The impact of creative media advertising on consumer responses: two field experiments

Fabiënne Rauwersa, Paola Remmelswaala, Marieke L. Fransena, Micael Dahlénb and Guda van Noortb

aAmsterdam School of Communication Research (ASCoR), University of Amsterdam, Amsterdam, The Netherlands; bDepartment of Marketing and Strategy, Stockholm School of Economics, Stockholm, Sweden

ABSTRACT
Creative media (CM) advertising is an advertising strategy wherein a non-traditional medium is creatively used for advertising purposes. This novel advertising strategy is gaining marketers’ interest; however, little is known about its persuasive effects on consumers’ cognitive, affective and behavioural responses and the processes that underlie them. Therefore, to convey a genuine experience to consumers, two field experiments with a one-factor (advertising type: creative vs. traditional) between-subjects design were conducted within a supermarket context. Results showed that creative (vs. traditional) media ads not only improve consumers’ affective and behavioural responses but also consumers’ cognitive responses. Even though no mediations were found through perceived surprise or perceived persuasive intent, results do provide evidence for the notion that perceived humor and perceived value are the underlying mechanisms through which affective and behavioural responses to creative media advertising can be explained.

ARTICLE HISTORY
Received 24 August 2017
Accepted 17 May 2018

KEYWORDS
Creative media advertising; field experiment; guerilla marketing; non-traditional advertising; perceived humor; perceived persuasive intent; perceived surprise; perceived value

Introduction

Imagine yourself walking through a park searching for a bench on which to rest. While approaching the nearest bench, you are surprised to see that the slats of the bench are a chocolate brown color and carry the logo and slogan of a KitKat candy bar. After a few seconds, you suddenly understand the connection between KitKat and the bench: Aha! You eat a KitKat when you are ‘taking a break’, and a bench is typically a place to take a break! The chocolate brown slats of the bench are intended to resemble the bars of a KitKat. This KitKat bench is a form of creative media advertising (CM advertising).

CM advertising might be the answer to the quest of many advertisers nowadays. It provides a new advertising format that attracts the attention of consumers despite the
large excess of commercial messages known as ‘advertising clutter’ (Rauwers and Van Noort 2015). Due to this advertising clutter consumers’ attitudes towards advertising have become increasingly more negative over time (Speck and Elliott 1997). Such negative effects might be overcome by using CM advertisements. A CM advertisement is promoted on a media vehicle that (1) is not commonly used for advertising and (2) has an associative overlap with the advertised brand (Dahlén 2005). Since CM advertisements are not depicted in traditional advertising formats as newspapers, they might be more difficult to identify as advertisements (Obermiller, Spangenberg and MacLachlan 2005), possibly resulting in positive advertising effects.

This reasoning can be confirmed by an increasing body of research (Meijers, Eelen and Voorveld 2016), which shows that CM advertising exceeds traditional media advertising (TM advertising) in improving affective and behavioural responses (Dahlén, Friberg and Nilsson 2009; Meijers et al. 2016). This study contributes to the current knowledge on CM advertising effects by focusing on three focal points that have not been fully addressed in earlier research. The first aim of the study entails the replication and extension of previous results by examining the impact of CM advertising in a real-life setting. This is crucial in conveying a real experience to consumers, as a real experience triggers consumers to process the advertisement in a more in-depth manner and allows people to use environmental cues to figure out the association between the medium and the brand (Rauwers and Van Noort 2015).

Next, although research demonstrated that CM advertising improves consumers’ affective and behavioural responses, little is known about the cognitive impact of CM advertising and the underlying processes for CM advertising effects (Eelen and Seiler 2015). Thus, the second aim is to extend previous CM advertising findings and examine the impact on consumers’ cognitive responses, such as recall and recognition of the advertised brand. The third aim is to examine the underlying processes for CM advertising effects. Based on Schema Theory (Roedder and Whitney 1986), we propose the following four potential processes: perceived surprise, perceived humor, perceived value and perceived persuasive intent (see Figure 1). Of these processes, only perceived surprise and perceived value had previously been examined (Dahlén et al.

![Figure 1. Overall conceptual model.](image-url)
2009; Eelen and Seiler 2015), although never in a real-life setting. Perceived humor and perceived persuasive intent have only been suggested by the literature (Rauwers and Van Noort 2015) but have not been tested for their explanatory power.

Theoretical background

The effects of creative media advertising on cognitive responses

Brand recall and brand recognition are commonly used to investigate consumers’ cognitive advertising responses (e.g., Van Reijmersdal, Rozendaal and Buijzen 2012). To our knowledge, only one study has investigated the impact of CM advertising on brand recall, revealing a negative effect (Eelen and Seiler 2015). This was unexpected, as other studies had revealed that a CM (vs. TM) advertisement increased attention (Hutter 2015; Hutter and Hoffmann 2014), and attention has frequently been identified as a predictor of cognitive responses (e.g., Morrin and Ratneshwar 2000).

