Neuromarketing in Entertainment Media:

To what extent does brand placement in the form of product placement and auditory support in film significantly influence brand affiliation?

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ABSTRACT

The emergence of digital streaming services has facilitated the ubiquity of film as an entertainment medium. This development pushes brands to consider more innovative subliminal branding and marketing strategies to target consumers on subconsciously. Past studies have investigated different types of brand placement as subliminal advertising techniques used to target consumers in a non-commercial setting. This type of neuromarketing has been researched with respect to brand resonance, measuring brand or product memory. This paper, however, means to investigate the affective cognitive connections developed towards a brand following brand placement exposure. The current study looks at two types of brand placement as subliminal advertising techniques and its influence on brand affiliation. The formulated research question "to what extent does brand placement in the form of product placement and auditory support in film significantly influence brand affiliation?" was investigated using a two-by-three factorial between-subjects design. More specifically, product placement and auditory support were measured on two and three levels, respectively. A total of six experimental manipulations were developed, and respondents were exposed to one of the six conditions at random. Findings showed that the subtle product placement in combination with neutral auditory support influenced brand affiliation more strongly than the other conditions. However, when critically assessing the data, there showed to be slight nuances which implicated the study in drawing definitive conclusions based on the field research. Theoretical background provides support for the significance of product placement and auditory support as predictors of brand resonance as opposed to brand affiliation. The current study was able to conclude that subtle product placement in combination with neutral auditory support is significant in predicting brand affiliation. Despite this, theoretical implications surrounding the reliability of the current study are addressed and mitigated in the discussion. Due to the complexity of measuring the affective state brand affiliation, future research is recommended to implement a longitudinal design and make use of a control group.

Keywords: Neuromarketing, entertainment media, product placement, auditory support, brand affiliation

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Table of Contents

Chapter 1: Introduction

Past academic research has questioned and pursued the field of subliminal advertising with respect to the influence of subconscious stimuli (Theus, 1994; Cruz, 2016). Such work focussed on the psychological, physiological, and behavioural differences in individuals' responses post-exposure to subconscious stimuli (Theus, 1994). The influence of subliminal and implicit marketing has been studied in varying contexts, however, there is increasing interest in the field of entertainment media. Over the past decades, entertainment media has become widely accessible and ubiquitous, as it is available all over the world (Tefertiller, & Sheehan, 2019; Hadida et al., 2020). Past research has studied subliminal advertising in non-commercial settings and found that implicit stimuli successfully guide individuals' behaviour and choices (Swart, & Morgan, 1992; Varon, 2019). The current study aims to build on this as it takes into consideration the influence of subliminal advertising and its potency to alter more complex behaviors such as emotional affect.

1.1 Problem statement

Over the last decades, society has experienced a drastic shift in the presence of advertisements in everyday life (Okazaki et al., 2012). The digitalization of media has transformed advertising into a ubiquitous form of communication with the power to cumulatively and subliminally influence consumers (Okazaki et al, 2012). Its omnipresence entails that advertisements are all around us, and despite not paying full attention to them, they leave a mark and subconsciously guide us (Moore, 1982). Diaz and Muriel (2008) write that "advertising has more consequences than just the sale itself" (p.192). Such consequences illuminate the intended and unintended effects of advertising, including the development of emotional connections to a brand (Matukin et al, 2016). Traditional above the line marketing strategies have diminished in their ability to influence consumers, in specific, the younger demographic. Therefore, businesses choose to subliminally and creatively market their brand in non-commercial settings. However, with the universality of entertainment media, consumers, especially younger consumers, have become numb and desensitized to standard marketing techniques. The unparalleled amount of exposure to

advertisements, be it explicit or implicit, has influenced the younger generation to become more and more difficult to target. This has made it increasingly difficult for brands to communicate their product successfully. To research this, scholars have investigated brand placement in the form of visual and auditory brand placement, and their influence on brand recall (Russell, 2002; Avramova et al., 2021). The current study aims to explore new depths of visual and auditory brand placement and study the influence on brand affiliation, a complex emotional cognitive state. The levels through which product placement and auditory support will be studied are based upon extensive research on past studies and literature and will be further explained in section 3.1.

1.1.1 Scientific relevance

Past studies have researched brand placement in the form of product placement and auditory support in film (Gupta & Lord, 1998; D'Astous & Chartier, 2000; Yang & Roskos-Ewoldsen, 2007; Bressoud et al., 2010). However, such studies investigated product placement and auditory support in terms of brand resonance or brand recall and considered it a viewers' ability to recall a brand post-exposure of the subliminal stimuli (Gupta & Lord, 1998; D'Astous & Chartier, 2000; Yang & Roskos-Ewoldsen, 2007; Bressoud et al., 2010). Other research has argued against studying brand resonance as it superficially and inaccurately measures viewers' authentic reactions and evaluation of a brand (Bloxham, 1998). Moreover, past research focused their research on dichotomous variables such as brand resonance and brand recall (Babin & Carder, 1996). The current study aims to explore new depths of the influence of brand placement by investigating the influence of subliminal brand placement on brand affiliation rather than brand resonance or recall. Brand affiliation is a much more complex variable to measure as it is formed through intricate emotional and cognitive processing (Keller, 2008). The aforementioned supports the notion that there seems to be a gap in academic literature when measuring psychological affect towards brands post-product placement and auditory support exposure. Little to no research exists on measuring product placement and auditory support in film with respect to brand affiliation. Whether or not various levels of product placement and auditory support either positively or negatively influence

brand affiliations. This requires a more nuanced approach to the creative advertising of brands in film and calls for further research. On top of this, past studies investigating product placement and auditory support did not make use of an experimental design, instead the influence of product placement and auditory support on brand resonance was studied in a field setting (Argan et al., 2007; Tsai et al., 2007; Bressoud et al., 2010; Wilson & Till, 2011). Scholars have therefore called upon current academics to include in their research the influence of product placement and auditory support on psychological affect towards a brand as well as including an experimental design (Gupta & Lord, 1998; D'Astous & Chartier, 2000; Yang & Roskos-Ewoldsen, 2007; Bressoud et al, 2010).

This paper seeks to add to existing literature by specifically investigating the influence of various levels of product placement and auditory support in film on brand affiliation. On top of this, existing research found that product placement and auditory support were tested as binary variables, where respondents' either recalled a brand or did not (Babin & Carder, 1996; Russell, 2002; Bhatnagar et al., 2004; Yang & Roskos-Ewoldsen, 2007). A multitude of studies focused their research on the influence of brand placement on product recall (Gould et al., 2000; Gupta & Lord, 1998; Vollmers & Mizerski, 1994). It has since been proposed to test various levels of both product placement and auditory support (Babin & Carder, 1996; d'Astous & Chartier, 2000). The current study aims to investigate new depths of brand placement and measure the extent to which different types of brand placement can influence emotional affect towards a brand. This is referred to as brand affiliation. The current study will therefore add to existing literature by shifting away the focus from brand resonance to the more complex variable brand affiliation. On top of this, the current study aims to look at both product placement and auditory support individually as well as together in understanding their varying influence on brand affiliation. More specifically, this study will incorporate multiple levels of product placement and auditory support to test the strength of their influence, if any, on brand affiliation. These levels will be explained in depth in section 3.1. Having identified the gaps in current academic literature, this study will test various levels of brand placement and the influence, if any, on brand affiliation.

1.1.2 Societal relevance

Alongside the digitalization of media, society has experienced increasingly creative forms of advertising in entertainment media (Verlegh et al., 2015). Advertisers continuously seek to innovate their marketing techniques to stand out and be well-received (Raney & Bryant, 2019). Such innovative marketing techniques have commercialized entertainment media in order to subliminally communicate a brand to the consumer (Campbell & Kirmani, 2008). This includes but is not limited to brand placement in the form of product placement and auditory support in film.

The societal relevance of this research topic has increased during the COVID-19 pandemic. With lockdown restrictions in placement and stay at home orders people resort to the nearest entertainment medium to kill time and occupy themselves. Before the pandemic, entertainment media consumer rates were steady, however media consumption experienced an all-time high during the peak of the COVID-19 pandemic in 2020 (Dixit et al., 2020). Such peak in consumption could have been expected and seems benign, however the latent side effects of the increase in media consumption go hand in hand with the increase in subliminal marketing consumption. The latter is an implicit process that belongs to the explicit choice of watching a film or series (McDonald & Smith-Rowsey, 2016, Dixit et al., 2020).

Psychological affective emotions towards a brand, also referred to as brand affiliation, subconsciously motivates consumers to prefer one brand over the other, subsequently influencing purchase intentions (Bressoud et al., 2010). Keller (2008) defines brand affiliation using six cognitive, emotional, and behavioral dimensions. Such dimensions subconsciously influence viewer's attitudes, perceptions, and emotional connections towards a brand. Interestingly, the imprint that is left post-subliminal brand exposure is the result of the implicit marketing in media. Therefore, the current study aims to investigate the subliminal advertising of brand placement in for form of product placement and auditory support with respect to its influence on brand affiliation. To operationalize this, a research question was formulated, and an experiment with a cross-sectional between-subjects design will be utilized.

1.2 Research question

"To what extent does brand placement in the form of product placement and auditory support in film significantly influence brand affiliation?"

Chapter 2: Theoretical Framework

Chapter two provides an academic framework that supports the purpose of this study. This theoretical framework helps build a foundation that will help formulate hypotheses and expectations for this research. Section 2.1 introduces discourses surrounding entertainment media, this is followed by section 2.2 which discusses literature on neuromarketing and subliminal advertising. Section 2.3 addresses the variable of interest: brand affiliation. Section 2.4 aims to look at the product placement and auditory support, individually and together. In doing so, the various levels that constitute product placement and auditory support will be analyzed using past research. Throughout Chapter two, research expectations and hypotheses are presented based upon relevant academic literature.

2.1 Entertainment media

Section 2.1 defines the industry of entertainment media and conceptualizes it in light of the advancing digital progress that society has experienced over the last decade. It is pertinent to this study that entertainment media is considered as an intangible entity that has grown into a powerful subliminal advertising tool. In the digital age, entertainment media can be understood as a medium that provides creative content that allows consumers to form affective connections towards the content (Lehu, 2007). Such content includes, but is not limited to online video games, movies, series, and radio. Chapter 1 discussed the increasingly integral role of entertainment media in society, not only in terms of society's digitalization, but also with respect to the effects of COVID-19. Social distancing and quarantine have significantly increased the usage of entertainment media (Dixit et al., 2020). This confirms that people have been exposed to more content, including subliminal advertising in entertainment media through film.

