

Good guy vs. bad guy: the influence of parasocial interactions with media characters on brand placement effects

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Although brand placements are frequently associated with media characters within movies or TV series, and viewers are well known to relate to such characters, previous research has scarcely dealt with media characters' influence on brand placement effects. Addressing this, two studies investigate the influence of parasocial interactions with media characters on perceptions of brands related to media characters. The first study applied a 1×2 between-subjects design, assuming that positively represented characters elicit greater parasocial interaction and, subsequently, more favourable brand attitudes compared with negatively represented characters. The results confirm the assumed indirect effect. A second study was able to replicate the first study's findings in a different setting and to introduce brand familiarity as an important moderator of the mediation found in the first and second study (moderated mediation). The underlying mechanism and implications are discussed.

Keywords: product placement; parasocial interaction; brand familiarity; advertising effects; brand personality

1. Introduction

As practitioners currently see brand placement as the future of television advertising, being ideally suited for brand communication (Smit, van Reijmersdal, and Neijens 2009), the use of brand placement is increasing and is predicted to further increase within the advertising industry (Hampp 2010). Though academic research has examined brand placement in the past 10–15 years all over the world (e.g. Europe: Smit, van Reijmersdal, and Neijens 2009; Asia: Nelson and Devanathan 2006; Australia: Scott and Craig-Lees 2010; North America: Russell and Stern 2006; for recent reviews, see van Reijmersdal, Neijens, and Smit 2009; Williams et al. 2011), there is still a pressing need for research on the impact of brand placements (R.C. Taylor 2013). Particularly, the context into which brand placements are integrated has been neglected (van Reijmersdal, Smit and Neijens 2010). This seems to be a particularly serious deficit since brand placements are defined as the 'purposeful incorporation of brands into editorial content' (van Reijmersdal, Neijens, and Smit 2009, 429; see also Russell and Belch 2005), and are assumed to exert a favourable influence on viewers' consumer choices precisely because of this incorporation. Being integral parts of media settings or plots, brand placements are often not recognized as advertising and, thus, are generally not perceived as annoying (DeLorme and Reid 1999). However, since brand placements are integrated into editorial

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content, their meaning and effects depend on the respective action context. Looking at television or computer games, acting characters can be assumed to play key roles, as media characters are often linked to the brand placement during the course of a movie or a game (Avery and Ferraro 2000; Nelson 2002; Smit, van Reijmersdal, and Neijens 2009). In addition, a vast body of empirical evidence indicates that viewers interact with and relate to media characters, and are therefore influenced by them (Klimmt, Hartmann, and Schramm 2006). As a result, it seems highly plausible that media characters linked to brand placements – or more precisely, viewers' interactions or relationships with those characters – influence the meaning of the brand placements in viewers' minds and, thus, their effects. Following this reasoning, the present paper investigates the influence of viewers' relationships with media characters ('good' versus 'bad' guys) on brand placement effects by incorporating up-to-date research on parasocial interaction (PSI).

2. Brand placements and media characters

2.1 Existing research

The few studies that have considered media characters in the context of brand placements focused mainly on connections between characters and brands, and the influence of the connections on brand placement effects. For example, D'Astous and Chartier (2000) showed that recall, recognition, and attitudes towards placements are enhanced when a main character is performing during the period when the brand is visible (see Dens et al. 2013 for similar results). Referring to classical conditioning, the authors assumed that the simultaneous presentation of placements and favourable movie stars leads to positive associations with the placements. However, this study failed to assess whether the movie stars were seen as favourable at all. Likewise, Yang and Roskos-Ewoldsen (2007) reported that placements used by main characters are positively correlated with positive brand attitudes from the audience; yet, again, the implied audience's positive relationship with performing characters was not tested. Hence, there is some evidence that media characters and possibly the relationships that viewers maintain with media characters influence brand placement effects. On the other hand, it is evident that viewers, and especially their individual relationships towards media characters, have yet to be sufficiently considered in brand placement research (Balasubramanian, Karrh, and Patwardhan 2006; Karrh 1998; van Reijmersdal, Neijens, and Smit 2009). Accordingly, Scott and Craig-Lees (2010) argued that past studies have overemphasized the characteristics of product placement while neglecting the audience, which is relegated to the role of a passive processor.

2.2 The balance model of product placement effects

To address the limitation discussed above, the balance model of product placement effects (Russell and Stern 2006) is a promising approach to integrating the audience, media characters, and brand placements on a theoretical level. Referring to Heider's (1946, 1967) balance theory, Russell and Stern's (2006) model employs a cognitive triad comprising the viewer's self-perception, his or her perception of a media character, and his or her perception of a brand placement. As people generally strive for a consistent organization of their cognitive structures (Heider 1946, 1967), experiencing this state as being most tension-free and pleasant, perceivers of brand placements are also likely to align the interrelations of these three cognitive elements in a consistent manner. Looking at the perception of brand placements, such a consistent or balanced state is achieved if a viewer perceives a media character and a brand placement as equally valenced (i.e., as both

positive or both negative) while both themselves are positively related to each other – that is, the perceived attitude of the character toward the brand is positive. In addition, a balanced state exists if a viewer perceives a media character and a brand placement differently valenced (i.e., one positive and one negative) while both themselves are negatively related to each other, that is, the perceived attitude of the character toward the brand is negative. All other possible cognitive configurations are contradictory and are therefore unbalanced and undesirable.

Transferring this idea to brand placement effects, recipients will hold positive attitudes towards brand placements if their relationship to a media character and the character's relationship to the placement are both positive or both negative. Conversely, attitudes towards placements will be negative if the two relationships have opposite valence (Russell and Stern 2006). Russell and Stern (2006) tested their assumptions in a field study surveying all three relationships after viewers' consumption of various TV series. The results show that viewers' so-called positive 'parasocial attachment' to media characters, and media characters' positive relationships to brand placements, have a positive influence on viewers' attitudes towards brand placements. Similar results were reported by Scott and Craig-Lees (2010). Although both of these studies included parasocial processes between viewers and media characters as influencing factors pointing the way ahead, both were limited by the approach employed to conceptualize and measure the relationship between the audience and the media character. Using the PSI scale proposed by Rubin, Perse, and Powell (1985), Russell and Stern (2006) viewed the relationship between the viewer and the media character to be positive a priori as the adopted scale views PSI as a solely positive process including only items with positive valence. However, brand placements are often related to so-called 'bad' guys with whom viewers might just as well maintain a negatively valenced relationship. Since such relationships cannot be measured by the above-mentioned scale, it is impossible to measure possible negative effects resulting from such relationships, even though such effects are of interest to the advertising industry. While Scott and Craig-Lees (2010) addressed this shortcoming by measuring positively as well as negatively valenced relationships using the modified program-liking scale proposed by Murry, Lastovicka, and Singh (1992), they only focused on affective reactions to media characters. Hence, cognitive and behavioural reactions related to media characters were neglected, despite the fact that these might just as well influence brand placement effects on a cognitive or behavioural level. Summing up, 'the main limitation pertains to the scales used' (Scott and Craig-Lees 2010, 52). In addition, neither Russell and Stern (2006) nor Scott and Craig-Lees (2010) made detailed assumptions about how these audience–media character relationships are built and what they initially depend on.

2.3 *The present elaboration*

Addressing these shortcomings, we propose a conceptualization building on the balance model (Russell and Stern 2006), but specifying the audience–media character relationship more precisely. Looking at current brand management research, scholars agree that brands eventually come to existence within the mind of the recipient (Keller 2012). Following the associative network model (Collins and Loftus 1975), brands can be seen as nodes in the memory with a broad range of associations linked to them (Keller 2012), resembling the general understanding of schemas (S.E. Taylor and Crocker 1981). Since recipients might parasocially interact with media characters linked to brand placement, while storing this interaction in the memory (Klimmt, Hartmann, and Schramm 2006),

this parasocial information might easily influence existing brand knowledge or lead to the development of new brand knowledge in the form of new associations (Keller 2012).

The two-level model of PSI (Klimmt, Hartmann, and Schramm 2006; for empirical realizations/validations, see Schramm and Hartmann 2008; Schramm and Wirth 2010) conceptualizes those

viewer responses to media personae as being composed of different cognitive, emotional, and/or behavioural processes. These processes follow on initial impression formation (or persona recognition), can emerge into different interaction patterns, can change dynamically within the course of media exposure, and are strongly influenced both by persona and viewer variables (Klimmt, Hartmann, and Schramm 2006, 302; see also this reference for a more comprehensive discussion of the model).

