Brands Are Human on Social Media: The Effectiveness of Human Tone-of-Voice on Consumer Engagement and Purchase Intentions Through Social Presence

HYUN JU JEONG
DEBORAH S. CHUNG
JIHYE KIM
University of Kentucky, USA

Drawing on social presence theory, this experimental research investigates how personified tone-of-voice that brands frequently employ for their social media interactions can increase consumer intention of brand engagement and purchase. Results show that casual human tone-of-voice is more likely to generate consumer perception of being socially present with brands than traditional corporate tone-of-voice. Furthermore, human (vs. corporate) tone-of-voice leads to greater intention to engage with brands, and this is fully mediated by consumer perception of social presence with brands. Additionally, consumer intention to engage with brands positively influences their intention to purchase the brands. These findings highlight that humanized brand communications influence consumers' brand endorsement by shaping brand personas that are socially present in interactive communications between consumers and brands. Theoretical and practical implications are discussed with specific references to brand communication strategies on social media.

Keywords: brand personification, social presence, social media, consumer engagement, purchase intention, experiment

Brands are personified to a certain degree on social media wherein they share stories, emotions, and interpersonal relationships in the same way individuals communicate with each other (Chen, Lin, Choi, & Hahm, 2015; Hayes, Britt, Applequist, Ramirez, & Hill, 2020; Labrecque, 2014). For example, Yoplait interacts with consumers about its new flavor by stating, "*Hi, Allie! Can you please send us a DM with any additional details about what you like so we can share your feedback with our production team? Have a good day!*" (Yoplait, 2017b; emphasis in original). Brands actively adopt social media as a platform in light of social media's always-on, interactive, and relationship-oriented features (Men & Tsai, 2015), further personifying themselves as human-like communication partners with a human tone-of-voice in their

Hyun Ju Jeong: hyunju.jeong@uky.edu
Deborah S. Chung: dchung@uky.edu
Jihye Kim: jihye.kim@uky.edu

interactions. At the same time, brands sometimes present themselves using a traditional corporate tone-of-voice to make their communication official and formal, such as:

> Hello. Thank you for the question. Our Girl Scout Cookie flavors in single serving size are available in . . . You may have to talk to the store manager to see if they plan on carrying them or if they can order some in for you. Thank you. (Yoplait, 2017a)

While online environments are traditionally considered to limit face-to-face communications between communicators, recent scholars note that the social media environment facilitates interactive and intimate communications between consumers and brands, thereby stimulating consumer perception of being socially present with brands and closing the psychological distance (Chen et al., 2015; Hayes et al., 2020; Labrecque, 2014). In light of this research stream, the current study seeks to examine how consumers feel a sense of social presence from tone-of-voice embedded in brand interactions, and consequently participate in brand endorsement within social media.

Consumers endorse personified brands on social media mainly through brand engagement and purchase (e.g., Dhar & Jha, 2014). Scholarship suggests that consumer engagement with brands on social media refers to a behavioral construct with hierarchical activity levels, from passive message consumption to active two-way conversation, participation, and recommendation on social media platforms (Men & Tsai, 2015). Consumer engagement serves as a primary goal of corporations in adopting social media (Sprout, 2021), and corporations thus strive to refine personified brand communications to increase consumer engagement (Chen et al., 2015; Hayes et al., 2020). Furthermore, purchasing a branded product is another manifestation of consumer endorsement (Jeong & Jiang, 2021). With the emergence of social commerce, a growing number of consumers make purchases based on brand posts on social media. While these two endorsement activities are vital in gauging the effectiveness of brand communication on social media, limited research has incorporated the role of humanized brand interactions in contributing to these outcomes.

To address this gap, the present study drew on social presence as a theoretical background and focused on human tone-of-voice as a significant communication cue that brands can use to create a sense of social presence that guides consumers toward brand engagement and purchase. While previous studies have examined personified brand visuals (e.g., brand anthropomorphism with human appearance; Aggarwal & McGill, 2007), how brand personification is activated through tone-of-voice in text format on social media is understudied. People join casual conversations with brands to seek personal connections, and this is fueled by their interaction with humanized brands within social media. Specifically, in this study, we conducted an online experiment to explore how human (vs. corporate) tone-of-voice that brands adopt influences consumers' engagement and purchase intention. We further examined a mediation model placing perceived social presence as the core psychology behind this persuasion. The mediator in the study model explains the theoretical mechanism for the causal reasoning of how a stimulus (e.g., tone-of-voice) is processed to result in a response (e.g., engagement and purchase intentions), thus forming the foundation of focal theories examined in the study (Hayes, 2022; MacKinnon, Fairchild, & Friz, 2007). That is, personified interactions enhance consumers' perceptions of being present with brands as "real" individuals and gaining access to brands' thoughts and feelings (Biocca, 1997); this experience may increase consumer

engagement and purchase intention. Furthermore, to clarify the relationship between the two major outcomes, we examined the positive influence of engagement intention on purchase intention by testing a serial mediation model. The result showed that the persuasive effect of human tone-of-voice on purchase intention was processed indirectly by perceived social presence and then engagement intention. The findings of this study will add to extant theories and practices by highlighting how textual personification strategies within social media create brand personas that are felt as being socially present for consumers, thereby leading to consumers' active brand endorsements.