It is critical to consider the industry of entertainment media as it is fundamental in modern subliminal advertising (Varon, 2019). In the past, scholars deemed entertainment a topic too futile for academic research (Shusterman, 2003). It was believed that entertainment consisted of "taking up large amounts of the daily time of individuals, but not representing an important force for human behavior change" (Singhal & Rogers p.120, as cited in Bates & Ferri, 2010). Recent studies have taken a more

contemporary approach towards the understanding of what entertainment media entails in every aspect of life. Such studies have found that entertainment media is an overarching concept that incorporates different fields such as gaming, social media, radio, film, and television (Lehu, 2007; Bates & Ferri, 2010). Barnouw and Kirkland (1992) approach entertainment as a profit driven artefact, defining entertainment as an "experience that can be sold to and enjoyed by large and heterogeneous groups of people and a particular category of marketed product" (Barnouw & Kirkland (1992, p. 50). This definition conceptualizes entertainment media as a commercial good that is considered valuable to specific groups which are willing to pay for it (Barnouw and Kirkland, 1992). Moreover, this definition highlights the dynamic psychological connections individuals develop towards entertainment media (Vorderer et al., 2004).

Oliver (2008) defines entertainment media as "tender affective states associated with feelings of sympathy, warmth, kindness, and understanding" (p. 55). This interpretation of entertainment aligns with Zilmann and Vorderer's (2000) affective disposition theory which emphasizes the interactive nature of entertainment. Zilmann and Vorderer (2000) found that throughout the film viewing experience, the audience is made to morally assess the characters' behaviour. The theory states that character impressions subsequently influence brand associations (Zilmann & Vorderer, 2000). Bandura's (1979) social learning theory supports the notion that most behaviour is learned and internalized through observation, imitation, and modelling. When looking at Zilmann and Vorderer's (2000) affective disposition theory together with Bandura's (1979) social learning theory, it can be said that entertainment media holds the power to influence viewers' affective emotions towards certain brands and guide behaviour (Zilmann & Vorderer, 2000).

2.2 Neuromarketing and subliminal advertising

Academia has progressively researched and critiqued the predominant and ubiquitous role of digital media in people's everyday lives. The subconscious influence of neuromarketing in entertainment branding along with the cumulative power of product placement and auditory support is often used to

push brands on consumers (Moore, 1982; Swart & Morgan, 1992; Sandoval et al., 2019). As mentioned in Chapter one, prior research has overlooked brand affiliation by solely studying brand resonance (Karrh, 1998; Karrh et al., 2003; d'Astous & Chartier, 2000; Røpke et al. 2010). This study aims to address this shortfall by researching emotional affect towards brands post-product placement and auditory support exposure in film.

Tsai et al., (2007) write about the problematic something of subliminal advertising and neuromarketing. The effectiveness of the marketing method is often questioned due to it targeting complex cognitive functions. However, researchers have been able to provide evidence that supports the claim that subliminal advertising does work in non-commercial settings. Next to this, the morality of subliminal advertising is called into question as it implicitly targets consumers who are not aware of the advertisements placed upon them (Tsai et al., 2007). From an ethical standpoint, subliminal advertising may be deemed risky, despite this, it remains one of the most popular marketing options for brands (Wenner, 2004). The objective of subliminal advertising is to manipulate the consumer's subconscious functioning. This entails influencing a person's emotional, cognitive, and behavioral functioning towards a brand. Such manipulations can include, but are not limited to, influencing brand memory, brand preferences, purchase intentions and brand loyalty. The most popular form of subliminal advertising via brand placement is product placement, where "products are 'seen' as an integral part of movies or TV dramas without being specifically referred to as such by the actors in the movies or dramas" (Tsai et al., 2007, p.3). This type of subliminal brand placement will be further discussed in subparagraph 2.4.1.

2.3 Brand affiliation

The cumulative influence of subliminal advertising in entertainment media exposes the public to more brands in increasingly creative ways. Such innovations have introduced new depths of product placement and auditory support in film. Past research has motivated current academics to study different levels of product placement and auditory support in film on an emotionally complex variable like brand affiliation (Gupta & Lord, 1998; Yang & Roskos-Ewoldsen, 2007). Research by Smith and Swinyard

(1983) shows that emotional affect towards a brand only occurs after having been exposed to a brand. Brand affiliation can therefore be interpreted as an emotional response towards a brand post-experience (Park et al., 2010; Smith & Swinyard, 1983). According to Fournier (1998), brand affiliation stems from the brand relationship quality (BRQ), which consists of six emotional and cognitive dimensions and cumulatively influences consumer's brand affiliation. In an earlier study, Blackston (1991) researched the consumer-brand relationship and found that it consists of three main processes, namely cognitive, emotional, behavioral. These dimensions connect consumers to brands and subconsciously build brand favoritism and loyalty. In accordance with Blackston (1991), Keller's (2008) consumer-based equity model defines brand affiliation using three main factors, namely, brand resonance, emotional connection, and brand loyalty.

Chaudhuri and Holbrook (2002) measured brand affect with respect to brand commitment, conceptualizing it as a brands' ability to elicit an emotional response from the viewer. Similarly, Finucane et al. (2000) identify affect as an emotion-based heuristic used in decision making that is positively related to brand affiliation. Studies have therefore confirmed that brands arouse emotions from consumers which subsequently form brand affiliations and brand preference (Adaval, 2003; Enginkaya & Yılmaz, 2014; Murphy & Da Silva, 2017). According to Murphy and Da Silva (2017), two factors that characterize brand affect are brand awareness and brand affinity. Simply put, brand awareness is the exposure of a brand to the consumer. Murphy and Da Silva (2017) defined brand affinity as "the general attitude or level of like a consumer has towards a brand, outside of specific features and attributes of the brand" (Murphy & Da Silva, 2017, p.1). Similarly, Pearlman (2007) defined brand affinity as a "bond that customers feel with a brand" (Pearlman, 2007, p.2). Both brand awareness and affinity subsequently constitute brand affiliation, subconsciously guiding consumers to prefer one brand over the other (Murphy & Da Silva, 2017).

2.4 Brand placement

This section will discuss brand placement in entertainment media and the two distinct types of brand placements. Subparagraph 4.2.1 discusses brand placement in the form of product placement and addresses the levels of product placement. Subparagraph 4.2.2 discusses the role of auditory support and looks at the types of verbal brand placement in film scripts. Following each subparagraph are assumptions and expectations in the form of hypotheses that this research aims to test.

Brand placement can be defined as the intended usage of branded content in a non-commercial setting (Theus, 1994; Vollmers & Mizerski, 1994; Tsai et al., 2007; Williams et al., 2011). This requires the integration of brands into creative media as a means of subliminally marketing a product or brand to the consumer. Williams et al. (2011) describe the concept of brand placement as the "fusion of advertising and entertainment" (Williams et. al., 2011, p.2). As mentioned in section 2.2, it is "promotion wherein a brand name, product, package, signage, or other trademark merchandise is inserted into and used contextually in a motion picture, television, or other media vehicle for commercial purposes" (Williams et. al., 2011, p.2). As mentioned in Chapter one, brand placement is becoming an increasingly valuable subliminal advertising tool as young consumers are difficult to reach with traditional media. It is often also referred to branded entertainment, branded content, in-program sponsoring, or product integration (Vollmers & Mizerski, 1994). Branded content aims to build or increase emotional ties to a brand or product and stimulates brand memory, awareness and ultimately purchase intentions Tsai et al., (2007). As defined by Homer and Pamela (2009), brand placement makes use of product placement in the form of on-screen product placement as well as auditory support which requires for the brand to be verbally mentioned in script. Homer and Pamela (2009) studied the type of placement (subtle versus prominent) as well as the repetition (low and high) influences viewer's brand attitude. This study concluded that the repetition of prominent placements had an unintended and negative influence on band attitude. Interestingly, subtle product placement was found to positively influence brand attitude (Homer & Pamela, 2009).

2.4.1 Product placement in film

Product placement is a method of exposure by which brands integrate their product or service into an entertainment medium (Yang & Roskos-Ewoldsen, 2007). Ferraro and Avery (2002) define product placement as "the inclusion of brands in movies or television scripts" (p. 374). Karrh (1998) defines brand placement as "the paid inclusion of branded products or brand identifiers, through audio and/or visual means, within mass media programming" (p.33). This capitalist perspective sheds light on the persuasive purpose of product placement in entertainment media (Karrh, 1998). As mentioned in Chapter one, previous studies have researched the effects of different levels of product placements on brand resonance (Brennan et al., 1999; d'Astous & Chartier, 2000; Law & Braun, 2000; Russell, 2002).

Russell (1998) claims that product placement can be classified in three dimensions. Firstly, the screen placement, which entails where the product is placed on screen, this could be in the background, foreground, or in the protagonist's hand. Secondly, the script placement identifies the level of product placement in terms of verbal mention in script. This is often referred to as auditory support and will be described in detail in subparagraph 2.4.2. Third and lastly, plot placement refers to the integral role of product placement in plot. Depending on the scene, a product may be received very differently than initially intended. Russell (1998) concludes that "affect transfer processes operate in subliminal advertising to establish 'linkage' between a movie or television show and the product placed in it" (Tsai et al., 2007, p.4).

As previously mentioned, Homer and Pamela (2009) identified two dimensions of product placement, namely: type of placement, and repetition of placement. The former can be further divided into the following two categories: 1) prominent and 2) subtle. The latter can be classified by the frequency of placement, it either being high or low (Homer & Pamela, 2009). Gupta and Lord (1998) defined levels of prominence as the integration and visibility of brands in film. Similarly, Yang and Roskos-Ewoldsen (2007) identified three levels of visual brand placement that were used to study brand resonance. These placements were categorized as: background placement, products used by the protagonist and products essential to the film's plot. In accordance with Yang and Roskos-Ewoldsen (2007), Bressoud et al.,

(2010) identified three types of brand exposure in film: brand location, total screen time and duration of exposure. Based on Homer and Pamela (2009) and Yang and Roskos-Ewolden (2007), this study will focus on the type of product placement in terms of the placement being prominent or subtle. A specific

Cholinski (2012) writes about the impact of prominent product placement on brand awareness, attitudes, and loyalty. In testing this, prominent product placement is said to occur when the product is strongly connected to the film's plot or character, including its audio-visual placement (Karrh et al., 2003; Balasubramanian et al., 2006). Cholinski (2012) found that prominent and artificial product placement and auditory support introduces unintended effects such as negative brand perceptions (Cholinski, 2012). Interestingly, other studies found that this type of product placement has been proven to be the most effective type of product placement in influencing brand resonance and recall by past researchers (Gupta & Lord; 1998; Russell, 1999). The aforementioned studies found that visually prominent product placement was positively related to brand memory. It is therefore assumed that prominent product placement will outperform subtle product placement in influencing brand affiliation (Yang & Roskos-Ewoldsen, 2007).

