CONSUMER RESPONSES TO BRANDS PLACED IN YOUTUBE MOVIES: THE EFFECT OF PROMINENCE AND ENDORSER EXPERTISE

Yann Verhellen  
University of Antwerp  
Faculty of Applied Economics, Marketing department  
Prinsstraat 13, BE – 2000 Antwerp  
Yann.Verhellen@ua.ac.be

Nathalie Dens  
University of Antwerp  
Faculty of Applied Economics, Marketing department  
Prinsstraat 13, BE – 2000 Antwerp  
Nathalie.Dens@ua.ac.be

Patrick De Pelsmacker  
University of Antwerp & Ghent University  
Faculty of Applied Economics, Marketing department  
Prinsstraat 13, BE - 2000 Antwerpen  
Patrick.Depelsmacker@ua.ac.be

ABSTRACT

Despite the vast growth of web 2.0., academic research has not kept pace with the development of advertising techniques for user-generated content. The present study is, to the best of our knowledge, the first to investigate the effects of brand placement techniques in user-generated content. Using a 2x2 full-factorial between-subjects design with self-produced videos posted on a major social media platform (YouTube), we investigate the effects of prominence (how conspicuously the brand is used or mentioned), celebrity endorser expertise (celebrity expert versus amateur) and their interaction on brand recognition and purchase intention of brands that appear in the video. While the prominence of one brand was manipulated, we also tested the effects on both the manipulated brand and the other brands that subtly appeared in the video. We further study the moderating role of video liking on these relationships using associative network theory and the Persuasion Knowledge Model. The results indicate a strong positive effect of brand placement prominence on brand recognition of both the manipulated brand and a subtly placed complementary brand (a brand that is explicitly used together with the manipulated brand). A prominent endorsement by a celebrity expert enhances the purchase intention of the focal brand compared to a subtle endorsement. This effect is stronger for viewers who strongly liked the video than for viewers who liked the video less. Although our study is limited to only one platform and content type, our results are of importance to practitioners who are interested in integrating their brands in online content. The study aims to advance both the theoretical and practical knowledge of brand placement effects by studying the effects of different placement characteristics and brands in a user-generated content setting.

Keywords: Brand placement; User generated content; Prominence; Celebrity expert endorsement

1. Introduction

Brand placement, the (paid) inclusion of branded products or brand identifiers in mass media productions [Gupta & Lord 1998], is rapidly gaining in popularity as an alternative to traditional advertising. Between 2009 and 2011, the annual spending on brand placement increased with 18% on average [PQMedia 2012]. The global spending on brand placement amounted up to $7.39 billion in 2011, and is expected to grow in the future as brand placement practices are expanding to new media [PQMedia 2012] and new markets [Nelson & Deshpande 2013]. Although the vast majority of this amount is currently spent on placements in traditional advertising media (e.g. television, radio, feature films, …), marketers are investing an increasing amount of their budgets on placement campaigns in interactive online media and web 2.0. platforms [PQMedia 2012]. Academic research on this topic does not reflect this trend and researchers are explicitly calling for the expansion of brand placement research to
these new domains [Chin et al. 2013]. Despite the practical and theoretical relevance of brand placement frameworks to online social media, the application of these techniques in a web 2.0 context remains underexplored. The present study addresses this gap in the literature by investigating how viewers respond to brands appearing in social media (i.e., a YouTube video) in terms of brand recognition and purchase intention.

More precisely, the present study explores viewers’ responses to multiple brands appearing in online videos, posted on a major user-generated content (UGC) platform (i.e., YouTube). Marketers are in the process of discovering the potential of UGC, and are looking for ways to incorporate it in their campaigns [Thompson & Malaviya 2013]. UGC is of special significance as it is considered more credible by consumers than producer-generated content [Johnson & Kaye 2004]. Indeed, recent research has shown that UGC advertising is more involving and persuasive because it is easier for people to identify with its source [Thompson & Malaviya 2013]. Product or brand-focused UGC might thus produce stronger effects on brand image than producer-generated communications. Therefore, it is important for marketers to explore feasible ways to integrate their brands in UGC, such as online videos. Furthermore, as shown by Hsieh et al. [2012], the characteristics and the context of commercial content in online videos has a strong influence on consumers’ affective responses to a video and engender a higher intention to forward the message, thus generating positive electronic word-of-mouth (eWOM) [Hsieh et al. 2012]. In turn, there is a large body of research that supports the positive effect of positive eWOM on consumer behavior [e.g., Cheong & Morrison 2008; Riegner 2007]. Positive effects of UGC may thus also trigger the forwarding of content to other consumers, thereby reinforcing the effect of the placement. Because of its large potential impact, the insertion of commercial content into UGC videos needs to be carefully managed. Knowledge on hybrid advertising techniques (i.e., advertising techniques that integrate commercial content into editorial content), such as brand placement, may offer online advertisers the opportunity to successfully apply the strengths of UGC to producer generated or sponsored content.

Besides applying brand placement in a UCG context, the present study offers a number of contributions to the theoretical insight on the effects of brand placement in this new context. In order to accomplish this goal, our framework merges insights from associative network theory, schema congruity theory and the Persuasion Knowledge Model to make predictions on the effects of brand placement in UGC.