Brand Personification and Language Tone-of-Voice on Social Media

By definition, brand personification refers to the brand usage of human-like characteristics in packaging, promotion, public relations, or other marketing-related purposes (Cohen, 2014). As a major communication strategy (Chen et al., 2015; Cohen, 2014; Delbaere, McQuarrie, & Phillips, 2011), brand personification has received special attention from scholars and practitioners owing to its possible association with the way brands interact with consumers on social media (Labrecque, 2014; Men & Tsai, 2015). A recent content analysis reports that more than 60% of global corporations use brand personification as a critical strategy in their social media communications with consumers (Chen et al., 2015). Social media may provide the optimal condition for building interpersonal connections with consumers, even in the absence of physical contact. Brands participating in human tone-of-voice use informal communication styles, emotional expressions, and paralanguage (Barcelos, Dantas, & Sénécal, 2018; Grétry, Horváth, Belei, & van Riel, 2017; Hayes et al., 2020). With the proliferation of two-way communication, brands have adjusted their textual language to a personified, casual, and conversational style (Grétry et al., 2017; Hodge, Pederson, & Walker, 2015).

This study focuses on human tone-of-voice as a major communication cue representing brand personification. Extant studies point to various, yet interrelated, aspects of brand communication strategies, including first- versus third-person references (Grétry et al., 2017; Park & Cameron, 2014), profile versus logo visuals (Barcelos et al., 2018), informal versus formal linguistic features (Barcelos et al., 2018; Grétry et al., 2017; Sung & Kim, 2021), and paralanguage expressions (Grétry et al., 2017; Hayes et al., 2020). In this study, we examine the overarching construct of brand tone-of-voice based on the stylistic choices made in the pattern of written interactions with consumers. We define human tone-of-voice as a more natural, intimate, and interpersonal tone in brand interactions with consumers, as opposed to traditional corporate tone-of-voice, which appears to be more distant and official in its text format of brand interactions. The notion of human tone-of-voice is built on the original work of Kelleher (2009) referring to conversational human voice as having "an engaging and natural style of organizational communication as perceived by an organization's public based on [the] interaction between individuals in the organization and individual in publics" (p. 177). Therefore, we focus on brand tone-of-voice in textual communications, including language and paralanguage, as a brand response to a consumer post, using human and corporate tone-of-voices. We thereby exclude visually stimulating brand communications (e.g., brand pictures and videos). Compared with human tone-of-voice, traditional corporate tone-of-voice is easily found on corporation-owned media, such as advertising brochures, websites, and blogs (Kelleher, 2009; Kelleher & Miller, 2006; Sung & Kim, 2021), and this formal, corporate tone also exists on social media for authentic and official brand communications (Grétry et al., 2017; Sung & Kim, 2021). However, human tone-of-voice in text format

plays a core role in mitigating both interpersonal distance from consumers and uncertainties regarding the brand or its products during encounters with consumers on social media (Barcelos et al., 2018; Grétry et al., 2017; Sung & Kim, 2021). Brands presented as human-like communication partners close psychological distance to consumers, based on consumer feelings of intimacy and positive emotions toward brands (MacInnis & Folkes, 2017). Furthermore, the psychological proximity is known to create a sense of social presence on social media. Intimate brands activate a consumer's sense of being socially present with them within social media environments through communication cues crafted to signal social entities (e.g., emojis, one-to-one communication, intimate language; Hayes et al., 2020). Thus, brands can be present as active and attentive social media users.

Social Presence of Brands on Social Media

Social presence is defined as "the degree of salience of the other person in [an] interaction and the consequent salience of the interpersonal relationship" (Short, Williams, & Christie, 1976, p. 65). This definition highlights the perception that there is a personal, sociable, and sensitive human contact in the medium (Short et al., 1976). It indicates that although there may not be real contacts, people experience psychological presence in media-mediated communication by feeling a sense of being present with communication partners and building closeness with them. This early definition focuses on social richness of users within a medium, and it is further developed into the overall perception of being present with others in any media-mediated communication (Biocca, 1997; Choi, Miracle, & Biocca, 2001). Extending this approach, Lee (2004) highlights a holistic view of social presence referring to a psychological status embracing the user experience of para-authentic social actors (i.e., the representation of other humans who are connected by technology, such as videoconferencing and Internet chatting) and that of artificial social actors (i.e., artificial objects manifesting humanness, such as social robots and conversations with a talking machine). It suggests that media attributes, even from low-tech media, contribute to forming a sense of social presence since each media channel has different technology-driven capacities to impact the psychological distance between communicators (Lee, 2004; Lombard & Ditton, 1997; Walther, 1992).

The notion of social presence has been applied to consumer studies to identify the ability of online media interfaces and content to create consumer perception of being present with brands. Indeed, within online store environments, consumers tend to perceive the social presence of brands based on their interactions with a salesperson and peer-consumer avatars (Moon, Kim, Choi, & Sung, 2013) and customized greetings from brand entities (Gefen & Straub, 2004). That means consumers feel a sense of being with brands from friendly and intimate communications, even though the brands are either human/nonhuman social agents or organizational entities (Biocca, 1997; Gefen & Straub, 2004; Lee, 2004). More importantly, this sense tends to be greater with social-oriented (vs. task-oriented) virtual communication (Verhagen, van Nes, Feldberg, & van Dolen, 2014). Recent scholarship suggests that social media enhance the social presence of brands based on its intimate nature with interactivity and relationship building capabilities (e.g., Men & Tsai, 2015), thus indicating that brands can be socially present as human-like entities having social interactions with consumers. For example, consumers experience the feeling of being present with human-like brands from brands' one-to-one responses to consumer questions (Labrecque, 2014) and from the presence of caring, respectful, and attentive humanized brand entities that use paralanguage, such as

emojis and emoticons on brand pages (Hayes et al., 2020). These findings indicate that social context cues embedded in media intensify perceptions of social presence (King & Xia, 1997), thereby implying that socially rich texts can amplify consumer perceptions of interacting with human-like brand entities.