H1a: Product placement significantly influences brand affiliation

H1b: Prominent product placement influences brand affiliation more than subtle product placement

2.4.2 Auditory support in film

Next to product placement as a form of a subliminal brand placement technique, is the usage of auditory brand placements as an integral feature of branding in film. Auditory support in film has been defined by Edstorm and Jervfors (2006) as "the type of verbal product placement that refers to when the brand is being mentioned in a script" (p.6). O'Barr (2005) considered auditory support as a form of subliminal advertising and explained that it is essentially a subliminal projection that tells viewers what to

do on an implicit and subconscious level. The purpose of such implicit marketing is to make the consumer think that they are following their own urges, despite them being artificially planted.

Edstorm and Jervfors (2006) categorized two dimensions of auditory brand placement: modality and musicality. The former refers to the number of auditory brand placements in a film's script, whereas the latter refers to the different levels of auditory support in film (Gupta & Lord, 1998; Brennan et al., 2004). The levels of auditory support will be used in the current study and consist of positive auditory support, neutral auditory support, and negative auditory support. Prior research by Gupta and Lord (1998) as well as Edstorm and Jervfors (2006) provided a framework for identifying different levels of auditory support with respect to brand resonance. However, no concrete data currently exists on the effects of different levels of auditory support on brand affiliation. By investigating different levels of auditory support in film with respect to brand affiliation, an understanding of the genuine affective emotions can be measured and understood. Hence, the following hypotheses will be tested.

H2a: Auditory support significantly influences brand affiliation

H2b: Positive auditory support effects brand affiliation more so than negative auditory support

H2c: Positive auditory support effects brand affiliation more so than neutral auditory support

H2d: Negative auditory support effects brand affiliation more than neutral auditory support

2.4.3 Product placement x auditory support

The current study will look at the two main effects of product placement and auditory support as types of brand placement. Next to this, their interaction effect on brand affiliation will investigated. Previous research provides grounds to believe that the interaction of product placement together with auditory support influences brand affiliation more so than their individual effects. In 2007, Yang & Roskos-Ewoldsen studied the usage of subliminal visual and audio brand placements in film. Results showed that the use of both visual and auditory manipulations together had a more powerful effect on viewers as opposed to visual and auditory manipulations alone (Yang & Roskos-Ewoldsen, 2007). A

plausible explanation was that such messages subliminally communicated a brand through two senses (Yang & Roskos-Ewoldsen, 2007). With this in mind, it could be expected that product placement and auditory support together will have a greater effect on brand affiliation as opposed to product placement or auditory support being used separately in film.

H3: The interaction effect of product placement and auditory support significantly influences brand affiliation.

In sum, past research has identified an academic gap that allows for this study to focus on the different levels of visual product placement and verbal auditory support to examine their influence on brand affiliation. By shifting the focus from brand resonance to brand affiliation, affective emotions towards brands will be measured. In contrast to brand resonance, where participants either recalled a brand or did not, this study allows for a more nuanced approach in understanding participants' affective response to the various levels of visual product placement and verbal auditory support. The subsequently found data may be useful for marketers and businesses trying to understand the impact of product placement and auditory support in film.

Chapter 3: Methodology

Chapter three will outline the methodological process in more detail and provide a meaningful structure to the research. In doing so, this Chapter highlights the methodological backbone of this study and supports the research design. In doing so the method of analysis, operationalization of the experiment, sample criteria, validity and reliability are discussed. The current study followed an experimental design and made use of a survey to test the potential effects of brand placement in film on brand affiliation. Brand placement in the form of visual product placement and verbal auditory support will be the variables of interest in determining the strength of the relationship between subliminal advertising in film and subsequent brand affiliation. Therefore, this study aims to explore the usage and effectiveness of different levels of brand placement via product placement and auditory support in film as a predictor to brand affiliation.

3.1 Choice of method

To investigate and subsequently answer the research question, this study made use of an experimental design. The main research question reads "to what extent does brand placement in the form of product placement and auditory support in film significantly influence brand affiliation? A cross sectional between-subjects design was utilized to assess the relationship between product placement and auditory support with respect to brand affiliation. To operationalize the research question, a two-by-three factorial design was utilized to conduct the experiment. The experiment was in the form of a questionnaire and was designed using Qualtrics (Appendix 3). This method provides a framework for testing two independent variables on various levels. The two independent variables of interest consist of brand placement in the form of 1) product placement and 2) auditory support. Product placement was measured on two levels, namely 1) prominent product placement and 2) subtle product placement. As outlined in Chapter two, Gupta and Lord (1998) as well as Bressoud et al. (2008) identify various levels of product placements that were used to differentiate between prominent and subtle product placement. This entails that prominent product placement incorporates three features, brand location, screen time and

duration of exposure. Auditory support was tested on three levels, namely, 1) positive auditory support, 2) neutral auditory support, and 3) negative auditory support. The predictor variables were researched together to determine a potential interaction effect. Altogether, the experiment tested the two predictor variables: product placement and auditory on two and three levels, respectively. Formulating the following six that the experimental manipulations 1) prominent PP[1] x positive AS[2], 2) prominent PP x neutral AS, 3) prominent PP x negative AS, 4) subtle PP x positive AS, subtle PP x neutral AS, subtle PP x negative AS. The experiment randomly exposed respondents to one of the six manipulations (Appendix 2).

Ideally, the experimental manipulations would be analyzed using an adjusted film clip that would have six adaptations to have each clip contain one of the six experimental manipulations. Due to technological restrictions however, such artificial manipulations were not possible, nor was the usage of various film clips each containing a manipulation due to the limited availability of film clips containing the mixture of product placement and auditory support together. In order to mitigate this, six identical scripts were designed that each slightly differed in terms of the experimental manipulation (Appendix 2). Choosing to run a script by the respondents over a film clip required participants to actively read the script and imagine it as though it were a film.

3.2 Sampling

The sampling criterion for respondents was set to include individuals of all ages, genders and ethnicities as this research aimed to test whether product placement and auditory were significant at various levels in predicting brand affiliation. This sampling criterion entailed that gender and age are not specified and participation is encouraged for everybody. Ideally, respondents were equally distributed with respect to gender and age to obtain generalizable results. However, participation was voluntary and such expectations could not be secured. If, however, a balanced ratio of age and male to female

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[1] Product placement
[2] Auditory support

respondents is found, the data processing phase could provide some meaningful data. Besides the sampling criteria for respondents, this study aimed to record responses of a minimum of 180 participants. The desired number of responses for the survey was chosen using the indications set by the American Psychological Association. According to the American Psychological Association, an experiment requires a minimum of 30 participants per test group. Given that this experiment made use of six test groups, a minimum of 180 participants would suffice in order to obtain the most generalizable and accurate results APA (2009). However, in accordance with the American Psychological Association, a benchmark of 250 respondents was set to make sure enough data was collected APA (2009). To ensure quality of responses, the research used simple random sampling in order to recruit respondents by convenience sampling. Therefore, participants were contacted using the researcher's network, excluding immediate friends and family, along with randomized survey response groups that allowed for respondents not connected by network to fill out the survey. This mitigated for any biases that friends, family, or respondents with similar social backgrounds may have otherwise introduced into the study.

3.3 Operationalization of concepts into variables

Previously, Chapter 2 critically assessed prior research with respect to subliminal advertising in entertainment media in the form of product placement and auditory support as forms of brand placement. Section 3.3 aims to build on this framework by operationalizing the aforementioned concepts into concrete variables that are ultimately using in the experimental study. Primarily, brand placement will be investigated as a subliminal neuromarketing technique in film in order to test its significance in predicting brand affiliation. The two independent variables, product placement and auditory support, constitute the types of brand placement. These variables were selected based on the extensive theoretical research conducted by Karrh et al., Edstorm and Jervfors (2006) as well as Gupta and Lord, (1998) and Yang & Roskos-Ewoldsen (2007). Such studies investigated both product placement and auditory support as subliminal brand placement techniques in film. The current study builds on said research by introducing two new facets into the research. Firstly, the current study identifies various levels of both product

placement and auditory support, as discussed in section 3.1. Next to this, this study will shift the focus away from brand resonance, a dichotomous variable, and study respondents' emotional affect post exposure. Based on studies by Homer and Pamela (2009), Smith and Swinyard (1983), as well as Blackston (1991), brand affiliation was found to be interesting asset to the research of subliminal advertising. The operationalization of the variable brand affiliation entails testing the potential influence of various levels of subliminal brand placement on a higher cognitive and emotional state (Blackston, 1991).

3.4 Validity and reliability

Potential confounding influences that could threaten internal validity such as response or participation bias may influence respondents to feel a pressure to answer differently throughout the survey. However, in order to stimulate respondents to answer as candidly as possible, the experiment emphasized the anonymity and confidentiality of the study. Therefore, to minimize threats to internal validity, the experiment was explicitly made anonymous, reassuring respondents to answer honestly and instinctively. Other threats to internal validity such as the learning effect could not be entirely controlled for as this experiment included repetition of questions, respondents could have been able to piece together any underlying motives which could produce inauthentic results. To minimize the learning bias threat, the neutrality of the brand was controlled by performing a series of pre-tests. Next to this, a manipulation check was set in place to filter out any irrelevant data.

Next to improving this study's validity, performing pre-test also helped increase the study's reliability. The experiment has been standardized and can therefore be replicated in any setting. To control for the dependent variables, various pre-existing models were used as a benchmark to develop a scale. This includes the 5-point-Likert scales based on Fournier's (1998) BRQ as well as Keller's (2008) four dimensions of consumer brand-equity that comprise brand affiliation (Appendix 1a; Appendix 1b). Similar to much academic research, this study produced an artificial setting in testing the influence of brand placements. The influence of producing an artificial test setting is often critiqued as it may result in

the inorganic use of materials (Bertrand et al., 2005). Therefore, in order to replicate the most accurate

real-world setting, scripts were developed containing a mainstream storyline that could easily be

visualized by respondents and was not novel. This ensured that respondents were exposed to non-artificial

and real-world materials. A factor that could not be entirely controlled for in terms of reliability was the

influence of the testing environment. Part-taking in an experiment invites certain confounding influences

such as the influence of forced exposure and attention which may direct respondents to answer differently

(McQuarrie, 1998).

3.5 Survey

Section 3.5 chronologically discusses the stages of the experiment, including the pre-testing

phase, manipulation checks, selection of material as well as the final execution of the experiment.

Subparagraph 3.5.1 discusses the series of pre-test run prior to the final experiment. Said pre-tests helped

enhance and improve the outcome and process of the final experiment. Following subparagraph 3.5.1 is

subparagraph 3.5.2 which outlines the manipulation checks performed on respondent in order to check

whether they understood the true intent of the experiment. Subsequent changed are based on the pre-tests

and manipulation checks are elaborated in subparagraph 3.5.3 where the final selection of materials and

content is explained. Lastly, subparagraph 3.5.4 details the step-by-step procedure of the experiment.