Two important factors that have been shown to impact the effectiveness of brand placements in a traditional media context, are placement prominence and celebrity expert endorsement. Placement prominence relates to how conspicuously a brand is used or mentioned and to what extent it is the central focus of the action on the screen [Bressoud et al. 2010; Gupta & Lord 1998]. In traditional media, several studies show that prominent placements are better recognized than more subtle placements [e.g., Brennan & Babin 2004; d’Astous & Chartier 2000], but at the same time may lead to negative effects on the attitude towards the placed brand [Cowley & Barron 2008; Dens et al. 2012]. In order to optimize the effectiveness of brand placements in a UGC context, it is important to understand whether the effects of placement prominence also apply in such a setting. As the online setting is inherently different from traditional product placement, prominence might work differently. Brand placements in traditional media are also often performed by or related to well-known endorsers (e.g., the host or a character in a television program). Celebrity endorsers can provide relevance and attention to the brands they endorse [Pervan & Martin 2002; Tiwsakul et al. 2005]. The most important driver of this process is endorsement expertise [Till & Busler 2000]. Expertise suggests a strong link between the endorser and the endorsed product. If there is a match-up between the endorser’s expertise and the placed product, celebrity expert endorsement can stimulate brand recognition and the formation of positive brand attitudes [Kamins & Gupta 1994; Till & Busler 2000]. Despite an outspoken call for research on endorsement effects in a brand placement context [Balasubramanian et al. 2006; Wiles & Danielova 2009], researchers have largely ignored this topic. In a UGC setting, where the credibility of the source is key [Thompson & Malaviya 2013], endorsement expertise is likely to be an important determinant of how consumers respond to brand placements. However, whether and how these theoretical frameworks apply to online video-sharing environment (YouTube), has yet to be investigated. As UGC videos mostly represent everyday people and rarely include celebrity experts, they require a reconsideration of traditional theoretical frameworks [e.g., the Persuasion Knowledge Model, Friestad & Wright 1994] grafted on the idiosyncratic nature of UGC.

To the best of our knowledge, the potential interaction between prominence and celebrity endorsement has also not been studied, neither in an offline nor in an online context. The first contribution of this study is that we explore the effectiveness of prominence and expert celebrity endorsement (and their interaction) in an online UGC setting. A better understanding of how these factors interact adds to extant theoretical frameworks on brand placement effectiveness, both online and offline. Moreover, the outcomes of the present research offer advertising practitioners concrete guidelines on how they can optimally integrate their brands in UGC placed on YouTube.

Another potentially influential factor that is not fully understood in a brand placement context is placement clutter. In traditional media, programs or movies often contain myriad placed brands. For example, Wouters & D
Pelsmacker [2011] conducted a content analysis of brand placements across 42 nights of prime-time television programming in the U.S. and Belgium. They found that, on average, viewers are exposed to 2.49 placements per half-hour. Even though this study is restricted to two countries and one medium, it demonstrates the ubiquity of brand placement and the potential of clutter effects. Advertising research in both online and offline media has shown that the density of advertisements (clutter) has a negative effect on the recognition of and the attitude towards advertised brands [Campbell & Wright 2008; Cho & Cheon 2004; Elliot & Speck 1998], but research in the context of (online) brand placement is currently lacking. Although a recent study by Pillai & Balasubramanian [2012] deals with the effects of repetition of placements for one brand, it does not explain how placements for different brands may impact brand placement effectiveness. Our second contribution is that we study how brand placement clutter (i.e., placement for different brands within the same scene) impacts consumers’ responses to placements in self-produced online videos posted on a UGC platform. We investigate how the more prominent placement of one focal brand influences the brand recognition and purchase intention of other, subtly placed, brands in the same video, and how this effect is moderated by the type of endorser. In addition, we distinguish between clutter effects for brands that are complementary to the test brand and for non-complementary brands. As far as we are aware, this is a novel feature in both traditional and online advertising clutter research. As such, our study contributes to a better understanding of clutter effects, both for brand placements in general, as for brands integrated in content on video-sharing websites in particular.

Our final contribution is that we add to the understanding of how the appreciation of the content (i.e., the video in which they are embedded) impacts consumer responses to placed brands. Researchers have emphasized the need for integrative frameworks that include both placement characteristics and perceptions of the content surrounding the placement [Balasubramanian et al. 2006]. Indeed, research in traditional media has shown that consumers’ responses to brand placements are contingent upon contextual factors such as the level of parasocial connectedness [e.g., Russell et al. 2004] and content liking [e.g., Cowley & Barron 2008]. Building on these studies, we examine the moderating role of viewers’ liking of the video on their responses to the brands appearing in the video.

In the following section, we develop hypotheses based on relevant celebrity endorsement and brand placement frameworks. We then discuss the results of an experimental study, in which prominence and celebrity endorser expertise were manipulated to create four versions of a video which was posted on YouTube. The paper concludes with implications for practitioners, limitations, and suggestions for further research.

2. Literature review and hypotheses
2.1. Effects of prominence and endorser expertise on brand recognition

One of the main factors shown to affect viewers’ recognition of placed brands is how prominently the brand is placed. As mentioned, prominence relates to how noticeably a brand is represented. Since the term was coined by Gupta & Lord [1998], researchers have operationalized prominence in different ways. Gupta & Lord [1998] judged the prominence of a placement based on the size of the brand identifier and its centrality in the screen. Alternatively, [Homer 2009] defines prominence in terms of the number of mentions and the duration on screen. A few studies attempt to integrate these different dimensions. For example, Dens et al. [2012] had two independent coders judge placements in movies on multiple facets of prominence (e.g., modality, time on screen, etc.). Regardless of how prominence is operationalized, studies generally find that brand recognition for prominent placements is higher than for subtle placements. The prominence of the exposure increases the accessibility (the degree to which information can be retrieved from memory) of the brand in viewers’ memory [Cowley & Barron 2008]. Brands that are more accessible should be more easily recognized. A study by d’Astous & Chartier [2000] demonstrated a significant positive effect of prominence on brand recognition of placements in movies, one week after exposure. Similar findings were reported for television placements [Law & Braun 2000]. However, both experiments were conducted in a laboratory setting and used short excerpts of movies and programs containing placements. This seriously limits their external and ecological validity. More recent research attempts to overcome this limitation. For example, Dens et al. [2012] performed a field experiment, examining placement in real movies viewed by actual moviegoers in movie theatres. Their study ecologically validates the positive effect of prominence on brand recognition.