In this study, we suggest that this experience is evoked by the human tone-of-voice in brand interactions. Brand tone-of-voice may serve as a communication cue creating personified brand entities socially present as intimate communication partners. Personified brand communication constructs warm, agreeable, and sociable brand characteristics (Chen et al., 2015; Men & Tsai, 2015), and contributes to a sense of social presence by creating psychological closeness between consumers and brand entities (Hayes et al., 2020). Specifically, the use of human (vs. corporate) tone-of-voice is more likely to create brand humanness resulting in the illusion that they are interacting with actual humans. As such, without face-to-face communications, consumers are more likely to perceive social presence from brand interactions that convey a feeling of casual human tone-of-voice than traditional corporate tone-of-voice. Furthermore, the use of personification is known to aid relational transactions. It elicits positive emotions, brand memory, brand intimacy (Delbaere et al., 2011; Letheren, Martin, & Jin, 2017), brand trust, and consumer-brand connections and quality relationships (Chen et al., 2015; Hayes et al., 2020; Labrecque, 2014; Sung & Kim, 2021), and stimulate word-of-mouth and buying intention (Cohen, 2014; Men & Tsai, 2015). Social media platforms have an interactive aspect through which consumers voluntarily engage in brand communication to indicate their approval and satisfaction, thus increasing the brand's reach and popularity (De Vries, Gensler, & Leeflang, 2012; Gavilanes, Flatten, & Brettel, 2018). Consumer engagement is typically fulfilled by three different levels of social connections from consumers to brands: Following brand content, contributing to it, and creating it (Brubaker & Wilson, 2018). Literature suggests that consumer engagement is the precursor to building consumer communities, trust, loyalty (Haverila, McLaughlin, Haverila, & Arora, 2020), buying, and word-of-mouth for brands (Syncapse, 2013). Indeed, engaged consumers are likely to show solid relationships and emotional support for brands by using personal pronouns to reference brands on social media (Chen et al., 2015). Similarly, it is worth noting that nearly 71% of purchase decisions are influenced by social media posts (Barysevich, 2020); about 52% of online and offline purchases are made after consumers are exposed to a brand post on Facebook (McCarthy, 2015). Thus, consumers support the claims of personified brands by following, commenting on, and sharing brand content and further purchasing brands as a token of their relationships (Aggarwal & McGill, 2007; Brubaker & Wilson, 2018; Cohen, 2014; Moran, Muzellec, & Johnson, 2019). Based on previous discussions, we posit the following main effects of human tone-of-voice on consumer perceptions of a brand's social presence (H1), on consumer intentions of engagement (H2), and on purchase (H3):

H1:   *When brands use human (vs. corporate) tone-of-voice in their textual communications, consumers will perceive brands to be more socially present.*

H2:   *When brands use human (vs. corporate) tone-of-voice in their textual communications, consumers will develop a greater intention of engaging with brands.*

H3:   *When brands use human (vs. corporate) tone-of-voice in their textual communications, consumers will develop a greater intention of purchasing from those brands.*

To examine if the aforementioned social presence of brands provides a theoretical explanation to how the use of brand language increases consumer engagement, the present study proposes considering the consumer perception of social presence as a psychological mediator. This prediction is aligned with the findings that perceived social presence serves as a significant psychological mediator underlying the effect of interactive and intimate shopping agents on consumer trust and service satisfaction in online stores (Gefen & Straub, 2004; Verhagen et al., 2014) and the impact of paralanguage on psychological connection and engagement with brands on social media (Hayes et al., 2020). Thus, perceived social presence determines brand perception and evaluation in social media communication. Similarly, previous investigations in the domain of brand studies show the positive impacts of social presence on consumer loyalty and willingness to provide information to brands (Labrecque, 2014) but also on consumer engagement in brands (Hayes et al., 2020; Labrecque, 2014). Accordingly, we hypothesize mediation of perceived social presence behind the proposed main effect of brand tone-of-voice on engagement intention (H4).

Furthermore, in clarifying the relationship between the two outcomes of brand tone-of-voice (i.e., engagement and purchase intentions), we propose the positive influence of engagement intention, which is activated by social presence, on purchase intention. Consumers' clicking and commenting activities for brands on social media are closely linked to purchasing behavior. That is, consumers share their purchases using various methods (e.g., shopping tags, uploading a picture, reviewing a product) on social media; consumers share their purchases with friends on social media, and consumer engagement with brands on social media enhances their subsequent purchase (Dhar & Jha, 2014; Xiang, Zheng, Lee, & Zhao, 2016); engaged consumers are more likely to make a purchase, be satisfied with the brand's products, and continue using the brand's products (Syncapse, 2013). Applying such empirical findings, we explore the theoretical mechanism for how brand tone-of-voice on social media exerts its influence on the two desirable outcomes. Thus, we place perceived social presence and engagement as the sequential mediators accounting for the proposed main effect of brand tone-of-voice on purchase intention (H5). Therefore, we posit the following hypotheses for the simple and serial mediation models, respectively:

H4:   *Perceived social presence will mediate the relationship between tone-of-voice (human vs. corporate) and engagement intention.*