A potential explanation for the negative effect found by Eelen and Seiler (2015) is that an online experimental design was chosen. Consequently, participants were only able to see a picture of the CM advertisement instead of experiencing it in its ‘natural context’. Rauwers and Van Noort (2015) argue that this might be important, because the context of a CM advertisement delivers cues for solving the ‘creative puzzle’ (e.g., the bench in the park functioned as a metaphor for taking a break in the KitKat example), which stimulates ad processing. Since the negative effect of Eelen and Seiler (2015) could be caused by methodological design choices and other studies found positive effects on attention, the following hypothesis is formulated:

**H1:** CM advertising (vs. TM) improves consumers’ cognitive responses.

The effects of creative media advertising on affective and behavioural responses

Various studies have examined the effects of CM advertising on consumers’ affective and behavioural responses (i.e., ad attitude, brand attitude, purchase intention and WOM intention; Dahlén 2005; Hutter and Hoffmann 2014) and consistently found positive effects. However, these studies did not use a real-life setting, which could be vital in catching realistic feelings of consumers and complementary environmental effects (Hutter 2015). In an attempt to replicate previous findings, the following hypotheses are formulated:

**H2:** CM advertising (vs. TM) improves consumers’ affective responses.

**H3:** CM advertising (vs. TM) improves consumers’ behavioural responses.

Why creative could be more effective than traditional media advertising?

The principles of Schema Theory have identified four potential underlying processes that could explain the effectiveness of CM advertising; perceived surprise, perceived humor and perceived persuasive intent. In the following, the general principles of Schema Theory will be discussed and applied to the specific context of CM advertising.
Schema theory applied to creative and traditional media advertising

Schema Theory states that the information in a person’s long-term memory is stored in packages of related information, called schemata (Roedder and Whitney 1986; Warlaumont 1997). A schema gives consumers the opportunity to quickly process and understand new information, by relating the stimulus information to prior processed knowledge. For example, when the number combination ‘007’ fills your television screen, you probably understand that a James Bond movie is about to start.

In identifying messages as advertising, consumers rely on two schemata: their brand and advertising schema (Rauwers and Van Noort 2015). The brand schema contains all of a person’s thoughts and feelings related to a specific brand (Dahlén et al. 2008), whereas the advertising schema covers one’s knowledge about advertising, such as being aware of its commercial intent and its recognizable features (Dahlén and Edenius 2007; Warlaumont 1997).

The crucial difference between exposure to a CM advertisement and TM advertisement is that in the former, a person’s advertising schema will not be immediately activated (Rauwers and Van Noort 2015). Consumers will not directly associate the medium of a CM advertisement with advertising. For instance, in the KitKat example, consumers will probably not relate a bench in the park to advertising. This is called ‘stimulus-schema incongruity’: A stimulus that interferes with the activation of a schema – here the advertising schema (Alden, Mukherjee and Hoyer 2000). This stimulus-schema incongruity at the ad level forms the foundation of our four proposed processing variables.

Perceived surprise: an underlying process of cognitive responses

Surprise is a neutral (i.e., not valenced) and short-lived sensation, which can be elicited when a consumer is confronted with an unfamiliar stimulus (i.e., stimulus-schema incongruity; Alden et al. 2000; Vanhamme 2000). Since CM advertising is schema-incongruent at the ad level, we suggest that exposure to such an advertisement will elicit stronger feelings of surprise than exposure to a TM advertisement (H4a). Evidence for this effect has already been provided in several online studies, in which participants were confronted with an image of a CM advertisement (e.g., Rauwers and Van Noort 2015) but not in real-life settings.

Advertisements that are perceived as highly surprising are more successful in drawing the attention of the consumer (Johnston and Hawley 1994; Hutter and Hoffmann 2014). This can be explained by a consumer’s natural urge to explore surprising elements (i.e., schema-incongruent stimuli) to solve its incongruence (Warlaumont 1997). Surprising ads are, therefore, processed more deeply than non-surprising ones, which results in more cognitive responses (Petty et al. 1994). Since we assume that CM advertisements (vs. TM) are perceived as more surprising, we further hypothesize that these advertisements also improve cognitive responses (i.e., brand recall and brand recognition):

H4: CM advertising (vs. TM) is perceived as (a) more surprising, which subsequently improves consumers’ (b) cognitive responses.1
Perceived humor: an underlying process of cognitive, affective and behavioural responses

‘Humor is anything done or said, purposely or inadvertently, that is found to be comical or amusing’ (Long and Graesser 1988). A humorous response can be elicited when consumers are able to solve a stimulus-schema incongruity (Speck 1991). Due to the incongruity at the ad level, a CM advertisement can be seen as some kind of ‘creative puzzle’, which is solved when consumers identify the associative overlap between brand and medium, eliciting a humorous response (H5a).

The fun reaction that consumers derive from a humorous advertisement could spill over to consumer responses (Eelen et al. 2016). Accordingly, prior findings demonstrated that the use of humor in advertising has a positive effect on consumers’ affective (e.g., Alden et al. 2000) and behavioural responses (Zhang 1996). Since we assume that CM advertisements (vs. TM) are perceived as more humorous, we further hypothesize that these advertisements can also improve consumers’ affective (i.e., ad and brand attitude) and behavioural (i.e., purchase intention and WOM intention) responses:

**H5:** CM advertising (vs. TM) is perceived as (a) more humorous, which subsequently positively affects consumers’ (b) affective and (c) behavioural responses.

Responses to perceived humor can also be intellectual. To understand the humor (i.e., the witty link between the medium and the brand), one needs to mentally process information and this elaborative process might result in cognitive responses (Eisend 2009). A wide range of research has examined the effectiveness of humor on cognitive advertising responses (Weinberger and Gulas 1992). However, these results are still mixed, which leads to the following research question:

**RQ1:** Does the impact of CM advertising (vs. TM) on perceived humor subsequently lead to improved cognitive responses?