3.5.1 Pre-testing

Before officially running the experiment, a series of pre-tests were performed on random

participants selected via convenience sampling. These tests served as a precursor to the final experiment.

A total of two pre-tests were run on immediate relatives, who were subsequently excluded from the final

experiment. Firstly, a pre-test assessing the materials and tools used was run which entailed the testing of

both the intended and filler questions, the order of the questions, quality of the questions, introduction,

and conclusion of the experiment, along with the manipulation check and control question. This pre-test

helped solidify the structure and flow of the experiment and made sure that nothing was left out. The

second round of pre-tests involved critically looking at any potential pre-existing biases respondents may

have towards the brand Coca-Cola. This assessed the viability of using this brand in an experimental test setting. The pre-test therefore included questions directed to measure any extreme pre-existing affiliations respondents may have with Coca-Cola. This was achieved by allowing respondents to answer freely and express their connectedness, dependency, or any significant emotional affect towards the brand Coca-Cola. Next to this, the pre-test aimed to measure how strongly respondents were influenced by the independent variables without uncovering the manipulation and true intent of the experiment. The goal here was to make sure the respondents were susceptible to the manipulation and filler questions and to make sure they were not able to uncover the true intent of the experiment. This pre-test functioned as a filter that helped take a more nuanced approach to exposing the respondents to one of the six conditions to decrease the artificiality of the study.

All in all, the pre-testing phase helped improve final experiment as the materials and design was critically assessed. The pre-test therefore served as a test to check the appropriateness and strength of the materials in terms of the manipulations, the cover story and experimental layout. Following the exposures, participants were asked a manipulation check question to check whether the respondent was able to identify the manipulated variables and the subsequent purpose of the experiment. This simultaneously tested the strength of the over story, which was set in place to misdirect respondents during the experiment. For the cover story to work it needed to meet certain criteria as it had to be related to the manipulated variables as well as measurable using a Likert-scale questionnaire. The cover story was therefore related to film scripts and supported by filler questions. The cover story informed respondents that the intent of the questionnaire was to understand respondents' emotional attachment to characters in film. This led respondents to process the content of the experiment while keeping in mind this briefing. Misdirecting respondents in this manner was necessary in order to obtain genuine and unfiltered responses. Following the briefing of the cover story and exposure to the manipulated variable, respondents were asked a series of Likert-scale questions. Such questions included filler questions that aimed to ensure respondents remained misdirected throughout the questionnaire. Such questions focused on the content of the film script and included 'I felt connected to the character in the script' and 'I felt as

though the plot was original'. Only at the end of the questionnaire were respondents asked the question 'what do you think this survey aimed to measure', to which pre-test participants responded as anticipated and replied, 'emotional attachment to characters in film'.

Next to the cover story, the film scripts were assessed during pre-testing phase as the six scripts were designed to be identical in plot and storyline, yet different with respect to the insertion of product placement and auditory support on various levels. The scripts were written by the researcher and based on a generic and visualizable character and setting (Appendix 2). The scripts were utilized in both pre-tests and showed to work well with respect to conveying the manipulations in a subtle manner whilst also supporting the cover story. In addressing the formulation of the scripts, it must be mentioned that scripts were not the ideal choice in testing brand placement. Ideally, identical film clips would have been used, each different in two aspects, product placement and auditory support.

The feedback provided during the pre-tests was then integrated in the final experiments to make sure future subjects are not aware of the experimental manipulations. More specifically, pre-test respondents were asked if they could explain in their own words what they thought the experiment was truly about. This helped strengthen the cover story for the final experiment as respondents in the pre-testing phase showed that they understood the intent of the experiment. Following the pre-testing phase, more filler questions were implemented in the final experiment. Like so respondents would be misguided into thinking and reacting genuinely to the tested stimuli.

3.5.2 Manipulation check

A manipulation check was set in place as part of the experiment in order to help single out any respondents that, despite the cover story and filler questions, were able to understand the true intent of the experiment. The manipulation check was included in the experiment as a formality that helped filter all answers in order to gather viable data for the statistical procedures. The data of such respondents was discarded during the data analysis phase as their answers were potentially influenced by their understanding of the experimental manipulation (Mitchell & Jolley, 2012).

As discussed in subparagraph 3.5.1, two pre-tests were run prior to the experiment that checked the manipulations alongside the cover story in order to ensure participants were not able detect the experiment's true intent. Throughout the pre-test, respondents showed to focus more on the script in terms of characters and plot rather than brand placement. When informing the pre-test participants on the purpose of the study and the usage of brand placement in the film script, they were able to remember the brand being used. This is the objective of subliminal advertising, exposing the brand in such ways that make the viewer remember it without having to consciously think about remembering it. Respondents that were able to identify the brand immediately after being exposed to the pre-test manipulation, were asked about their affiliation with the brand. Despite having performed a pre-test to control for pre-existing biases towards the brand, it remained necessary to perform a manipulation check during the real experiment. The manipulation check consisted of the following question: "Did you notice any brand placement?". Respondents that answered "Yes" to the manipulation check question were redirected to the following control question "Please indicate which brand you noticed in the script". Respondents that answered "No" to the manipulation check question were sent to the end of the survey as the test questions required the respondent to have noticed the brand placement. The manipulation check and control question strengthened the experiment in that both filtered out respondents who were either completely unaware of the brand Coca-Cola being mentioned, or they were able to see through the cover story and uncover the true intent. In both cases, respondents would be prone to altering their behaviour which could subsequently influence their response.

3.5.3 Selection of materials

The selection of materials for the experiment meant the selection of a brand that would be featured in all manipulations. The selected brand was Coca-Cola, a world-wide known brand that is often overlooked due to its abundant presence in everyday life. To remain consistent between film scripts, similarly themed film clips were chosen. Like so, the respondents were exposed to film scripts with similar energy levels in terms of volume and color palette. On top of this, professionally produced

commercial films were used to expose respondents to all levels of the independent variables. The reason for choosing professional film scripts that make organic use of product placement and auditory support ensures that the respondents are exposed to the manipulation in natural ways (Yang & Roskos-Ewoldsen, 2007). Following the questionnaire, respondents' data was quantitatively processed in SPSS. To answer the research question, various statistical procedures were executed, and the subsequently produced results can be found in Chapter 4.

3.5.4 Procedure

When officially running the experiment, respondents were briefed and informed on the confidentiality and anonymity of their participation. The questionnaire aimed to measure effect of the different levels of product placement and auditory support on brand affiliation and made use of a cover story to mislead respondents. Moreover, the questionnaire included six film scripts written identically apart for the manipulation and included a cover story related to the film scripts which did not give away the true intention of the experiment. After a short introduction to the cover story, the experiment got started.

Each participant was exposed to one of the six scripts that contained the experimental manipulations. The six scripts included all two-by-three factorial design conditions for the independent variables, product placement and auditory support. In order to mitigate any potential experimental mortality and risk of dropouts, a between-subjects design was chosen (Bell et al., 2013). The risk of dropouts increases dramatically when performing a within-subjects design that takes over 10 minutes to complete. For this reason, a between-subjects design exposing respondents to one of the six conditions was selected. By choosing a between-subjects design over a within-subjects design, respondents were exposed to one manipulation, rather than all six. In doing so, each respondent was exposed to one of the conditions containing the independent variables. Like so, the effects of the six manipulations could be compared to each other in order to understand which type(s) of brand placement affects brand affiliations the strongest. For this reason, the experiment took between two and five to complete as opposed to the

length of a within-subjects design, which would take respondents between 10-15 minutes to complete. Before officially starting the experiment, participants were asked to fill in their age and gender, this information was later used during the data analysis stage.

Following each film script was a series of 5-point Likert-scale questions asking participants to respond as candidly as possible (Appendix 4). These questions were designed to measure the, if any, strength of positive, negative, or neutral affect towards the brand integrated into the various scripts. The scales were built on Keller's (2008) consumer-based brand equity model measures brand affiliation using brand loyalty, brand image, perceived quality, and brand awareness. Next to this, Fournier's (1998) BRQ model was used to develop Likert-scale questions. These questions measured six emotional, behavioral, and cognitive dimensions including feelings of commitment, passion, and brand quality (Fournier, 1998). Post-exposure to the experimental manipulations and Likert-scale questions, respondents were asked a series of filler questions that supported the cover story. As previously mentioned in subparagraph 3.5.1, pre-tests were performed to test the strength of the cover story and filler questions to make sure respondents would not be susceptible to understanding the true intent of the experiment.

The ultimate purpose of this study was to research the potentially significant relationship between brand placement in the form of both product placement (visual) and auditory support (verbal mention in script) with respect to brand affiliation. The dependent variable brand affiliation aims to measure respondent's emotional attachment to brands. As previous studies have confirmed that there is a subconscious influence of subliminal advertising on people's recognition and remembrance of brands and products, this study specifically aims to build on such studies by researching the deeper cognitive dimension of emotional attachment and affective response. This may help marketers in understanding the nuances in product placement and auditory support as marketing techniques in the creative film industries.

Chapter 4: Results

Chapters one, two and three provide a relevant framework for this study by outlining the direction of this study, previous research, and a methodological guide. This chapter is the accumulation and outcome of the aforementioned chapters. Here, the findings and data will be presented and critically analyzed with respect to the research question and formulated hypotheses.

Section 4.1 will present the descriptive results including the data sample and relevant descriptive that could be of interest when interpreting the demographics. Following this, section 4.2 reflects on the experiment and is supported by paragraph 4.2.1 which discusses the distribution of all experimental conditions (i.e., all levels of the independent variables). Subparagraph 4.2.2 will elaborate on the Cronbach's alpha inter reliability statistic and clarify any assumptions that must be met before running a between-subjects analysis. Section 4.3 will assess the results of the 2 (prominent vs subtle) x 3 (positive auditory support, neutral auditory support, and negative auditory support) factorial design. This will be done by critically looking at the between-subjects ANOVA results. More specifically, the between-subjects analysis will take the form of a Univariate analysis. Throughout section 4.3 the research hypotheses for will be analyzed using SPSS data. Subparagraph 4.3.1 will present the, if any, main effect of product placement alone on brand affiliation, where subparagraph 4.3.2 will present the, if any, main effect of auditory support alone on brand affiliation individually. To build on this, subparagraph 4.3.3 will analyze the interaction effect of product placement and auditory support on brand affiliation. The subsequent outcome will indicate the likeliness of the data's ability to support the hypotheses that question the influence of product placement and auditory support on brand affiliation.