PSI builds upon an initial impression-formation process comparable to impression-formation in real-life encounters. The process is thought to be mostly unconscious and automatic, and results in a schema-like characterization of the encountered person (Fiske, Lin, and Neuberg 1999). Klimmt, Hartmann, and Schramm (2006) assume that perceived media character attractiveness plays a key role in the initial categorization process. Specifically, they suggest that media characters are initially categorized schema-like as either attractive or unattractive. It is important to note that attractiveness can refer to a person's outer appearance (physical attractiveness), a person's inner appearance or personality (character attractiveness) and a person's success in accomplishing tasks (task attractiveness; Schramm and Hartmann 2008). The present paper concentrates on character attractiveness – that is, the attractiveness of a character's personality. Following Hoffner and Cantor (1991), several factors might influence the perceived level of this attractiveness. For instance, individuals are perceived as being more attractive when they possess positively evaluated attributes (e.g. good manners), show social or positive nonverbal behaviour (e.g. helping other persons), are perceived as being similar to oneself, or possess desired characteristics (e.g. intelligence).

H1: Recipients perceive positively represented media characters as being more attractive than negatively represented media characters.

After a media character has been categorized, PSI can start as parasocial processing including all cognitive, affective, and behavioural reactions to a media character. In other words, PSI then functions as some kind of interpersonal involvement encompassing the extent 'to which the individual interacts psychologically with a media character' (Schramm and Hartmann 2008, 388). Developing a universal tool to capture those processes, Schramm and Hartmann (2008) distinguish among 12 sub-processes that further elaborate the cognitive, affective, and behavioural components of PSI (see Table 1, and also Klimmt, Hartmann, and Schramm 2006 for further explanation). Most important, all processes can occur independently from each other (Klimmt, Hartmann, and Schramm 2006), although empirical research reveals they are commonly interrelated (Schramm and Hartmann 2008). Given the case that a media character is categorized as being more attractive, the initial level of PSI is fostered, as people are more motivated to further interact and deal with attractive compared with unattractive media characters.

H2: Recipients' attraction to media characters mediates the influence of media characters' representations (positive/negative) on recipients' PSI with the media characters; that is, the greater attraction elicited by positively represented media characters will lead to more positively valenced PSI, whereas the reduced attraction elicited by negatively represented media characters will lead to less positively valenced PSI.

Once a person is parasocially interacting with a media character, the interacting experience is memorized and stored within a relationship schema. As schemas do not exist isolated in human memory, but are organized as an interrelated network structure (S.E. Taylor and Crocker 1981), PSI information is likely to be linked to certain brand schemas, provided a media character uses these brands. Depending on the quantity and quality of the simultaneous presentation of the media character and the brands, the PSI information can be integrated in respective brand schemas (Keller 2012). As schemas select and guide information processing as well as retrieval (Wicks 1992), parasocial relationship schemas linked to or integrated in brand schemas are likely to influence the image of brands when the respective brand schemas are processed or retrieved. Since PSI can have positive as well as negative valence, depending on whether viewers feel sympathy or antipathy with a media character (Klimmt, Hartmann, and Schramm 2006), a brand's evaluation is likely to match the valence of the parasocial relationship schema linked to or integrated in the respective brand schema.

H3: PSI caused by attraction to media characters and their representations mediates the influence of media characters' representations on attitudes towards brands related to the media characters. Specifically, positively represented media characters will lead to more positive attitudes towards the brand via increased positively valenced PSI with the media characters, compared with negatively represented media characters.

Table 1. Processes and item examples from the parasocial interaction (PSI)-process scales (Schramm and Hartmann 2008).

Response	Process	Item example
Cognitive	Attention allocation	I carefully followed the behaviour of PERSONA.
	Comprehension of persona's action and situation	I hardly thought about why PERSONA did certain things s/he did. (inverted)
	Activation of prior media and life experience	I kept wondering if I knew people who are similar to PERSONA.
	Evaluations of persona and persona's actions	I became aware of aspects of PERSONA that I really liked or disliked.
	Anticipatory observation	I kept asking myself how things would evolve around PERSONA.
	Construction of relations between persona and self	Occasionally, I wondered if PERSONA was similar to me or not.
Affective	Sympathy	Sometimes I really loved PERSONA for what s/he did.
	Antipathy	Sometimes I really hated PERSONA for what s/he did.
	Empathy	If PERSONA felt bad, I felt bad as well; if PERSONA felt good, I felt good as well.
	Counter empathy	If PERSONA felt bad, I felt good; if PERSONA felt good, I felt bad.
	Emotion contagion	PERSONA left me rather sober and unaffected. (inverted)
Behavioural	Nonverbal behaviour (e.g., mimics, gestures)	Whatever PERSONA said or did, I kept still. (inverted)
	(Para-)verbal behaviour	Occasionally, I said something to PERSONA on impulse.
	Behavioural intentions	Sometimes I felt like speaking out on PERSONA.

3. Study 1

3.1 Method

3.1.1 Study design

Since our hypotheses assume varying attitudes towards brand placements depending on whether a brand placement is accompanied by a positively or negatively represented media character, a 1×2 between-subjects experimental design was chosen, in order to prove clear causal relationships. The independent variable, character representation, was manipulated by introducing the main character of a movie clip in either a positive or negative way. Hence, participants saw exactly the same movie clip, with the only difference being the written introduction handed out prior to viewing the movie; all other variables were held constant. A 7-minute excerpt from the Mexican movie *Nicotina* (2003) was selected as the movie clip, chosen because both the main actor and the movie itself are relatively unknown. As assumed, almost all participants indicated not knowing the movie prior to the experiment, thereby neither knowing the character. The movie contained a highly visible placement of an unfamiliar brand related to the main character. Only one participant revealed him- or herself as having encountered the brand prior to the experiment on a regular basis. Being unknown, the movie enabled us to credibly manipulate the character representation by telling the course of the movie preceding the clip in different ways. In addition, the fact that the actor is poorly known ensured that participants had no preexisting negative or positive dispositions towards him. Looking at the events shown in the clip, the first part shows the main character 'Lolo' hacking into the server of a bank, downloading and burning data from several bank accounts to a CD. Next, we see Lolo and colleagues handing over the data to Russian criminals in exchange for diamonds, although the exchange fails. Manipulating a positive character representation, prior to watching the clip, participants read that Lolo works as an undercover agent who is seeking to halt the criminal actions of the Russian mafia in Mexico. Conversely, manipulating a negative character representation, participants read that Lolo is a criminal himself who is working with the Russian mafia but subsequently cheats the mafia as well as his partners in crime.

Throughout the clip, one major brand placement occurs: Lolo is wearing a t-shirt printed with the brand name 'Indigo Denim' in large letters on its front. The clothing brand is fully visible for about 1 minute of the 7-minute clip. The brand placement-character relationship (Russell and Stern 2006) is seen as positive because the character is wearing the brand name in a highly visible location, indicating a liking for the brand.

3.1.2 Participants

After excluding two persons from the study who had viewed the movie previously, 87 students took part in the experiment. Participants were recruited at a major Swiss German university. Fifty-four percent of the participants were female and the mean age was 22.95 years (standard deviation, $SD = 4.76$). We are aware of the fact that student samples can be problematic considering the results' external validity. Still, we used a younger and more highly educated sample since student samples can be appropriate when dependent variables do not interact with participants' characteristics (Oakes 1972). As effects of brand placements associated with media characters on brand attitudes were investigated and previous studies found no interacting influence of age, level of education or gender regarding this process (e.g., van Reijmersdal, Neijens, and Smit 2007), the sample can be regarded as appropriate. Participants were randomly assigned to one of the

experimental conditions ('good guy': $n = 43$; 'bad guy': $n = 44$) while gender was kept parallel in both conditions. Participants received an extra course credit for taking part in the study, or had the chance of winning a DVD movie.

3.1.3 Procedure

The experiment was conducted in a computer laboratory over a period of 1 month. Upon arrival, the participants were instructed to take a seat in front of one of two computers and to read the introduction to a short movie clip to be screened subsequently. While taking part in the experiment, the participants were separated from each other by opaque, noise-absorbing dividers, and all participants wore headphones. After watching the movie clip, all participants filled out the same online questionnaire. Finally, the participants were thanked for participating and were informed of the purpose of the study.

3.1.4 Measurement

Measurements are reported according to the order in the questionnaire. Character attractiveness was measured using three previously approved items by Schramm and Hartmann (2008). The items were measured on a 5-point scale ranging from 'I strongly disagree' to 'I entirely agree'. The items were 'Lolo has many traits that I would also like to possess', 'I consider the things Lolo deals with to be very interesting', and 'I admire Lolo for his character'. Cronbach's Alpha was 0.59 ($M = 2.10$, $SD = 0.68$). Though the reliability was rather low, the index was employed because its utility has been demonstrated previously (Schramm and Hartmann 2008; Schramm and Wirth 2010).