Perceived persuasive intent: an underlying process of affective and behavioural responses

Perceived persuasive intent is the degree to which consumers recognize and comprehend the commercial purpose of a message (Friestad and Wright 1994). When confronted with a message, consumers access their persuasion knowledge, their set of beliefs and knowledge about advertising motives and strategies, to judge whether a message is part of a persuasion attempt (Friestad and Wright 1995; Eelen et al. 2016). Persuasion knowledge matures with people’s own experiences with advertising and by what they learn from others. As a result, consumers develop an advertising schema that helps them to evaluate the persuasive intent of an advertisement (Friestad and Wright 1994; Roedder and Whitney 1986). Since TM advertisements are portrayed on traditional advertising media, their advertising strategies and motives are generally clear. However, CM advertisements are portrayed in more novel formats, which make it more difficult to recognize them as persuasion attempts (H6a).

In order to maintain their personal freedom of choice, consumers tend to defend themselves against persuasive attempts (Koslow 2000). Therefore, perceived persuasive
intent has a negative effect on consumers’ affective and behavioural responses (e.g., Van Noort, Antheunis and Van Reijmersdal 2012). However, since we assume that CM advertisements (vs. TM) are perceived as less persuasive, we further hypothesize that these advertisements will generate more positive affective (i.e., ad and brand attitude) and behavioural responses (purchase intention and WOM intention):

**H6**: CM advertising (vs. TM) is perceived as (a) less persuasive, which subsequently positively affects consumers’ (b) affective and (c) behavioural responses.

Furthermore, Van Reijmersdal et al. (2012) revealed that children’s persuasion knowledge did not affect their cognitive responses. However, to our knowledge, no research has been conducted among adults in which this mediating effect has been further tested. The following research question is, therefore, formulated:

**RQ2**: Does the impact of CM advertising (vs. TM) on perceived persuasive intent subsequently lead to improved cognitive responses?

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**Perceived value as an underlying process of consumers’ affective and behavioural responses**

Perceived value can, according to Dahlén et al. (2009), be defined as ‘a cognitive assessment of the value consumers derive from the advertisement that focuses both on what the advertiser gains and what the consumer receives’. By providing a ‘creative puzzle’ rather than just brand information, CM advertisements offer some form of entertainment value (Eelen et al. 2016). Hence, we suggest that a CM advertisement will be perceived as more valuable than a TM advertisement (H7a).

Moreover, consumers could perceive the clever bridge between the medium and the brand as a valuable effort delivered by the company, which could indirectly elicit positive affective and behavioural responses (Rosengren, Modig and Dahlén 2015). Two studies on CM advertising (Dahlén et al. 2009; Rosengren et al. 2015) have revealed that perceived value mediates the effects on consumers’ affective and behavioural responses by exposing participants to photographs of CM advertisements. It is, however, questionable whether a picture can deliver the same experience as when CM advertisement is experienced within a real-life setting (Dahlén 2005; Rauwers and Van Noort 2015). Results are expected to be even stronger in a real-life setting, resulting in potentially bigger value exchanges (Dahlén and Edenius 2007). Therefore, the following expectations are formulated:

**H7**: CM advertising (vs. TM) is perceived as (a) more valuable, which subsequently positively affects consumers’ (b) affective and (c) behavioural responses.

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**General methods**

To provide a strong test of the hypotheses, two field experiments were conducted in a supermarket context. Actual customers were confronted with either the TM or CM advertisement while shopping for groceries. The ads were developed in collaboration with a professional ad agency and were previously used and pretested in an online study (Rauwers and Van Noort 2015). In line with the conceptualization of CM
advertising, a shopping cart was used as a creative medium, because it had not been previously used as an advertising medium in our supermarkets and had an associative overlap with the brand. In Study 1, we used a poster as the traditional medium, one of the most common means of in-store advertising. In Study 2, we used CardBoards: relatively small posters placed in the back of shopping carts. By selecting this medium, exposure time was kept equal under both conditions.

Study 1 was designed to extend our knowledge of cognitive responses to CM advertising, to replicate previous findings on affective and behavioural responses and to examine underlying mechanisms of CM advertising effects that were suggested by the literature (Rauwers and Van Noort 2015; see Figure 2). Next, Study 2 replicated and extended Study 1 and was designed to examine mediation hypotheses for affective and behavioural responses. Study 2 extended Study 1 by examining another mediating process that was not suggested by Rauwers and Van Noort (2015), perceived value. It also investigated the effects on WOM intention (see Figure 4).

Study 1

Methods

Design and participants
To test our hypotheses (see Figure 2), a field experiment was conducted with a one-factor (advertising type: creative vs. traditional) between-subjects design. Participants were recruited from two supermarkets belonging to the same supermarket chain. In one supermarket, the CM condition was implemented, and in the other, the TM condition was implemented. Customers had to be at least 18 years of age to qualify for participation. In total, 88 customers participated, although 10 were excluded, as they were unable to fill out the questionnaire (see ‘Pretest’ section). This resulted in a final sample of 78 participants (76.6% female) ranging in age from 35 to 75 years ($M = 55.23$, $SD = 9.67$).

Procedure

Participants were assigned to either the CM condition ($n = 47$) or the TM condition ($n = 31$), depending on the supermarket they visited. Customers were unaware of the

![Figure 2. Conceptual model Study 1: the hypothesized direct effects of advertising type on consumers’ cognitive (H1), affective (H2) and behavioural (H3) are not presented in the figure.](image-url)
research study, and while shopping, they were exposed to either our CM advertise-
ment or TM advertisement. After shopping, customers were approached and asked to
participate in our study.