The effect of prominence on brand recognition could be reinforced by a celebrity expert endorsement. In their content analysis on brand placement in hip-hop music videos, Burkhalter & Thornton [2012] showed that the vast majority (67%) of the analyzed placements were associated with a main character (i.e., the famous rapper). They argue that these celebrity rappers act as referent others to the hip-hop audience. As such, they are of special significance to the members of this audience, and capture more attention than an unknown character would. Previous studies on celebrity endorsement in advertising have shown that using a celebrity endorser can raise attention to the promoted brand, thus benefiting brand recognition [Kamins & Gupta 1994; Pervan & Martin 2002]. Moreover, in order for an endorsement to be successful, there must be a positively perceived match-up between the
celebrity endorser and the endorsed product or brand [Erdogan 1999]. Prior research on celebrity endorsement has identified endorser expertise as a crucial factor in determining match-up effects [Ohanian 1991]. The experiments of Till & Busler [2000] investigate the match-up effects of a range of endorser relevant traits, including physical attractiveness, trustworthiness and expertise of the endorser. They demonstrate that expertise is the most important driver of match-up effects. Schema congruity theory [Meyers-Levy & Tybout 1989] can explain this mechanism. A schema is a cognitive representation of associations and knowledge structures relating to the attributes of a certain stimulus. Schemas structure the process of encoding, retaining and retrieving information. They can influence cognitive perceptual activities by generating expectancy patterns [Misra & Beatty 1990]. People acquire person-relevant schemas for well-known celebrities over time, which represent cognitions about the celebrities’ traits and characteristics. When a celebrity endorses a brand or a product, his or her schema is implicitly compared to that of the endorsed brand or product. Schema congruity theory predicts that information that is congruent with existing schemas is more easily remembered [Meyers-Levy & Tybout 1989]. If a celebrity possesses expertise on the domain of the endorsed brand or product, congruity between their schemas is likely to benefit information processing [Misra & Beatty 1990]. Although most existing studies on the effects of celebrity endorsement are situated in print or television advertising, these underlying psychological mechanisms should also apply to brands placed by a celebrity expert in a UGC video. Therefore, we expect the effects of prominence and celebrity expert endorsement to reinforce each other:

**H1**: Brand recognition will be higher for a brand that is both prominently integrated in combination with a celebrity expert endorser, than a brand that is either subtly placed by a celebrity endorser or prominently or subtly placed by an amateur endorser.

### 2.2. Effects of brand clutter on brand recognition

The present study also investigates consumer responses to multiple brands included in the same video. First, we study how prominence and expert endorsement impact brand recognition for a complementary product (i.e., a product that explicitly goes with the manipulated brand and is used together with the manipulated brand in the video). Associative network theory describes human memory as a network of individual, interconnected nodes that activate each other in relevant contexts [Teichert & Schöntag 2010]. Brand knowledge can be conceptualized as a node in memory, to which various associations are linked. For example, a node can represent a brand (e.g., Coca-Cola), a product (soft drink) or an attribute (tasty) [Krishnan 1996]. An activation spreading process from node to node determines the extent of retrieval in memory [Keller 1993]. Consequently, the activation of information that is associated with a cue (e.g., a brand) can facilitate the processing, storage and retrieval of similar information that is also associated with that cue (e.g., a complementary brand or product). Although connectionist memory models have mainly been studied in the context of portfolio branding strategies [Meyvis & Janiszewski 2004], the fundamental psychological workings of associative network theory can be extended to similar contexts. More specifically, we expect a brand placement for a product to activate a network of associations around that brand, facilitating the storage and retrieval of information for a complementary brand. This mechanism might particularly apply to prominent brand placements. As shown by Gupta & Lord [1998] in a movie setting, prominent placements are likely to attract viewers’ attention to the brand, making the brand more accessible than it would be if it were placed more subtly. Therefore, we expect that endorsing a product prominently should activate a network of meaningful associations around the endorsed product better than a subtle integration, facilitating the processing of linked stimuli. If the prominent endorsement of one brand is combined with the (subtle) appearance of a complementary brand (i.e., a product that is in the associative network of the prominently placed product), associative network theory predicts that this brand also becomes more accessible in memory, resulting in better recognition of the complementary brand. In turn, we expect this effect to be stronger when a celebrity expert executes the prominent endorsement, as opposed to an amateur. An endorser who is known for his expertise in a certain product category can also be considered as a node in the associative network of the prominently endorsed brand [Sattler et al. 2012; Teichert & Schöntag 2010]. Previous research by Keller [1993] has demonstrated that brand memory becomes stronger as the number of activated nodes in a brand’s associative network increases. As an additional activated node, the expert endorser might thus be a factor that facilitates processing of a complementary brand. Following this reasoning, we propose the following hypothesis:

**H2**: Compared to a subtle integration, a prominent integration of a brand results in higher recognition for a complementary brand. This effect is stronger when a celebrity expert is used than when an amateur is used.

Second, we also study how the prominent endorsement of one brand impacts recognition for non-complementary brands (other brand appearing in the video, which are not directly related to the focal brand). Williams et al. [2011] note that the effect of brand placements on recognition is likely impacted by how much other products are placed in the same program. This reasoning is consistent with studies in traditional advertising which generally report a negative effect of advertising clutter on brand recognition [Ha & McCann 2008]. In a large scale
study on the effects of perceived ad clutter in several offline media (i.e., television, radio, magazines, newspapers, direct mail and the Yellow Pages), using longitudinal panel data from four years of Super Bowl broadcasts, Jeong et al. [2011] established that the number of ads during the commercial break has a negative effect on the recall and recognition of each individual brand. Ha & McCann [2008] propose that the negative effects of ad clutter should also arise in an online context. Theoretically, the negative effect of advertising clutter is explained through an information processing perspective. Consumers’ cognitive capacity to process information is limited [Campbell & Kirmani 2000]. Studies have demonstrated that exposing consumers to multiple advertisements limits the mental resources dedicated to the processing of each individual ad, which results in lower advertising recognition [e.g., Brown & Rothschild 1993; Webb 1979]. On the other hand, in the context of a brand placement, prominence may lead to increased processing [Campbell 1995]. In light of the Persuasion Knowledge Model (PKM) [Friestad & Wright 1994], viewers might start wondering about the reasons for the integration. The more prominent a brand integration, the more likely it activates persuasion knowledge, so that viewers are likely to consider the appropriateness of the integration in light of its manipulative intent [Cowley & Barron 2008]. If this is the case, viewers are expected to scrutinize the content more for persuasion attempts by other brands [Friestad & Wright 1994]. This might cause an increase in recognition for these other brands. However, we found no studies that empirically validate these claims. The moderating role that a celebrity expert endorser can play, is also unclear. As argued before, having a celebrity expert execute the prominent endorsement should raise attention and cause better recognition for placed brands, and this is likely to occur for all brands placed [Kamins & Gupta 1994; Till & Busler 2000]. On the other hand, the fact that the celebrity endorser uses one particular brand may attract the attention away from other, more subtly endorsed brands that are not related to the focal brand [Sattler et al. 2012]. Hence, we posit the following research question:

RQ1: In comparison to a subtle integration, does integrating one particular brand prominently have an effect on the recognition of other non-complementary (subtly integrated) brands in the same video, and is this different when the integration is executed by a celebrity expert or an amateur?

2.3. Effects of prominence and endorsement expertise on purchase intention

Brand placement research in traditional media indicates that, despite its positive effect on memory, prominence may have a negative impact on the attitude toward and purchase intention of the placed brand [Van Reijmersdal 2009]. A laboratory study on undergraduate students by Law & Braun [2000] demonstrates that highly prominent placements have a negative effect on attitudes toward the placed brand, especially for brands that are not well integrated into the scene. In a more recent study, Cowley & Barron [2008] exposed a sample of 215 undergraduate students to manipulated episodes of a television sitcom In a 2x2x2 full factorial experiment, they divided these respondents according to their liking of the program (low; high), the prominence of the placement they were exposed to (prominent; subtle) and whether or not they received a prime to tell them of the presence of a brand placement in the program. They found that prominence has a negative effect on the attitude toward the placed brand for people who like the program a lot. In line with the Persuasion Knowledge Model [Friestad & Wright 1994], if a placement is processed more thoroughly, people might question the motives behind the brand’s presence. Consequently, a prominent placement is more likely to activate persuasion knowledge and be perceived as intrusive, causing irritation and counter arguing, which should negatively impact the intention to purchase the placed brand [Cowley & Barron 2008; Friestad & Wright 1994].

The context of online video-sharing websites might, however, prevent persuasion knowledge from kicking in when an “average Joe” happens to include a brand in his video. Most content on video-sharing websites is (perceived to be) produced or posted by Internet users, not by marketing professionals. This type of endorsement would just be considered positive word-of-mouth, regardless of the prominence of the placement. Hence, if an amateur endorses the positive brand, we expect no difference between the response to subtle or prominent endorsement on behalf of the viewers of the video, since no persuasive attempt behind the use of the brand would be suspected.

Traditional advertising literature suggests that people respond favorably to celebrity expert endorsers, compared to non-celebrities and especially non-experts, because they view the former as more authoritative and reliable sources of information [Cialdini 2001; Till & Busler 2000]. When a celebrity expert executes a prominent endorsement in a video on an online video-sharing platform, this can be seen as a very explicit and open brand endorsement by the celebrity. Here, the explicit endorsement by the celebrity expert should benefit the purchase intention of the endorsed brand, similar to traditional celebrity endorsement in advertising. However, when a celebrity in a video on a video-sharing platform exercises subtle brand endorsements, this might be perceived as intrusive or deliberately ‘hidden’ and trigger negative reactions caused by persuasion knowledge, which in turn can harm the purchase intention of the promoted brand. The potential positive effect of a subtle endorsement found in traditional mass media is likely not to occur in UGC videos, in which a subtle endorsement by a celebrity expert might rather trigger negative effects because of heightened persuasion knowledge.
**H3:** In case a brand is integrated by an amateur endorser, a prominent or subtle integration does not lead to a difference in purchase intention. In case a brand is integrated by a celebrity expert endorser, a subtly integrated brand leads to a lower purchase intention than a brand that is prominently integrated.

2.4. The moderating impact of video liking

Nowadays, authors are strongly emphasizing the need for research on the impact of perceptions relating to the context surrounding the brand placement [Chin et al. 2013]. One of the factors shown to influence consumer responses to brands integrated in traditional media, is program liking. For example, Cowley and Barron [2008] demonstrated that viewers who like a television program a lot reacted more negatively to prominent brand placements than users with low levels of program liking. High program likers find the prominent placement more disruptive of their viewing pleasure than low program likers. In line with these findings in traditional media, we consider the liking of the UGC video as a potential moderator for consumer responses to brands appearing in the online video. However, in a user-generated content context, we expect this effect to play in line with the previous hypothesis. In hypothesis 3, it was expected that subtly integrated brands endorsed by famous celebrities lead to more negative purchase intention than prominently integrated ones. Viewers who like the video a lot may express more extreme negative reactions to a subtle – as opposed to a prominent – brand integration by a celebrity than viewers who like the video less, because the perception of manipulation and dishonesty may disturb the viewing pleasure more and thus trigger more negative responses for the former than for the latter. Therefore, we expect the hypothesized effect in H3 to be stronger for viewers with high levels of video liking, as opposed to people with low levels of video liking:

**H4:** The negative effect on purchase intention of a subtle, as compared to a prominent integration by a celebrity expert, will be stronger for people with high levels of video liking, than for people with low levels of video liking.