PSI was measured by applying the universal PSI scales developed by Schramm and Hartmann (2008). The scales measure PSI processes (cognitive, affective, and behavioural) on 14 sub-dimensions in total, and each of the sub-dimensions included four items. The final measurement for affective PSI included 16 items (e.g., 'You simply have to like Lolo') measured on the established 5-point scale. Although half of the items were negatively valenced and half were positively valenced, the final measurement indicated only positively valenced affective PSI, as the negatively valenced items were recoded. That is, the higher the value for affective PSI, the more positive and intense the PSI. Reliability was acceptable, with $\alpha = 0.84$ ($M = 3.46$, $SD = 0.58$). The final measurement for cognitive PSI included 16 items (e.g., 'I thought intensively about the behaviour of Lolo') measured on the same 5-point scale. Reliability was satisfactory, with $\alpha = 0.83$ ($M = 2.90$, $SD = 0.62$). Finally, the measurement for behavioural PSI included four items (e.g., 'I never intended to react to Lolo'), yielding a Cronbach's alpha of 0.65 ($M = 2.29$, $SD = 0.80$).

Attitudes towards the brand were measured by applying a semantic differential following the brand-attitude measurement proposed by Coulter and Punj (2004). The following four items were included: negative/positive, unlikeable/likeable, uninteresting/interesting, and not recommended/recommended. Reliability was acceptable, with $\alpha = 0.85$ ($M = 3.18$, $SD = 0.78$).

3.2 Results

Hypothesis H1 predicted that recipients perceive positively represented media characters as being more attractive than negatively represented media characters. A one-way analysis of variance (ANOVA) including character representation as independent variable and

character attractiveness as dependent variable was conducted. Results show the assumed effect as participants watching the positively represented character ($M = 2.32$, $SD = 0.75$) perceived him to be approximately half a point more attractive (on the 5-point scale) than participants watching the negatively represented character ($M = 1.89$, $SD = 0.53$; $F(1, 85) = 9.75$, $p < 0.01$; *partial* $\eta^2 = 0.10$).

Hypothesis H2 assumed that perceived character attractiveness mediates the influence of a character's representation on the PSI with the character. As affective, cognitive, and behavioural PSI processes can occur independently of each other (Klimmt, Hartmann, and Schramm 2006), the hypothesis was tested separately for each process. At first, three one-way ANOVAs including character representation as independent variable and affective, cognitive, or behavioural PSI as dependent variables were conducted in order to test whether the different PSI processes are influenced by character representation at all. Looking at affective PSI, viewers interacted highly significantly more with the positively represented character ($M = 3.71$, $SD = 0.53$) when compared to the negatively represented character ($M = 3.23$, $SD = 0.53$; $F(1, 85) = 17.39$, $p < 0.001$; *partial* $\eta^2 = 0.17$). No such effects were found looking at cognitive PSI (positive character: $M = 2.86$, $SD = 0.66$; negative character: $M = 2.94$, $SD = 0.57$; $F(1, 85) = 0.40$, *ns*). Contrary to our assumption, participants interacted slightly, but significantly less with the positively represented character ($M = 2.12$, $SD = 0.73$) when compared to the negatively represented character ($M = 2.47$, $SD = 0.83$; $F(1, 85) = 4.34$, $p < 0.05$; *partial* $\eta^2 = 0.05$) in the case of behavioural PSI.

Ultimately, hypothesis H2 assumed these significant effects on affective and behavioural PSI to be mediated by character attractiveness. Testing this assumption, regression and bootstrapping analysis were applied using the SPSS macro PROCESS (Hayes 2013). As a regression-based approach, PROCESS follows a path analytic framework resembling the mediation analysis approach proposed by Edwards and Lambert (2007), or that by Preacher, Rucker, and Hayes (2007). Path coefficients are estimated using ordinary least squares (OLS) regression, while mediation can be tested using bootstrapping analysis following current mediation-testing practice (Preacher and Hayes 2004; Preacher, Rucker, and Hayes 2007; Zhao, Lynch, and Chen 2010). Bootstrapping analysis involves computing a confidence interval (CI) around the assumed indirect effect – in our case, the 95% confidence level (see Preacher and Hayes 2004 for an introduction to bootstrapping analysis). If the confidence interval does not contain the value of zero, then the indirect effect is statistically significant at $p < 0.05$ (two-tailed). All analyses and bootstrap estimates that follow are based on 5000 bootstrap samples with bias-corrected confidence intervals. Looking at the influence on affective PSI, the results (Table 2, second mediator A) show that perceived character attractiveness had a highly significant ($p < 0.01$) influence on affective PSI and was highly significantly ($p < 0.01$) affected by character representation (see also hypothesis H1). Whereas the highly significant *a* and *c* paths (Figure 1) already suggested an indirect effect, bootstrapping analysis confirmed this finding. The confidence interval for the indirect effect (95% CI from 0.03 to 0.22) did not include zero. The magnitude of the indirect effect was estimated by multiplying the point estimations of the respective *a* and *c* paths presented in Figure 1 (Hayes 2013), yielding a point estimation of 0.10 for the indirect effect of character representation on affective PSI. In addition, character representation itself had a direct and highly significant ($p < 0.01$) influence on affective PSI, with a point estimation of 0.38 (Table 2, second mediator A). The total effect of character representation on affective PSI (Zhao, Lynch, and Chen 2010) was estimated by adding the point estimation of the indirect effect (0.10) to the point estimation of the direct effect (0.38), yielding a value of 0.48 exactly corresponding to the highly significant mean difference revealed by the previous ANOVA. Thus, people

Table 2. Regression results for testing the multiple, serial mediation assumed in hypotheses H1–H3 (study 1; $N = 87$).

Character attractiveness (first mediator)				
Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	1.89	0.10	19.41	0.000
Character representation	0.43	0.14	3.12	0.003
Affective PSI (second mediator A)				
Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.80	0.18	15.52	0.000
Character attractiveness	0.23	0.09	2.64	0.010
Character representation	0.38	0.12	3.24	0.002
Cognitive PSI (second mediator B)				
Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.98	0.22	13.61	0.000
Character attractiveness	−0.02	0.10	−0.18	0.854
Character representation	−0.08	0.14	−0.54	0.593
Behavioural PSI (second mediator C)				
Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.29	0.28	8.31	0.000
Character attractiveness	0.09	0.13	0.69	0.489
Character representation	−0.39	0.18	−2.19	0.031
Attitudes towards brand (dependent variable) with affective PSI as second mediator A				
Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	1.87	0.52	3.56	0.001
Affective PSI	0.28	0.16	1.72	0.089
Character attractiveness	0.15	0.13	1.15	0.255
Character representation	0.07	0.18	0.36	0.719
Attitudes towards brand (dependent variable) with cognitive PSI as second mediator B				
Predictor	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	1.89	0.47	3.98	0.000
Cognitive PSI	0.25	0.13	1.91	0.059
Character attractiveness	0.22	0.13	1.73	0.086
Character representation	0.19	0.17	1.11	0.272

(continued)

Table 2. (Continued)

Predictor	Attitudes towards brand (dependent variable) with behavioural PSI as second mediator C			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.14	0.35	6.01	0.000
Behavioural PSI	0.22	0.10	2.08	0.040
Character attractiveness	0.20	0.12	1.54	0.127
Character representation	0.25	0.17	1.46	0.149

Note: PSI = parasocial interaction; B = unstandardized regression coefficient; SE = standard error; t = t-value; p = p-value.

watching a positively represented media character showed more positively valenced affective PSI with the media character (by about half a point on the 5-point scale), while this effect was at least partially mediated by character attractiveness. In contrast, there were no indirect effects of character representation on cognitive or behavioural PSI processes. The assumed mediator, character attractiveness, did not significantly predict these processes (Table 2, second mediator B and C), although character representation did directly influence behavioural PSI as already revealed by the previous ANOVA. Summing up, hypothesis H2 was solely supported when looking at affective PSI.