Customers willing to participate completed a 10-minute questionnaire that consisted
of three parts. First, participants were asked to answer questions that tapped into their
cognitive responses (i.e., brand recall and brand recognition), affective responses (i.e.,
brand attitude) and behavioural responses (i.e., purchase intention). Second, they viewed
a picture of the advertisement (to ensure that they had the right ad in mind), after
which another affective response (i.e., ad attitude) was measured, followed by questions
that measured our processing variables: perceived surprise, perceived humor and per-
ceived persuasive intent. The final part contained randomization and manipulation
checks and questions regarding participants’ demographic characteristics.

**Stimulus materials: creative vs. traditional media advertising**

For this study, a CM and a TM advertisement were developed for the brand
Autodrop, a Dutch licorice brand known for its car-shaped candies. In the CM condi-
tion, a shopping cart was selected as creative medium because 1) this medium had
not been previously used for advertising in our selected supermarkets and 2) as
Autodrop, it is strongly associated with cars: it has wheels, you can drive it and it has
a bit of a car-shape. A cardboard steering wheel was connected to the cart, which
contained the logo and the slogan of the brand; an image of a dashboard was placed
on the bar of the cart, which contained the image of an Autodrop sweet; and fake
breaking pedals were attached near the wheels (see Figure 3).

For the TM condition, a poster (size: 1189 mm × 841 mm) was chosen as the trad-
tional medium. The poster contained the image of an Autodrop product, the brand
name and the brand slogan (see Figure 3) and was placed at three prominent and
common advertising locations in the supermarket: next to the entrance/exit, in the
middle of the shop and near the cash registers.

**Pretest**

A pretest among 50 supermarket customers tested the clarity of our questionnaire
and the noticeability of our stimuli. A prototype of the Autodrop poster was placed in
a third supermarket and the main experiment procedures were applied. Based on
feedback, we refined the questionnaire layout and removed ambiguities. We found
that participants who disliked the taste of Autodrop candy experienced extreme diffi-
culties completing the questionnaire. They became irritated (‘I don’t like licorice, so
how can I have an opinion about this brand?’) and filled in the questionnaire neglect-
fully or quit. We, therefore, decided that such participants had to be excluded from
the main experiment sample. Next, we noticed that some participants had problems
actively recalling the Autodrop poster. To assure that participants had the right ad in
mind, we integrated a picture of the ad in the questionnaire before ad-related vari-
bles were measured. This procedure was applied under both conditions.
Measures

Cognitive responses. Brand recall was measured by asking participants whether they could remember the brand that was exposed on the poster/shopping cart (0 = no, 1 = yes; $M = .36$, SD $= .48$). Brand recognition was measured by asking participants to mark the brand they had seen on the poster/shopping cart, using a list of six brands ($autodrop = 1$, all other answers $= 0$; $M = .55$, SD $= .50$).

Affective responses. Ad attitude and brand attitude were assessed using a seven-point semantic differential scale. For brand attitude, the bipolar ends were bad/good, unfavorable/favorable, unappealing/appealing and unlikeable/likeable (Bellman et al. 2011; $\alpha = .88$; $M = 4.71$, SD $= 1.17$). For ad attitude, the bipolar ends were unpleasant/pleasant, unlikeable/likeable, irritating/not irritating and not interesting/interesting (Zhang 1996; $\alpha = .77$; $M = 4.64$, SD $= 1.23$).

Behavioural response. Purchase intention was measured with five items on a 7-point semantic differential scale aimed at evaluating the likelihood that participants were going to buy products of Autodrop in the near future: unlikely/likely, improbable/probable, uncertain/certain and definitely not/definitely, ruled out/considerable (Bearden, Lichtenstein and Teel 1984; Zhang 1996; $\alpha = .97$; $M = 4.02$, SD $= 1.86$).

Processing variables. Perceived surprise was measured by asking participants to rate on a seven-point Likert scale whether they were surprised, amazed and astonished (1 = not at all, 7 = a lot) by the location of the advertisement (Izard 1977; $\alpha = .89$; $M = 4.28$, SD $= 1.88$). Perceived humor was measured with six items on a 7-point semantic differential scale. The bipolar ends were not humorous/humorous, not playful/playful, not funny/funny, not amusing/amusing, dull/not dull and boring/not boring.
(Chattopadhyay and Basu 1990; \( \alpha = .88; M = 4.96, SD = 1.18 \)). Perceived persuasive intent was evaluated using three items modelled from Dahlén and Edenius (2007) that included ‘The aim of the advertisement is to sell more Autodrop’, ‘... to make me buy more Autodrop’ and ‘... had a commercial purpose’ (1 = totally disagree, 7 = totally agree; \( \alpha = .83, M = 5.90, SD = 1.13 \)).

**Manipulation check.** The fit between the advertised brand and the medium was measured with two items on a 7-point semantic differential scale: match/do not match and fit well/do not fit well (Dahlén 2005; \( r = .67, p < .001; M = 4.06, SD = 1.80 \)).

**Randomization and design checks.** Several variables were measured as randomization checks. General advertising attitude was measured with the same bipolar ends as ad attitude (\( \alpha = .85; M = 3.86, SD = 1.11 \)). Next, the participant’s age, gender and educational attainment were measured. Finally, we measured ‘liking of Autodrop’ with the question: ‘Do you like the taste of Autodrop sweets?’ (0 = no, 1 = yes).

