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The effect of informal vs. formal online-based interactive brand communication style on brand trust and brand attachment

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Abstract

Nowadays, it is impossible for brands to ignore social media. A social media strategy is essential to display a brand and appeal to consumers. Marketers increasingly choose an informal approach on online-based brand communities. Disregard content, it is unclear whether using informal expressions is always the best choice. This study examines application of informal (vs. formal) online-based communication style on social media. Quantitative research investigates the effect of informal (vs. formal) style messages of two familiar cosmetic brands on brand trust and brand attachment. Results show brand trust and brand attachment are higher when practicing an informal style instead of a formal style. Although an informal style has no influence on the brand outcomes, a formal style has a negative effect. This is explained by formal style increasing social distance, whereas marketers should seek for social closeness. Additionally, the perceived congruence between brand communication style and brand personality is explored. The congruence has no moderating effect on the relationship between brand communication style and brand outcomes. However, the congruence has a positive correlation with brand trust and brand attachment. Therefore, marketers must pay attention to their brand's personality when establishing an online communication style.

Introduction

In the marketing field, creating and maintaining relationships is of great importance. It serves the ultimate goal of marketers, which is to sell brands in a prolonged period. The role of communication is vital in building relations (Duncan and Moriarty, 1998). The past years, new forms of media have emerged, which brings forward new ways for brands to communicate (Henning-Thurau et al., 2010). For instance, a major development in ways to communicate is the digital world, including social media (Naylor, Lamberton, & West, 2012). Marketers have to deal with the increasing number of channels to communicate about their brand and the increasing importance of these new communication channels. These marketers are looking for greater communication effectiveness, and therefore, considerations concerning brand communications have to be made carefully. The choice of communication style may either have a positive or negative effect on the brand-to-customer relationship (Delin, 2005).

When customers become more satisfied and develop deep emotional bonds with a brand, it is more likely that customers will choose the brand. For marketers it is important that consumers choose their brand instead of another brand (Grisaffe and Nguyen, 2010). In order to influence the consumer trust and brand attachment, marketers have to understand the controllable antecedents of these concepts. A possible antecedent of these brand outcomes which can be controlled is the brand communication style. Marketers try to communicate a brand in appropriate ways to maximize the impact of their communication activities on brand outcomes (Blythe, 2006).

While brand communication styles seem to be important for brands, in the academic literature specific styles for brand-to-consumer communication have not been discussed yet. In the psychological field, multiple interpersonal styles of communication have been used and discussed (e.g. Norton, 1978; de Vries et al., 2009). Interpersonal communication styles play a major role in the success of relationships in various kinds of relationships (Sparks, Bradley & Callan, 1997; Williams & Spiro, 1985; Buller & Buller, 1987). Possibly, the interpersonal communication styles can be applied on brand communication, but differences between human relationships and brand relationships should not be ignored. For instance, a brand does not exist physically. Also, people and brands use similar channels of communication, although with a different scope or goal.

Advertising is a way to communicate a brand and appeal to consumers. Several researchers distinguish advertisement appeals as emotional or informational (Kotler and Armstrong, 1991; Manrai et al., 1992). The communication style can either be emotional and informational, depending on the goal of the advertiser. This difference in communication styles is only used in the advertising context. It is not clear whether brand communication through advertisements can be used in a wider range of brand communication channels, including interactive, online channels.

Both the emotional or informational communication styles as described in the psychological and advertising literature seem to be relevant, however, it is unknown whether these styles are transferable to an online brand-to-consumer context. Investigation on how brand communication style influences brand outcomes is one way to disentangle the different brand communication styles in the brand-to-consumer context. There are two important inter-personal factors that play a key role on brand outcome, i.e. consumer trust towards a brand and a consumers attachment to the brand. Therefore, we will investigate the effect of brand communication style on brand outcomes in terms of trust and attachment.

There is no universal way to present a brand and make a decision on the appropriate communication style, since many factors may contribute to the brand outcome. One of these factors is the brand's personality. The congruence between brand personality and brand communication style could influence the relationship between brand communication styles and brand outcomes. Congruent perceptions about a brand's image is important and brand communication is essential in creating these congruent perceptions (Harris and De Chernatony, 2001). Without a fit between brand personality and communication style, consumers can get confused about the feelings towards a brand. Therefore, we propose a moderating effect of the congruence between brand communication style and brand personality on the effect of brand communication styles on consumers' brand perceptions.

The research question of this study is:

“What is the influence of informal vs. formal online-based interactive brand communication style on brand trust and brand attachment and how does the congruence between brand communication style and brand personality moderate this effect?”

Literature review

Brand communication styles

Communication plays a central role in linking people together and creating relationships, amongst other areas in the marketing field (Duncan and Moriarty (1998). In line with this, communication is salient in building congruent perceptions about a brand's image (Harris and De Chernatony, 2001). Communication styles of persons determine the success of the relationship. For instance, the communication style of front-line employees has an impact on customer evaluations (e.g. satisfaction) in the context of dealing with service failure (Sparks, Bradley, & Callan, 1997), personal selling (Williams & Spiro, 1985) and physicians-patient relationships (Buller & Buller, 1987; Bultman & Svarstad, 2000; Ong, De Haes, Hoos, & Lammes, 1995). Therefore, communication styles seem to be essential in the success of relationships.

The academic literature in the psychological and advertising field broadly investigated communication styles. In the psychological field, multiple categorizations of interpersonal communication styles have been proposed, discussed and used (de Vries, Bakker-Pieper, Siberg, van Gameren, & Vlug, 2009). De Vries et al. (2009, p. 179) define communication style as "the characteristic way a person sends verbal, paraverbal, and nonverbal signals in social interactions denoting who he or she is or wants to (appear to) be, how he or she tends to relate to people with whom he or she interacts, and in what way his or her messages should usually be interpreted". Norton (1978) defines nine domains of interpersonal communication to describe verbal and paraverbal interaction styles. Those include animated, attentive, dominant, dramatic, open, contentious, relaxed, friendly and impression leaving ways of communication. These dimensions are widely used in the literature concerning person-to-person relationships. For instance, Hansford and Hattie (1987) investigated seven similar communication styles and found two underlying constructs, namely attentive-supportive and animated-dominant communication styles.

Communication style of advertisements have been found to have an impact on the brand evaluations of consumers (Dubé & Cantin, 2000; Gardner, 1994; Geuens, De Pelsmacker, & Fasseur, 2011; Obermiller, Spangenberg, & MacLachlan, 2005; Yoo & MacInnis, 2005). These researchers use two distinguished styles, namely informational and emotional appeals (Hadjimarcou, 2012; Manrai, Broach, & Manrai, 1992). The basic idea of advertisement appeals is that the brand communicates to consumers the reason why they should act (Manrai et al., 1992). Informational (or rational) styles display the desired benefits

of the product, for instance the quality or performance. Emotional styles use another way to motivate customers to buy the brand. These try to evoke negative or positive emotions, like fear or joy. An advertisement can also use a combination of these two types of appeals. Besides, Manrai et al. (1992) argue that an advertisement can have a positive or negative tone, which motivates the use of a brand to achieve a certain situation or, on the other hand, to avoid a certain situation.

While communication styles are essential for brands, previous literature has not yet looked into communication style in the brand-to-consumer context. The existing literature on interpersonal communication styles seems to be relevant, but it is not clear whether these styles are transferable to brands. People like to build a relationship with brands (Maehle & Shneur, 2010) and do see brands as a person (Aaker & Fournier, 1995). People may sometimes see brands as relational partners like their interpersonal counterparts (Aggarwal & McGill, 2012). However, brands are not people and differences among human and brand relationships should not be ignored. The American Marketing Association (AMA) defines a brand as “a customer experience represented by a collection of images and ideas”. So, brands do not exist physically, but in the mind of consumers. On the other side, brands are created by people (Hurrell & Scholarios, 2013), i.e. employees. However, the objectives of brand communications differ from that of interpersonal relationships. For marketers, communication is part of the profession and livelihood and the objective of marketing communication is to exchange information, persuade and remind consumers about the products and brands the firm sells, where on the other hand the objective of interpersonal communication by itself does not involve selling products or brands (Blythe, 2006).

Furthermore, interpersonal and brand-to-consumer relationships can be created and maintained through similar channels (like front-line employees or social media), but in this context there are some major differences. There are many promotional tools, like TV commercials, sponsorships, websites and telemarketing. These marketing communications are categorized into four divisions: advertising, public relations, sales promotion and personal selling. Still, there are several elements that do not readily fit into one of these categories (Blythe, 2006). In conclusion, many different elements can be used to communicate a brand. Interpersonal communication does not include the majority of the promotional tools used by marketers. More ways to communicate may result in other styles to communicate than the interpersonal literature embraces.

Advertising is just a part of the various communication elements of brands. Although informational and emotional appeals may be appropriate communication style categories for advertisements, brands also use other channels with perhaps other objectives, which may ask for other communication styles. For instance, advertising does not involve a two-way communication, which can be the case for multiple other ways to communicate a brand (e.g. telemarketing, social media).

In conclusion, specific styles for brand-to-consumer communication have not been discussed yet in the academic literature. Although communication styles in interpersonal and advertising research seem to be relevant, it is not clear whether they are appropriate in the business-to-consumer context. Due to the lack of discussion of brand communication styles, there is a gap in the literature.

Because of the gap in the literature regarding brand communication styles, we want to investigate other, possibly more appropriate styles in this research. Consumers tend to attribute human characteristics to brands and may see brands as equal in the relationship (Aaker & Fournier, 1995; Aggarwal & McGill, 2012). Moreover, building relationships with customers is of great importance for brands (Batra, Ahuvia, & Bagozzi, 2012; Park, MacInnis, Priester, Eisingerich, & Iacobucci, 2010; Malär, Krohmer, Hoyer, & Nyffenegger, 2011). Therefore, we are interested to find out whether informal communication behaviour of brands has an influence on brand outcomes. An informal communication style includes a personal approach. Examples of informal language are the use of emoticons, human sound mimicry, exclamation marks or other ways of expressing feelings or stances. Informal use of language is used to give the idea of social closeness, whereas formal (or impersonal) language creates social distance (Delin, 2005). Therefore, we distinguish informal (friendly) and formal communication styles.