4.1 Descriptive results

In accordance with the American Psychological guide, a total of 225 respondents participated in the experiment (APA, 2009). Of the total of 225 respondents, 77 were male (39.69%) and 177 were female (60.31%). During the data gathering phase, gender was denoted by assigning a value of one to males and a value of two to females. Given that this experiment is a between-subjects design where each

respondent is exposed to one condition, the duration of the experiment is between 2-5 minutes. The ultimate aim of this experiment was to have a minimum of $N > 30$ respondents per condition. Given that six conditions were tested, a minimum of $N > 180$ participants was required. Therefore, the estimate of the necessary sample size was a minimum of $N > 180$, but ideally $N > 200$. Fortunately, a total of 225 people participated, of which 194 responses could ultimately be used for further analysis in SPSS. The reason for this was that, throughout the process 31 participants dropped out, as these participants did not fully complete the experiment or failed to answer specific questions. On top of this, some participants had to be excluded from the study based on their answer to the manipulation check (i.e., did you notice any brand placement?). This meant that a total of 194 respondents were considered for further analysis (See Table 4.1).

Respondents' ages ranged from 18 to 82, with a mode of 22, meaning that the most frequently recurring age was 22. In order to provide a holistic overview of the number of respondents in each age group, SPSS's transform feature was used to compute the existing variable 'Age' into a new variable called 'Age Groups'. Like so, five age groups were created containing all the respondents' ages. The age range for group one (1.00) contains the youngest respondents up until age 20, age group two (2.00) contains all respondents between ages 21 and 40, age group three (3.00) contains all respondents between ages 41 and 60, age group four (4.00) contains all respondents between the ages 61 and 80, and age group five (5.00) contains all respondents between the ages 81 and 100. Table 4.1 provides supporting information with respect to the frequency of respondents within each age of the five age groups.

Table 4.1

Age Groups

		Frequency	Percent
Valid	1.00	7	3.1
	2.00	141	62.7
	3.00	32	14.2
	4.00	13	5.8

	5.00	1	.4
	Total	194	86.2
Missing	System	31	13.8
Total		225	100.0

4.2 Experiment

This section discusses the execution of the experimental procedure and acknowledges any remarkable outliers or interesting findings. Such findings include the unanticipated response of one of the participants who replied "Pepsi" to the question: "What brand did you see?". This may be related to a pre-existing bias towards the brand Pepsi and indicates that exposing Coca-Cola may have influenced the respondent to be reminded of the competitor brand Pepsi. This respondent in particular was exposed to the manipulation with prominent product placement and neutral auditory support. Another unexpected finding was that the respondents were unable to see any brand placement, and who therefore answered "No" to the manipulation check question "Did you notice any brand placement?" were 18-26 years old. This may open up a discussion surrounding the numbing effect of the abundant presence of branded content and subliminal advertising in young adults' lives. Young people may grow increasingly numb to subliminal advertising as it is implemented in almost every film or series. Interestingly, as expected, the only 82-year-old that participated was also unable to identify any brand placement in the manipulation. In subparagraph 4.3.1 the distribution of respondents to the experimental conditions will be presented.

4.2.1 Distribution of experimental conditions

The experiment followed a between-subjects design which meant that each respondent was exposed to one of the test conditions. These experimental manipulations were equally distributed amongst the 225 participants (See Table 2). As previously mentioned in Chapter 3, these conditions consist of 1) prominent product placement & positive auditory support, 2) prominent product placement & neutral auditory support, 3) prominent product placement & negative auditory support, 4) subtle product placement & positive auditory support, 5) subtle product placement & neutral auditory support, and lastly

6) subtle product placement & negative auditory support. Table 4.2.1 displays the aforementioned

conditions which were equally exposed at random to respondents.

Table 4.2.1

Manipulation Distribution

		Prominent & Positive	Prominent & Neutral	Prominent & Negative	Subtle & Positive	Subtle & Neutral	Subtle & Negative
N	Valid	32	33	30	32	33	31
	Missing	192	192	195	193	194	193

4.2.2 Item inter-reliability

The between-subjects experiment took on a cross sectional design in which participants were

randomly exposed to six conditions. Such an experimental design requires the calculation of a Cronbach's

alpha in order to test for item inter reliability. Therefore, a reliability analysis was performed on the seven

questions that constituted the brand affiliation scale. The reliability statistics show that the Cronbach's

alpha was 0.853, representing a strong inter-reliability between the items as any value over .7 is accepted

as a strong Cronbach's alpha Nunnally (1978). Next to the reliability statistic, the item-total statistics

table displays the change in the Cronbach's alpha value if one of the items were to be deleted from the

set. The initially calculated Cronbach's alpha as mentioned in the reliability statistics was .853. This value

only showed to increase if item one, "To what extent do you remember seeing this brand" would be left

out for the reliability analysis. Interestingly, this item was the only item measuring memory and

recognition as all other items measured the respondent's affective emotions towards a brand. Given that

the initially calculated Cronbach's Alpha was strong, no items were removed.

4.3 Between-subjects analysis

Section 4.4 will assess the results of the 2 (prominent vs subtle) x 3 (positive auditory support,

neutral auditory support, and negative auditory support) factorial design. This will be done by critically

looking at the SPSS results of the between-subjects analysis in order to test the hypotheses as formulated in Chapter 2. More specifically, a univariate, or two-way ANOVA will be performed given that two or more independent variables are being tested. A univariate analysis allows for an understanding of how variables such as product placement and auditory support interact. This analysis helps understand if and how the effects of one independent variable may be influenced or moderated by another independent variable.

Before performing the between-subjects ANOVA, the Likert-scale questions measuring brand affiliation were grouped together under one all-encompassing variable "Brand Affiliation". Following this, the six conditions were grouped together under the new variable "Condition". To identify the level of the manipulation during the between-subjects analysis, each of the six conditions was labelled one through six (See appendix 2). Moreover, in the main effect analyses as well as the interaction effect analysis, the six conditions varied with respect to the two predictors variables, namely product placement and auditory support. Before looking at the main effects individually as well as the interaction effect on brand affiliation, an overview of the statistical assumptions that must be met will be given.

Following the descriptive results for all levels of the independent variables, the next step in performing a between subjects' analysis is to check the assumptions. The homogeneity assumption is met as the sample sizes for all exposure groups consist of roughly the same number of people. Given that the experiment follows a between-subjects design, a Levene's test of equality of error variances was conducted. This test assesses the assumption of the equality of variances for two or more groups that are being compared. Levene's test showed that the variances across the test groups were equal, $F(5, 145) = .220$, $p = .953$. The significance level is higher than .005, which indicates that the population variances are equal ($p > .005$). Hence, Levene's test of equality of variances fails to reject the null hypothesis and homogeneity of variance can be assumed.

4.3.1 Main effect of product placement on brand affiliation

Subparagraph 4.3.1 will analyze the main effects of product placement on brand affiliation and test the product placement hypothesis. Table 4.3.1 displays the 2x3 univariate between-subjects analysis

for both main effects, product placement and auditory support, as well as their interaction effect. The analysis showed that the main effect of product placement alone did not have a significant influence on brand affiliation, $F(5,151) = 3.142$, $p = 0.76$, $\eta 2 = .66$. This result concerns H1a which hypothesized that product placement significantly influences brand affiliation. Based on the 2.3 univariate analysis as presented in Table 4.3.1, it can be said that the current study found the main effect of product placement to be insignificant in predicting brand affiliation amongst respondents. Therefore, disprove the aforementioned hypothesis. Results from Table 4.3.1 could however be deemed inconclusive when assessed along with the desk research as addressed in Chapter 2. Having mentioned that pre-existing biases and subjectivity as well as respondent's (potential lack of) creativity in visualizing the script may have influenced the course of the results. The inconsistencies between the current experiment and past research will be further discussed in Chapter 5.

Table 4.3.1

Univariate test of between-subject effects

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Product placement	7.095	5	1.419	2.041	.76	.66
Auditory support	8.789	1	1.758	3.142	.16	.251
Product placement *Auditory support	7.042	2	1.293	2.011	.63	.44
Error	100.824	151				
Total	1250.211	154				

4.3.2 Main effect of auditory support on brand affiliation

Subparagraph 4.3.2 assesses the main effect of auditory support with respect to brand affiliation. The 2x3 univariate between-subjects analysis showed that the main effect of auditory support was insignificant in predicting brand affiliation, $F(1,151) = 3.142$, $p = .16$, $\eta 2 = .251$. Supported by Table 4.3.1 and similar to the results for the main effect of product placement, the 2x3 univariate analysis for

auditory support rejects hypothesis H2a which stated that auditory support is significant in predicting

brand affiliation. Alongside the rejection of hypothesis H2a, hypothesis H2b, H2c, and H2d were also

rejected. The 2x3 univariate test results in Table 4.3.1 support the notion that auditory support is

insignificant in predicting brand affiliation. Therefore, hypothesis H1b: prominent product placement

influences brand affiliation more than subtle product placement is also rejected. Together with the results

discussed in subparagraph 4.3.1, both main effects of product placement and auditory support, are deemed

insignificant in predicting brand affiliation. Again, potential factors that may elude the findings to be

inconclusive rather than insignificant are discussed in Chapter 5.

>   *4.3.3 Interaction effect of product placement and auditory support on brand affiliation*

Subparagraph 4.4.3 critically assesses the interaction effect of both predictors with respect to brand

affiliation. The subsequent outcome either proves or disproves the formulated hypotheses and answers the

research question. Analyzing the interaction effects aims to test the hypothesis H3 which states that the

interaction effect of product placement and auditory support significantly influences brand affiliation. To

assess the potential significance of the interaction effect, the two main effects of product placement and

auditory support will be compared to the comparing the interaction effect analysis. The 2x3 univariate

analysis showed that the interaction effect of product placement and auditory support was not significant

in predicting brand affiliation, $F(2,151) = 2.011$, $p = .63$, $\eta2 = .44$. Shown in Table 4.3.1, the insignificant

F-value indicates that the current model fits the data as well as another model with no independent

variables. This alludes to the notion that the interaction between product placement and auditory support

was not strong enough in predicting brand affiliation. The 2x3 univariate between-subjects analysis is

therefore able to reject hypothesis H3 which states that interaction effect of product placement and

auditory support significantly influences brand affiliation.

Chapter 5: Discussion & Conclusion

This section discusses the main findings that will be used to ultimately answer the research question "To what extent does brand placement in the form of product placement and auditory support in film significantly influence brand affiliation?". Furthermore, the key findings will be assessed with respect to the formulated hypotheses as mentioned in Chapter two. Following this is section 5.2 which critically discusses the reliability and validity of the experiment and research decisions that may influence the generalizability and replicability of the experiment. Theoretical and practical limitations will be discussed in section 5.3 and mitigated in section 5.4 where recommendations for future research are presented. Lastly, the conclusion in section 5.5 will tie together the research as a whole and sum up the main findings.