3. Method

3.1. Design and procedure

A 2 (prominent vs. subtle endorsement of focal brand) x 2 (celebrity expert vs. amateur endorser) full-factorial between-subjects experimental design was set up. The authors shot 4 versions of a cooking tutorial in which the actor explains how to bake a pancake. The 4 videos were identical in script, duration (i.e., 2 minutes and 9 seconds) and integrated brands. They only differed according to the intended manipulations. Expertise was manipulated by using two different endorsers, a celebrity expert and an unknown amateur. The celebrity expert endorser is a national celebrity who has interpreted many roles in Belgian television shows and movie productions. He also presents one of Belgium’s foremost cooking shows in which he travels around the world to familiarize himself with the local cuisine in order to prepare his own version of a local dish. He was willing to participate by acting out the cooking tutorial script. The amateur endorser was a student who acted out the same script. Each endorser appeared in two videos, one in which a focal brand was integrated prominently and one in which it was integrated subtly. The focal brand the prominence of which was manipulated is Solo, a leading Belgian brand of margarine. Prominence was manipulated by having the endorser explicitly pronounce the focal brand name (“Solo”) whilst using the product (i.e., the branded pack of margarine). Simultaneously, a 2-second close-up was taken, placing the product centrally on screen. This operationalization incorporates several dimensions of prominence that have been addressed in prior research, namely: the size, position and duration of the product on the screen [e.g., Auty & Lewis 2004; Gupta & Lord 1998; Lehu & Bressoud 2008; Russell 1998], and a verbal mention of the brand name [e.g., Bressoud et al. 2010; Russell 1998]. Contrarily, in the subtle integration condition, the endorser merely used the product (while the brand logo was visible), without mentioning the brand name or without a product close-up shot. Four other brands were subtly and visually incorporated in the videos: Coca-Cola (soft drink, on a table next to the furnace where the action takes place), Inza (milk, flagon standing on a table next to the furnace), Tiense Suiker (sugar, pack standing on a table next to the furnace) and Tefal (frying pan, used to cook the pancake). The frying pan was used together with the focal brand (margarine), since the cook puts the margarine in the pan. These other brands were integrated in the same way in all four videos (thus, the prominence of these brands was not manipulated or affected by the prominence manipulation of the focal brand or by the endorser).

The four versions of the videos were posted on YouTube. Even though the study is limited to only one platform, YouTube is one of the major platforms for UGC, and therefore a highly relevant context.

3.2. Sample

The videos were posted on YouTube and embedded in an online survey. We emailed the link to our online questionnaire to all students from a major Belgian university who were enrolled in the Business Economics program, with a request to participate in the study and to forward the message to others. No information on the nature of the study was disclosed in the email. Respondents were randomly assigned to one of the four conditions. The respondents could watch the video for as long as they wanted. We provided a time frame of 3 weeks to collect
responses. To ensure that respondents in the ‘celebrity expert’ conditions were familiar with the celebrity expert, we asked them to write down his name. We then deleted respondents who could not correctly identify the celebrity expert endorser (n = 2). Similarly, we asked respondents in the ‘amateur’ conditions to write down the name of the amateur endorser. Respondents who happened to know the amateur endorser were excluded from the dataset (n = 26). This yielded a total usable sample of 259 respondents, approximately equally divided across conditions (cell sizes = 57-70). Respondents’ age ranged between 15 and 79, with a mean age of 28 (only 1 respondent was under 18). 41.9% of respondents were male, 58.1% were female. Table 1 gives an overview of the sample profile in terms of age and gender.

Table 1: Overview of the sample profile across gender and age.

<table>
<thead>
<tr>
<th>Age category</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>-21yrs</td>
<td>21 (25.3%)</td>
<td>32 (27.8%)</td>
<td>53 (26.8%)</td>
</tr>
<tr>
<td>21 – 30 yrs</td>
<td>44 (53.0%)</td>
<td>54 (47.0%)</td>
<td>98 (49.5%)</td>
</tr>
<tr>
<td>31 – 50 yrs</td>
<td>6 (7.2%)</td>
<td>20 (17.4%)</td>
<td>26 (13.1%)</td>
</tr>
<tr>
<td>+50 yrs</td>
<td>12 (14.5%)</td>
<td>9 (7.8%)</td>
<td>21 (10.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>83 (100%)</td>
<td>115 (100%)</td>
<td>198 (100%)</td>
</tr>
</tbody>
</table>

Note: 61 respondents did not provide information on their age and gender

3.3. Measures

Respondents’ video liking was measured on a five-item seven-point Likert scale, containing one reverse scaled item to check the seriousness of the respondents and acquiescence bias (’I enjoyed the video’, ‘I regret having watched the video’ (reversed), ‘I’m happy I saw the video’, ‘I would look at the video again’ and ‘I liked the concept of the video’, \( \alpha = .918 \)). Brand recognition was measured by asking respondents to indicate which brands they recognized from the video from a list of 11 brands (i.e., the 6 placed brands and 5 filler brands). When respondents correctly recognized a brand in the video, this was coded as “1”. If the brand was not recognized, this was coded as “0”. Respondents then reported their purchase intention (PI) (3 items, ‘I’m curious to try out ___’, ‘I’m going to test ___’ and ‘I intend to buy___’ (\( \alpha = .828 \))) for each of the six brands that were placed in the video on seven-point Likert scales.

4. Results

4.1. Validity checks

Because of its accessibility and the lack of substantial sampling frames, online research is prone to self-selection bias [Kraut et al. 2004]. One way to control for this bias is to check whether the respondents’ demographical profile, or other potentially influential variables, cause significant variance in the study outcomes [Steyer et al. 2000]. To control for self-selection bias, we test whether the respondents’ age and gender impacts brand recognition, video liking and purchase intention. Chi-square analysis show that the respondents’ age is not related to brand recognition (\( \chi^2 (3) = 4.979, p = .173 \), and One-Way ANOVA analyses show that age impacts neither video liking (\( F(3, 198) = 1.938, p = .125 \)), nor purchase intention (\( F(3, 198) = .920, p = .432 \)). Similarly, independent samples t-tests indicate that the respondents’ gender does not impact video liking (\( t(196) = .236, p = .814 \)) or purchase intention (\( t(196) = .919, p = .359 \)) for the test brand. We do find that female respondents display significantly better brand recognition for the test brand (91.3%) than male respondents (80.5%, \( \chi^2 (1) = 4.889, p = .027 \)). This can likely be attributed to the use of a test brand that is specifically targeted at women, rather than to self-selection bias.