Brand trust and brand attachment

For this research, we will look at brand outcomes in terms of brand trust and brand attachment of consumers. The aim of brand communication styles for marketers should be to increase these brand outcomes. Trust is “the mutual confidence that no party to an exchange will exploit another’s vulnerabilities” and therefore crucial for markets to work (Davis, Lee & Ruhe, 2008, p. 152). Brand trust leads to highly valued relationships between customers and employees. For companies, it improves the ability to adapt to change and complexity (Morgan and Hunt, 1994; Korsgaard, Schweiger & Sapienza, 1995). Brand trust

is a predictor of brand loyalty and therefore a crucial factor of the brand's performance (Morgan and Hunt, 1994). Brand communication styles may influence trust because consumers expect a certain message of a brand and evaluate this message in comparison to their prior knowledge. When the language of the message fits this prior knowledge about the brand, the brand may be evaluated as being authentic.

Brand attachment is a characteristic of a brand-to-consumer relationship and reflects a psychological state of mind of consumers. Park, MacInnis, and Priester (2006) define brand attachment as "the strength of the cognitive and affective bond connecting the brand with the self". Thomson, MacInnis, and Whan Park (2005) suggest that brand attachment might indicate the consumers' brand commitment and willingness to make financial efforts to get the brand. Because of the relevance of customer satisfaction and brand attachment, we will research the effect of brand communication styles on these consumers' brand perceptions. Prior research on these consumers' brand perceptions does not include the effect of brand communication styles on brand trust and brand attachment, which is why we are interested in finding out these effects.

Because informal language creates social closeness and formal language increases social distance (Delin, 2005), we expect the informal online conversation style to be more effective than the formal style. Therefore, we propose the following hypotheses:

H1a: Informal brand communication style leads to higher brand trust than formal brand communication style.

H1b: Informal brand communication style leads to higher brand attachment than formal brand communication style.

Brand personality

Much research has been conducted investigating the influence of perceived brand personality on brand equity (Valette-Florence, Guizani, & Merunka, 2011), brand loyalty (Kim, Han, & Park, 2001) or brand attachment, purchase likelihood and brand choice in the context of different attachment styles (Swaminathan, Stilley, & Ahluwalia, 2009).

Brand personality involves a set of human characteristics that are attributed to a brand. Aaker (1997) developed a conceptual framework to describe and measure the personality of a brand, which is defined by the human characteristics associated with it. The five core dimensions that can be attributed to a particular brand are sincerity, excitement,

competence, sophistication and ruggedness. These characteristics can either be product related or consumer related. On the one hand, product-related characteristics frequently function as the primary drivers during the establishment of a brand personality (e.g. athletic shoes tend to be young, rugged, outdoorsy). On the other hand, consumer-related characteristics will influence the success associated with the brand personality. The individual brand personality helps the consumers to form an attitude towards a brand, thereby telling the consumers what to expect and how the brand will fit the consumers' personal needs and characteristics. Especially when products share similar attributes, individual brand personality traits are useful in creating a differential identity with respect to other similar products. This way, brand associations influence the consumers' decision making process towards or against a brand in the evaluation of alternatives (Kotler, 1999).

For a brand, it is important that its personality is consistent with its external communications (Harris & De Chernatony, 2001). This way, a relationship between a brand and its consumers evolves. Interactions in the relationship affect the brand-to-consumer relationship and, therefore, these communications need to be consistent in holding congruent perceptions about the nature of the brand. Inconsistencies can have a negative impact on the relationship, because they may confuse the consumer. So, brands need to communicate itself in a consistent way with the brand's core values, which are one of the sources of brand personality (Harris & De Chernatony, 2001). It is not only important what, but also how a brand communicates to consumers (De Chernatony, 2009). The literature suggests that the brand communications style needs to match the brand personality, which will result in better consumer evaluations of the relationship with the brand. Therefore, we expect that informal brand communications styles are more effective when there is congruence between the brand communication style and brand personality.

More specially, our hypothesis regarding this congruence is as follows:

H2a: The influence of informal (vs. formal) brand communication style on brand trust is stronger when there is a high fit between brand personality and brand communication style.

H2b: The influence of informal (vs. formal) brand communication style on brand attachment is stronger when there is a high fit between brand personality and brand communication style.

Conceptual model

The proposed hypotheses are summarized in the conceptual model (Figure 1).

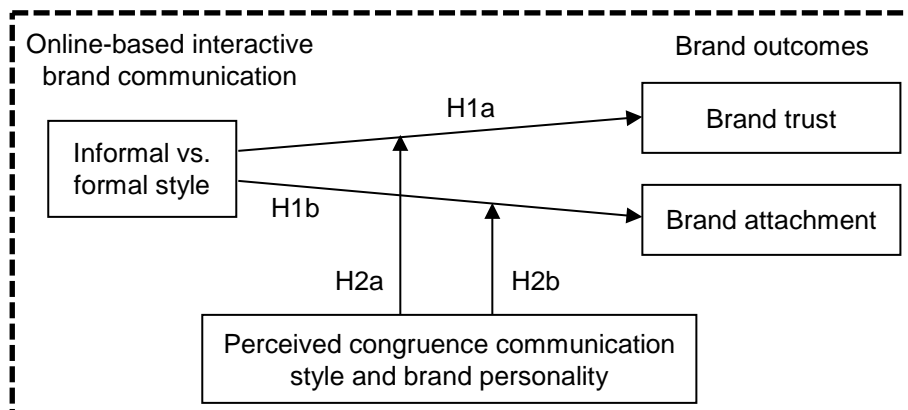


Figure 1. Conceptual model

Methodology

Research design

This study used a 2 (informal vs. formal brand communication style) x 2 (two different brands) mixed factorial experimental design (Table 1). A mixed factorial design refers to the combination of within subjects and between subjects design. A between subject design is used regarding the insertion of two different brands that have been manipulated for brand communication styles (informal vs. formal). The within subjects design refers to the pre- and post-measurement of the brand outcomes of each respondent. Together, this resulted in the combinations of conditions provided by the manipulation of brand communication styles (two dimensions) of two brands. The experimental set-up is displayed in Table 2.

Formal communication	Informal communication
Pre-measurement	Pre-measurement
<i>Manipulation</i>	<i>Manipulation</i>
Post-measurement	Post-measurement

The table shows a 2x2 grid of conditions. The columns are 'Formal communication' and 'Informal communication'. The rows are 'Pre-measurement', '*Manipulation*', and 'Post-measurement'. Double-headed horizontal arrows connect the 'Pre-measurement' and 'Post-measurement' cells in both columns, indicating a within-subject design. Curved arrows on the left and right sides of the table indicate a between-subject design across the two communication styles.

Table 1. Research design

Brand choice

The study used two existing brands, because using existing brands increases the likability that a certain level of the brand outcomes will be measured. Relational constructs like brand attachment are better measurable when the brands already exist in the consumers' minds. Using two brands increases the generalizability of the results regarding H1a and H1b (i.e. the effect of brand communication style on brand outcomes). Furthermore, it enabled to analyse the influence of the congruence between brand personality and brand communication style (H2a and H2b) more accurately. The choice of the specific brands used

for this research did depend on a couple of criteria. First, the brand should be well-known in the Netherlands, because the population of the study is mainly Dutch. Second, brands with different expected brand personalities were chosen. One brand was supposed to have an informal, and the other a formal personality. Third, brands within the same product category were chosen to reduce interference of other variables with regards to comparing measures. Taking these conditions into consideration, we came up with two well-known brands in the Netherlands (*Table 2*).

Brand	Product category	Expected brand personality
Dove	Consumer cosmetics	Informal
L'Oréal Paris	Consumer cosmetics	Formal

Table 2. Choice and types of brands

Manipulation

The manipulation consisted of an image of a fictitious Dutch Facebook message of the brand (*Appendix A*). To increase realism and reliability, the content is created after analysing the Facebook pages of both brands. Similar messages, comments and replies as present on the brands Facebook pages were used to produce the manipulation. For both brands, the text of the messages is the same and a similar image is inserted. The formal and informal condition of the manipulation have the same content, but differ in only in communication style. The communication style is based on linguistic features as presented by Gretry, Horvath, Belei & van Riel (2017).

Pretest

A pretest with 21 respondents is used to check the manipulation for both brands and both communication styles. We tested whether the informal communication style is perceived as informal and the formal communication style as formal. Additionally, to verify the brand familiarity, we included a semantic differential scale to assess how familiar the respondents were with the brands. Finally, we included a realism check to ensure that the messages are realistic and do not differ in terms of realism.

Manipulation checks

The pretest included two scales comprising multiple items, which we checked for reliability by Cronbach's alpha (*Appendix B, Table 1*). Both scales demonstrated high internal consistency with a score over .70, i.e. perceived brand communication style ($\alpha = .814$) and congruence between brand communication style and brand personality ($\alpha = .746$). A detailed overview of the assumption checks can be found in *Appendix E*.

Participants rated the informality of the brand communication style on eleven items on seven-point semantic differential scales (e.g. “The way the brand communicates is formal; informal”). An independent t test is conducted to test whether the informal style manipulation differs from the formal style manipulation in terms of perceived brand communication style ($M_{\text{Informal}} = 5.57$, $M_{\text{Formal}} = 4.61$). Levene’s test indicated unequal variances ($F = 4.53$, $p = .047$), so degrees of freedom were adjusted from 19 to 15. We can conclude that the perceived brand communication style of the informal condition differs from the perceived brand communication style of the formal condition ($p = .003$, 95% CI).