Hypothesis H3 proposed eventually the expected multiple, serial mediation (Hayes 2013). Specifically, it was assumed that character representation indirectly influences brand attitudes via perceived character attractiveness, which in turn influences PSI processes that eventually affect brand attitudes (see Figure 1). Given that the first part of the assumed multiple mediation (see H2) could only be found in the case of affective PSI, we first concentrate on this PSI process. Again, the SPSS macro PROCESS was applied, offering the advantage of testing the assumed multiple, serial mediation in one model (Hayes 2013; model 6). Looking at the results (Table 2, dependent variable with mediator

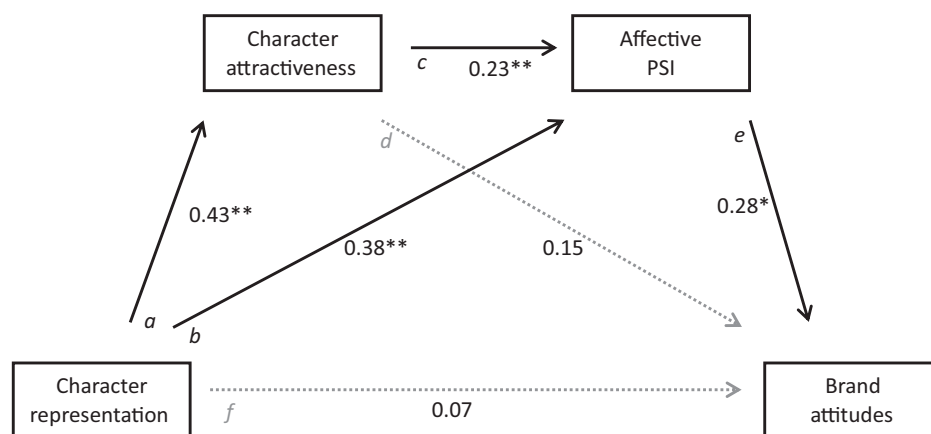


Figure 1. Indirect effect of character representation on brand attitudes via character attractiveness and affective parasocial interaction (PSI; study 1).

Note: Path values represent unstandardized regression coefficients (* $p < 0.10$; ** $p < 0.01$).

A), affective PSI – which was highly significantly predicted by character attractiveness and character representation (H2) – did indeed have a marginally significant ($p = 0.09$) influence on brand attitudes, in line with our hypothesis. Although affective PSI had only a marginally significant influence on brand attitudes, with a point estimation of 0.28, the total indirect effect of character representation on brand attitudes, as well as its significance, were calculated (Figure 1: $[a \times c \times e] + [b \times e] + [a \times d]$) following contemporary mediation testing practice: ‘Recent recommendations tell us to base inference about the indirect effect not on the statistical significance of the paths that define it ... but, rather, on an explicit quantification of the indirect effect itself and a statistical test that respects the nonnormality of the sampling distribution’ (Hayes 2012, 13); e.g., bootstrapping analysis (Preacher and Hayes 2004; Preacher, Rucker, and Hayes 2007). The confidence interval obtained from the bootstrapping analysis (95% CI from 0.06 to 0.42) did not include zero, indicating a significant indirect effect. Calculating the size of the total indirect effect (Figure 1: $[a \times c \times e] + [b \times e] + [a \times d]$), a point estimation of 0.20 was obtained. Hence, viewers watching the positively represented media character showed significantly more positive brand attitudes, indirectly enhanced by 0.20 points on the 5-point scale via increased character attractiveness and increased positively valenced affective PSI. In addition, character representation itself did not have a direct significant effect on brand attitudes (Table 2, dependent variable with mediator A), thereby highlighting the indirect-only nature of the present effect (Zhao, Lynch, and Chen 2010). As a result, hypothesis H3 was supported regarding affective PSI. Again, hypothesis H3 was not supported for cognitive PSI (95% CI from -0.06 to 0.24) or for behavioural PSI (95% CI from -0.19 to 0.17), since both confidence intervals included the value of zero when performing bootstrapping analysis in terms of the total indirect effects. Furthermore, the effect sizes of both indirect effects were close to zero (cognitive PSI: 0.07; behavioural PSI: 0.01), indicating missing effects in these cases also. Although cognitive and behavioural PSI did not mediate the influence of character representation on brand attitudes – mostly because they were not as much affected by the independent variable (see H2) – they still directly influenced brand attitudes as indicated by the results from the regression analysis in Table 2. Specifically, brand attitudes could be significantly regressed on behavioural PSI ($p < 0.05$), and brand attitudes could be marginally significant ($p = 0.06$) regressed on cognitive PSI.

3.3 Discussion

The goal of the present study was to investigate whether the evaluation of brand placements accompanied by media characters is influenced by PSI processes with the media characters. Moreover, it was assumed that these PSI processes would depend on the media characters’ representations and perceived attractiveness (Klimmt, Hartmann, and Schramm 2006). Looking at the results, viewers actually showed greater PSI on a positively valenced affective PSI level with a positively represented media character compared with a negatively represented media character. As assumed, this effect was mediated by perceived character attractiveness. Contrary to our assumption, participants interacted slightly but significantly less with the positively represented character when compared to the negatively represented character in the case of behavioural PSI. We attribute this effect to the fact that people tend to react negatively to media characters that express antisocial or aggressive behaviour, resulting in being angry with the respective character (Hoffner and Cantor 1991). Anger may trigger respective behavioural reactions that were probably mapped by the applied behavioural PSI scale.

In addition, results confirmed that affective PSI processes have an influence on brand attitudes. Viewers watching a brand placement accompanied by a positively represented media character evaluated the brand more positively (i.e., to be more interesting, more recommendable, and more likeable) due to more positively valenced affective PSI when compared with a negative representation. Most importantly, the media character's representation itself did not directly affect brand attitudes (i.e., the observed mediation was indirect only; Zhao, Lynch, and Chen 2010) and differences in the brand's evaluation ultimately depended on differences in the PSI processes. Although such indirect effects were solely found in terms of affective PSI as the mediating process, there is still reason to assume equal influences regarding cognitive and behavioural PSI processes. Looking at the results from the regression analysis (Table 2, dependent variable with second mediator B and C), both behavioural and cognitive PSI had significant or marginally significant influences on brand attitudes. The lack of indirect effects in terms of cognitive or behavioural PSI can presumably be attributed mainly to the applied manipulation, which addressed mainly affective PSI processes.

4. Study 2

As the first study is subject to a number of limitations, a second study was conducted, addressing the following shortcomings of the previous one.

First, advertising practitioners are not only interested in whether brands are positively evaluated, which was assessed by the measurement of brand attitudes in the present study, but are at least equally interested in whether the overall image of a brand can be changed by being linked to a media character. Bearing in mind that any association existing in the human memory can be linked to a brand and, thus, can become part of the brand image (Keller 2012), a more elaborate measurement of a brand's evaluation is required, such as, for instance, a brand's personality (Aaker 1997). Recent research has shown that the basic assumptions of balance theory (Heider 1946, 1967) are applicable not only to attitude formation (study 1) but also to the formation of a brand's meaning (Escalas and Bettmann 2006).

Second, it is not possible to clearly attribute the differences in brand attitudes to varying degrees of character attractiveness and PSI, a problem most mediation studies face (Hayes 2013). Since the media character and the placement appeared consistently at the same time throughout the whole clip, PSI with the character and perceived character attractiveness cannot be seen as temporally antecedent to the perception of the brand, a necessary condition when it comes to causation (Shaughnessy and Zechmeister 1997).

The most serious limitation pertains to the use of an unfamiliar brand for brand placement. While this might not seem unlikely, as advertising practitioners do indeed seek to increase brand awareness for newly developed brands via brand placements (Karrh 1998), most brand placements involve familiar brands (Avery and Ferraro 2000). According to Kent and Allen (1994, 98), 'brand familiarity is a continuous variable that reflects a consumer's level of direct and indirect experiences' with a brand. The more familiar a person becomes with a brand, the more developed and comprehensive are his or her knowledge structures in capturing the respective brand schema and guiding perception (Kent and Allen 1994). Since people use preexisting knowledge to organize new information, making sense of new sensory input by incorporating it into existing knowledge structures and schemas (S.E. Taylor and Crocker 1981; Wicks 1992), brand familiarity should increase the likelihood of a media character being connected to a brand schema. When recipients are shown placements of familiar brands, information pertaining to associated media characters could easily be connected to preexisting brand schemas, as information

and memories relating to the characters and brands might be activated simultaneously by the same media stimulus (Alba and Hutchinson 1987). These schemas may guide the processing of incoming media information, connecting the character to the brand schema. For instance, the cognitive representation of the well-known brand FedEx is probably activated while watching the movie *Cast Away* and may subsequently be connected to the representation of Tom Hanks or the character he is playing.

In contrast, placements of unfamiliar brands would require recipients to first establish specific cognitive representations of the brands, and then to connect them to media characters. This very process renders a cognitive connection less likely; since there is no pre-existing brand schema to guide the processing of the incoming media information, it is more likely that the information will be organized around different, preexisting schemas (Lynch and Srull 1982). It can therefore be assumed that recipients are more likely to connect media characters with preexisting brand schemas, leading to a stronger influence of the characters' representation on brand perception. In light of these findings, we therefore keep H1 and H2 tested in the first study, reformulate H3 with brand personality as the dependent variable, and propose a fourth hypothesis:

- H3:** Brand personality perceptions of recipients watching brand placements associated with media characters are indirectly influenced by character representation via recipients' PSI.
- H4:** The mediating effect of PSI proposed in H3 is moderated by brand familiarity; that is, the more familiar recipients are with a brand, the more likely they are to derive the brand's personality from PSI.