**Results**

**Randomization and manipulation checks**
The experimental groups did not differ with respect to participants’ gender, \( \chi^2 (1) = .47, p = .494 \), age, \( F(1, 76) = .54, p = .464 \), and general advertising attitude, \( F(3, 188) = .40, p = .753 \). In contrast, educational attainment did differ significantly, \( F(1, 74) = 5.34, p = .024 \), which was, therefore, included as a covariate in subsequent analyses. Furthermore, the manipulation check revealed that participants experienced a stronger fit between the brand and the creative medium (\( M = 4.66, SD = 1.69 \)) than between the brand and the traditional medium (\( M = 3.18, SD = 1.60 \)), \( F(1, 75) = 14.90, p < .001 \). The manipulation was, thus, considered successful.

**Consumer responses towards creative media advertising**
In H1, we proposed that exposure to a CM advertisement (vs. TM) would improve consumers’ cognitive responses. Results of two logistic regressions revealed that participants who were exposed to the CM advertisement were more likely to recall the advertised brand (\( b = 3.47, \text{Wald} \chi^2 = 10.69, p < .001 \), odds ratio = 32.24) and to recognize it (\( b = 5.10, \text{Wald} \chi^2 = 11.49, p < .001 \), odds ratio = 164.18) than the ones who were exposed to the TM advertisement. H1 is supported.

Next, a MANCOVA was conducted to test whether exposure to a CM advertisement (vs. TM) leads to more favorable affective (H2) and behavioural responses (H3). Results showed that participants’ scores on ad attitude, \( F(1, 69) = .00, p = .980 \), brand attitude \( F(1, 69) = .38, p = .549 \) and purchase intention, \( F(1, 69) = .77, p = .385 \), did not significantly vary across conditions (see Table 1). Thus, H2 and H3 are not supported.

**The underlying processes of creative media advertising**
To test our hypothesized mediations (see Figure 2), a two-step procedure was followed. First, we tested with three separate ANCOVAs whether exposure to the CM advertisement resulted in the activation of perceived surprise, perceived humor and
perceived persuasive intent. Second, complete mediations were tested, using Hayes’ (2012) PROCESS macro Model 4.

**Mediation effects through perceived surprise.** In line with H4a, the results of the first ANCOVA demonstrated that the CM advertisement was perceived as more surprising ($M = 5.33, \text{SE} = .22$) than the TM advertisement ($M = 2.79, \text{SE} = .26$), $F(1, 70) = 52.88, p < .001$. However, PROCESS did not reveal significant mediation effects for either brand recall (indirect effect $= -.20$, boot SE = .70, BCI $[-1.58, 1.13]$) or brand recognition (indirect effect $= -.69$, boot SE = 1.42, BCI $[-1.97, 3.31]$). H4b is not supported.

**Mediation effects through perceived humor.** In support of H5a, the results of the second ANCOVA demonstrated that the CM advertisement was perceived as more humorous ($M = 5.25, \text{SE} = .18$) than the TM advertisement ($M = 4.57, \text{SE} = .21$), $F(1, 72) = 5.75, p = .019$. Next, mediation analyses through perceived humor revealed positive mediations on ad attitude (indirect effect $= .63$, boot SE = .27, BCI $[.06, 1.11]$), brand attitude (indirect effect $= .38$, boot SE = .16, BCI $[.11, .76]$) and purchase intention (indirect effect $= .48$, boot SE = .25, BCI $[.04, 1.00]$). More precisely, the CM advertisement was perceived as more humorous, which evoked a more favorable ad attitude ($b = .88, \text{SE} = .07, p < .001$), brand attitude ($b = .56, \text{SE} = .10, p < .001$) and purchase intention ($b = .78, \text{SE} = .17, p < .001$). Therefore, H5b and H5c are supported.

Finally, to answer RQ1, we also tested whether perceived humor mediated the effects on brand recall and brand recognition. PROCESS did not reveal any significant mediation effects (indirect effect of brand recall $= .13$, boot SE = .31, BCI $[-.37, .94]$; indirect effect of brand recognition $= .41$, boot SE = 1.71, BCI $[-1.46, 5.98]$), which means that consumers’ cognitive responses could not be explained by this mechanism.

**Mediation effects through perceived persuasive intent.** The results of the third ANCOVA showed that the CM advertisement ($M = 6.30, \text{SE} = .16$) was perceived as more persuasive than the TM advertisement ($M = 5.37, \text{SE} = .20$), $F(1, 70) = 12.54, p < .001$. Since we expected that the CM advertisement would be perceived as less persuasive, H6a is rejected. Next, PROCESS did not reveal any significant mediation effects for either brand recall (indirect effect $= .44$, boot SE = .44, BCI $[-.21, 1.56]$),

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**Table 1. Direct consumer responses.**

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Creative</td>
<td>Traditional</td>
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<tr>
<td>Cognitive$^a$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand recall (d)</td>
<td>.60 (.07)</td>
<td>.05 (.06)</td>
</tr>
<tr>
<td>Brand recognition (d)</td>
<td>.88 (.04)</td>
<td>.05 (.05)</td>
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<tr>
<td>Affective$^b$</td>
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<td></td>
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<tr>
<td>Ad Attitude</td>
<td>4.62 (.19)</td>
<td>4.63 (.23)</td>
</tr>
<tr>
<td>Brand Attitude</td>
<td>4.76 (.19)</td>
<td>4.58 (.22)</td>
</tr>
<tr>
<td>Behavioural$^b$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase intention</td>
<td>4.23 (.29)</td>
<td>3.82 (.35)</td>
</tr>
<tr>
<td>WOM intention</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: (d), dummy coded. $^a$Tested with logistic regressions. $^b$Tested with MAN(C)OVA.