Participants were asked to rate how familiar they are with the brand on a seven-point scale with 1 = “Not at all familiar” and 7 = “Very familiar”. The participants were randomly assigned to *Dove* or *L’Oréal Paris*. As intended, both brands were found to be familiar ($M_{\text{Dove}} = 4.91$, $M_{\text{L’Oréal}} = 5.50$) and the brands did not differ in terms of familiarity ($p = .306$, 95% CI).

To verify that our manipulations are realistic and the realism does not differ between the informal and formal condition, the respondents indicated on a seven-point Likert scale whether “The way the brand communicates is realistic”. The participants found the manipulation of brand communication style to be realistic ($M = 5.62$). Results of an independent t test showed that the perceived realism did not differ between informal ($M_{\text{Informal}} = 5.50$) and formal ($M_{\text{Formal}} = 5.73$) conditions ($p = .532$, 95% CI). The data was found to be non-normal as indicated by a Shapiro-Wilk test ($p < .05$). However, the independent t test is robust to violations of normality and the nonparametric Mann-Whitney U test indicated correspondingly no difference in perceived realism ($p = .713$; see *Appendix E*)

The pretest’s results affirmed the expectations that the informal style manipulation is perceived as significantly more informal than the formal style manipulation, the brands are familiar and do not differ in terms of familiarity and both manipulation styles are realistic. This raised no reasons to alter the manipulation and accordingly the manipulation is implemented into the main survey.

Main study

Both Facebook and cosmetics are products consumed by a major part of the population in the Netherlands, where this research is conducted. The products are used by consumers with a wide range of demographics, e.g. education. However, the audience of Facebook is generally younger. We expected respondents with these demographics to find in public transport. No specific group characteristics were determined for the population. This way,

the group is broad and can be generalized to more people. Back-translation was employed to create a Dutch questionnaire which is used for the data collection (see *Appendix C*). A printed version of the questionnaire was used and handed out in public transport in the Netherlands. Like in the pretest, the manipulation for each respondent contained an informal or formal style message of one of the two existing brands, which was randomized. The messages were represented by an image of the brand's social media page. Before and after the manipulation, respondents rated a number of items in a survey, to measure the constructs of the conceptual framework (see *Table 3*). The aim was at least 30 respondents per manipulation for reliability issues. Because the conceptual framework includes two manipulations per brand, 130 participants were randomly assigned to one out of four conditions. Participants were informed about the topic of the research, but not about the specific manipulation and measurement goals because this may cause biases. The researcher informed the participants about the expected duration of the survey, told the participants they could withdraw from the research at any time and guarantee confidentiality and anonymity. Furthermore, in case the participants did have any questions or comments (e.g. further questions about the survey, questions regarding the results or application of the findings), the e-mail address of the researcher is provided to make contact.

Measurement of constructs

Table 3 gives an overview of the sources used to develop the measurement scales. The application of these scales in this research can be found in the questionnaire in *Appendix C*.

Variable	Items	Source
Brand familiarity	2	Simonin & Ruth (1998)
Product involvement	3	Zaichkowsky (1985)
Brand attitude	3	Wells (2014, p. 162)
Brand trust	3	Morgan and Hunt (1994)
Brand attachment	3	Park, MacInnis, Priester, Eisingerich & Iacobucci (2010)
Brand personality and communication style congruence	4	Malär, Krohmer, Hoyer & Nyffenegger (2011); Kronrod, Grinstein, and Wathieu (2012)
Informal vs. formal style	11	Gretry, Horvath, Belei & van Riel (2017)

Table 3. Measurement scales

To compensate for measurement errors due to consumers' knowledge before the experiment, a pre-measure of attitude and trust towards the brand prior to the manipulation

is included. A disadvantage is that participants may draw back to answers given before the manipulation, hence we decided to measure brand attachment only after the manipulation.

Results

This chapter describes the tests that have been performed to assess the hypotheses. First, an reliability analysis of the measurement scales is performed. Thereafter, the manipulations have been checked on the basis of the main data. Subsequently, the results of the analyses of the hypotheses are described. All statistical tests have been checked for the required assumptions as indicated by Laerd statistics (2013). The applied assumptions, including approaches and results, can be found in the overview in *Appendix E*. Violated assumptions are reported in the article, along the possible measures that have been taken to deal with the failed assumption.

Sample

Participants were randomly assigned to one of four manipulation groups. To increase the reliability of the data, we eliminated 22 participants who were unfamiliar with the brand (i.e., brand familiarity < 4) from the population, leaving a sample of 108 participants ($M_{Age} = 26.3$ years, 70.4% female). This resulted in differences in sample size per group (see *Table 4*).

	Informal	Formal
Dove	N = 30 $M_{Age} = 28.0$ 60% female $M_{Product\ involvement} = 3.8$ 97% uses social media	N = 32 $M_{Age} = 23.5$ 78% female $M_{Product\ involvement} = 4.7$ 100% uses social media
L'Oréal Paris	N = 27 $M_{Age} = 28.7$ 70% female $M_{Product\ involvement} = 4.2$ 93% uses social media	N = 19 $M_{Age} = 24.7$ 74% female $M_{Product\ involvement} = 4.1$ 95% uses social media

Table 4. Demographics and control variables of the manipulation groups

Reliability checks

Reliability analysis of the measurement scales comprising multiple items was performed to ensure internal consistency. We computed Cronbach's alpha to retrieve reliability coefficients. All for this research implemented scales show high internal consistency with coefficient scores above .70 and are therefore accepted. A more detailed overview of the

reliability analysis, including the few items that would increase α if deleted, can be found in *Appendix B*.

Manipulation checks

Brand familiarity

The brands are familiar ($M = 5.53$, $SD = .848$) and an independent t test showed that the brands do not differ in terms of familiarity ($M_{\text{Dove}} = 5.47$, $M_{\text{L'Oréal}} = 5.61$; $t(106) = .853$, $p = .395$, 95% CI). Additionally, an independent t test showed that the brand familiarities for the formal and informal condition do not differ ($M_{\text{Informal}} = 5.49$, $M_{\text{Formal}} = 5.57$; $t(106) = .472$, $p = .638$, 95% CI). For a final check, we conducted an ANOVA between the four manipulation groups with the dependent variable being brand familiarity and the independent variable the manipulation group and no difference was found between the groups ($F(3,104) = .525$, $p = .666$).

Perceived informality

We conducted an independent t test with the perceived informality of the communication as a dependent variable and the style manipulation as an independent variable. Two far out outliers of the informal style manipulation group were removed (see *Appendix E*). Levene's Test indicated unequal variances ($F = 8.353$, $p = .005$), so degrees of freedom were adjusted from 104 to 85.2. Participants in the informal condition indicated that the communication style was significantly more informal than those in the formal condition ($M_{\text{Informal}} = 5.67$, $M_{\text{Formal}} = 4.67$; $t(85.2) = 6.266$, $p < .001$, 95% CI).

In addition, there was a statistically significant difference between groups as determined by an one-way ANOVA ($F(3,50.3) = 14.458$, $p < .001$). Levene's test indicated unequal variances ($F(3,102) = 1.076$; $p = .035$), hence we conducted a Welch test. To determine where the differences occurred between groups, we ran a Games-Howell post hoc test. The test suggests no difference in perceived informality of the informal condition between brands ($M_{\text{Dove}} = 5.70$, $M_{\text{L'Oréal}} = 5.65$; $p = .991$). Moreover, the perceived informality of the formal condition does not differ between the brands ($M_{\text{Dove}} = 4.96$, $M_{\text{L'Oréal}} = 4.18$, $p = .053$).

Brand personality

To test whether the brand personalities do actually differ in terms of informality, we included a seven-point semantic differential scale to find out how the brands were perceived by the respondents. An independent t test with the brand (Dove vs. L'Oréal Paris) serving as independent variable and perceived brand personality as dependent variable was

conducted. There is a difference between the brand personalities ($M_{\text{Dove}} = 5.11$, $M_{\text{L'Oréal Paris}} = 4.64$; $t(106) = 2.444$, $p = .016$; 95% CI).

Hypothesis tests

Effect on brand trust

Multiple statistical methods were applied to test the effect of an informal style vs. a formal style on brand trust. Conducting paired samples t tests, brand trust ratings prior to informal and formal style manipulation were compared to brand trust ratings after the manipulation. For the informal style manipulation, the initial brand trust ($M = 4.93$) did not differ from the brand trust after the manipulation ($M = 4.87$; $t(56) = 1.079$; $p = .285$). However, for the formal manipulation style, there is a significant difference between the initial brand trust ($M = 5.06$) and the brand trust after manipulation ($M = 4.85$; $t(50) = 2.879$, $p = .006$). Since brand trust is measured before and after the manipulation, we computed a variable that calculates the difference between the brand trust and the initial brand trust, which we will call Δ brand trust. We conducted an independent t test with the manipulation style as independent variable and Δ brand trust as dependent variable. Two outliers seemed to be problematic, hence they were removed from the sample (see *Appendix E*). Levene's Test indicated unequal variances ($F = 6.802$, $p = .010$), so degrees of freedom were adjusted from 104 to 92.2. After the adjustment, Δ brand trust of the informal group ($M_{\text{Informal}} = -.0526$) does differ from Δ brand trust of the formal group ($M_{\text{Formal}} = -.2653$; $p = .010$, 95% CI). Finally, to take covariates into consideration, an ANCOVA was conducted that examined the effect of the manipulation style (informal vs. formal) on brand trust with initial brand trust and product involvement as covariates. There is a statistically significant relationship between the style manipulation and brand trust ($F(1,104) = 4.423$, $p = .038$). The adjusted means for brand trust are $M_{\text{Informal}} = 4.942$ and $M_{\text{Formal}} = 4.776$ (95% CI). In conclusion, the results support Hypothesis 1a. Although both manipulation styles do not advance brand trust, the formal style manipulation has a negative influence on brand trust, whereas the informal style preserves brand trust.