5.1 Key findings

To answer the research question, it was of importance to understand the fundamental basis of subliminal advertising and neuromarketing in film. This research complimented and built on past studies by measuring brand affiliation as a target variable and combining various levels of brand placement. The experimental design was based on thorough research which recommended future academics to build on their work. Gupta & Lord (1998), Yanga and Roskos-Ewoldsen, 2007 as well as Bressoud et al. (2010) called on new research to study the effect of product placement and auditory support quantitatively as opposed to the previously qualitative and ethnographic methods used by past academics. This study built the existing confirmatory studies by exploring new depths of emotional attachment, if any, towards a brand. Findings could help understand the influence brand placement on brand affiliations and add to studies concerned with subliminal advertising methods in film. In order to qualitatively study the relationship between brand placement, in the form of product placement and auditory support, on brand affiliation. The latter dependent variable of interest measured emotional affect towards a brand using Fournier's (1998) dimensions of brand affiliation and Keller's (2008) consumer-based-equity-model.

Despite the experiment yielding insignificant results the seven hypotheses, it could be argued that due to the nuances between the results, the data can be considered inconclusive, rather than insignificant. The reason for this that the desk research, based on past studies contradict the current study's findings. When critically assessing the data in its current state, this study presents key findings that countered expectations and inspire future research. A notable finding includes the combination of subtle product placement together with neutral auditory support that showed to have the strongest influence on brand affiliation. Interestingly, this condition showed to be most effective in influencing brand affiliation. This method of subliminal advertising could be deemed most successful due to the brand placement levels being inserted organically into the film script. Previous studies argued that organically placed products would be most effective in influencing brand memory and perceptions (Yang & Roskos-Ewoldsen, 2007). For this reason, combining prominent product placement together with neutral auditory support, viewers are exposed to brand placement through organic subliminal advertising. If the product was placed in a way that is deemed too subtle, viewers might not recognize nor remember the brand, which supports the notion that prominent product placement is superior to subtle product placement (Russell, 1999; Russell, 2002). However, if prominent product placement is used opposite of positive or negative auditory support, the audience may get the feeling that the film is actively advertising a specific brand. Subsequently, viewers can develop negative feelings towards that brand as it is not integrated organically into the film and therefore disrupts the viewing experience. This unintended effect of subliminal advertising highlights the importance of understanding the nuances between the various levels of brand placement in order to successfully integrate a brand in a film. Therefore, using neutral auditory support alongside prominent product placement allows viewers to develop their own thoughts and feelings towards the subliminally advertised brand.

5.1.1 Hypotheses

Subparagraph 5.1.1 discusses the seven hypotheses that were developed based on past research and tested using a two by three cross sectional between-subjects design. The hypotheses will be discussed

with respect to the results rejecting or supporting them. Further implications in terms of the reliability of the hypotheses will be discussed in subparagraph 5.2.

Hypothesis H1a states that product placement is significant in predicting brand affiliation. This hypothesis was, contrary to the research expectations, contested and disproven by the experimental data. As discussed in Chapter 4, subparagraph 4.3.2, the data in this experiment does not provide evidence that supports the claim made in the aforementioned hypothesis. Both main effects yielded insignificant results, therefore this hypothesis could not be supported. The reliability and validity of this study's ability to reject and fail to reject the hypotheses will be discussed in further depth in section 5.2. Past studies were able to support the assumption that product placement is more strongly related to the dependent variable compared to auditory support (d'Astous & Chartier, 2000; Law & Braun, 2000; Russell, 2002). Important to mention is that said studies investigated brand resonance as opposed to brand affiliation. Interestingly, this experiment was not able to support such assumptions as results showed that both product placement and auditory support were insignificant in influencing brand affiliation.

Hypothesis H1b expected that prominent product placement would influence brand affiliation more so than subtle product placement. This hypothesis was rejected as respondents who were exposed to the three conditions containing prominent product placement showed to score slightly lower on the brand affiliation scare as compared to respondents exposed to the subtle product placement film scripts. Past research found that prominent product placement significantly influenced brand awareness, attitudes and loyalty (Karrh et al., 2003; Cholinski, 2012). As discussed in Chapter two, Gupta & Lord (1998) found that prominent product placement outperformed other forms of product placement in influencing recall amongst consumers. Having used the ascribed levels of product placement from said studies, the current study provides opposing results. This could be due to the fact that past research focused on brand resonance rather than brand affiliation (Russell, 1999; Russell, 2002; Karrh et al., 2003; Cholinski, 2012). A conclusion that can be drawn from this is that brand affiliation is a much too complex variable to measure using the same approach when measuring brand resonance. Therefore, contrary to the formulated expectations, but understandably, hypothesis H1b was rejected based on the notion that there was a .05

difference in the descriptive means between prominent and subtle product placement. This could again be due to any experimental incongruencies that would deem the result inconclusive. Small differences like this could therefore be considered unreliable as experiments often contain an approximation error. Having said this, the cross-sectional design of this research should be taken into consideration when measuring brand affiliation due to the complexity of measuring the formation of emotional connections and brand affiliations. This brings to light the possibility that the results of the current study challenge past research and motivate future research to explore the influence of brand placement on brand affiliation further.

Hypothesis H2a predicted that auditory support would be significant in predicting brand affiliation. Based on the data as discussed in Chapter 4, subparagraph 4.3.2, the main effect of auditory support was deemed insignificant in predicting brand affiliation. All three subsequent hypotheses (hypothesis H2b, H2c, and H2d) were also rejected. Hypothesis H2b expected that positive auditory support influenced brand affiliation more so than negative auditory support. This hypothesis was based on research by Edstorm and Jervfors (2006), who found that the positive verbal mention of a brand in film script reigned superior over the negative verbal mention of a brand in script. Despite the desk research as addressed in Chapter 2 supporting the hypotheses, the rejection said could be understood as a false negative. The formulated hypotheses should, in theory, have been accepted, however given the data of the current study, this was not possible. Looking at hypotheses for auditory support holistically, it was surprising to find that neutral auditory support outperformed both positive and negative auditory support in influencing brand affiliation. Neutral auditory support outperforming positive auditory support as a predictor of brand affiliation was not anticipated and therefore rejected hypothesis H2c which anticipated that positive auditory support would influence brand affiliation more so than neutral auditory support. Hypothesis H2d hypothesized that negative auditory support would influence brand affiliation more than neutral auditory support. As expected, based on literature presented in Chapter two, this hypothesis was rejected. Redondo (2012) studied the influence of negative brand placement in film on consumer behaviours and concluded that the negative mention of a brand influenced consumers to consume less of that brand. This theory is based on the intrinsic effect of negative brand placement which, according to

the elaboration likelihood model, influences consumers to avoid a brand post-negative brand placement (Petty & Cacioppo, 1986; Redondo, 2012). Despite the current study's nuanced results, the rejection of hypothesis H2d aligns with Redondo's (2012) take on negative brand placement.

Hypothesis H3 expected the interaction of product placement and auditory support to be significant in predicting brand affiliation. To assess this assumption, the interaction effect was compared to the two main effects. The analysis concluded that this hypothesis could not be supported as data yielded insignificant results. This could be brought into question as previous studies conducted research that was able to support this hypothesis (Balasubramanian et al., 2006; Yang, Roskos-Ewoldsen, 2007) Such studies were based on qualitative research centered around testing the influence of product placement and auditory support on brand memory. Researchers were able to investigate memory as the variable of interest on a "yes" and "no" scale. This study, however, measures the variable of interest, brand affiliation using more complex dimensions that are represented by inter-related items (Keller, 2008; Fournier, 1998). This exposes the current study to potential confounding variables that may not be measured in the experiment, but that respondents do take into consideration when forming emotional ties to a product or brand.

5.2 Reliability and validity

Section 5.2 critically assesses the current study's reliability and validity in terms of the theoretical basis and execution. Measures taken to ensure reliable and valid results as proposed and discussed will be critically analyzed to justify and critique the operationalization of said measures.

5.2.1 Reliability

This subparagraph reflects on the measures taken to secure and improve the current study's reliability. It is important to consider any factors unaccounted for that were unintentionally introduced by the researcher, participants or testing environment.

A critical research design choice that was in the best interest of both the researcher and participants was the decision to run a between-subjects design. The reason behind favoring a between-

subjects design over a within-subjects design for this experiment was twofold. Firstly, utilizing a between-subjects design over a within-subjects design alleviates any time-related issues. If all respondents were to have been exposed to all six conditions, each followed by the same set of Likert-scale questions, the experiment would take a minimum of 15 minutes. Such length would strongly influence the validity of the experiment as it potentially increases the dropout rate, learning effect, attrition, and maturation. Secondly, a between-subjects design clearly shows the difference between the test groups. Since the purpose of this study was to test whether participants would respond any differently depending on the levels of product placement and auditory support they were exposed to. Each participant was therefore randomly exposed to one of the six experimental conditions. Like so, six comparable groups were formed of roughly the same sample size that would clearly show any distinct differences between groups.

The experimental design must be considered when reflecting on potential research inconsistencies that could have potentially influenced the rejection or acceptance of hypotheses. Therefore, an interesting question to ask when assessing the current study's reliability is if this experiment would yield similar results if it were performed on another group. Depending on the research design, sample group and chosen manipulations, the outcome should not vary drastically when tested on another group. The research was designed to measure brand affiliation post-exposure using a cross-sectional design. This choice could be brought into question as a cross-sectional design captures participant's data at one specific point in time. Contrary to previous research that studied people's ability to remember seeing a brand, brand affiliation is a more complex cognitive emotion to measure. This invites confounding factors that influence respondents to consider any pre-existing biases towards the industry, movie, or product in order to influence affiliation. It could therefore be argued that a longitudinal study, whereby participants would be exposed to one level of the manipulation on multiple occasions, in order to best understand the effect on brand affiliation. Since brand affiliation is a more difficult cognitive and emotional variable to measure, it might be interesting for future research to focus on incorporating a longitudinal design in

researching the relationship between brand placement and brand affiliation. This recommendation will be elaborated on in section 5.4.

The current study provides opposing results with respect to the disapproval of hypotheses that were previously supported by other past researchers. Again, as mentioned in section 5.1.1., this experiment differed in terms of the dependent variable, seeing that past studies measure brand memory and the current study measures brand affiliation, results become less comparable. However, in order for future research to build on the current study, it is fruitful to assess the consistency of the brand affiliation scale used to measure the respondent's brand affiliation post-exposure. Hence, the accuracy of the scale used to measure brand affiliation must also be analyzed. The chosen scale was based on Fournier's (1998) BRQ. Each question used in the experiment measured one of the six emotional, behavioral, and cognitive dimensions including feelings of commitment, passion, and brand quality (Fournier, 1998). On top of this, Keller's (2008) psychological dimensions consisting of brand loyalty, brand image, perceived quality and brand awareness were used to support Fournier's model. Other pre-existing scales measuring the affective state that constitutes brand affiliation may differ slightly. A variety of brand affiliation scales are directed strongly towards measuring individuals' affective behaviours, whereas other scales focus more on the consumer's pragmatic behaviours, such as brand loyalty, likeliness of recommending a specific brand, and purchase intentions (Kuehn, 1963, Smith & Swinyard, 1983; Yoo & Donthu, 2001, Enginkaya & Yılmaz, 2014).