H5:   *Perceived social presence and engagement intention will sequentially mediate the relationship between tone-of-voice (human vs. corporate) and purchase intention.*
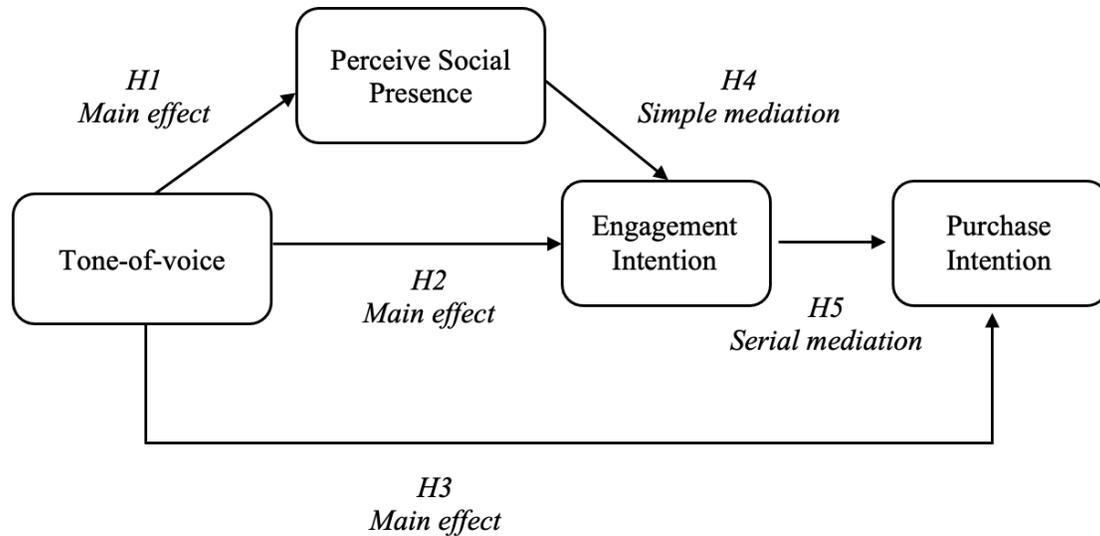
Figure 1 illustrates the conceptual model.

Figure 1. Conceptual model.

Methods

To test the hypotheses, we conducted an online experiment with a between-subjects design by recruiting college students in a southeastern university in the United States. The condition of brand tone-of-voice (i.e., human vs. corporate) was manipulated and entered as a predictor variable. Perceived social presence, engagement intention, and purchase intention were measured and entered as the outcome variables. Individual differences in product involvement were measured and controlled as a covariate.

Pretests

We conducted two pretests before carrying out the main study. First, we recruited a total of 62 U.S. consumers through Amazon MTurk to conduct the first pretest to find a product appropriate for the main study. Of a list of products preselected from prior research on brand personification (e.g., cleaners, sunglasses, soft drinks; Guido & Peluso, 2015; MacInnis & Folkes, 2017), respondents rated the chocolate product as most relevant ($M = 5.35$) and familiar ($M = 5.29$) on a 7-point scale. The selection of chocolate products was confirmed with literature suggesting that food products have a long history in brand personification (Mintz & Du Bois, 2002) and that food brands were the most liked (Felix, 2012) and the most followed content on Facebook by U.S. college students (Statista Research Department, 2011).

We conducted a second pretest to determine the manipulation of brand tone-of-voice on social media. A total of 30 undergraduate students reviewed a total of eight brand replies (four for each tone-of-voice example) in text format adapted from current social media posts from chocolate products, and then rated the extent to which study participants perceived a human/corporate tone-of-voice from brand replies to consumer posts on a 7-point scale (*formal/informal, official/unofficial, serious/casual, in a non-easygoing*

way/in an easygoing way; α = .92; Grétry et al., 2017). Following prior studies (Barcelos et al., 2018; Grétry et al., 2017), two posts with the highest mean scores (M_a = 4.61 and M_b = 4.16; e.g., "*I am excited to know you love chocolates*" and "*XX (name), how sweet you are!*") were adopted for the manipulation of human tone-of-voice; the other two posts with the lowest mean scores (M_c = 3.08 and M_d = 2.85) were considered for the manipulation of corporate tone-of-voice (e.g., "*Mr. XX (name), thanks for reaching out to Cocoa Chocolate*" and "*Cocoa Chocolate appreciates your kind words*") to secure sufficient variance from those with the highest means. Referencing literature (Grétry et al., 2017; Kelleher, 2009; Park & Cameron, 2014), we used official language to manipulate corporate tone-of-voice representing the control condition. As predicted, there was a significant mean difference in each pair of the different tones-of-voices [t (29) = 4.83, p < .001 for the pair of M_a and M_c; t (29) = 5.86, p < .001 for the pair of M_a and M_d; t (29) =3.67, p < .01 for the pair of M_b and M_c; t (29) = 4.13, p < .001 for the pair of M_b and M_d]. However, there was a nonsignificant (n.s.) mean difference in each pair of the same tone-of-voices [t (29) = 1.89, *n.s.* for the pair of M_a and M_b; t (29) = 1.34, *n.s.* for the pair of M_c and M_d].

Stimuli Development

We created two fictitious Facebook pages for Cocoa Chocolate to control participants' preexisting attitudes and perceptions toward real brands (Barcelos et al., 2018). Facebook was the appropriate social media platform for the main study given its popularity with the highest number of business pages (more than 90 million) and active users (nearly 2.23 billion) among all social media sites (Lua, 2019). Notably, about 70% of U.S. adults aged 18 to 29 years reported using Facebook (Pew Research Center, 2019), and those from 8 to 24 years of age rate Facebook as one of the top three social media platforms they visit most frequently (Mintel, 2021). Facebook was also ranked as the most popular social media platform by user engagement, with 49% of Facebook users engaging with brands they like in 2013 (Syncapse, 2013) and 18.3% of U.S. adults making a purchase through Facebook in 2020 (eMarketer, 2020).