4.1 Method

4.1.1 Study design

Exactly the same the design as in study 1 was employed. Manipulating the independent variable character representation, participants in the two groups watched the same movie clip – a 16-minute clip of the American TV series *Mad Men* (2007) – but with a different written introduction handed out prior to viewing the movie. This clip was selected because one of the show's main characters, Roger Sterling, is a multifaceted character who can easily be depicted in a positive or in a negative way. In the first group (positive), the written introduction presents him as a devoted family man who sometimes works too hard because he cares so much about his colleagues. In the second group (negative), the written introduction presents him as a selfish and career-obsessed man who cheats on his wife and betrays his colleagues. At the time of the study, the series was being broadcast on a minor channel late at night, making it unlikely that any participants would already be familiar with the character. As expected, the series was unfamiliar to more than 94% of the participants.

In the first scene of the clip, Sterling, an associate working for an advertising agency, is having dinner with a colleague and his colleague's wife. The next scene takes place a week later. Sterling is in hospital following a heart attack, and is visited by his family and colleagues. In the final scene of the clip, Sterling returns to work, greets his colleagues, then sits down at his desk and drinks Smirnoff vodka while talking to a colleague. The brand placement lasted about 1 minute, with the Smirnoff logo clearly visible.

The brand placement in this clip was ideal for the present study because of two reasons: firstly, we expected Smirnoff to have midlevel brand familiarity among the participants, who were all undergraduate students. Some but not all students can be assumed to drink hard liquor, and some but not all can be assumed to prefer Smirnoff as a brand of

vodka. Secondly, the placement appeared for the first time in the very last minute of the clip. Hence, participants had about 15 minutes' time to get to know the main character and to parasocially interact with him before they were even able to perceive and process the brand. That is, we were able to establish a clear temporal and causal order among the variables involved, putting the independent variable before the mediator and the mediator before the dependent variable.

4.1.2 Participants and procedure

The sample comprised 113 undergraduate students, and the study took place over a period of 2 weeks at a major German university. Eighty-three percent of participants were female and the mean age was 19.7 years ($SD = 2.34$). Participants were again randomly allocated to one of the two experimental conditions upon arrival at the computer laboratory. The subsequent procedures followed study 1 exactly (see section 3.1.3).

4.1.3 Measurement

Measurements are reported according to the order in the questionnaire. Character attractiveness was assessed by applying the same measurement as in the first study. Reliability was satisfactory ($\alpha = 0.76$; $M = 2.20$, $SD = 0.79$).

As the first study was solely able to prove a mediating role of affective PSI, the second study focused on this PSI sub-process and measured this process more comprehensively. The full set of 20 affective PSI items by Schramm and Hartmann (2008) was used as measurement. Reliability was adequate ($\alpha = 0.86$; $M = 2.84$, $SD = 0.59$).

Measuring recipients' perceptions of the brand more comprehensively than in study 1 (simple brand attitudes), Aaker's (1997) brand personality scale was applied. This scale is made up of five personality dimensions (sincerity, excitement, competence, sophistication, ruggedness), each assessed with between five and 11 adjectives. Each adjective was rated on the established 5-point Likert scale described in study 1. Participants were asked to use this scale to indicate the extent to which each adjective matched the perceived brand personality of Smirnoff vodka. Sincerity was measured using 11 adjectives (e.g., honest, sincere, real) and had satisfactory reliability ($\alpha = 0.73$, $M = 2.14$, $SD = 0.54$). Excitement was measured using nine adjectives (e.g., trendy, exciting, cool) and had satisfactory reliability ($\alpha = 0.83$, $M = 2.14$, $SD = 0.54$). Competence was assessed using nine adjectives (e.g., reliable, intelligent, secure) and had satisfactory reliability ($\alpha = 0.77$, $M = 2.14$, $SD = 0.54$). Sophistication was assessed using six adjectives (e.g., good looking, charming, glamorous) and was similarly reliable ($\alpha = 0.79$, $M = 2.14$, $SD = 0.54$). Finally, ruggedness was assessed using five adjectives (e.g., masculine, tough, outdoorsy). Although reliability was rather low ($\alpha = 0.62$, $M = 2.14$, $SD = 0.54$), this personality dimension was retained to preserve the original structure of the brand personality scale.

Using Kent and Allen's (1994) definition of brand familiarity as the level of experience with a given brand that a recipient has, brand familiarity was assessed by asking participants how often they drink Smirnoff vodka. Frequency was measured on a 5-point Likert-type scale ranging from 1 = 'never' to 5 = 'very often' ($M = 1.83$, $SD = 0.83$).

4.2 Results

Testing hypotheses H1 and H2, the same analyses as in the first study were applied. In line with the findings of study 1, participants perceived the positively depicted character

Table 3. Regression results for testing the mediation assumed in H1 and H2 (study 2; $N = 113$).

Predictor	Character attractiveness (mediator)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	1.41	0.22	6.44	0.000
Character representation	0.53	0.14	3.78	0.000
Predictor	Affective parasocial interaction (consequent variable)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	1.5	0.15	9.90	0.000
Character attractiveness	0.41	0.06	7.44	0.000
Character representation	0.28	0.09	3.21	0.002

B = unstandardized regression coefficient; *SE* = standard error; *t* = t-value; *p* = p-value.

as significantly more attractive ($M = 2.48$, $SD = 0.11$ vs. $M = 1.95$, $SD = 0.09$; $F(1, 111) = 14.30$, $p < 0.001$; $partial \eta^2 = 0.11$) and interacted significantly more with him ($M = 3.10$, $SD = 0.55$ vs. $M = 2.59$, $SD = 0.52$; $F(1, 111) = 24.86$, $p < 0.001$, $partial \eta^2 = 0.18$) as compared with participants watching the negatively depicted character (see also Table 3). Eventually testing the assumed indirect effect of character representation on affective PSI via character attractiveness, bootstrapping analysis revealed a bias-corrected confidence interval from 0.11 to 0.36. Since the obtained interval was entirely above zero, the estimated indirect effect of 0.22 points can be said to be different from zero with 95% confidence. Both hypotheses were once more supported. Just as in the first study, representing the character more positively led to more positive valenced affective PSI by half a point on the applied 5-point scale, whereas part (0.22) of this influence was mediated by character attractiveness. The latter fact is excluded from the following analyses treating the influence of character representation on affective PSI as unmediated, as it makes testing H3 and H4 (moderated mediation) much simpler and is of no relevance when it comes to testing both (Hayes 2013).

Since the mediation of affective PSI proposed in H3 was assumed to be moderated by brand familiarity (H4), hypotheses H3 and H4 were tested together. Hypothesis H3 assumed that affective PSI processes, which were influenced by the media character's representation, mediated the influence of his representation on brand personality (see also Figure 2). Participants were assumed to derive the brand's personality from their PSI with the media character, not from his character itself. Further, participants were assumed to be more likely to derive the brand's personality from PSI if they were familiar with this brand (H4). Looking at the results from H1 and H2, the first stage of the assumed mediation (Figure 2, path *a*) was found to be significant.

Looking at the second stage of the mediation process (Figure 2, path *b*), the effect of affective PSI on brand personality was assumed to be moderated by brand familiarity; that is, PSI should demonstrate a stronger influence on brand personality for participants who were already familiar with the brand. Ordinary least squares (OLS) regression analysis was used to test this second stage of mediation, as the assumed moderator (brand familiarity) was a continuous variable and regression analysis accounts for its full variance (West, Aiken, and Krull 1996). Again, the SPSS macro PROCESS (Hayes 2013) was used to provide not only basic regression results, but also an appropriate method for

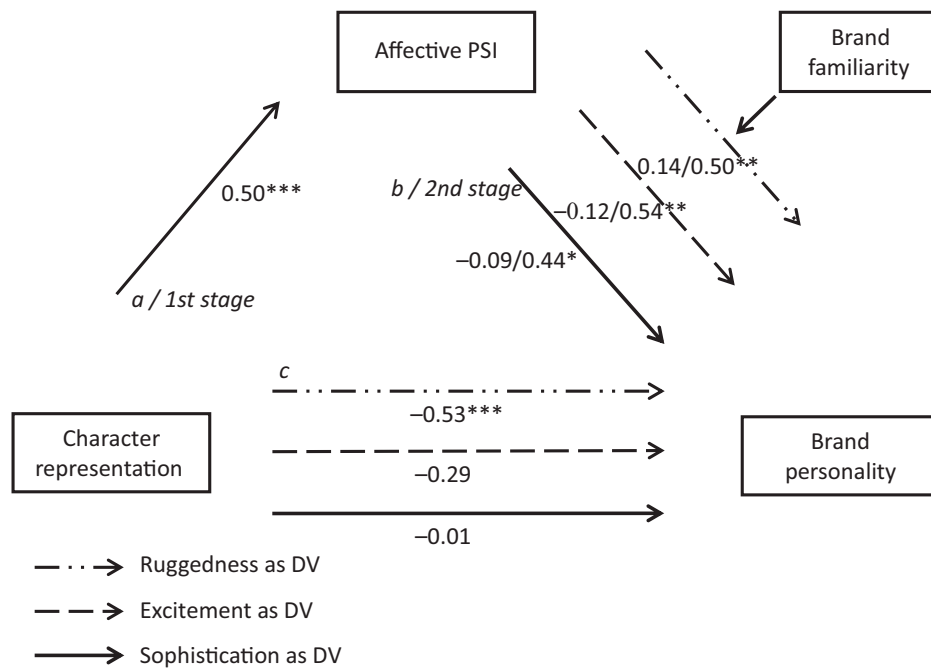


Figure 2. Indirect effect of character representation on brand personality via affective parasocial interaction (PSI), moderated by levels of brand familiarity.