4.2. Effects of prominence and celebrity expert endorsement on brand recognition

Differences in brand recognition between the different conditions were analyzed using chi-square tests (Figure 1). While prominence exerts a significant positive effect on the recognition of the manipulated brand Solo (80.4% vs. 93.9%, \( \chi^2 (1) = 10.366, p = .001 \)), the presence of a celebrity expert endorser has no significant effect on brand recognition for Solo (87.9% vs. 87.5%, \( \chi^2 (1) = .009, p = .924 \)). As expected in hypothesis 1, the highest level of brand recognition is achieved when the focal brand is prominently integrated by a celebrity expert endorser (95.5%).
A Z-test for proportions indicates that, although in the expected direction, the difference between a prominent integration by a celebrity expert and a prominent integration by an amateur (92.3%, $Z = -1.042, p = .297$) is not significant. Another Z-test for proportions shows that a prominent integration by a celebrity expert produces higher recognition than a subtle endorsement by an amateur (83.1%, $Z = 2.284, p = .022$). Hypothesis 1 is partly supported.

We conducted chi-square analyses to test the effects of celebrity expert endorsement and prominence of the Solo brand on recognition of the complementary brand (Tefal). Tefal and Solo are complimentary brands because in the video, the Solo margarine explicitly goes into the Tefal frying pan. The prominent integration of Solo also significantly boosts brand recognition of Tefal (50.7%), compared to a subtle placement of Solo (14.3%, $\chi^2 (1) = 38.052, p < .001$). The celebrity expert endorsement has no significant impact on the recognition of Tefal (32.6% vs. 35.4%, $\chi^2 (1) = .236, p = .627$). In contrast to what we expected, a celebrity expert endorser does not reinforce the effect of prominence on recognition of the complementary brand. As shown in Figure 2, a prominent integration of Solo yields a significantly higher recognition of Tefal, both when the placement is executed by the celebrity expert (19.3% vs. 48.6%, $\chi^2 (1) = 11.768, p = .001$) and the amateur endorser (9.7% vs. 52.9%, $\chi^2 (1) = 38.052, p < .001$). These findings partly support hypothesis 2.
In response to RQ1, chi-square cross-tabulation analyses show that neither celebrity expert endorsement, nor prominence of the Solo brand have a significant impact on brand recognition for any of the other – non-complementary – brands that appeared in the video. Brand recognition ranged between 37.1% and 83.9%. The outcomes of the analyses are summarized in Figure 3.
4.3. Effects of prominence and celebrity expert endorsement on purchase intention

We ran a 2 (prominence) x 2 (endorser) x 2 (video liking) full-factorial ANOVA with purchase intention of Solo as the dependent variable. We median-split video liking into a binary factor (median = 3.64). The results show no significant main effects of prominence ($F(1, 226) = 2.59, p = .109$) or celebrity expert endorsement ($F(1, 226) = 2.02, p = .157$), and a significant main effect of video liking ($F(1, 226) = 19.21, p < .001$) on purchase intention of Solo. The two-way interaction-effects between prominence and celebrity expert endorsement ($F(1, 226) = 2.44, p = .120$), prominence and video liking ($F(1, 226) = .20, p = .657$) and prominence and celebrity expert endorsement ($F(1, 226) = .09, p = .768$) shown in Figure 4 are not significant. H3 is not supported.

![Figure 4: Prominence x endorser interaction - Purchase intention of focal brand (Solo).](image)

The three-way interaction effect between prominence, celebrity expert endorsement and video liking is also insignificant ($F(1, 226) = .03, p = .854$). Simple effects tests, however, indicate that the effect posited in H3 is marginally significant (Figure 5). High video likers respond marginally significantly more negatively to a subtle integration by a celebrity expert ($M = 2.42$) than to a prominent integration by the celebrity expert ($M = 3.04, F = 3.43, p = .066$). For viewers with low levels of video liking, the difference between the prominent ($M = 2.18$) and subtle integration ($M = 1.77$) by the celebrity expert is not significant ($F(1, 226) = 1.55, p = .214$). These findings support hypothesis 4 (see Figure 5).
5. Discussion

The present study explores a new field in marketing communications research, namely the effect of brand integrations in online video-sharing website content as a form of brand placement. We examine how both prominence and celebrity expert vs. amateur endorsement influence consumer responses to multiple brands placed in a YouTube video. The study contributes to both the literature on brand placement effectiveness and the literature on advertising through UGC in a number of ways. First, we extend existing theories on the effectiveness of brand placement prominence to a new advertising vehicle that has not been studied before: UGC. Second, as far as we are aware of, we are the first study to directly examine the effectiveness of celebrity expert endorsement within the
context of brand placement. Moreover, we demonstrate how the specificities of the UGC setting impact consumers’ responses to brands placed by a celebrity expert. As such, we broaden the scientific understanding of how celebrity endorsement and placement prominence work across various contexts. Lastly, the present research demonstrates how brand placement clutter impacts consumer responses to complementary versus non-complementary brands. Consequently, our results allow academics and practitioners who are interested in brand placement to gauge the potential of this technique in online videos, posted on UGC platforms.