Effect on brand attachment

An independent t test with manipulation style (informal vs. formal) as independent variable and brand attachment as dependent variable gave no significant results ($p = .497$). An ANCOVA test with brand attachment as the dependent variable, manipulation style as independent variable and initial brand trust, product involvement and congruence between brand communication style and brand personality as covariates results in a significant influence of the manipulation style on brand attachment with a 94% CI ($F(1,102) = 4.245$, p

= .051). The adjusted means of brand attachment are $M_{\text{Informal}} = 3.241$ and $M_{\text{Formal}} = 2.822$. Brand attachment is only measured after the manipulation. In order to give another estimation whether manipulation style influences the brand attachment, we made a formula to calculate the estimated initial brand attachment (See Appendix D). We conducted paired samples t tests to compare the estimated initial brand attachment to brand attachment after informal vs. formal style manipulation. For the informal style manipulation, the estimated initial brand attachment ($M = 3.14$) did not differ from the brand attachment ($M = 3.12$; $t(56) = .644$, $p = .522$). But for the formal manipulation style, there is a significant difference between the estimated initial brand attachment ($M = 3.06$) and the brand attachment ($M = 2.99$; $t(49) = 2.474$, $p = .017$, 95% CI). For this test, an significant outlier was removed to increase the reliability and validity of the data (see Appendix E). In conclusion, both statistical tests support Hypothesis 2b. Similar as with the effect on brand trust, the formal style manipulation decreases brand attachment and the informal manipulation style preserves brand attachment.

Perceived congruence between brand communication style and brand personality

Linear regression is used to assess the interaction effect between manipulation style and congruence between brand personality and brand communication style (manipulation style * brand personality-communication style congruence). Brand trust was serving as dependent variable, initial brand trust and product involvement as covariates and manipulation style, the congruence and the interaction effect between these variables as independent variables. There is no interaction effect between manipulation style and congruence between brand personality and brand communication style on brand trust ($p = .143$). The results do not support Hypothesis 2a, thus the influence of informal (vs. formal) brand communication style on brand trust is not stronger when there is a high perceived fit between brand personality and communication style. We conducted the same test with brand attachment serving as independent variable instead of brand trust and again no interaction effect was found ($p = .922$). Hypothesis 2b, stating that the effect of informal (vs. formal) brand communication style on brand attachment is stronger when the congruence between brand personality and communication style is high, is not supported.

A Pearson's r was computed to assess the relationship between the perceived congruence between communication style and brand personality and brand trust. There is a positive correlation between the two variables ($r = .407$, $n = 96$, $p < .001$). The same test for Δ brand trust resulted in no correlation ($p = .260$). Likewise, we conducted a Pearson's r to assess

the correlation between congruence between the brand communication style and brand personality and brand attachment. There is a positive correlation between the two variables ($r = .217$, $n = 96$, $p = .033$). The results show a direct effect of perceived congruence between brand personality and communication style on brand trust and brand attachment.

Discussion

Online brand-based communities is an evident relationship building tool providing brands the opportunity to engage with consumers. Though, social media are not utilized to their full potential (Plum, Dwivedi & Slade, 2017). It is a challenge for marketers to deal with the two-way interaction. Communication style in online communities is a crucial factor affecting consumers' brand evaluation (Steinmann & Schramm-Klein, 2015). Yet, it is indecisive which style is the best to apply. This study examined online-based interactive communication style in terms of informality. A quantitative survey is conducted with a 2 (manipulation style: informal vs. formal) x 2 (familiar brand: Dove vs. L'Oréal Paris) research design. Data of 130 respondents is collected on public transport in the Netherlands. The questionnaire contained a manipulated Facebook page of the brand, including conversations between members and the brand.

The results demonstrate that an informal online-based interactive brand communication style is superior to a formal style in terms of brand outcomes. From different perspectives, previous research suggests a preference for conducting informal communication on social media. First, informal use of language gives the idea of social closeness, whereas formal language creates social distance (Delin, 2005). Social distance has a profound influence on (economic) decisions that have social consequences (Akerlof, 1997). An increased social distance has negative effect on factors including trust (Buchan, Johnson & Croson, 2006). Second, prior research on online brand-based communities motivates the preference for informal style by the informality of the interactive online platform. Social media have changed the way that consumers interact in a relatively informal environment, raising a sense of trust and relationship commitment (Wu, Chen & Chung, 2010). Consumers thrive at the chance to be able to flitting between communities, serving both business and social functions (Plum et al., 2017). A study of Hatzithomas, Fotiadis & Coudounaris (2016) demonstrated that participants prefer communicating with companies on Facebook in a loose and direct way, like they do with their friends. Brand experiences in social media hold the promise of a personalized conversation with the brand. This way, brands become close and real in social media (Davis, Piven & Breazeale, 2014). Facebook posts interacting in a more personal

tone, using informal words, enhance the familiarity with the already familiar brand (Gretry et al., 2017). Our results agree with prior research; in general, informal communication style on social media is the best choice for familiar brands.

However, our results demonstrate a lack of positive effect of communication on brand outcomes. An explanation might be a lack of trust within online brand communities. This could be due to consumers perceiving user-generated content as more trustworthy and reliable than content directly from the brand (Plum et al., 2017). Consumers view consumer-generated messages on social media motivated by altruism, unlike advertising generated by marketers (Dehghani and Tumer, 2015). This conflicts with the view that consumers may see brands as equal in the relationship (Plum et al., 2017). Furthermore, instead of gaining deeper commitment, consumers see these online communities as sources of information (Wu et al., 2010). Another explanation is that consumers perceive the effort of the brand to communicate as a friend exaggerated when the brand-consumer relationship is perceived more distant. Inappropriate communication style negatively influences brand trust and attachment, because familiarity with the brand decreases (Gretry et al., 2017). It might be a matter of time to distinguish positive brand evaluations. Previous findings showed that communication style only had an impact on satisfaction ratings after a period of time participating in a online brand community (Steinmann & Schramm-Klein, 2015).

In contrast with expectations, this research demonstrates online interactive brand communication style and perceived congruence between the brand personality and communication style do not interact in their role on the brand outcomes. Yet, how this particular congruence is perceived has major direct positive influence on the brand outcomes. Based on prior literature, the higher appreciation of the relationship with the brand is expected. When a brand's communications correspond with how consumers perceive the brand's personality in terms of formality, consumers' expectations are met. Findings imply that (in)consistencies between advertised communication style and consumers' expectations (imply) strengthen brand trust (Gretry et al., 2017; Hatzithomes et al., 2016). Expected communications are more authentic and genuine and cause no confusion in how to assess a brand, which will improve brand trust and attachment. However, because the perceived congruence is based on the applied communication style, consumer's brand evaluations were expected to be advanced when informal style and consistency with the brand personality interacted. Communities based on social media help individuals define what the brand actually is, which helps them identify what it is that will add to their self-

identity. This way, social media allows to complete their goals of self-presentation and belonging (Plum et al., 2017). Facebook is a communication platform where members seek for equal, familiar relationships (Hatzithomes et al., 2016). One would expect that self-congruity, the number of links between the self and each brand, which predicts preferences for brands (Branaghan & Hildebrand, 2011; Nienstedt, Huber, & Seelmann, 2012), is more likely to be found at brands with an informal personality and communication style. The brand is more likely to extend the consumers' selves. However, we found no evidence supporting a moderating effect of brand personality-communication style congruence. This study illustrates that consumer's expected communication style on basis of the brand personality leads to better brand evaluation, regardless (an informal or formal) style. It conflicts with findings suggesting the informal two-way communication style in communities is always best practice for familiar brands. Besides implications that an informal style excels formal style, focus is needed especially when a more formal style is more appropriate. Brand personality-communication style congruence accompanying a formal style improves brand trust and attachment as well. It does confirm the importance of fit between brand personality and external communications (Harris & De Chernatony, 2001).

Conclusion

This study assesses the influence of online-based interactive brand communication style on brand trust and brand attachment and how the perceived congruence between brand communication style and brand personality moderates this effect. This chapter focusses on the relevant results to either reject or accept the hypotheses.

The results demonstrate online-based interactive brand communication style has no positive effect on brand trust. More specifically, an informal communication style has no influence on brand trust and a formal communication style decreases brand trust. Because the difference is statistically significant, Hypothesis 1a, 'Informal brand communication style leads to higher brand trust than formal brand communication style,' is accepted. Likewise, informal online brand communication style has no effect on brand attachment. However, formal brand conversation style has a significant negative influence on brand attachment. Hypothesis 1b, 'Informal brand communication style leads to higher brand attachment than formal brand communication style,' is accepted.

In contrast to our expectations, there is no moderating effect of the perceived congruence between brand personality and communication style on the relationship between brand

communication style and the brand outcomes. Therefore, Hypothesis 2a, 'The influence of informal (vs. formal) brand communication style on brand trust is stronger when there is a high fit between brand personality and brand communication style,' and Hypothesis 2b, 'The influence of informal (vs. formal) brand communication style on brand attachment is stronger when there is a high fit between brand personality and brand communication style,' are rejected. However, a direct effect of the perceived congruence between brand personality and communication style on both brand trust and brand attachment was found.

In conclusion, after exposure of informal online-based interactive brand communication style respondents' ratings of brand trust and brand attachment are unaffected. The formal style has negative influence on the respondents' ratings of brand trust and brand attachment. Congruence between brand communication style and brand personality does not moderate the relationship between the brand communication style and brand outcomes. Though, a higher perceived fit between the communication style and brand personality has a positive effect on brand trust and brand attachment.