Note: Path values represent unstandardized regression coefficients. Values before slashes are unstandardized regression coefficients for recipients with low brand familiarity; values after slashes are unstandardized regression coefficients for recipients with high brand familiarity (* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$).

probing interactions in linear models, the so-called 'pick-a-point' approach: 'This approach involves selecting representative values (e.g., high, moderate, and low) of the moderator variable and then estimating the effect of the focal predictor at those values' (Hayes and Matthes 2009, 924) and testing its significance.

Results from regression analyses confirmed the predicted interaction between affective PSI and brand familiarity (Table 4) at the $p < 0.05$ significance level for the personality dimensions of excitement, sophistication, and competence. However, this interaction was only marginally significant for ruggedness ($p = 0.11$), and did not exist for sincerity. Further support for the moderating role of brand familiarity can be found in the results from the pick-a-point approach (Table 5). The influence of affective PSI on brand personality was calculated at different levels of the moderator brand familiarity: mean, one standard deviation below the mean, and one standard deviation above the mean, representing moderate, low, and high levels of brand familiarity, respectively (see also Hayes and Matthes 2009). As already indicated by the significant and almost marginally significant interactions from the regression analyses, only highly (and moderately, in the case of ruggedness) familiar recipients were significantly influenced by their affective PSI in their perceptions of the brand's personality: specifically, only these recipients rated the brand's personality as significantly more rugged, exciting, or sophisticated, caused by increased levels of affective PSI. There were no significant effects for the personality dimension of sincerity, and, although regression analysis revealed a significant interaction effect for

Table 4. Regression results for testing the influence of affective parasocial interaction on the five personality dimensions, moderated by brand familiarity (study 2; $N = 113$).

Predictor	Ruggedness (dependent variable)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	3.17	0.80	3.95	0.00
Affective PSI	-0.08	0.28	-0.27	0.79
Brand familiarity	-0.63	0.39	-1.63	0.11
Affective PSI \times brand familiarity	0.22	0.14	1.58	0.11
Character representation ^a	-0.53	0.15	-3.63	0.00
Predictor	Excitement (dependent variable)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	4.03	0.87	4.67	0.00
Affective PSI	-0.52	0.31	-1.71	0.09
Brand familiarity	-0.97	0.42	-2.33	0.02
Affective PSI \times brand familiarity	0.40	0.15	2.69	0.01
Character representation ^a	-0.29	0.16	-1.87	0.06
Predictor	Sophistication (dependent variable)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.89	0.85	3.38	0.00
Affective PSI	-0.41	0.30	-1.34	0.18
Brand familiarity	-0.71	0.41	-1.73	0.09
Affective PSI \times brand familiarity	0.32	0.15	2.18	0.03
Character representation ^a	-0.01	0.15	-0.07	0.95
Predictor	Sincerity (dependent variable)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.51	0.64	3.94	0.00
Affective PSI	-0.15	0.23	-0.67	0.51
Brand familiarity	-0.34	0.31	-1.10	0.28
Affective PSI \times brand familiarity	0.14	0.11	1.29	0.20
Character representation ^a	-0.13	0.12	-1.10	0.28
Predictor	Competence (dependent variable)			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	4.47	0.88	5.07	0.00
Affective PSI	-0.73	0.31	-2.35	0.02
Brand familiarity	-1.03	0.43	-2.41	0.02
Affective PSI \times brand familiarity	0.40	0.15	2.62	0.01
Character representation ^a	-0.22	0.16	-1.38	0.17

Note: ^aCharacter representation is included as a covariate, as the influence of interest (Figure 1, path *b*) represents the influence of affective PSI on brand personality after character representation is included in the model; that is, the influence that is exclusively exerted by affective PSI.

B = unstandardized regression coefficient; *SE* = standard error; *t* = t-value; *p* = p-value.

Table 5. Conditional effect of affective parasocial interaction on the five personality dimensions at different levels of moderator brand familiarity (study 2; $N = 113$).

Level of brand familiarity	Effect	SE	<i>t</i>	<i>p</i>
Ruggedness				
Low (1.00 ^a)	0.14	0.17	0.82	0.41
Moderate (1.83)	0.32	0.12	2.66	0.01
High (2.67)	0.50	0.16	3.08	0.00
Excitement				
Low (1.00 ^a)	-0.12	0.18	-0.68	0.50
Moderate (1.83)	0.21	0.13	1.60	0.11
High (2.67)	0.54	0.18	3.07	0.00
Sophistication				
Low (1.00 ^a)	-0.09	0.18	-0.48	0.63
Moderate (1.83)	0.18	0.13	1.38	0.17
High (2.67)	0.44	0.17	2.55	0.01
Sincerity				
Low (1.00 ^a)	-0.01	0.13	-0.65	0.95
Moderate (1.83)	0.11	0.10	1.13	0.26
High (2.67)	0.22	0.13	1.75	0.08
Competence				
Low (1.00 ^a)	-0.34	0.19	-1.80	0.08
Moderate (1.83)	-0.01	0.13	-0.04	0.97
High (2.67)	0.32	0.18	1.82	0.07

Note: ^aThe lowest value possible is 1.00, as the moderator was measured on a scale from 1 to 5.
SE = standard error; *t* = *t*-value; *p* = *p*-value.

competence, the results from the pick-a-point approach did not confirm this interaction (Table 5).

To summarize, these analyses strongly indicate a mediating role for affective PSI, with significant influences for both the first (Figure 2, path *a*) and second (Figure 2, path *b*) stages of the mediation process for the personality dimensions of ruggedness, excitement, and sophistication. In addition, the second stage of the mediation appeared to be moderated by brand familiarity, strongly indicating a moderated mediation (Edwards and Lambert 2007).

In the final test of this moderated mediation, bootstrapping analysis was applied, again using the SPSS macro PROCESS (Hayes 2013). In the case of a moderated mediation, PROCESS offers the advantage of calculating confidence intervals at different levels of the assumed moderator (low, moderate, and high brand familiarity), thus testing the moderated mediation in a single model (Hayes 2013, Model 14).

Table 6. Conditional indirect effects of character representation on perceived brand personality dimensions for three levels of brand familiarity (study 2; $N = 113$).

Level of brand familiarity	Ruggedness		Excitement		Sophistication	
	Point estimate	95% bias-corrected bootstrap CI	Point estimate	95% bias-corrected bootstrap CI	Point estimate	95% bias-corrected bootstrap CI
Low (1.00 ^a)	0.07	−0.13–0.32	−0.06	−0.29–0.14	−0.04	−0.23–0.13
Moderate (1.83)	0.16	0.01–0.36	0.10	−0.02–0.26	0.09	−0.02–0.24
High (2.67)	0.25	0.05–0.52	0.27	0.12–0.50	0.22	0.07–0.44

Note: CI = confidence interval.

^aThe lowest value possible is 1.00, as the moderator was measured on a scale from 1 to 5.

The remaining analyses concentrated on testing the indirect effects on ruggedness, excitement, and sophistication, as the second stage of the mediation was found to be significant only for these personality dimensions. Table 6 shows that the results from bootstrapping analysis confirm the assumed moderated mediation. Only recipients who had high (excitement and sophistication) or moderate-to-high (ruggedness) levels of brand familiarity were indirectly and significantly influenced by the media character's representation via affective PSI in their perception of brand personality. This was indicated by the respective 95% confidence intervals excluding zero. In terms of effect sizes, moderately to highly familiar recipients indirectly rated the brand's personality as more rugged, exciting, and sophisticated by about 0.2 to 0.3 points on the 5-point scale when the media character was presented as positive as compared with negative. With the exceptions of ruggedness, all indirect effects appeared to be completely mediated, as there was only one significant direct effect for ruggedness (Table 4; Zhao, Lynch, and Chen 2010). In conclusion, hypotheses H3 and H4 were supported regarding the role of affective PSI as a mediator, and brand familiarity as a moderator of this mediation.