We found that prominently integrated brands are more likely recognized than subtly integrated brands. Similar findings arise from prior studies conducted in traditional media. For instance, Dens et al. [2012] also found that prominent placements in feature films cause higher brand recognition than subtle placements. The same effect occurs in studies that examine the effect of prominence on recognition of brands placed in television programs [Cowley & Barron 2008]. Our results confirm that prominent placement increases the accessibility of the brand in memory, making it easier to recognize than a subtle placement. Following the findings of studies from celebrity endorsement in print and television ads [Amos et al. 2008] and based on schema congruity theory, we expected that using a celebrity expert endorser would attract additional attention and reinforce the effect of prominence on brand recognition. Contrary to our expectations, this effect is only marginally reinforced by the combination with a celebrity expert endorser. Integrating a brand prominently likely exerts a ceiling effect on brand recognition, which leaves no space for other factors to further enhance recognition. The very high recognition levels of the prominently integrated brand (i.e., 93.4% without celebrity expert endorsement) illustrate this effect. As compared to a subtle integration, a prominent integration of the focal brand Solo also produced higher recognition of Tefal, a complementary brand that was subtly integrated in all videos. This did not apply to non-complementary brands (Coca-Cola, Inza and Tiense Suiker). These findings confirm predictions based on associative network theory [Teichert & Schöntag 2010]. Prominently integrating the focal branded product activates a network of associations around this product. As the complementary product is strongly linked to the focal product, it is likely a node in its associative network. When this node is activated, this facilitates the processing and storage of related information, such as exposure to a brand name. Notwithstanding the value of these findings, we must note that the prominence level of only one brand was manipulated. Placing the complimentary brand and non-complementary brands more noticeably may alter the outcomes. Our findings are of importance to the development of a better theoretical understanding of advertising clutter. Considering the omnipresence of advertising in both traditional and new digital media content, there is surprisingly little research on advertising clutter effects. From the perspective of associative network theory, we show that it is important to consider the complementarity between brands that appear in the same message. Extant studies explain clutter effects from the limited capacity model of human memory [Campbell & Kirmani 2000; Cho & Cheon 2004; Ha & McCann 2008]. Although this theory provides useful insights on the cognitive limitations of human information processing capabilities, it needs to be supplemented with a component that accounts for the mechanics of our memory. In this sense, the present study makes a strong case for the more widespread use of associative network theory in advertising clutter research, and advertising research in general. Apart from gaining a more in-depth understanding of brand placement clutter effects, as demonstrated in the present study, researchers could attempt to apply this framework to other contemporary advertising phenomena. For example, future studies could investigate the impact of contextual activation of brand-relevant associative networks on brand recall and purchase intention.

With respect to purchase intention, we found that in a video-sharing website context, people respond more negatively to a subtle integration executed by a celebrity expert endorser than to a prominent integration by a celebrity expert. These findings confirm our expectations derived from the Persuasion Knowledge Model [Friestad & Wright 1994]. We expected that a combination of subtle placement and celebrity expert endorsement would, compared to the other experimental conditions, generate the highest resistance to the commercial endorsement. UGC videos generally show everyday people who are not widely known celebrities. The presence of a celebrity expert may raise suspicion. In case of a prominent placement, this suspicion may not lead to reactance, because people see it as an overt and honest brand endorsement. However, the covert nature of a subtle placement performed by the celebrity may drive people to thinking that the endorsement is sly and manipulative. It is under these conditions that consumers’ persuasion knowledge is most likely activated. As argued by Cowley & Barron [2008] this activation can result in negative counter-arguing on behalf of the persuasive episode, which can negatively reflect on consumers’ brand responses. The study of Hsieh et al. [2012] also confirms this. They found that the level of perceived persuasive intent negatively impacted consumers’ brand attitudes toward a beer brand that was promoted in an online video.

It is important to stress the theoretical implications of these findings as they suggest that the PKM should be interpreted differently when applied to brand placement in UGC, as opposed to brand placement in traditional media. Celebrities are ubiquitous in traditional entertainment formats such as movies, television fiction or music
videos, in which they tend to play a central role. But a celebrity expert playing an active and central role in a UGC message can raise suspicion towards the goal of that message. When the focal brand is placed prominently, no attempt is made to conceal the commercial intent of the message. In this situation the prominence of the placement is a sign of transparency and openness on behalf of the advertiser and the celebrity endorser (persuasive agent), while a subtle integration can be viewed as a covert attempt to persuade. As shown by research in traditional media, it is this perceived lack of transparency on behalf of the advertiser that can raise consumer skepticism, resulting in negative reactance toward the message [Cowley & Barron 2008]. Researchers interested in exploring how the PKM operates in new digital media should be aware of the fact that its mechanics should be reconsidered in function of the medium at hand.

On a related note, researchers could also explore the use of messages that disclose the commercial intent of a UGC post. Recent research on the application of techniques to disclose the use of brand placement in television shows indicates that such messages activate consumers’ persuasion knowledge [Boerman et al. 2013]. As predicted by the PKM, this triggers them to scrutinize the integration of commercial content more closely. If the outcome of their scrutiny is negative, this is likely to reflect negatively on their attitude toward the placed brand. In a television and movie setting, this is especially the case for prominently placed brands [Cowley & Barron 2008; Dens et al. 2012]. As discussed above, this mechanism is different for UGC. In light of our findings, it would be interesting to investigate how disclosing brand placement in UGC would impact brand responses.

It should also be noted that, on average, purchase intention was equally high when an amateur or a celebrity expert endorser was used. This particular result disagrees with findings from celebrity endorsement literature that demonstrate the positive impact of associating a brand with a well-fitting endorser [Till & Busler 2000]. It has been shown that celebrities are of special significance to consumers [Thomson 2006], and that the transfer of their particular meanings and associations to the endorsed brand can increase advertising effectiveness in terms of both recognition and purchase intention [Misra & Beatty 1990]. This principle, however, does not necessarily apply in a UGC setting. As consumers are used to amateurs appearing in online user-generated videos, there seems to be a positive effect of word-of-mouth by these amateurs, regardless of the prominence of the integration. Amateurs using brands prominently or subtly, do not seem to trigger different responses, as they are probably not considered as ‘promotion’ of the brand, given the nature of most videos on YouTube. When a celebrity expert appears in such a video, this may trigger viewers’ persuasion knowledge [Friestad & Wright 1994]. Users of video-sharing websites are likely to be wary of celebrities appearing in YouTube content. A prominent integration executed by a celebrity expert may be perceived less as a hidden persuasive attempt, and may benefit from the celebrity endorsement, as traditional advertising theory would suggest. However, when this celebrity expert endorses the brand subtly, this may be viewed as manipulative, especially in the context of a user-generated content platform, trigger persuasion knowledge and lead to feelings of being unfairly manipulated, resulting in lower purchase intention. Although this reasoning may pertain to celebrity expert versus amateur endorsements in video-sharing website content, we should be careful in generalizing it to other UGC formats. In order to gain a more comprehensive insight into the effectiveness of hybrid advertising techniques in UGC, researchers who wish to further examine this subject should include more platforms such as Facebook, Vimeo and different types of special interest social networks and blogs. Researchers can also explore the effects of such integrations in videos posted on specialized channels (e.g., YouTube channels dedicated to cooking) within video-sharing websites.