Managerial implications

Nowadays, communication via social media is crucial. A social media strategy is therefore essential. This research shows that even with the same content, the use of the communication style is of great influence. However, it may not always be clear for marketers which style to choose. This study gives some insight in what the better choice for marketers of familiar brands would be to communicate online with consumers. Brand trust is essential to build and endure relationships with consumers. Confidence in a brand reflects the confidence in their products on the market. Brand attachment surpasses brand trust because it goes deeper, representing a connection between brand. Attached consumers are more likely to be passionate about the brand and its products. This is especially powerful on social media, because it is a place where along with brands, consumers display themselves. This research shows that a formal online-based communication style increases social distance, which has negative influence on brand trust and brand attachment. A more informal style appears to be the better choice, on the relatively informal brand-based communities. However, some aspects need to be taken into consideration. Consumers may not appreciate it when the informality is overdone. The communication may be interpreted as artificial, which can create distance. Marketers should design messages carefully so that consumers can identify with the brand. Though, marketers need to take their own brand's personality into account, which needs to fit the communication style they carry out. This way,

consumer's expectations of the communication style are more likely to be met, which will result in a higher likability to generate confidence in a brand. Social media users tend to question advertisers' intentions in their interactions initially. Therefore, consistency, authenticity and appropriateness are vital to strengthen the connection between consumer and brand. Eventually, a customer will be more willing to make financial efforts for a brand.

Limitations

With regard to this study, there are some limitations the reader should consider. To begin with, the focus is exclusively on one product category, i.e. cosmetics. It is difficult to determine whether the same results will emerge in other product categories. Besides, the personalities of the chosen brands were perceived closer to each other in terms of informality than expected, which might explain that the perceived fit between brand communication style and brand personality did not differ across the manipulation groups. Since brand trust was measured prior to and after the manipulation, participants rated the same items twice, possibly remembering their previous answers and being able to look back. In contrast, brand attachment was only measured after the manipulation, which makes it difficult to determine the effect of the brand communication style on brand attachment. Because of the brand familiarity, participants may have major prior knowledge about the well-known brands in their mind. This knowledge may have overpowered the manipulation. Finally, especially after elimination participants from the dataset, the population group is rather small, which decreases external validity.

Further research

Taking the findings and limitations into consideration, there are implications for further research. Analyzing other product categories might give additional insight onto this topic. In this research we chose two brands in the cosmetics market. There are products and services with a more formal (e.g. banking) or informal (e.g. gaming industry) character. Research may show other or similar results here, which is interesting for the external validity. Additionally, it would be interesting to elaborate on the congruence between the brand personality and communication style. In this research, the measurement of the concept was direct. However, an indirect measurement will establish more knowledge and insight. Thereupon, comparing wider apart brands in terms of informality of the brand personality is essential. Further research into this subject will help marketers to easier adjust their marketing strategies, because brand personality and communication style are more straightforward and predictable for them than the perception of consumers concerning the

subject. Furthermore, we address connections between brand communication style, brand personality-communication style and individual preferences for communication styles on social media in their role on factors as brand trust and attachment. Although more sense of the interrelations between the constructs is important, It is inconclusive how they are related to one another. Future research might position these factors for a deeper understanding. In the current scientific field, it is difficult, especially for brands with a more formal identity, to determine the right mix between loose interactions as expected by consumers on basis of the platform and communication styles as expected by assessing the brand's personality.

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Appendix A: Manipulations

Images 1 & 2. Informal brand communication style manipulation for Dove and L'Oréal Paris

Dove Yesterday

Heb jij ze al gespot in de winkel? Onze Intensive Repair lijn helpt droog beschadigd haar diep van binnen beter worden. Je haar gaat ervan stralen! 😊



Like · Comment · Share

👍 126 people like this.

Karin de Jong Ik vind de shampoo super 😊 Ruikt heerlijk!!
Dove Thanks Karin! Dat horen we graag 😊

Barbara Reijnders Beste Dove,
Hoe lang is de spray houdbaar?
Groeten Barbara
Dove Hi Barbara! Tot 12 maanden na opening. Stuur maar een berichtje als je meer wilt weten! 😊

Fleur van der Meer Ik heb het nog niet geprobeerd maar ga ik zeker doen!
Dove Top 😊 Laat effe weten of t bevalt Fleur!
Fleur van der Meer Doe ik

Amy Verbeek De shampoo en conditioner zijn topproducten! Passen precies bij mijn haar.
Dove Super 😊 Thanks Amy!

Ria Donker Ik kan nergens meer de reinigingsmelk vinden. Is deze uit de handel gehaald?
Dove Die hebben we inderdaad niet meer 😊

💬 View 28 more comments

L'Oréal Paris Yesterday

Heb jij ze al gespot in de winkel? Onze Elvive Total Repair 5 helpt droog beschadigd haar diep van binnen beter worden. Je haar gaat ervan stralen! 😊



Like · Comment · Share

👍 126 people like this.

Karin de Jong Ik vind de shampoo super 😊 Ruikt heerlijk!!
L'Oréal Paris Thanks Karin! Dat horen we graag 😊

Barbara Reijnders Beste L'Oréal Paris,
Hoe lang is de spray houdbaar?
Groeten Barbara
L'Oréal Paris Hi Barbara! Tot 12 maanden na opening. Stuur maar een berichtje als je meer wilt weten! 😊

Fleur van der Meer Ik heb het nog niet geprobeerd maar ga ik zeker doen!
L'Oréal Paris Top 😊 Laat effe weten of t bevalt Fleur!
Fleur van der Meer Doe ik

Amy Verbeek De shampoo en conditioner zijn topproducten! Passen precies bij mijn haar.
L'Oréal Paris Super 😊 Thanks Amy!

Ria Jonker Ik kan nergens meer de reinigingsmelk vinden. Is deze uit de handel gehaald?
L'Oréal Paris Die hebben we inderdaad niet meer 😊

💬 View 28 more comments

Image 3 & 4. Formal brand communication style manipulation for Dove and L'Oréal Paris

Dove Yesterday

De Dove Intensive Repair lijn ligt in de winkel. De producten helpen droog, beschadigd haar diep van binnen te herstellen. Ontdek de voedende verzorging voor stralend haar.



Like · Comment · Share

126 people like this.

Karin de Jong Ik vind de shampoo super 😊 Ruikt heerlijk!!
Dove Dank u wel voor het compliment, **Karin de Jong**. Het wordt gewaardeerd.

Barbara Reijnders Beste Dove, Hoe lang is de spray houdbaar?
 Groeten Barbara
Dove Beste Barbara Reijnders, De verzorgende spray is tot 12 maanden na opening houdbaar. Voor meer informatie kunt u een bericht naar ons sturen.

Fleur van der Meer Ik heb het nog niet geprobeerd maar ga ik zeker doen!
Dove Dank u wel voor het bericht, **Fleur van der Meer**. Wilt u laten weten of het product bevalt?
Fleur van der Meer Doe ik

Amy Verbeek De shampoo en conditioner zijn toproducten! Passen precies bij mijn haar.
Dove Dank u wel voor het compliment, **Amy Verbeek**. Het wordt gewaardeerd.

Ria Jonker Ik kan nergens meer de reinigingsmelk vinden. Is deze uit de handel gehaald?
Dove Beste **Ria Jonker**, Helaas hebben wij de Dove reinigingsmelk uit ons assortiment gehaald.

View 28 more comments

L'Oréal Paris Yesterday

De Elvive Total Repair 5 lijn ligt in de winkel. De producten helpen droog, beschadigd haar diep van binnen te herstellen. Ontdek de voedende verzorging voor stralend haar.



Like · Comment · Share

126 people like this.

Karin de Jong Ik vind de shampoo super 😊 Ruikt heerlijk!!
L'Oréal Paris Dank u wel voor het compliment, **Karin de Jong**. Het wordt gewaardeerd.

Barbara Reijnders Beste L'Oréal Paris, Hoe lang is de spray houdbaar?
 Groeten Barbara
L'Oréal Paris Beste Barbara Reijnders, De verzorgende spray is tot 12 maanden na opening houdbaar. Voor meer informatie kunt u een bericht naar ons sturen.

Fleur van der Meer Ik heb het nog niet geprobeerd maar ga ik zeker doen!
L'Oréal Paris Dank u wel voor het bericht, **Fleur van der Meer**. Wilt u laten weten of het product bevalt?
Fleur van der Meer Doe ik

Amy Verbeek De shampoo en conditioner zijn toproducten! Passen precies bij mijn haar.
L'Oréal Paris Dank u wel voor het compliment, **Amy Verbeek**. Het wordt gewaardeerd.

Ria Jonker Ik kan nergens meer de reinigingsmelk vinden. Is deze uit de handel gehaald?
L'Oréal Paris Beste **Ria Jonker**, Helaas hebben wij de L'Oréal reinigingsmelk uit ons assortiment gehaald.

View 28 more comments

Appendix B: Reliability analysis of scales

The survey of this research contains multiple variables scales formed out of multiple seven-point Likert and semantic differential questions. In order to check the internal consistency (i.e. reliability) of these implemented scales, we used Cronbach's alpha. Cronbach's alpha measures how closely related a set of items are as a group. We applied the coefficient to the population of the pretest and main data including the subjects with a lower brand familiarity in contrast to the main data study. This increases the reliability of the coefficient of the scales. Since certain brand familiarity is required for participants to score the items, we chose the data with brand familiarity ≥ 2 . This is adequate because no adaptations were made to the manipulation and items after passing the pretest. We are looking for a score over .70 for high internal consistency to accept the items.