To manipulate human tone-of-voice, the two posts with the highest mean scores in the pretest were refined. It referred to the brands in the first-person ("I" or "we"), called consumers by their first names, and employed humanized communication styles with emotions and emoticons (e.g., "*Sounds good, Jason!* ☺ *I am excited to know you love chocolates*," "*Thanks, Rachel,* ♥♥ *How sweet you are!*"). To manipulate corporate tone-of-voices, the other two brand posts with the lowest means in the pretest were crafted in traditional corporate tone-of-voice. It referred to the brand by the corporate name, called consumers by their last names, and restricted the use of intimate emotions and emoticons (e.g., "*Dear Mr. Giles. Thank you for reaching out to Cocoa Chocolate. Best regards*," "*Dear Ms. Cole. Cocoa Chocolate appreciates your kind words*"). All other content was identical across the two brand pages except for manipulating the human versus corporate tone-of-voice in brand interactions. See Figure 2 for the stimuli.

Sampling and Procedures

To determine the desirable sample size, we performed a priori power analysis (Cohen, 1988) using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) with a medium effect size f = .25, a significance level of a = .05, and the recommended power benchmark of $(1-\beta)$ = .80. The result indicated an estimated sample size of 128. We recruited 140 undergraduate students from a southeastern university in the United

States through SONA, an online subject pool managed by the university. Thirteen participants who failed the attention check or finished with incomplete answers were omitted from the final sample.

A total of 127 participated in the main study (men = 51%; M_{age} = 21). While college student samples have raised concerns, it could be justified for studies testing theory and investigating relationships among hypothesized variables (Pernice, Ommundsen, van der Veer, & Larsen, 2008). College students show a higher frequency of communicating with brands on social media than other demographic groups; 65% watch brand content at least once a week, and 26% share brand posts with friends (Barnes & Noble College, 2019).

On clicking the URL for the landing website, participants were randomly directed to one of two brand pages on social media with human and corporate tone-of-interactions. After viewing one of the stimuli, they answered the questionnaire items measuring their product involvement and social presence perceptions, their intentions to engage with brands and purchase brands, demographic information, and the manipulation check. There were no significant differences among participants across the two experimental conditions with respect to age [t (124) = .24, p = .81] and gender [χ^2 = .00, df = 1, p = 1.00], confirming randomization of participants.

Measures

Perceived social presence was measured by the extent to which consumers felt socially present with a personified brand entity and was assessed with five items (*a sense of human contact, a sense of personalness, a sense of human warmth, a sense of sociality, a sense of human sensitivity*) modified from the measure of social presence based on consumer interactions with online shopping companies as branded entities (α = .96; Gefen & Straub, 2004). Engagement intention with brands was measured with two clicking behaviors and one commenting behavior on the social media brand page (Brubaker & Wilson, 2018), asking consumer intention to follow a brand post, share a brand post with others, and comment on a brand post. Each intention measure consisted of three items (*unlikely/likely, improbable/probable, impossible/possible*; α = .95; Bearden, Lichtenstein, & Teel, 1984). Purchase intention with brands was measured with the same items by Bearden and colleagues (1984), asking about the intention to purchase a brand presented on a social media post (α = .91). Individual differences in chocolate products, in general, were measured with the short version of product involvement with five items (*unimportant/important, of no concern/of concern, means nothing/means a lot, does not matter/does matter, insignificant/significant*; α = .96; Mittal, 1995). All items in each measure were assessed on a 7-point scale and then averaged to create the index for each variable.
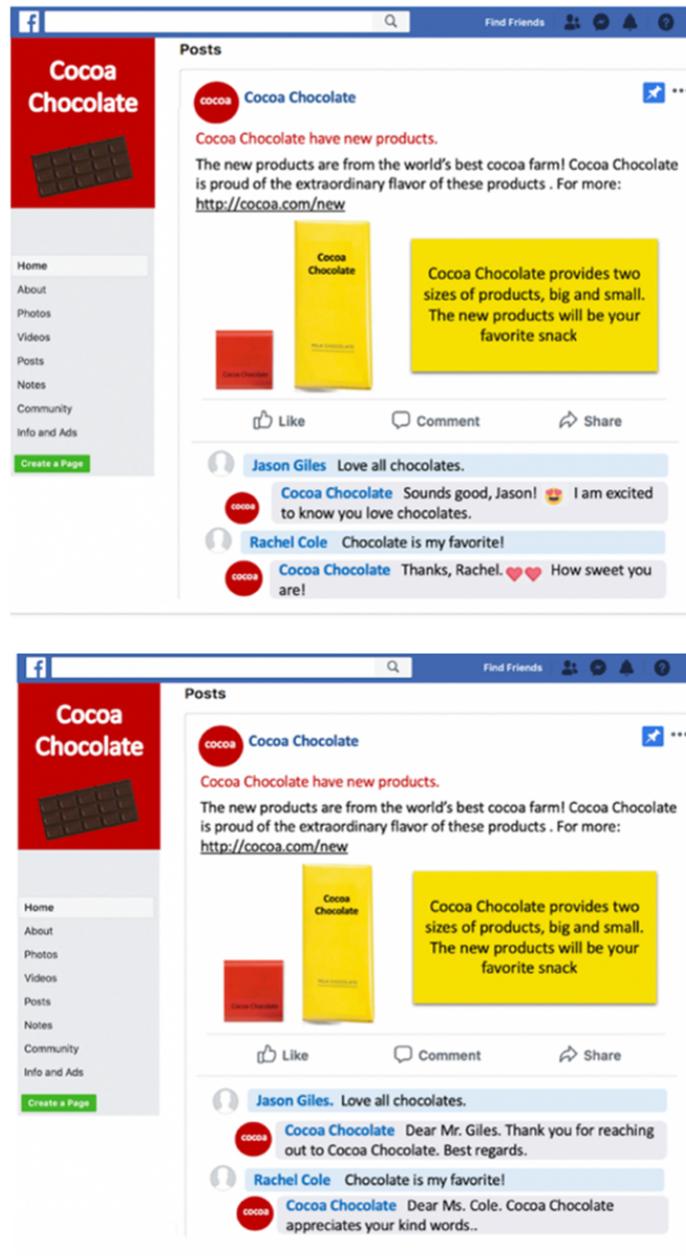
Figure 2. Study stimuli for human versus corporate tone-of-voice.