The participant behaviour along with the testing environment were difficult to control throughout this experiment. Any potential confounding influence from either side were pre-tested prior to the experiment. The experiment was sent out using Qualtrics, which allowed participants to perform the experiment in any which way they preferred. Instead of using an artificial and formal test setting, each participant was able to complete the experiment in the environment of their choosing. This may have influenced the degree to which respondents devoted their attention to the experiment. Despite cleaning up the Qualtrics dataset in SPSS, it is impossible to know how respondents went about the experiment. Interestingly, Qualtrics offers a tool that allows researchers to track respondent's 'engagement' which

translates to the amount of time respondents spent on the experiment. This could help indicate whether or not respondents rushed through the experiment or if they took their time to understand the items and respond accordingly.

5.2.2 Validity

Following the experiment and analysis of results, the validity of the experiment was considered. Past research (Gupta & Lord, 1998; Yang & Roskos-Ewoldsen, 2007) has made use of manipulations and scales that aimed to depict various levels of product placement and auditory support. Similarly, the current study intended for each of the six experimental conditions to accurately represent the intended levels. Important to consider is, how accurately did the ascribed levels of prominent and subtle product placement as well as positive, neutral, and negative auditory support measure the intended level. On top of this, the intended versus actual difference between the six levels important to consider how drastically the six levels differed from one another. This requires taking a nuanced approach to the six manipulations in order to consider how the two by three design divided the independent variables using intensity and strength of their presence in the film script. The experimental conditions consisted of a script for which two components varied across all six manipulations. The scripts contained a mix of the two predictor variables: product placement and auditory support (See appendix 2).

In an ideal setting, the manipulations would consist of one short film clip that is edited in six different ways. Like so, the film scripts would be identical in all aspects except for the manipulation. This was not feasible due to the manipulation of such film scripts being a time consuming and technologically challenging task. Therefore, to best measure the differences between groups based on the manipulations, individuals were exposed to identical film scripts that differed only in terms of the manipulation.

5.3 Limitations

This section critically reflects on the process of experimentation and evaluates three theoretical limitations that surfaced in researching product placement and auditory support in entertainment media. Subparagraph 5.3.1 identifies the potential complications related to the study's cross-sectional research

design. Subparagraph 5.3.2 assesses the distinction between manipulations and discusses any practical implications that may have hindered respondent's interpretation of the manipulation to which they were exposed. Lastly, subparagraph 5.3.3 analyzes the potential subjectivity introduced into the study by making use of scripts that each respondent was to visually interpret.

5.3.1 Research design

Similar to past research by Gupta and Lord (1998), and Bressoud et al. (2008), this study took on a cross-sectional design in testing various levels of brand placement. However, the aforementioned studies aimed to test the influence of brand placement on consumer's ability to remember a brand. As previously mentioned in subparagraph 5.1.1, the ability for participants to remember a brand was measured dichotomously. The dependent variable in this research, brand affiliation, was measured on a spectrum. This introduces a grey area with respect to the justification of the research design. With this in mind, the feasibility of evaluating the respondent's level of brand affiliation post-exposure to one of the six experimental conditions is brought into question. Tsai et al. (2007) argue that a one-time recording of a complex emotional reaction such a brand affiliation is not favorable. Instead, they found that in order to successfully measure brand affiliation, participants must be exposed to the manipulation on a regular basis. Interestingly, this research also made use of the brand Coca-Cola to measure brand affiliation. Tsai et al., (2007) were able to conclude that individuals exposed to more films and series per month had higher brand awareness of Coca Cola. Section 5.4.1 will provide a recommendation that mitigates the current cross-sectional design.

5.3.2 Distinction between manipulations

The nuance between the different levels of product placement and auditory support were based on past scholar's classification of various levels of brand placement (Russell, 1998; Brennan et al., 1999; d'Astous & Chartier, 2000). Russell's (1998) distinction of brand placement takes into account screen placement, script placement, and plot placement. Based on these distinctive categories, the manipulations were adapted to fit the appropriate level of brand placement, be it subtle or prominent. Having said this,

the experiment required respondents to creatively engage with the script and to visualize it as though it were a film scene. It can be argued that the six manipulations were not distinct enough and that slight nuances between certain levels of brand placement could be considered as ambiguous. Meaning that, some respondents may have subliminally interpreted neutral auditory for negative auditory support, and some respondents may have picked subtle product placement as prominent product placement.

5.3.3 Respondent subjectivity

Respondents were exposed to similar scripts; however, it must be understood that all respondents were asked to visualize the script in their own way. With their own interpretations, some respondents may have engaged more with the script, which resulted in more fruitful results. Testing the influence of product placement and auditory support via a script showed to be difficult. This method of experimentation did not allow for the respondent to actually see, nor hear the product. Instead, it requires the respondent to visualize and imagine such occurrences. For this reason, future research is recommended to make use of actual film scene that make use of the above-mentioned manipulations. This would distract the respondent from the task and generate more candid and generalizable results. mitigated for possible pre-existing biases. As mentioned in section 3.1, Gupta and Lord (1998) as well as Bressoud et al.'s (2008), distinctions of brand placement was used to develop the manipulations in the current study. Despite being exposed to the same condition, respondents may have interpreted the script different to each other due to their own subjectivity, as they were required to visualize the script as a film scene using their imagination. On top of this, the manipulation contained subliminal brand placement and auditory support which may have differed in influence depending on the respondent.

Potential biases towards the brand Coca-Cola were mitigated by performing a series of pre-tests. In doing so, pre-existing biases or associations were measured in order to establish whether or not this brand was perceptive to too many partialities. This could include previous encounters or experiences as well as overall preference for the brand and product. Despite the efforts to minimize this confounding bias, it is almost impossible to completely control such prejudices as they differ per person and are

sometimes undetectable as they have been subconsciously accumulated over time. Given that subjective interpretations are not malleable and hard to influence using a cross-sectional between-subjects design, a mitigating solution will be discussed in section 5.3.

5.4 Future research

Section 5.4 is preceded by the theoretical limitations and builds on this section by presenting and discussing any potentially fruitful recommendations that could inspire and support future research. The aforementioned limitations will be mitigated, where ideas for future research recommendations are discussed. Building on past studies, this research aimed to test whether exposure to brand placement on various levels could influence brand affiliation. This variable has proven challenging to measure, therefore future research is recommended to adapt the current research design by implementing new features. Subparagraph 4.4.1 will discuss the potential fruitfulness of the implementation of a longitudinal design in order to actually measure the influence of different levels of brand placement on brand affiliation. Subparagraph 5.4.2 elaborated on the idea of adding a control group. This group would be exposed to the control condition that contains no manipulation. Following this recommendation is subparagraph 5.4.3, which proposes the use of professional Hollywood films in testing brand placement in entertainment media.

5.4.1 Longitudinal research design

This solution recommends researchers to utilize a longitudinal within-subjects design where a smaller group is exposed to all levels. Like so, respondent's genuine brand affiliation, which is formed over time, is measured periodically over a period of time. Given that brand affiliation is a difficult variable to measure due to its cognitive complexity and depth. Testing respondents frequently over a period of time will amplify the genuine influence of brand placement on a person's affective state. Utilizing a longitudinal design will help increase the reliability of the study as results will be based on various recordings which will clearly signify any change in a person's affiliation towards a brand. Therefore, implementing a longitudinal design will mitigate potential inconsistencies in the results of a

cross-sectional design. Making use of a longitudinal design will allow for the research to understand how individuals are influenced by the frequent subliminal exposure of certain level brand placement (Tsai et al., 2007). Therefore, it is recommended for future research to investigate the influence of brand placement using product placement and auditory support as subliminal advertising techniques over a longer period of time.

An interesting feature for future research to take into account when studying brand placement, the 'mere exposure effect'. Coined by Zajonc (1968), he experimented with repetition as a key feature to brand placement and found that brand preference is developed as a result of repeated exposure. He developed a scale that classified repetition using a spectrum ranging from high repetition to low repetition. Zajonc (1968) found that the amount of exposure alone was significant in influencing emotional affect towards a brand. Therefore, according to Zajonc (1968), by repeatedly exposing respondents to a certain level of the manipulation will ultimately influence brand affect. This ties back to performing a longitudinal design, as research by Zajonc (1968) supports the hypothesis that participants whom are more frequently exposed a brand or product form stronger brand affiliations than participants who are sporadically exposed to a brand or product. For this reason, future research is motivated to investigate brand placement with respect to Zajonc's (1968) 'mere exposure effect'. This would entail studying product placement and auditory support in film by focusing specifically on the frequency of the placement, rather than the level, as the current study investigated.

5.4.2 Control group

Future research is recommended to include in the experiment an extra condition, where the respondent is not exposed to any of the independent variables, much like a control group. This would require a strong cover story and filler questions as it may open the research to more confounding variables that could influence a potential placebo effect. Overall, by including a control group, future studies investigating the influence of brand placement on brand affiliation are able to compare the effects of the test group to the control group. Such cross comparison could clearly display the discrepancies between

groups and highlight the effect of including brand placement in film. Including a control group will positively influence the validity as the treatment group(s) and control group might show distinct variations in outcome. To take this a step further, future research is recommended to make use of multiple control groups to reduce any potential biases or confounding influences that cannot be identified when using one control group. This simultaneously facilitates the comparability between the control and test groups as well as the control groups.

5.4.3 Professionally altered film clips

Currently, this study made use of film scripts in order to measure the influence of the two independent variables on the dependent variable. Due to technical restrictions, neither different film clips containing the six manipulations, nor identical and artificially manipulated film clips were used. Having used six scripts, respondents were not making used of their visual and auditory senses. Instead, participants were instructed to read the script and vividly imagine it as though it were a film scene. In an ideal setting, respondents would have imagined the script as vividly as possible. However due to confounding factors such as the extent of the respondents' creativity or interest, the film scripts were not ideal. Even if the respondents were to vividly have imagined the film script as a movie scene, there would be a risk of subjectivity, as the respondent may have based their imagination on personal experiences. For this reason, it can be argued that product placement is best measured using visual cues, and auditory support is best measured using audio cues. Therefore, future research is recommended to make use of artificially manipulated video clips from professional films or series. Like so, the respondents are exposed to the manipulations in more natural ways, which, in turn, reduces participants failing the manipulation check and therefore provide more usable responses. This recommendation mitigates for the current ambiguity that is brought forth by using scripts. By using film clips, the manipulations will become more defined, while remaining subliminal. The use of product placement and auditory support - subtle vs prominent and positive vs neutral vs negative, respectively.