Scale	Valid cases	Items	Cronbach's alpha	Items increasing α if deleted
Perceived brand communication style	N = 21	11	$\alpha = .814$	The way the brand communicates is: - <i>Not inviting to conversation/Inviting to conversation</i> : $\alpha = .832$ - <i>Unfriendly/Friendly</i> : $\alpha = .817$ - <i>Serious/Casual</i> : $\alpha = .826$
Congruence and brand personality and communication style	N = 21	4	$\alpha = .746$	<i>The way the brand talks corresponds to how I expect the brand to talk to me</i> : $\alpha = .801$

Table 1. Reliability analysis pretest data

Scale	Valid cases	Items	Cronbach's alpha	Items increasing α if deleted
Initial brand attitude	N = 123	3	$\alpha = .895$	
Initial brand trust	N = 123	4	$\alpha = .808$	<i>I would buy products of this brand</i> : $\alpha = .830$
Brand personality	N = 123	4	$\alpha = .725$	
Perceived brand communication style	N = 144	11	$\alpha = .885$	<i>Serious/Casual</i> : $\alpha = .888$
Congruence between manipulation style and brand personality	N = 144	4	$\alpha = .817$	
Brand attitude	N = 123	3	$\alpha = .920$	
Brand trust	N = 123	4	$\alpha = .816$	<i>I would buy products of this brand</i> : $\alpha = .840$
Brand attachment	N = 123	3	$\alpha = .826$	
Product involvement	N = 123	3	$\alpha = .925$	

Table 2. Reliability analyses pretest data and main data combined (brand familiarity ≥ 2)

Appendix C: Survey

Deze vragenlijst gaat over het cosmeticamerk L'Oréal Paris.



Hoe denkt u over het algemeen over L'Oréal Paris?

Ik heb een hekel aan het merk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ik vind het merk leuk.
Ik sta negatief tegenover het merk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ik sta positief tegenover het merk.
Ik vind het merk slecht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ik vind het merk goed.

Geef aan in hoeverre u het eens of oneens bent met de volgende uitspraken over L'Oréal Paris:

	Helemaal mee oneens	Mee oneens	Beetje mee oneens	Neutraal	Beetje mee eens	Mee eens	Helemaal mee eens
Ik kan het merk vertrouwen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik en andere consumenten kunnen op het merk rekenen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het merk is eerlijk en authentiek.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou producten van het merk kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ik vind het merk L'Oréal Paris:

Onpersoonlijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Persoonlijk
Onvriendelijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Vriendelijk
Stijf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ontspannen
Formeel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Informeel

Hieronder ziet u de Facebookpagina van L'Oréal Paris. Hierop zijn gesprekken tussen het merk en leden van de Facebookpagina van het merk te zien. Lees dit alstublieft.

SEE APPENDIX A: MANIPULATIONS

Geef aan in hoeverre u het eens of oneens bent met de volgende uitspraken over L'Oréal Paris:

	Helemaal mee oneens	Mee oneens	Beetje mee oneens	Neutraal	Beetje mee eens	Mee eens	Helemaal mee eens
Ik voel me verbonden met het merk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het merk is eerlijk en authentiek.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het merk zou een deel van mij en wie ik ben kunnen zijn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik en andere consumenten kunnen op het merk rekenen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik heb een emotionele band met het merk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik kan het merk vertrouwen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zou producten van het merk kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Heeft u voor dit onderzoek gehoord van L'Oréal Paris?

<input type="radio"/> Ja
<input type="radio"/> Nee

Indien ja, hoe bekend bent u met het merk?

Ik ken het merk helemaal niet goed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ik ken het merk heel goed
---------------------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	------------------------------

De producten van L'Oréal Paris (cosmeticaproducten) zijn:

Onbelangrijk voor mij	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Belangrijk voor mij
Oninteressant voor mij	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Interessant voor mij
Nutteloos voor mij	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Nuttig voor mij

Hoe bekend bent u met online groepen of pagina's van merken (zoals de Facebookpagina of de Twitteraccount van een merk)?

Helemaal niet bekend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Heel bekend
-------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------------

Wat is uw houding ten opzichte van deze groepen of pagina's?

Erg negatief	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Erg positief
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Gebruikt u sociale media?

<input type="radio"/> Ja
<input type="radio"/> Nee

Hoeveel merken volgt u online?

<input type="radio"/> Geen
<input type="radio"/> 1 of 2
<input type="radio"/> 3 tot 5
<input type="radio"/> 6 tot 10
<input type="radio"/> 11 tot 20
<input type="radio"/> Meer dan 20
<input type="radio"/> Weet ik niet

Reageert u regelmatig op merken via sociale media?

<input type="radio"/> Ja, dagelijks
<input type="radio"/> Ja, meerdere keren per week
<input type="radio"/> Ja, wekelijks
<input type="radio"/> Ja, maandelijks
<input type="radio"/> Nee, ik reageer niet op merken via sociale media

Geslacht	<input type="radio"/> Man	
	<input type="radio"/> Vrouw	
Leeftijd	
Nationaliteit	<input type="radio"/> Nederlandse	
	<input type="radio"/> Anders, namelijk	
Hoogst genoten opleiding	<input type="radio"/> Basisschool	<input type="radio"/> Middelbare school
	<input type="radio"/> MBO	<input type="radio"/> HBO

Appendix D: Calculating an estimation of initial brand attachment

Brand attachment is only measured after the manipulation. In order to give an estimation too what extent the manipulations influence the brand attachment, we made a formula to calculate the estimated initial brand attachment. After conducting a Pearson's r, the other brand outcomes, brand attitude ($r = .517, p < .001$) and brand trust ($r = .585, p < .001$), and the control variable product involvement ($r = .576, p < .001$) turned out to correlate with brand attachment. We used linear regression with brand attachment as the dependent variable and brand attitude, brand trust and product involvement as independent variables to predict values of brand attachment. The regression equation to predict brand attachment (unstandardized) gave the following formula:

$$\begin{aligned} & \textit{Brand attachment predicted or } \hat{y} \\ & = -0.543 + 0.108 * \textit{brand attitude} + 0.387 * \textit{brand trust} + 0.272 * \textit{product involvement} \end{aligned}$$

Adding the residual ($= \hat{y} - y = \text{brand attachment predicted} - \text{brand attachment}$) to the formula gives brand attachment:

$$\begin{aligned} & \textit{Brand attachment or } y \\ & = -0.543 + 0.108 * \textit{brand attitude} + 0.387 * \textit{brand trust} + 0.272 * \textit{product involvement} \\ & + \textit{residual} \end{aligned}$$

Since brand attitude and brand trust are also measured prior to the manipulation, modifying the formula by replacing these independent brand outcomes with their initial versions might give some insight in what brand attachment prior to manipulation might have been. Product involvement is a control variable not being influenced by the manipulation group (no statistical different between groups as determined by one-way ANOVA ($F(3,104) = .973, p = .408$)). This results in the following predicting formula for estimated initial brand attachment:

$$\begin{aligned} \textit{Initial brand attachment estimated} & = -0.543 + 0.108 * \textit{initial brand attitude} + 0.387 * \\ & \textit{initial brand trust} + 0.272 * \textit{product involvement} + \textit{residual} \end{aligned}$$

Appendix E: Assumptions for statistical tests

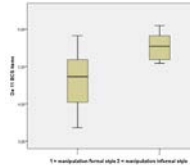
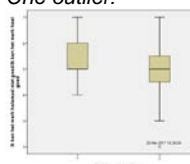
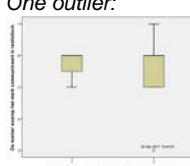
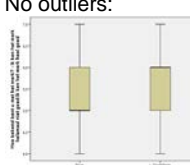
This appendix covers all examined assumptions for the statistical tests as described by Laerd statistics (2013). The assumptions are compiled in tables per type of statistical test. The (initially) problematic cases are italicized and numbered to identify them. The measures taken to deal with these cases are described in more detail underneath each table.

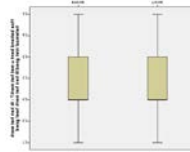
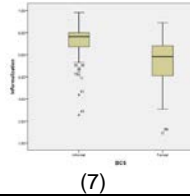
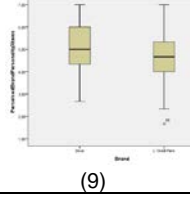
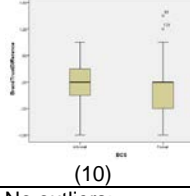
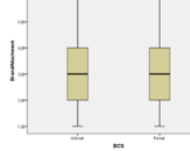
Independent t test

An independent t test should meet the following assumptions, which have all been applied to the independent t tests made for this research:

1. The dependent variable is measured on a continuous scale;
2. The independent variable consists of two categorical, independent groups;
3. There is independence of observations;
4. There are no significant outliers;
5. The dependent variable is approximately normally distributed for each group of the independent variable.
6. There is homogeneity of variances.

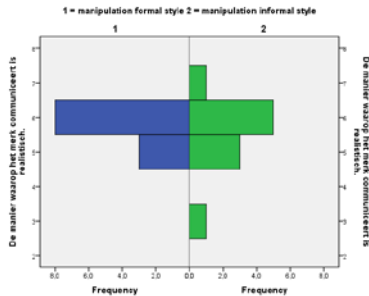
Table 1. Assumption checks for independent t test

Assumption	1. Dependent variable	2. Independent variable	3. Independence of observations	4. Outliers	5. Normal distribution	6. Equal variances
Measurement	Continuous scale	Two categorical, independent groups	Study design	Boxplot	Shapiro-Wilk test ($p \geq .05$ or $W \geq .9$)	Levene's test for homogeneity ($p \geq .05$)
Pretest	Perceived brand communication style: 7-point scale (11 items)	Manipulation style: Informal style vs formal style	No relationship between observations	No outliers: 	Formal style: $W = .936$; $p = .471$ Informal style: $W = .911$; $p = .288$	$F = 4.53$; $p = .047$ (1)
Pretest	Brand familiarity: 7-point scale (1 item)	Brand: L'Oréal Paris vs Dove	No relationship between observations	One outlier: 	L'Oréal Paris: $W = .868$; $p = .095$ Dove: $W = .915$; $p = .278$	$F = .443$; $p = .514$
Pretest	Realism: 7-point scale (1 item)	Manipulation style: Informal style vs formal style	No relationship between observations	One outlier: 	Formal style: $W(11) = .572$; $p < .001$ Informal style: $W(10) = .835$; $p = .038$	$F = 3.557$; $p = .075$ (4)
Manipulation check	Brand familiarity: 7-point scale (1 item)	Brand: L'Oréal Paris vs Dove	No relationship between observations	No outliers: 	Dove: $W = .851$; $p < .001$ L'Oréal Paris: $W = .874$; $p < .001$	$F = 3.147$; $p = .079$ (5)