Results

Testing Reliability and Validity

To double-check the quality of our data, we conducted reliability analyses and checked convergent and discriminant validity via confirmatory factor analysis (.858–.942 for perceived social presence; .708–.911 for engagement intention; .728–.967 for purchase intention; .819–.966 for product involvement), average variance extracted (.824 for perceived social presence; .676 for engagement intention; .790 for purchase intention; .830 for product involvement), and composite construct reliability (.959 for perceived social presence; .949 for engagement intention; .917 for purchase intention; .960 for product involvement). The confirmatory factor analysis (CFA) result identified good fits: χ^2 =417.367, df = 188, p < .001, Incremental Fit Index (IFI) = .936, Tucker Lewis Index (TLI) = .921, Comparative Fit Index (CFI) = .936 (i.e., more than .90; Hair, Black, Babin, & Anderson, 2010), and Root Mean Square Error of Approximation (RMSEA) = .098, indicating a marginal fit of the model (i.e., below .10; Browne & Cudeck, 1992). The results showed that the standardized regression weights of all items were greater than .50. Furthermore, the average variance extracted (AVE) for all constructs was above .50 and composite construct reliabilities (CCR) exceeded .70, confirming convergent validity (Hair, Babin, & Krey, 2017). The AVE of all constructs was greater than the squared correlation coefficients (r^2), confirming the discriminant validity (Fornell & Larcker, 1981). See Table 1 for more.

Table 1. Validity and Reliability Checks.

	Perceived Social Presence	Engagement Intention	Purchase Intention	Product Involvement
Perceived social presence	1			
Engagement intention	0.530**	1		
Purchase intention	0.544**	0.620**	1	
Product involvement	0.113	0.186*	0.319**	1
Mean	3.424	2.553	3.373	4.158
SD	1.509	1.432	1.602	1.526
AVE	0.824	0.676	0.790	0.830
CCR	0.959	0.949	0.917	0 .960

Note. $^*p$ < .05; $^{**}p$ < .01; $^{***}p$ < .001.

Manipulation Check

We checked the manipulation of tone-of-voice with the same items used in the pretest on a 7-point scale (α = .85; Grétry et al., 2017). The condition of human tone-of-voice (M = 4.50, SD = 1.53) was considered as having more humanized communication styles than the condition for corporate tone-of-voice (M = 3.30, SD = 1.31) [t (125) = 4.75, p < .001]. Furthermore, we directly asked with one single item to what extent participants felt humanized (1) to corporate (7) tone-of-voice from textual interactions of brands with consumers. Results showed that participants found the condition of human tone-of-voice (M = 4.58, SD = 1.71) to respond in a more humanized, or less corporate, voice than the

condition of corporate tone-of-voice (M = 3.83, SD = 1.83) [t (125) = 2.40, p < .05]. Thus, we concluded that the manipulation of tone-of-voice was satisfactory.

Hypothesis Testing

To test the main effect of tone-of-voice, a multivariate analysis of covariance (MANCOVA) was conducted (Box's M = 3.37, F = .55, for three dependent variables, p = .77). Product involvement was a significant covariate [$λ$ = .89, F (3, 122) = 4.88, p < .01, η_p^2 = .11], positively affecting engagement intention [F (1, 124) = 4.70, p < .05, η_p^2 = .04] and purchase intention [F (1, 124) = 14.35, p < .001, η_p^2 = .10], but not perceived social presence [F (1, 124) = 1.97, p = .16, η_p^2 = .02]. There was a significant main effect of tone-of-voice on the dependent variables [$λ$ = .88, F (3, 122) = 5.63, p < .01, η_p^2 = .12]. Specifically, human tone-of-voice (M = 3.92, SE = .18) generated a greater sense of social presence than corporate tone-of-voice (M = 2.92, SE = .18) [F (1, 124) = 15.97, p < .001, η_p^2 = .11]. Thus, H1 was supported. Human tone-of-voice (M = 2.81, SE = .17) also generated a greater intention to engage with brands than corporate tone-of-voice (M = 2.29, SE = .18) [F (1, 124) = 4.35, p < .05, η_p^2 = .03]. Thus, H2 was supported. However, there was an insignificant mean difference between human tone-of-voice (M = 3.55, SE = .19) and corporate tone-of-voice (M = 3.19, SE = .19) with regard to purchase intention [F (1, 124) = 1.83, p = .18, η_p^2 = .02]. Thus, H3 was not supported. See Table 2.

Table 2. Main Effects of Tone-of-Voice.

	Human	Corporate		
	M (SE)	M (SE)	F	df
Perceived social presence	3.92 (.18)	2.92 (.18)	15.97***	1, 124
Engagement intention	2.81 (.17)	2.29 (.18)	4.35*	1, 124
Purchase intention	3.55 (.19)	3.19 (.19)	1.83	1, 124

Note. *p < .05; **p < .01; ***p < .001.