Education attainment included as covariate. $^* p < .05$. $^*** p < .001$.  

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brand recognition (indirect effect = .54, boot SE = .96, BCI [-.22, 1.91]), ad attitude (indirect effect = .11, boot SE = .27, BCI [-.10, .37]) or brand attitude (indirect effect = .11, boot SE = .15, BCI [-.55, .73]). In other words, the activation of perceived persuasive intent could not explain the positive effects on consumers’ cognitive (RQ2) and affective (H6b) responses. However, with regard to consumers’ behavioural response (H6c), PROCESS revealed a positive mediation effect for purchase intention (indirect effect = .46, boot SE = .25, BCI [.03, 1.10]). More specifically, exposure to the CM advertisement resulted in a higher perceived persuasive intent, which subsequently had a positive effect on purchase intention ($b = .48$, SE $=.21$, $p = .024$).

**Conclusion and discussion**

The results of Study 1 indicated a direct positive effect of CM advertising on cognitive responses, while no direct effect was found for any of the affective responses or behavioural responses. Furthermore, the CM advertisement was perceived as more surprising, more humorous and more persuasive than the TM advertisement. Whereas no indirect effects were found through perceived surprise, mediation analyses revealed that the CM advertisement had a positive indirect effect on ad attitude, brand attitude and purchase intention through perceived humor. In addition, unlike the expectations, a positive indirect effect was found of the CM advertisement on purchase intention through perceived persuasive intent. This effect could be due to differences in exposure time between conditions (i.e., walking with a shopping cart vs. passing by a poster). Limited exposure time to the TM advertisement may have reduced consumers’ ability to process the persuasive scope of the advertisement. Thus, when we control for exposure time (Study 2), we expect that the negative effect of CM advertising on perceived persuasive intent will still exist.

**Study 2**

The aim of Study 2 was to provide robust findings. Therefore, this study retested the indirect effects of CM advertising (vs. TM) on ad attitude, brand attitude and purchase intention.
intention through perceived persuasive intent and perceived humor. Moreover, Study 2 aimed to extend the findings of Study 1 by taking into account WOM intention as a behavioural response and perceived value as a mediator.

**Methods**

**Design, participants and procedure**

To test our hypothesized theoretical model (see Figure 4), a second field experiment with the same between-subjects design was conducted. However, two new supermarkets were selected. After excluding the participants who disliked Autodrop candies, 108 (74.1% female) consumers participated in the study, ranging in age from 22 to 83 years ($M = 53$, $SD = 14.03$). The procedures were similar to those applied in Study 1.

**Stimulus materials: creative vs. traditional media advertising**

The same stimulus materials were used as in Study 1 with one important difference: In Study 1, large posters were used as the traditional medium, but in Study 2, the TM advertisements were placed on so-called CartBoards (see Figure 5). The CartBoard system enabled advertisers to place messages in shopping carts, by attaching a full color A4 board to the back of the cart. This approach allowed equal exposure time across conditions.

**Measures**

**Affective responses.** Ad attitude and brand attitude were measured in the same way as in Study 1 ($x_{ad\text{ attitude}} = .98$, $M = 4.56$, $SD = 1.86$; $x_{brand\text{ attitude}} = .96$, $M = 4.72$, $SD = 1.56$).

**Behavioural responses.** Purchase intention was assessed using the same scale as in Study 1 ($\alpha = .97$, $M = 4.63$, $SD = 2.18$). WOM intention was measured using two items adapted from Derbaix and Vanhamme (2003) that included the following statements: ‘The likelihood that I will tell people about this advertisement is high’ and ‘The
likelihood that I will tell people about this advertisement online via mail or social media is high’ (1 = totally disagree, 7 = totally agree; r = .53, p < .001, M = 2.43, SD = 1.55).

**Processes.** Perceived humor and perceived persuasive intent were assessed with the same scales as in Study 1 ($x_{\text{perceived humor}} = .96, M = 4.51, SD = 1.87; x_{\text{persuasive intent}} = .87, M = 6.13, SD = 1.19$). Perceived value was measured with three items on a 7-point Likert-scale that included the statements, ‘The advertising is of value to me’, ‘... interesting’ and ‘... worth my attention’ (1 = totally disagree, 7 = totally agree; Rosengren et al. 2015; $x = .95, M = 3.96, SD = 1.87$).

**Manipulation check.** Fit between brand and medium was measured in the same manner as in Study 1 ($r = .88, p < .001, M = 4.03, SD = 2.18$).

**Randomization and design checks.** Participants’ general advertising attitude (see Study 1; $x = .95, M = 4.29, SD = 1.62$), age, gender, educational attainment and ‘liking of Autodrop’ were measured.