4.3 Discussion

The purpose of the second study was to extend the results of the first study to more comprehensive brand perceptions and to establish a clearer causal order among the variables involved. Our findings confirmed that recipients also perceive a familiar brand's personality differently based on previously made affective PSI, and that this PSI is, in turn, influenced by the media character's representation. Since the manipulation of character representation took place before participants even had the chance to parasocially interact with the character and participants had already been parasocially interacting for about 15 minutes before they even saw the placement, a clear temporal and causal order was established among the three variables. Hence, it is safe to assume that character representation influenced affective PSI which, in turn, influenced the perception of the brand's personality.

Results of the first study were also advanced by integrating a more familiar brand. As assumed, the more familiar a recipient was with the brand, the more likely he or she was to derive the brand's personality from the features of an associated media character. There are two reasons for this finding. First, brands are more likely to be noticed in a plot if they are already familiar; that is, brand familiarity enhances the probability of a brand being processed at all. Second, preexisting brand schemas are more likely to be activated and to guide current processing if a recipient has stronger brand familiarity, and simultaneously activated relationship schemas are likely to become associated to the currently activated brand

schemas (Lynch and Srull 1982). Accordingly, it was mostly the highly brand-familiar recipients who were influenced in their brand personality perception by affective PSI.

5. General discussion and conclusion

On a theoretical level, the basic assumptions of the two-level model of PSI (Klimmt, Hartmann, and Schramm 2006), concerning the development of PSI processes, were successfully applied and confirmed. Depicting a media character more positively leads to enhanced perceptions of the character's attractiveness which, in turn, fosters (affective) PSI. Furthermore, both studies were able to prove that evoking differential brand perceptions – attitudes as well as brand personality perceptions – through associated media characters is not simply transferring features of a character's representation to an associated brand, but rather involves a more complex process centring around viewers' PSI with a media character. Specifically, we were able to show that the representation of a character itself did not influence brand attitudes, as one would assume if the present process was a simple transmission process, but, rather, that PSI with a media character affected brand attitudes, whereas PSI, in turn, depends on the character representation. Insofar as the study was able to show that media characters associated with brand placements affect viewers' brand perceptions depending on the perception of the character, the results are in line with previous studies (e.g., Russell and Stern 2006, Scott and Craig-Lees, 2010, Yang and Roskos-Ewoldsen 2007). However, the relevance of the study is not merely based on showing that positively or negatively represented media characters can evoke differential brand perceptions, but first and foremost is based on explaining how these brand perceptions are evoked by media characters. Hence, future studies investigating the influences of media characters on brand placement effects could take account of the complexity of the underlying mechanism, as well as the viewers' individuality, by applying current PSI theory (Schramm and Hartmann 2008).

Although these mediating processes were only found when it came to affective PSI, influences from cognitive and behavioural PSI are equally imaginable. Both PSI sub-processes exerted significant to marginally significant influences on brand attitudes (cf. results study 1) and were probably not as affected by the manipulation as compared with affective PSI. Hence, a recipient's brand evaluation seems to be affected by all three levels of PSI processes when watching a brand placement related to a media character. It would be worthwhile for future studies to apply different manipulations to those of the present studies.

Next to the mediating role of PSI, the second study was able to successfully integrate brand familiarity as an important moderator of the underlying process. Recipients who were more familiar with brands were more likely to derive brand perceptions from associated media characters. Although this seems inconsistent with the first study, in which recipients derived brand attitudes from media characters for completely unfamiliar brands, this finding is far from contradicting the first study. As stated above, brands can be seen as memory nodes with a broad range of associations (Keller 2012), akin to schemas (S.E. Taylor and Crocker 1981). Interacting with media characters and storing this interaction experience in one's mind as relationship schemas can thereby lead to the development of new brand associations if the brand node becomes connected to the respective relationship schema. A prerequisite is, however, that both schemas – that is, the cognitive representation of the brand and the cognitive representation of the media character – are activated and processed simultaneously (S.E. Taylor and Crocker 1981). If either the brand schema or the relationship schema is not activated – that is, at the top

of the mind – while currently processing the other one, the processed information is more likely to be organized around different, activated schemas (Lynch and Srull 1982). Simultaneous activation and processing of brand and character information are either highly likely if both are consistently presented as connected over a period of time (Keller 2012) – as in the first study featuring a media character wearing the same branded t-shirt throughout the whole clip – or if there are already preexisting schemas which can become activated more easily, thereby evoking the organization of incoming information around them (S.E. Taylor and Crocker 1981; Wicks 1992) – as in the second study. Whether or not recipients derive brand perceptions from associated media characters is therefore to a lesser extent dependent on recipients' brand familiarity, and rather dependent on whether or not the brand and the media character are processed simultaneously and get the chance to become connected in recipients' memory. Among other causes, this is rendered more likely in the case of high brand familiarity (Kent and Allen 1994). Linking this result to previous research on brand placements and brand familiarity, unfamiliar placements not only score worse on memory measures (e.g., Brennan and Babin 2004; DeLorme and Reid 1999; Nelson 2002), but also seem to be less affected in their appeal when it comes to media characters associated with them.

In managerial terms, the present studies provide useful guidance for advertisers and marketers. Although advertising practitioners have always considered brand placements associated with attractive media characters to be more valuable, and therefore have been willing to pay more money for such placements (DeLorme and Reid 1999), the assumptions underlying this preference have not been based on causal empirical evidence. In this context, the present results finally affirm the conventional brand-placement practice, suggesting that brands placed in the context of positively represented characters elicit more favourable brand perceptions via increased positively valenced affective PSI. However, such favourable brand attitudes may also be evoked rather by negatively represented characters, as long as viewers still perceive these characters to be somewhat likeable and, subsequently, develop positively valenced PSI. Ultimately, the individually differing PSI processes appear to dictate whether desired brand attitudes are evoked by media characters related to brands. As a result, we recommend employing the PSI scales developed by Schramm and Hartmann (2008) in practice, too. In that way, brand managers could assess recipients' PSI with specific media characters as well as create detailed communication profiles for different media characters. Decisions on brand placements can be subsequently made well founded on whether or not the gained profiles fit the respective brand.

If brand managers intend to shape brand perceptions via media characters associated with brand placements, they should ensure that the brand and the media character share adequate common screen time so that the brand and the media character are processed simultaneously and get the chance to become connected in recipients' memory. Although it is difficult to provide managers with an exact time frame, the present results suggest that 1 minute of common screen time can be sufficient, though effects are probably more pronounced the longer the common appearance and the stronger the connection between the brand and the character.

6. Limitations

Certainly, the study is subjected to limitations. On the one hand, the fact that our samples consisted entirely of students raises concerns about the transferability of our results to a broader population. On the other hand, other authors (e.g., Nelson and McLeod 2005) argue that since advertisers preferentially target younger consumers when making brand

placements, the present sample may actually be more appropriate than one with a wider age range. Besides, using a younger and more highly educated sample can be appropriate, provided that dependent variables do not interact with participants' characteristics (Oakes 1972); this was not the case in previous, similar studies (e.g., van Reijmersdal, Neijens, and Smit 2007). However, we would suggest that future studies apply the results of the present study to different samples and placement settings. We propose looking at other types of placements (e.g., verbal only), various types of characters (e.g., actors, cartoon characters, or real-life persons), various types of media (e.g., TV series, computer games, or music videos), and different kinds of effects (e.g., purchase intentions).