We found the negative effect of subtle placement by a celebrity expert to be stronger with viewers who liked the video a lot than with participants who liked the video less. This moderating effect is to a certain extent similar to what Cowley & Barron [2008] found with respect to liking for a television program. In this study, program likers appear to react more negatively to prominent integration than people who like the program less, because the former consider prominent integration more disruptive and unpleasant than the latter. Similarly, the present study shows that people who like the video a lot react significantly more negatively to brands that are subtly integrated by celebrities instead of prominently and overt, while viewers who do not like the video so much do not exhibit such a difference. Probably the fundamental mechanism is similar as in brand placement on television or in movies: when you like a video a lot, the perception of being manipulated by a celebrity brand endorsement on a user-generated content platform is more disruptive, disturbing and unpleasant than when you do not like the video so much.

Further research should focus on the effects of other potentially influential variables such as product involvement and relevant consumer characteristics. Involvement with the content or with the product category might be important to determine how users process information. As such, it could also influence recognition for the brand and attitude formation. The present study includes video liking as a relevant consumer characteristic. Yet, future studies should also measure other important factors, such as the attitude towards the endorser, consumers’ internet usage, attitude towards the platform, etc. Future research should try to develop a comprehensive framework for studying brand placement in an online context, as current frameworks are grafted on traditional audiovisual media.
Such a framework should also incorporate a measure of the eWOM intention to examine how video and placement characteristics impact spreading of the message.

A potentially limiting factor of the present study is our convenience sample which mainly consists of undergraduate university students. Although this implies that we cannot generalize our findings across the entire spectrum of video-sharing website users, our sample constitutes a relevant segment of these consumers. Finally, it would be relevant to replicate the study on different platforms, with different brands from product categories and in varying content and with respondents from different countries. For example, [Khalbous et al. 2013] found that attitudes toward product placements differ between countries, even within Europe.

6. Managerial implications

First, it should be noted that brands that appear in YouTube videos are well noticed by viewers, even if the inclusion is only subtle. The results also show that when users post their own videos including a brand, this can benefit the purchase intention of the brand. Marketers could try to motivate consumers to include their brands in a video post (e.g., through a contest) to benefit brand awareness and purchase intention. It is interesting to see that it is not even necessary that the brand features prominently in the video, as this neither enhances brand recognition nor purchase intention.

Marketers are increasingly turning to social network sites to promote their brands, products and services and to influence electronic word-of-mouth (eWOM) [van Noort et al. 2012]. The investment in online video website advertising amounted up to $1.5 billion in 2010, and is forecasted to grow 43.4% in 2012, making it the fastest growing branch in online advertising [eMarketer 2010]. Marketers are also increasingly producing their own videos to post as content on these websites. When advertisers are interested in boosting brand recognition through online advertising, brand placement in video-sharing website content is definitely an option worth considering. Although using a celebrity expert endorser has been shown to boost awareness and brand recognition for the endorsed brand in traditional advertising [Erdogan 1999], our results show that this is not necessarily the case in the context of video-sharing websites. Thus, paying a celebrity expert to appear in these videos might be an unnecessary investment. Celebrity experts also don’t enhance purchase intention of a brand over amateurs. In this type of videos, viewers generally enjoy seeing people “like them”. In addition, the effect of word-of-mouth by a peer in such a video is often considered more credible than from a producer and perhaps from a celebrity, resulting in a higher intention to purchase the product. If marketers do decide to employ celebrity endorsers, the best option would be to have the endorser perform a prominent integration, as this increases the purchase intention of the endorsed brand compared to a subtle celebrity expert integration.

In addition, this study shows that the prominent integration of one brand can benefit the recognition of other, complementary brands, but does not impact the recognition of non-complementary brands. If marketers own a portfolio of different brands or products (e.g., line extensions), they should consider combining a prominently integrated brand with the subtle integration of a complementary product as this produces favorable effects not only on the prominently integrated brand, but also on the complementary product.

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REFERENCES


Appendix A. Questionnaire

1. Are you familiar with the person in the video? (yes/no)
2. Please write down the name of the person in the video.
3. Indicate on the scale below to what extent you agree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Totally disagree</th>
<th>Disagree</th>
<th>Rather disagree</th>
<th>Neither agree nor disagree</th>
<th>Rather agree</th>
<th>Agree</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoyed this video.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I regret having seen this video. (reversed item)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I'm happy that I saw this video.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I would like to see the video again.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The concept of the video was interesting.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

4. Below is a list of brands, please indicate which brands appeared in the video. (Brand recognition)
   - Yoplait
   - Tefal
   - Siemens
   - Fama
   - Solo
   - Tiense Suiker
   - Whirlpool
   - Candico
   - 3M
   - Coca-Cola
   - Inza

5. Indicate on the scale below to which extent you agree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Totally disagree</th>
<th>Disagree</th>
<th>Rather disagree</th>
<th>Neither agree nor disagree</th>
<th>Rather agree</th>
<th>Agree</th>
<th>Totally agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>After having seen the video, I’m curious to try out ‘Solo’.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I intend to try out ‘Solo’.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I intend to purchase ‘Solo’.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

6. Indicate your gender below:
   a. Male
   b. Female

7. Please fill in your age in years.