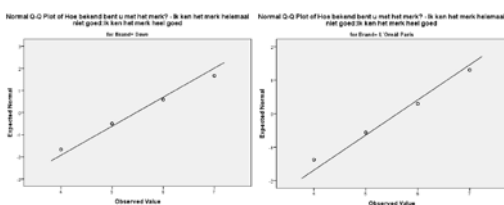
Manipulation check	Brand familiarity: 7-point scale (1 item)	Manipulation style: Informal style vs formal style	No relationship between observations	No outliers: 	Formal style: $W = .865; p < .001$ Informal style: $W = .878; p < .001$ (6)	$F = .758; p = .386$
Manipulation check	Perceived brand communication style: 7-point scale (11 items)	Manipulation style: Informal style vs formal style	No relationship between observations	Multiple outliers, two extremes: 	Informal style: $W = .955; p = .037$ Formal style: $W = .917; p = .002$ (7)	$F = 8.353; p = .005$ (8)
Manipulation check	Brand personality: 7-point scale (4 items)	Brand: L'Oréal Paris vs Dove	No relationship between observations	One outlier: 	Dove: $W = .976; p = .274$ L'Oréal Paris $W = .975; p = .432$ (9)	$F = .892; p = .347$
Brand trust	Δ brand trust (= brand trust – initial brand trust, both): 7-point scale (4 items)	Manipulation style: Informal style vs formal style	No relationship between observations	Two outliers: 	Formal style: $W = .909; p = .001$ Informal style: $W = .949; p = .018$ (10)	$F = 6.802; p = .010$ (11)
Brand attachment	Brand attachment: 7-point scale (3 items)	Manipulation style: Informal style vs formal style	No relationship between observations	No outliers: 	Formal style: $W = .958; p = .066$ Informal style $W = .967; p = .127$	Equal variances: $F = .625; p = .431$

- (1) Degrees of freedom were adjusted from 19 to 15.
- (2) One outlier is identified in the Dove group. The mean of brand familiarity of the Dove group is 4.91 and the trimmed mean 4.95. This indicates that the outlier has not much influence on the mean. An independent t test is performed without the outlier. Removing the outlier appeared to have no influence on the null hypothesis of the independent t test ($t(18) = .605, p = .552, 95\% \text{ CI}$). The outlier is included in the test.
- (3) For the informal manipulation style the trimmed mean of realism is 5.56 and the original mean is 5.50. The outlier does not give much of a problem, because it has not much influence. With the outlier removed from the data, results of an independent t test showed that the perceived realism does not differ between informal ($M_{\text{Informal}} = 5.78$) and formal ($M_{\text{Formal}} = 5.73$) conditions ($t(18) = .199, p = .844, 95\% \text{ CI}$), as it does not when the outlier is included. Furthermore, eliminating the outlier has no positive influence on the other assumptions. Therefore, the outlier is not eliminated.
- (4) Indicated by the Shapiro-Wilk test, the data deviates from a normal distribution for both independent groups. However, the independent t test is robust to violations of normality and

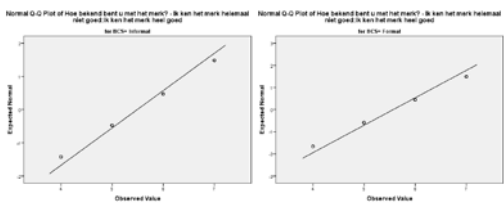
should work with non-normality as well. Though, we conducted the nonparametric Mann-Whitney U test which does not require normality and this confirms the results of the independent t test ($p = .713$). An explanation for the non-normality might be insufficient data discrimination as displayed in the following figure:



(5) Normal Q-Q Plots suggest normal distribution:



(6) Normal Q-Q Plots suggest normal distribution:



(7) A boxplot indicates outliers for both manipulation styles. Because the extremes in the informal manipulation have a negative influence on the normality of the data, we eliminated these points. The trimmed mean of the informal group is 5.686 and the original mean 5.673. For the formal group, the trimmed mean is 4.731 and the original mean 4.667. This indicates the remaining outliers are not problematic.

(8) Degrees of freedom were adjusted from 104 to 85.2.

(9) The mean for L'Oréal Paris is 4.64 and the trimmed mean 4.67. This suggests that the impact of the outlier is insignificant and the outlier will not be eliminated.

(10) Two outliers in the data in the formal manipulation style group were identified and eliminated. The mean was $-.201$ and the trimmed mean $-.237$, which implies the outliers might give a problem.

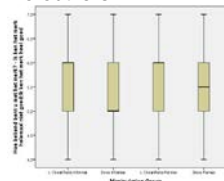
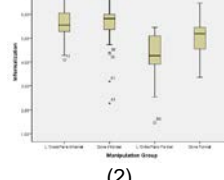
(11) Degrees of freedom were adjusted from 104 to 92.2.

One-way ANOVA

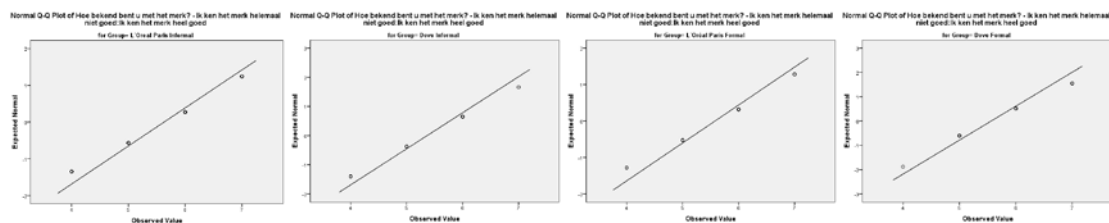
An one-way ANOVA should meet the following assumptions, which have all been applied to the tests made for this research:

1. The dependent variable is measured on a continuous scale;
2. The independent variable consists of two or more categorical, independent groups;
3. There is independence of observations; there is no relationship between the observations in each group or between the groups themselves;
4. There are no significant outliers;
5. The dependent variable is approximately normally distributed for each category of the independent variable.
6. There is homogeneity of variances.

Table 2. Assumption checks for one-way ANOVA

Assumption	1. Dependent variable	2. Independent variable	3. Independence of observations	4. Outliers	5. Normal distribution	6. Equal variances
Measurement	Continuous scale	Two or more categorical, independent groups	Survey design	Boxplot	Shapiro-Wilk test ($p \geq .05$ or $W \geq .9$)	Levene's test for homogeneity ($p \geq .05$)
Manipulation check	Brand familiarity: 7-point scale	Manipulation group: Four groups (Dove vs L'Oréal Paris x informal vs formal manipulation style)	No relationship between observations	No outliers: 	1: $W = .878$; $p = .004$ 2: $W = .868$; $p = .002$ 3: $W = .883$; $p = .024$ 4: $W = .825$; $p < .001$ (1)	$F(3, 104) = 1.1215$; $p = .308$
Manipulation check	Perceived brand communication style: 7-point scale (11 items)	Manipulation group: Four groups (Dove vs L'Oréal Paris x informal vs formal manipulation style)	No relationship between observations	Multiple outliers, two extremes: 	1: $W(27) = .974$; $p = .708$ 2: $W(28) = .905$; $p < .001$ 3: $W(19) = .896$; $p = .040$ 4: $W(32) = .935$; $p = .056$ (3)	$F(3, 102) = 2.984$; $p = .035$ (4)

(1) A Shapiro-Wilk test indicates no normality, however, the normal Q-Q plots of each category do (see below). An explanation for the results of the Shapiro-Wilk test might be the poor resolution of the dependent variable, because the sample contains only subjects with a brand familiarity varying between four levels (four or higher).



(2) The boxplot indicates two extremes in the Dove x informal manipulation group. These can have a negative influence on the validity of the results, hence they are removed from the sample.

(3) A Shapiro-Wilk test indicates no normal distribution for the L'Oréal Paris x formal manipulation group by .004 of the W statistic and .010 of the significance value ($W = .896$, $p = .040$). The

one-way ANOVA only requires approximately normal distribution because the test is quite robust to violations of normality, hence we tolerate it.

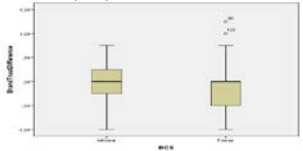
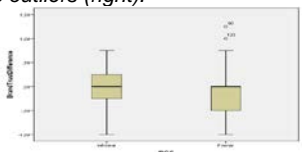
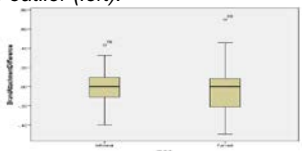
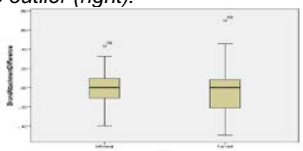
(4) Levene’s test for homogeneity of variances indicates unequal variances. For this reason, we conducted the Welch test with a Games-Howell post hoc test, which are both applicable when unequal variances are assumed.

Paired samples t test

The executed paired samples t tests for this research are evaluated on the following assumptions:

1. The dependent variable is measured on a continuous scale;
2. The independent variable consists of two categorical, related groups (i.e. the same subjects are present in both groups);
3. There are no significant outliers;
4. The distribution of the differences in the dependent variable between the two related groups should be approximately normal.