In addition, future studies might also look at well-known actors or media characters, with whom viewers share prior PSI experience. As stated before, PSI with media characters can be stored in viewers' memory as relationship schemas, and these schemas may be activated in the case of future encounters (Klimmt, Hartmann, and Schramm 2006). Therefore, it is quite possible that viewers possess respective schemas when it comes to famous actors that would naturally influence processing. If schemas are compatible with a character currently presented, effects on brand perceptions might be even more pronounced due to the already existing schemas. Watching TV series on a regular basis and encountering brand placements in one of the episodes may present such a case. Viewers would naturally develop relationship schemas over time that may become connected to the encountered brand placements. However, actors may also play different characters in various movies or TV series. As a result, existing schemas may not be compatible with a character currently presented and effects may be non-existent. Whatever the case may be, it will most certainly be fruitful to integrate prior experiences with an actor or media character as an additional factor in studies to come. In this respect, we hope that our studies inspire further research looking at brand placements' association with media characters, particularly given the timely topic and the areas of research that still have to be covered.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Aaker, J. 1997. Dimensions of brand personality. *Journal of Marketing Research* 34, no. 3: 347–56.
- Alba, J.W., and J.W. Hutchinson. 1987. Dimensions of consumer expertise. *Journal of Consumer Research* 13, no. 4: 411–54.
- Avery, R.J. and R. Ferraro. 2000. Verisimilitude or advertising? Brand appearances on prime-time television. *Journal of Consumer Affairs* 34, no. 2: 217–44.
- Balasubramanian, S.K., J.A. Karrh, and H. Patwardhan. 2006. Audience response to product placements. An integrative framework and future research agenda. *Journal of Advertising* 35, no. 3: 115–41.
- Brennan, I., and L.A. Babin. 2004. Brand placement recognition: The influence of presentation mode and brand familiarity. *Journal of Promotion Management* 10, no. 1/2: 185–202.
- Collins, A.M., and E.F. Loftus. 1975. A spreading-activations theory of semantic processing. *Psychological Review* 82, no. 6: 407–28.
- Coulter, K.S., and G.N. Punj. 2004. The effects of cognitive resource requirements, availability, and argument quality on brand attitudes: A melding of elaboration likelihood and cognitive resource matching theories. *Journal of Advertising* 33, no. 4: 53–64.
- D'Astous, A., and F.A. Chartier. 2000. A study of factors affecting consumer evaluations and memory of product placements in movies. *Journal of Current Issues and Research in Advertising* 22, no. 2: 31–40.
- DeLorme, D.E., and L.N. Reid. 1999. Moviegoers' experiences and interpretations of brands in films revisited. *Journal of Advertising* 28, no. 2: 71–95.

- Dens, N., P. de Pelsmacker, M. Wouters, and N. Purnawirawan. 2013. The effects of brand placement prominence and movie plot connection on brand attitude as mediated by recognition. *Journal of Advertising* 41, no. 3: 35–53.
- Edwards, J.R., and L.S. Lambert. 2007. Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods* 12, no. 1: 1–22.
- Escalas, J.E., and J.R. Bettman. 2006. Self-construal, reference groups, and brand meaning. *Journal of Consumer Research* 32, no. 3: 378–89.
- Fiske, S.T., M. Lin, and S.L. Neuberg. 1999. The continuum model: Ten years later. In *Dual process theories in social psychology*, ed. S. Chaiken and Y. Trope, 231–54. New York: Guilford Press.
- Hampp, A. 2010. Product placement dipped last year for the first time. But only fell slightly and is poised for big growth. Available online at: <http://adage.com/article/madisonvine-news/product-placement-dipped-year-time/144720/> (accessed 12 April 2013).
- Hayes, A.F. 2012. PROCESS: A versatile computational tool for observed variable moderation, mediation, and conditional process modeling. Available online at: <http://www.afhayes.com/public/process2012.pdf> (accessed 12 April 2013).
- Hayes, A.F. 2013. *An introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Hayes, A.F., and J. Matthes. 2009. Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behavior Research Methods* 41, no. 3: 924–36.
- Heider, F. 1946. Attitudes and cognitive organization. *Journal of Psychology* 21, no. 1: 107–12.
- Heider, F. 1967. *The psychology of interpersonal relations*. New York: John Wiley.
- Hoffner, C., and J. Cantor. 1991. Perceiving and responding to mass media characters. In *Responding to the screen: reception and reaction processes*, ed. J. Bryant and D. Zillmann, 63–103. Hillsdale, NJ: Lawrence Erlbaum.
- Karrh, J.A. 1998. Brand placements. A review. *Journal of Current Issues and Research in Advertising* 20, no. 2: 31–49.
- Keller, K.L. 2012. *Strategic brand management*. Upper Saddle River, NJ: Pearson.
- Kent, R.J., and C.T. Allen. 1994. Competitive interference effects in consumer memory for advertising: The role of brand familiarity. *Journal of Marketing* 58, no. 3: 97–105.
- Klimmt, C., T. Hartmann, and H. Schramm. 2006. Parasocial interactions and relationships. In *Psychology of entertainment*, ed. J. Bryant and P. Vorderer, 291–314. Mahwah, NJ: Lawrence Erlbaum.
- Lynch, J.G., and T.K. Srull. 1982. Memory and attentional factors in consumer choice: Concepts and research methods. *Journal of Consumer Research* 9, no. 1: 18–37.
- Murry, J.P., J.L. Lastovicka, and S.N. Singh. 1992. Feeling and liking responses to television programs: An examination of two explanations for media-context effects. *Journal of Consumer Research* 18, no. 3: 441–51.
- Nelson, M.R. 2002. Recall of brand placements in computer/video games. *Journal of Advertising Research* 42, no. 2: 80–92.
- Nelson, M.R., and N. Devanathan. 2006. Brand placements Bollywood style. *Journal of Consumer Behaviour* 5, no. 3: 211–21.
- Nelson, M.R., and L.E. McLeod. 2005. Adolescent brand consciousness and product placements: Awareness, liking and perceived effects on self and others. *International Journal of Consumer Studies* 29, no. 6: 515–28.
- Oakes, W. 1972. External validity and the use of real people as subjects. *American Psychologist* 27: 959–62.
- Preacher, K.J., and A.F. Hayes. 2004. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers* 36, no. 4: 717–31.
- Preacher, K.J., D.D. Rucker, and A.F. Hayes. 2007. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research* 42, no. 1: 185–227.
- Rubin, A.M., E.M. Perse, and R.A. Powell. 1985. Loneliness, parasocial interaction, and local television news viewing. *Human Communication Research* 12, no. 2: 155–80.
- Russell, C.A., and M. Belch. 2005. A managerial investigation into the product placement industry. *Journal of Advertising Research* 45, no. 1: 73–92.

- Russell, C.A., and B.B. Stern. 2006. Consumers, characters, and products. A balance model of sit-com product placement effects. *Journal of Advertising* 35, no. 1: 7–21.
- Schramm, H., and T. Hartmann. 2008. The PSI-process scales. A new measure to assess the intensity and breadth of parasocial processes. *Communications* 33, no. 4: 385–401.
- Schramm, H., and W. Wirth. 2010. Testing a universal tool for measuring parasocial interactions across different situations and media: Findings from three studies. *Journal of Media Psychology* 22, no. 1: 26–36.
- Scott, J., and M. Craig-Lees. 2010. Audience engagement and its effects on product placement recognition. *Journal of Promotion Management* 16, no. 1–2: 39–58.
- Shaughnessy, J.J., and E.B. Zechmeister. 1997. *Research methods in psychology*. New York: McGraw–Hill.
- Smit, E., E. van Reijmersdal, and P. Neijens. 2009. Today's practice of brand placement and the industry behind it. *International Journal of Advertising* 28, no. 5: 761–82.
- Taylor, R.C. 2013. Hot topics on advertising research. *International Journal of Advertising* 32, no. 1: 7–12.
- Taylor, S.E., and J. Crocker. 1981. Schematic basis of information processing. In *Social cognition: The Ontario symposium*, ed. T.E. Higgins, P.C. Herman, and M.P. Zanna, 89–134. Hillsdale, NJ: Lawrence Erlbaum.
- Van Reijmersdal, E., P. Neijens, and E. Smit. 2007. Effects of television brand placement on brand image. *Psychology & Marketing* 24, no. 5: 403–20.
- Van Reijmersdal, E., P. Neijens, and E. Smit. 2009. A new branch of advertising. Reviewing factors that influence reactions to product placement. *Journal of Advertising Research* 49, no. 2: 429–49.
- Van Reijmersdal, E., E. Smit, and P. Neijens. 2010. How media factors affect audience responses to brand placement. *International Journal of Advertising* 29, no. 2: 279–301.
- West, S.G., L.S. Aiken, and J.L. Krull. 1996. Experimental personality designs: Analyzing categorical by continuous variable interactions. *Journal of Personality* 64, no. 1: 1–48.
- Wicks, R.H. 1992. Schema theory and measurement in mass communication research. In *Communication yearbook 15*, ed. S.A. Deetz, 115–145. Beverly Hills, CA: Sage.
- Williams, K., A. Petrosky, E. Hernandez, and R. Page Jr. 2011. Product placement effectiveness. Revisited and renewed. *Journal of Management and Marketing Research* 7, no. 1: 1–24.
- Yang, M., and D.R. Roskos-Ewoldsen. 2007. The effectiveness of brand placements in the movies. Levels of placements, explicit and implicit memory, and brand-choice behavior. *Journal of Communication* 57, no. 3: 469–89.
- Zhao, X., J.G. Lynch Jr., and Q. Chen. 2010. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37, no. 2: 197–206.