the same dataset, a book chapter was published (Cartwright, Oprea, and Van Reijmersdal, 2018), in which we focus on the effects of materialism on persuasion knowledge acti-

data has been published (Cartwright, Opree, and Van Reijmersdal, 2018) and focuses on the effects of materialism on persuasion knowledge activation and brand responses. The disclosure conditions were mentioned in the book chapter but were not included in the analyses as this was not the focus of the chapter.² Constructs that were measured in the experiment but not reported in this manuscript because they were closely related to other variables that are reported or because they are more descriptive in nature were: disclosure recognition, critical processing of the embedded advertising, branded product attitude, evaluation of the disclosure, and evaluation of advertisers and musicians working together.

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2 Constructs that were measured in the experiment but not reported in this manuscript because of being closely related to other variables that are reported or of being more descriptive in nature were: disclosure recognition, critical processing of the embedded advertising, branded product attitude, evaluation of the disclosure, and evaluation of advertisers and musicians working together.

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Appendix A: Stimulus material



Figure A1: First occurrence of the Samsung Note 5 in Ariana Grande's "Focus" music video.



Figure A2: Second occurrence of the Samsung Note 5 in Ariana Grande's "Focus" music video.