We ran a simple mediation analysis using the SPSS Macro (Model 4) with 5,000 bootstrap samples to test the mediating role of perceived social presence underlying the proposed main effect of tone-of-voice on engagement intention (H4). PROCESS has been widely adopted to execute mediation analysis with a categorical antecedent variable (Hayes, 2022). Unlike structural equation modeling (SEM) programs such as an analysis of moment structures (AMOS), it provides accurate statistical inferences for specific indirect effects and model estimates for mediation analyses, offering bootstrap confidence intervals (CIs) and reducing sample size restriction (Hair et al., 2010; Hayes, 2022). In the regression model, tone-of-voice was dummy-coded (1 = human; 0 = corporate) and entered as the independent variable, engagement intention was added as the dependent variable, perceived social presence was entered as the mediating variable, and product involvement was controlled as a covariate. The completely standardized indirect effect (hereinafter CS) was reported as an index of effect size (Preacher & Kelly, 2011; Wen & Fan, 2015). As can be seen in Figure 3, the greater effect of human (vs. corporate) tone-of-voice on engagement intention occurred indirectly through perceived social presence (B = .49, SE = .14, 95% CIs at [.2425, .7657]; CS = .34). Specifically, human (vs. corporate) tone-of-voice had a greater positive effect on perceived social presence (B = 1.01, SE = .25, p < .01; CS = .67), which in turn positively influenced engagement intention

(B = .49, SE = .08, p < .001; CS = .51). However, there was an insignificant direct effect of tone-of-voice on engagement intention (B = .03, SE = .23, p = .92; CS = .02), indicating full mediations. Thus, H4 was supported.
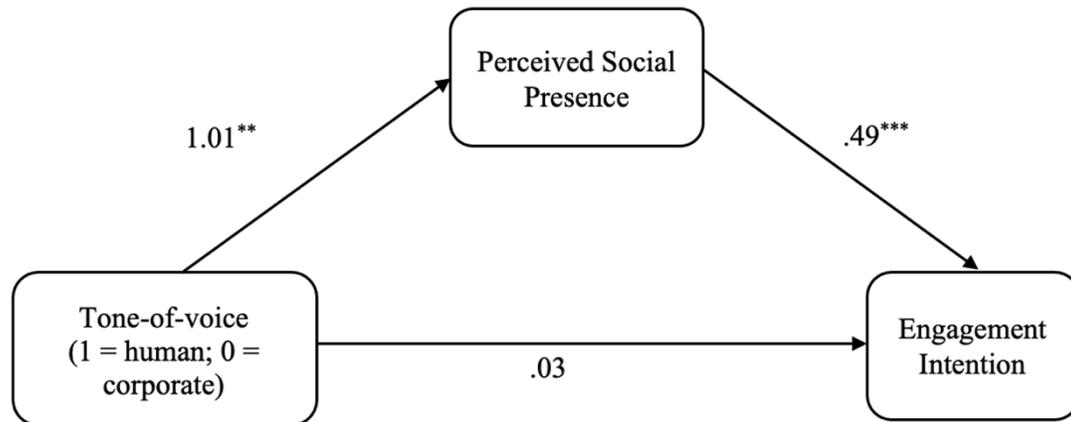

Figure 3. Simple mediation of perceived social presence.

We further conducted a serial mediation analysis using the PROCESS macro (Model 6) with 5,000 bootstrap samples (Hayes, 2022) to assess the sequentially mediating role of perceived social presence and engagement intention underlying the main effect of tone-of-voice on purchase intention (H5). As an extension of Model 4, this model enables us to examine purchase intentions as the sole dependent variable indirectly processed by the two sequential mediators, thus clarifying the relationship between engagement intention and purchase intention. As illustrated in Figure 4, the results confirmed the findings for H2. They further revealed the additional finding that the main effect of tone-of-voice on purchase intention occurred indirectly through serial mediation of perceived social presence and engagement intention (B = .23, SE = .09, 95% CIs [.0969, .4236]; CS = .15). As expected, engagement intention positively influenced purchase intention (B = .48, SE = .09, p < .001; CS = .43), but there was an insignificant direct effect of tone-of-voice on purchase intention (B = −.22, SE = .22, p = .31; CS = −.14), indicating full mediation. Additionally, the main effect of tone-of-voice on purchase intention was mediated by single mediation of perceived social presence (B = .34, SE = .14, 95% CIs [.0976, .6518]; CS = .21), not by single mediation of engagement intention (B = .10, SE = .12, 95% CIs [−.2151, .2443]; CS = .01). These results confirmed perceived social presence as core psychology in predicting the greater effect of human (vs. corporate) tone-of-voice on both engagement intention and purchase intention; moreover, engagement intention leads to purchase intention. Therefore, H5 received support.
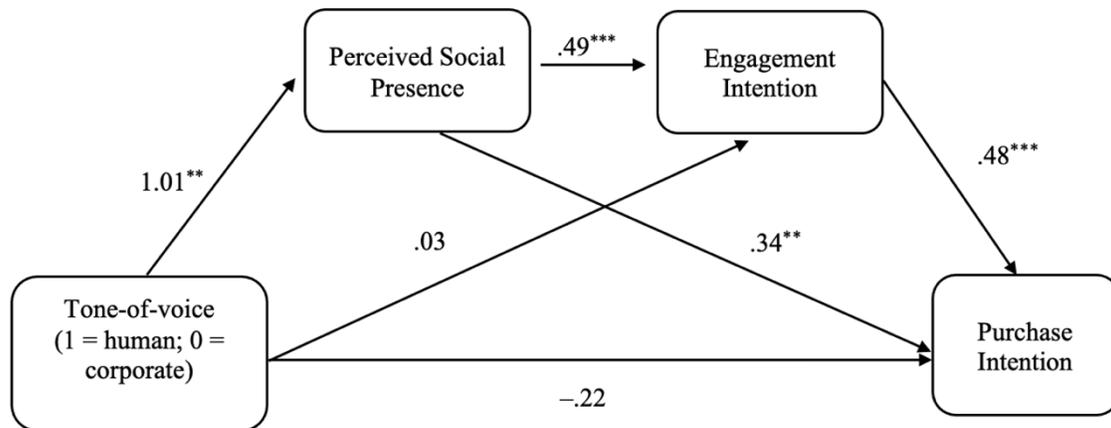
Figure 4. Serial mediation of perceived social presence and engagement intention.