**Results**

**Randomization and manipulation check**

The experimental groups did not differ with respect to participants’ gender, $\chi^2 (1) = .19, p = .661$, age, $F(1, 106) = .01, p = .946$, general advertising attitude, $F(1, 106) = .09, p = .930$, or educational attainment, $\chi^2 (6) = .05, p = .171$. An ANOVA further showed that the manipulation of advertising type was successful ($M_{\text{creative}} = 5.76, SD = 1.09$ vs. $M_{\text{traditional}} = 2.31, SD = 1.52$), $F(1, 106) = 182.06, p < .001$.

**Consumer responses towards creative media advertising**

To test whether exposure to a CM advertisement leads to more favorable affective and behavioural response than a TM advertisement, a MANOVA was conducted. Results demonstrated that participants exposed to the CM advertisement had a significantly more positive ad attitude, $F(1, 106) = 5.42, p = .022$, and brand attitude, $F(1, 106) = 10.13, p = .002$, and higher WOM intention, $F(1, 106) = 24.86, p < .001$, and purchase intention, $F(1, 106) = 15.13, p < .001$. This confirms H2 and H3 (see Table 1).

**The underlying processes of creative media advertising**

To test our hypothesized mediations (see Figure 4), the same two-step procedure was followed as in Study 1.

**Mediation effects through perceived humor.** In support of H5a, the results of an ANOVA demonstrated that the CM advertisement was perceived as more humorous ($M = 5.09, SE = 1.59$) than the TM advertisement ($M = 3.94, SE = 1.96$), $F(1, 106) = 11.35, p = .001$. Next, mediation analyses revealed positive mediations through perceived humor on ad attitude (indirect = .94, boot SE = .28, 95% BCI [.40, 1.48]), brand attitude (indirect = .61, boot SE = .22, 95% BCI [.22, 1.10]), WOM intention
(indirect = .44, boot SE = .16, 95% BCI [.17, .81]), and purchase intention (indirect = .75, boot SE = .26, 95% BCI [.30, 1.29]). More specifically, the CM advertisement is perceived as more humorous ($b = 1.16$, SE = .34, $p = .001$), which evoked a more favorable ad attitude ($b = .81$, SE = .06, $p < .001$), brand attitude ($b = .53$, SE = .06, $p < .001$), purchase intention ($b = .65$, SE = .10, $p < .001$) and WOM intention ($b = .38$, SE = .07, $p < .001$). Therefore, H5b and H5c are supported.

**Mediation effects through perceived persuasive intent.** Unexpectedly, the results of a third ANOVA did not reveal a significant effect of advertising type on perceived persuasive intent, $F(1, 106) = 1.28$, $p = .260$ and, therefore, could not function as an underlying mechanism. Consequently, H6a–c are not supported.

**Mediation effects through perceived value.** The results of a second ANOVA showed that the CM advertisement was perceived as more valuable ($M = 4.43$, SE = 1.94) than the TM advertisement ($M = 3.49$, SE = 1.68), $F(1, 106) = 7.22$, $p = .008$. These data confirmed H7a. Next, PROCESS results indicated a significant mediation effect of perceived value on ad attitude (indirect = .73, boot SE = .27, 95% BCI [.20, 1.26]), brand attitude (indirect = .47, boot SE = .20, 95% BCI [.12, .93]), WOM intention (indirect = .43, boot SE = .17, BCI [.12, .80]) and purchase intention (indirect = .60, boot SE = .25, 95% BCI [.15, 1.13]). More specifically, the CM advertisement is perceived as more valuable ($b = .94$, SE = .35, $p = .008$), which evoked a more favorable ad attitude ($b = .77$, SE = .06, $p < .001$), brand attitude ($b = .51$, SE = .06, $p < .001$), purchase intention ($b = .64$, SE = .09, $p < .001$) and WOM intention ($b = .45$, SE = .06, $p < .001$). Thus, H7b and H7c are supported.

**General conclusion and discussion**

The present study has tried to fill three pressing gaps in the CM advertising literature. First, we replicated and extended earlier research on CM advertising by examining the impact of CM advertising (vs. TM) on consumers’ affective and behavioural responses in a real-life setting. Although results of Study 1 showed no direct effect of CM advertising on consumers’ affective and behavioural responses, Study 2 confirmed the effects found in the meta-analysis of Meijers et al. (2016): Exposure to a CM advertisement leads to more favorable affective and behavioural responses than exposure to a TM advertisement. This difference between Studies 1 and 2 could be explained by the probability that participants in Study 1 were exposed for a shorter time to the TM advertisement than to the CM advertisement, which could have affected their ad processing. In Study 2, however, ad exposure time was equal across conditions. Therefore, this study demonstrated that CM advertising proved once again to be more effective than TM advertising, even in a realistic and natural setting.

Our second aim was to extend previous CM advertising findings by examining the impact on consumers’ cognitive responses. The results of Study 1 showed that a brand is better recalled and recognized when it is advertised on a creative medium instead of a traditional medium. Although Eelen and Seiler (2015) found the opposite effect, it should be noted that their study was conducted online. As stated by Rauwers and
Van Noort (2015), a real-life experience can offer valuable cues to stimulate ad processing, which could generate more positive cognitive responses. This study is the first to find some empirical evidence in support of this claim.

The third aim was to determine why CM advertising is more effective than TM advertising. More specifically, Study 1 tested the mediation effects of (1) perceived surprise, (2) perceived humor and (3) perceived persuasive intent on consumers’ cognitive, affective and behavioural responses. Study 2 replicated Study 1 by refining the procedure of Study 1 (equal exposure time) and extended it by adding perceived value as another potential mediator.