Table 3. Assumption checks for paired samples t test

Assumption	1. Dependent variable	2. Independent variable	3. No significant outliers	4. Normal distribution
Measurement	Continuous scale	Two categorical, related groups	Boxplot of differences	Shapiro-Wilk test ($p \geq .05$ or $W \geq .9$)
Brand trust	Brand trust: 7-point scale (4 items)	Informal style manipulation: Prior to exposure vs after exposure	No outliers (left): 	$W(57) = .949$; $p = .018$
Brand trust	Brand trust: 7-point scale (4 items)	Formal style manipulation: Prior to exposure vs after exposure	Two outliers (right):  (1)	$W(51) = .926$; $p = .003$
Brand attachment	Brand attachment: 7-point scale (3 items) (2)	Informal style manipulation: Prior to exposure vs after exposure	One outlier (left):  (3)	$W(57) = .981$; $p = .486$
Brand attachment	Brand attachment: 7-point scale (3 items) (2)	Formal style manipulation: Prior to exposure vs after exposure	One outlier (right):  (4)	$W(50) = .961$; $p = .101$

(1) There are two outliers in the differences between the two related groups of the formal style manipulation. The influence of these outliers might have been significant; for that reason we conducted a paired samples t test without the outliers. Although the significance value decreased ($p < .001$), the outliers appeared to be insignificant and were retained.

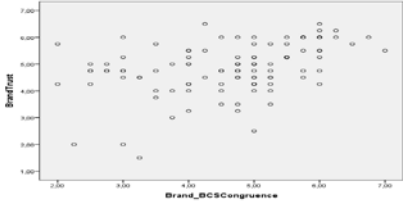
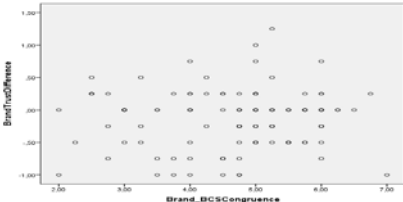
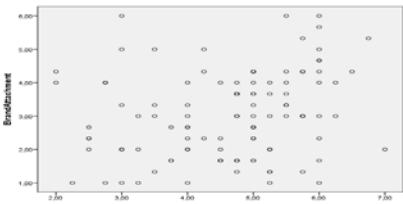
- (2) For every observation, brand attachment is only measured after exposure of the manipulation. Brand attachment prior to exposure is an estimate, calculated based on measures prior to exposure and the measured brand attachment (see Appendix IV).
- (3) The trimmed mean of this differences in the informal group is -.0146 versus a mean of -.0147. Because of the small difference, we can conclude that the outlier is insignificant.
- (4) There is an outlier in the difference in brand attachment for the formal manipulation group. In order to evaluate whether this outlier is significant, the outlier was excluded from the sample. This increased the reliability of the test and therefore the outlier was removed.

Pearson's r

The computed Pearson's coefficients are evaluated on the following required assumptions:

1. The two variables are measured on a continuous scale;
2. There is a linear relationship between the two variables;
3. There are no significant outliers;
4. The variables are approximately normally distributed.

Table 4. Assumption checks for Pearson's r

Assumption	1. Two continuous variables	2. Linear relationship	3. No significant outliers	4. Bivariate normal distribution
Measurement	Measurement scale	Scatterplot	Scatterplot	Shapiro-Wilk test ($p \geq .05$ or $W \geq .9$)
Congruence communication style and brand personality	- Congruence between communication style and brand personality: 7-point scale (4 items) - Brand trust: 7-point scale (4 items)			Congruence: $W(108) = .962$; $p = .004$ Brand trust: $W(108) = .935$; $p < .001$
Congruence communication style and brand personality	- Congruence between communication style and brand personality: 7-point scale (4 items) - Δ brand trust (= brand trust – initial brand trust, both): 7-point scale (4 items)			Congruence: $W(108) = .962$; $p = .004$ Δ brand trust: $W(108) = .935$; $p < .001$
Congruence communication style and brand personality	- Congruence between communication style and brand personality: 7-point Likert scale (4 items) - Brand attachment: 7-point Likert scale (3 items)			Congruence: $W(108) = .962$; $p = .004$ Brand attachment: $W(108) = .935$; $p = .006$

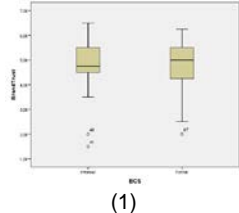
ANCOVA

The following assumptions are evaluated for the executed ANCOVA test:

1. The dependent variable and covariates are measured on a continuous scale;
2. The independent variable consists of two or more categorical, independent groups;
3. There is independence of observations;

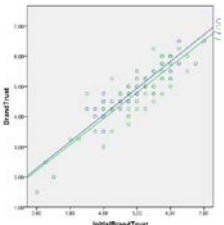
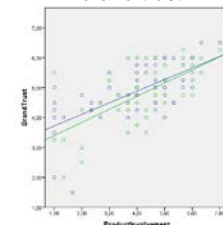
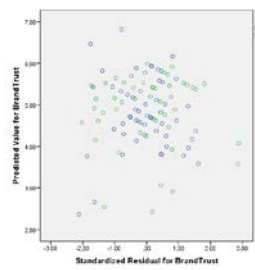
4. There are no significant outliers;
5. The residuals are approximately normally distributed for each category of the independent variable;
6. There is homogeneity of variances;
7. The covariate is linear related to the dependent variable at each level of the independent variable;
8. There is homoscedasticity;
9. There is homogeneity of regression slopes.

Table 5a. Assumption checks 1 till 5 for ANCOVA.

Assumption	1a. Dependent variable	1b. Covariates	2. Independent variable	4. No significant outliers	5. Normal distribution residuals
Measurement	Continuous scale		Two or more groups	Boxplot	Shapiro-Wilk test ($p \geq .05$ or $W \geq .9$)
Brand trust	Brand trust: 7-point scale (4 items)	Initial brand trust: 7-point scale (4 items) Product involvement: 7-point scale (3 items)	Manipulation style: Informal vs formal	Multiple outliers:  (1)	Informal style manipulation: $W(57) = .982$; $p = .546$ Formal style manipulation: $W(51) = .967$; $p = .160$

Note: Assumption 3 is not included in the table; the test passed this assumption (there is no relationship between observations in each group or between groups).

Table 5b. Assumption checks 6 till 9 for ANCOVA.

Assumption	6. Homogeneity of variances	7. Linear relationship covariate and dependent variable		8. Homoscedasticity	9. Homogeneity regression slopes
Measurement	Levene's Test of Equality of Error Variances ($p \geq .05$)	Scatterplot		Scatterplot residual against predicted value DV	Interaction effect between covariate and IV
Brand trust	$F(1, 106) = 3.660$; $p = .058$	X = initial brand trust; Y = brand trust: 	X = product involvement; Y = brand trust: 		No interaction effect: Manipulation style * initial brand trust: $F(1, 104) = .072$; $p = .789$ Manipulation style * product involvement: $F(1, 101) = .306$; $p = .581$

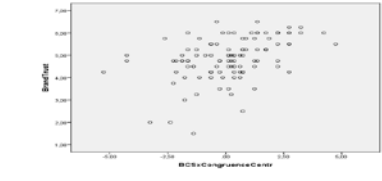
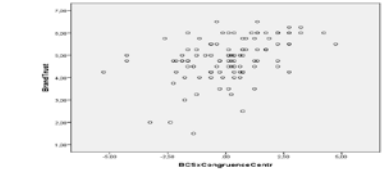
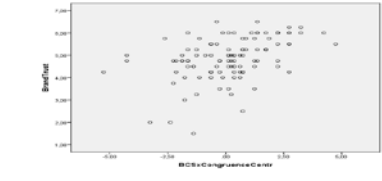
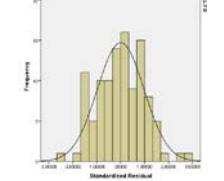
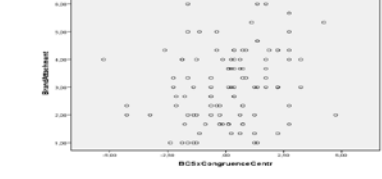
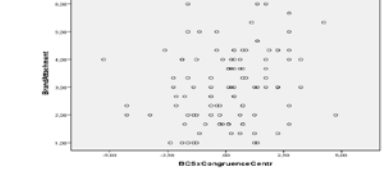
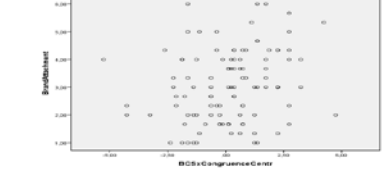
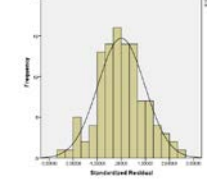
(1) A boxplot shows both in the informal and formal style manipulation category outliers.

Removing the outliers does not change the results that much, although the significance level of the ANCOVA increases lightly. Furthermore, deleting the outliers has a negative effect on the homogeneity of variances and homogeneity of regression slopes. Therefore, the outliers are retained.

Linear regression

1. The variables are measured at the continuous level;
2. There is a linear relationship between the two variables;
3. There are no significant outliers;
4. There is independence of observations;
5. The data shows homoscedasticity;
6. The residuals of the regression line are approximately normally distributed.

Table 6. Assumption checks for linear regression

Assumption	1. Continuous variables			2. Linear relationship	3. No significant outliers	5. Homoscedasticity	6. Normal distribution residuals
Measurement	Measurement scale			Scatterplot	Scatterplot	Scatterplot	Histogram
	DV	IV	Covariates				
Interaction effect	Brand trust: 7-point scale (4 items)	- Manipulation style - Congruence between communication style and brand personality - Manipulation style*congruence (1)	- Initial brand trust: 7-point scale (4 items) - Product involvement: 7-point Likert scale (4 items)				
Interaction effect	Brand attachment: 7-point scale (3 items)	- Manipulation style - Congruence between communication style and brand personality - Manipulation style*congruence (1)	- Initial brand trust: 7-point scale (4 items) - Product involvement: 7-point scale (4 items)				

Note: Assumption 4 is not included in the table; the tests passed this assumption (there is no relationship between observations in each group or between groups).

- (1) Although manipulation style consists of two categories, it is applicable to linear regression analysis.