5.5 Conclusion

Having identified the societal relevance and current gaps in academic literature, this study researched product placement and auditory support using a two by three factorial design. By doing so, the current study investigated various levels of subliminal product placement and auditory as brand placement as advertising techniques in the non-commercial settings of film. In doing so, this paper addresses the popular neuromarketing techniques of subliminal brand placement in order to measure respondents' brand affiliation as a complex cognitive state. More specifically, band placement was studied on two levels, namely, product placement, and auditory support. To critically assess both predictors with respect to brand affiliation, this study considered various levels of each predictor, including, prominent product placement, subtle product placement, as well as positive auditory support, neutral auditory support, and negative auditory support.

Results added to existing literature in that this research found that subtle product placement along with neutral auditory support show to be the most effective in influencing brand affiliation. The research question reads "to what extent does brand placement in the form of product placement and auditory support in film significantly influence brand affiliation?". As discussed in section 5.1, the statistical data processing stage yielded insignificant results for all but one hypothesis. Interestingly, the findings did support the notion that subtle product placement and neutral auditory support has a stronger influence in subliminally advertising a brand and influencing brand affiliation. However, given that the seven hypotheses were rejected, the results could be called into question with respect to potentially being false negatives or inconclusive. For this reason, the current study can state that, based on the overall field study results, product placement and auditory support were insignificant in predicting brand affiliation. Based on the desk study, as discussed in Chapter 2, the research question and hypotheses *can* be supported using previously accepted and proven theories from past studies. Such studies also investigated the influence of product placement and auditory support, however, contrary to the current study, such studies considered brand resonance as the dependent measure (Gupta & Lord, 1998; D'Astous & Chartier, 2000; Yang & Roskos-Ewoldsen, 2007; Bressoud et al., 2010). Having emphasized the complexity of measuring

emotion, this study provides an incentive for future research to further investigate the influence of subliminal brand placements in entertainment media on emotional affect. As the influence of subliminal advertising has been proven, new behavioral and emotional depths are to be explored in order to fully grasp the subconscious impact of said neuromarketing technique.

Abbreviations

Abbreviation	Definition
BRQ	Brand relationship quality
PP	Product placement
AS	Auditory support

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Appendices

Appendix 1: Brand affiliation scales

Appendix 1a: Keller's (2008) consumer-based brand equity model
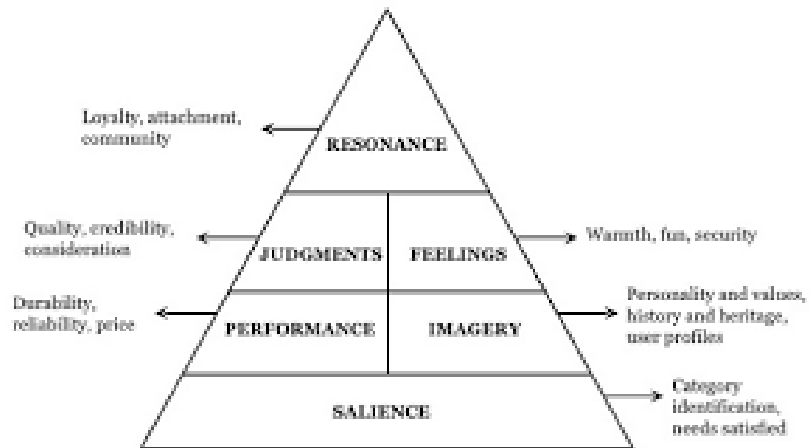
Appendix 1b: Fournier's (1998) brand relationship quality model

Six-dimensions of brand relationship quality (BRQ)

Affective & Socioemotive Attachment	Love and Passion
	Self-connection
Behavioral Ties	Interdependence
	Commitment
Supportive Cognitive Beliefs	Intimacy
	Brand partner quality

Appendix 2: Experimental manipulations

Appendix 2a: Experimental manipulation one

Prominent product placement x positive auditory support

Please read the following script carefully, and visualize it as a film scene:

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now and has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, Lisa takes a sip of her Coca-Cola and looks down at the can while saying to herself "man, this tastes good". Before she knew it she had finished her drink and threw the crushed can out of her car window into a field of dusting sand.

Prominent product placement x neutral auditory support

Please read the following script carefully, and visualize it as a film scene:

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now and has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, Lisa craves a drink and decides to make a quick stop at a gas station to buy some snacks. While at the gas station Lisa asks for a Coca-Cola and some chips and finds herself a nice spot in the shade where she reflects on her journey thus far. When she is done with her drink, Lisa throws the crushed can of Coca-Cola out into the dry desert and heads back to her car.

Prominent product placement x negative auditory support

Please read the following script carefully, and visualize it as a film scene:

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now and has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, Lisa craves a drink and decides to make a quick stop at a gas station to buy some snacks. While at the gas station Lisa is offered a cold Coca-Cola, to which she responds negatively as she finds the drink nauseating. Instead, she buys a bottle of water and finds herself a nice spot in the shade where she reflects on her journey thus far. While walking out of the gas station towards her car, Lisa kicks at a crushed can of Coca-Cola through the desert sand.

Subtle product placement x positive auditory support

Please read the following script carefully, and visualize it as a film scene:

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now and has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large Coca-Cola billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, she takes a sip of her Coca-Cola and says to herself "man, this tastes good". Following Lisa's long and dreary journey, she finally finds herself in the midst of it all, Hollywood.

Subtle product placement x neutral auditory support

Please read the following script carefully, and visualize it as a film scene:

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now and has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large Coca-Cola billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, Lisa craves a drink and decides to make a quick stop at a gas station to buy some snacks. While at the gas station Lisa asks for a Coca-Cola and some chips and finds herself a nice spot in the shade where she reflects on her journey thus far.

Subtle product placement x negative auditory support

Please read the following script carefully, and visualize it as a film scene:

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now and has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large Coca-Cola billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, Lisa craves a drink and decides to make a quick stop at a gas station to buy some snacks. While at the gas station Lisa is offered a cold Coca-Cola, to which she responds negatively as she finds the drink nauseating. Instead, she buys a bottle of water and finds herself a nice spot in the shade where she reflects on her journey thus far. Following Lisa's long and dreary journey, she finally finds herself in the midst of it all, Hollywood.

Appendix 3: Qualtrics survey

Thank you for taking the time to participate in this survey!

Your input is greatly appreciated and will be used to study emotional attachment to characters in film.

The results are part of a Master thesis which will be used for academic purposes, and be shared with the Erasmus University Rotterdam.

This survey is completely anonymous and your responses will remain confidential.

[→]

This survey will take 2-5 minutes.

If you are completing this survey on your phone, it is recommended that you hold it sideways.

Please click on the arrow to start.

[→]

What is your gender?

○ Male

○ Female

○ Prefer not to say

Please indicate your age

[   ]

[→]

Erasmus Behavioural Lab

Please read the following script carefully, and visualize it as a film scene.

[▸]

Erasmus Behavioural Lab

21-year-old Lisa is on her way to Los Angeles to try and make it as an actress. With her last couple of hundred dollars, she decided that it was time to try and make it big in Hollywood. Lisa has been on the road for 6 hours now has still seen nothing other than the dry Nevada desert. The long road ahead was dense with a heat haze that shimmered on the asphalt and in her rearview mirror a large billboard flashed by. While on the road, she found herself daydreaming about starring in Hollywood movies and winning awards for her performance as a leading actress. Awakened by the reality of sitting behind the wheel, Lisa craves a drink and decides to make a quick stop at a gas station to buy some snacks. While at the gas station Lisa is offered a cold Coca-Cola, to which she responds negatively as she finds the drink nauseating. Instead, she buys a bottle of water and finds herself a nice spot in the shade where she reflects on her journey thus far. While walking out of the gas station towards her car, Lisa kicks at a crushed can of Coca-Cola through the desert sand.

[→]

Erasmus Behavioural Lab

Please answer the following questions on a scale of 1-5.
(1 = completely disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = completely agree)

I enjoyed reading this script

○ 1 - completely disagree

○ 2 - disagree

○ 3 - neither disagree nor agree

○ 4 - agree

○ 5 - completely agree

I feel that the plot was original

○ 1 - completely disagree

○ 2 - disagree

○ 3 - neither disagree nor agree

○ 4 - agree

○ 5 - completely agree

I feel connected to the character in the script

○ 1 - completely disagree

○ 2 - disagree

○ 3 - neither disagree nor agree

○ 4 - agree

○ 5 - completely agree

Did you notice any brand placement?

○ Yes

○ No

→

Erasmus
Behavioural
Lab

Please indicate which brand you noticed in the script:

[   ]

Please answer the following questions on a scale of 1-5.
(1 = not at all, 2 = a little, 3 = sometimes, 4 = considerably, 5 = a lot).

To what extent do you remember seeing this brand?

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I have positive feelings towards this brand

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I feel that this brand is of high quality

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I am loyal to this brand

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I feel passionately about this brand

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I feel connected to this brand

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

This brand influences how how I feel

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I feel as though the script helped me visualize the scene

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

The script helped me gain a deeper understanding of the character

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I relate to the character in the script

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

I would enjoy watching this scene if it were in a film

	1 - not at all	2 - a little	3 - quite a bit	4 - considerably	5 - a lot
	○	○	○	○	○

→

Erasmus Behavioural Lab

Before concluding, please answer the following question:

What do you think this survey aimed to measure?

[   ]

→

Erasmus Behavioural Lab

Thank you for participating in this survey!

If you have any questions, feel free to contact 443155eb@eur.nl

→

Appendix 4: Likert-scale questions

Please answer on a scale of 1-5 (1 = completely disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = completely agree)

- I enjoyed reading this script (Filler question)
- I feel that the plot was original (Filler question)
- I feel connected to the character in the script (Filler question)
- Did you notice any brand placement? (Manipulation check)
    - Please indicate which brand you noticed in the script: [_____]

Please answer the following questions on a scale of 1-5 (1 = not at all, 2 = a little, 3 = sometimes, 4 = considerably, 5 = a lot).

- To what extent do you remember seeing this brand? (BRQ*)
- I have positive feelings towards this brand (BRQ)
- I feel that this brand is of high quality (BRQ)
- I am loyal to this brand (BRQ)
- I feel passionately about this brand (BRQ)
- I feel connected to this brand (BRQ)
- This brand influences how I feel (BRQ)
- I feel as though the script helped me visualize the scene (Filler question)
- The script helped me gain a deeper understanding of the character (Filler question)
- I relate to the character in the script (Filler question)
- I would enjoy watching this scene if it were in a film (Filler question)

* Items marked with "(BRQ)" measure brand affiliation by based on Fournier's (1998) six dimensions of brand relationship quality.