First, results of Study 1 showed that perceived surprise did not mediate the effects on consumers’ cognitive responses. This could be explained by the notion that surprise is only a short-lived sensation. Potentially, this sensation is simply too short to actually affect consumers’ cognitive responses. As surprise is a neutral sensation that cannot transmit valence by itself, no expectations were formulated for consumers’ affective and behavioural responses.

Second, results of Study 1 did not find any mediation effects of perceived humor on consumers’ cognitive responses. However, the results did reveal that perceived humor mediated the effects on consumers’ affective and behavioural responses. The findings proved to be robust, since Study 2 confirmed the results of Study 1. Thus, as proposed by Rauwers and Van Noort (2015), the witty link between the medium and the brand is perceived as humorous, which generated more positive affective and behavioural responses.

Third, although the mediating effect of perceived persuasive intent was expected, the direction of the effect was exactly the opposite. More specifically, Study 1 showed that the CM advertisement (vs. TM) was perceived as more persuasive, leading to higher purchase intentions. However, since consumers were exposed longer to the CM advertisement, the persuasive character might be more prominent, providing consumers more time to process the persuasive scope of this ad. In Study 2, no mediation effects were found. These mixed findings could be the result of a measurement difference. This is because perceived persuasive intent is often measured by testing only the cognitive aspect of persuasion knowledge (conceptual persuasion knowledge; Rozendaal et al. 2011) comprising the recognition of the commercial message, its source and its commercial motives. However, attitudinal persuasion knowledge can also be affected, which covers the attitudinal mechanisms that can be used by consumers to cope with persuasion attempts (e.g., disliking and skepticism). This could explain why perceived persuasive intent does not always negatively affect consumer responses. For example, even though consumers’ conceptual persuasion knowledge is high (i.e., consumers recognize a CM advertisement as advertising), their attitudinal persuasion knowledge could still be low (i.e., consumers like the witty link between brand and medium and do not mind being persuaded). Hence, future research on this topic is needed.

Lastly, in Study 2, a fourth mediator proved to be important in explaining CM advertising effects. More precisely, a CM advertisement is perceived as more valuable, leading to more positive affective responses (i.e., brand attitude and ad attitude) and behavioural responses (WOM intention and purchase intention). These results confirm earlier findings retrieved in an online setting (e.g., Dahlén et al. 2009) and prove that value exchanges also take place in a real-life setting.
Context of this study

Although the findings of this study made several contributions to the understanding of the effectiveness of CM advertising, they need to be seen in light of the research context. A consideration is that the impact of CM advertising is studied in just one real-life context: a supermarket. Such a shopping environment may have functioned as a commercial prime, which could have spilled over and increased the perceived persuasiveness of the two advertisements (Rauwers and Van Noort 2015). Research is needed to demonstrate whether of CM advertisements effects differ depending on the context.

Managerial implications

Advertisers are looking for new ways to break through the ever-growing advertising clutter. This study demonstrates that CM advertising might be the key they are looking for, as our findings reveal that CM advertising is able to outperform TM advertising in improving consumers’ cognitive responses. Additionally, CM advertising is evaluated as more humorous and more valuable, which has a positive impact on consumers’ affective and behavioural responses. Therefore, this study implies that advertisers should think more often outside ‘the traditional box’ and be more unconventionally ‘creative’.

Notes

1. Mediation hypotheses are not formulated for the valenced effects (i.e., the affective and behavioral outcomes), since surprise is only a neutral sensation that cannot transmit valence by itself.
2. These advertisements were developed in collaboration with a professional ad agency and previously used and pretested in the online study of Rauwers and Van Noort (2015).
3. The supermarket was comparable to the ones in the main experiment.

Acknowledgments

The study’s stimulus materials were developed in collaboration with KSM, a professional advertising agency located in Amsterdam.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Fabiëlle Rauwers (MSc, University of Amsterdam) is a PhD candidate of Persuasive Communication, Amsterdam School of Communication Research (ASCoR), University of Amsterdam, The Netherlands. Her PhD project is about interactivity within digital magazines, and in addition, she also examines the effects of various forms of guerilla marketing (e.g., creative media advertising).
Paola Remmelswaal (MSc, University of Amsterdam) is a junior researcher of Persuasive Communication, University of Amsterdam, The Netherlands. Her research interests include green advertising, guerrilla marketing (e.g., creative media advertising) and new media uses and effects.

Marieke L. Fransen (PhD, University of Twente) is an associate professor of Persuasive Communication, Amsterdam School of Communication Research (ASCoR), University of Amsterdam, The Netherlands. Her research interests are in persuasive communication, in particular resistance towards persuasion from the perspective of both the sender and the receiver.

Micael Dahlén (PhD, Stockholm School of Economics) is the full professor of marketing and strategy, Stockholm School of Economics, Sweden. His research is in persuasive communication, in particular marketing, creative advertising and guerrilla marketing. He has been ranked number 10 in the world among researchers in his field and was nominated for the Business Professor of the Year Award by The Economist’s Intelligence Unit.

Guda van Noort (PhD, VU University Amsterdam) is an associate professor of persuasive communication, Amsterdam School of Communication Research (ASCoR), University of Amsterdam, The Netherlands. Her research focuses on the new and unique characteristics of so-called new media and the role of these characteristics in the persuasion process of (marketing) communications. Since 2015, she is the director of SWOCC (Foundation for scientific research in commercial communication in The Netherlands).

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