General Discussion

Summary of Findings

This study investigates how tone-of-voice in brand communications on social media leads to brand endorsement. Using an online experiment, this study finds that when brands adopt human (vs. corporate) tone-of-voice in their social media interactions, consumers perceive a greater social presence of brands and a greater intention to engage with them. However, their intention to purchase products was not directly shaped by the provision of human tone-of-voice. The mediation analyses further reveal the theoretical mechanism behind such effects. Human tone-of-voice increases engagement intention indirectly through perceived social presence, and an increase in engagement intention consequently contributes to the rise in purchase intention. Similarly, human tone-of-voice tends to indirectly increase purchase intention through perceived social presence. That is, the social presence of brands evoked by humanized interaction cues increases consumer engagement and purchase intentions together—but also separately. Therefore, the extent to which consumers feel that they are socially present with brands serves as the key element to activating the personification effects of verbal brand cues on consumer endorsement.

Theoretical Implications

This research provides several theoretical implications. First, the study suggests that whereas social media provide a mediated context in which brands intimately communicate with consumers, adding human-like dialogue to a brand page can intensify consumer engagement and purchase alike. Based on the need for resonating with audience-friendly content (e.g., Sprout, 2021), scholars have investigated specific strategies deemed to be more effective for consumer engagement (e.g., Hodge et al., 2015; Khan, 2017). In line with this research stream, the current research is the first, to the best of our knowledge, to empirically validate how humanized brand language leads to consumer engagement on social media. Our findings may extend social media communication literature by stressing how language in social media posts can contribute to the active participation of consumers in brand

communication. We highlight that consumer engagement is not limited to brand endorsement within social media but may subsequently lead to consumers' purchasing behavior. This finding supports extant research revealing close ties between social media engagement and tangible outcomes (e.g., Dhar & Jha, 2014). Our study may illuminate scholarly interest in the potential for social media as brand endorsement platforms through more personable brand interactions.

Second, our findings highlight that tone-of-voice using human-like casual language can increase consumers' sense of feeling socially present with brands. It implies that consumers can infer brand personas on social media if brands emulate human-like tones in their language use. This finding is in line with a recent study (Hayes et al., 2020), indicating that the use of paralanguage (e.g., emojis and emoticons) for a brand post enhances social presence and brand engagement among consumers. It further extends previous literature in brand personification centering on anthropomorphic brand appearance (e.g., Aggarwal & McGill, 2007; Cohen, 2014; MacInnis & Folkes, 2017), and highlights how brand personas are exerted with language cues on social media. Our findings contribute to scholarly discussion on how text-oriented interaction cues create the social presence of brand persona within social media (e.g., Twitter). While extant research proposes a lack of social context cues in text-oriented communications to enhance social presence (e.g., Kim, Suh, & Lee, 2013), we spotlight that such challenges are mitigated within social media in which brands are able to convey intimate and relationship-oriented communication styles.

Third, this study may contribute to understanding the theoretical mechanism for the causal reasoning behind the effectiveness of humanized brand interactions. There has been growing scholarly interest in brand communication on social media due to evidence that they could increase consumer engagement (e.g., Hodge et al., 2015; Khan, 2017). However, limited research has verified this argument. Using two mediation analyses, we identify that human tone-of-voice elicits the consumer feeling of socially being present with brands, which motivates consumers to engage with brands and subsequently purchase their products. It highlights consumers' sense of social presence from human tone-of-voice as key psychology for explaining *how* these brand communications foster consumer engagement and purchase via social media. This finding contributes to the extant literature on social presence. Specifically, it supports an early suggestion that the presence of others can be facilitated in a mediated environment without physical contact (Biocca, 1997; Short et al., 1976). Furthermore, it suggests that textual interactions using human tone-of-voice intensify the social presence of brands. This finding highlights that social presence can be developed by social interaction and cues within a low-tech medium (Lee, 2004; Lombard, 1995), such as text-based communications that are deprived of visually stimulating vividness and richness in brand communications within social media. While brands are not humans, they are present as personified entities, creating a sense of nonmediation among consumers through engaging with interactions. Our study thus confirms that while social media allow users to engage with imaginary audiences (Yun, Allgayer, & Park, 2020) and provide interactive and relationship-based features (Men & Tsai, 2015), human-like textual interactions employed by brands can strengthen brand persona, which allows consumers to feel present and socialize with brands.

Practical Implications

The findings of this study provide practical implications. First, we suggest that although brands do not have anthropomorphic morphology in their original visuals, they may still become personified in the minds of consumers. Extant research indicates that brand personas can be created by integrating human features (e.g., human-like eyes, facial expressions, movements) into their visuals (Aggarwal & McGill, 2007), such as M&M chocolate candies and the Salvation Army mascot. However, our study demonstrates that this effect occurs with personalized language in brand interactions. We advise brands to use personable, casual tones in their textual communications, suitable for their verbal interactions with consumers to intensify their sense of being together with brands on social media. This advice may be helpful for branded organizations without anthropomorphic visuals in their logos and mascots. Indeed, some nonprofit organizations, such as the Humane Society of the United States, are known to enhance user engagement by creating personified textual communications on social media even without visually personified mascots.

Second, we highlight perceived social presence as a mediator explaining the persuasive effectiveness of human tone-of-interactions. This finding is supported by the recent insight that social media is an ideal platform for developing the "always-there" feeling among consumers through interactive communications (Hajdu, 2018), allowing consumers to keep engaging with brands. It implies that the social presence of brands, activated by personified interactions, will enable consumers to experience human-like friendships with brand personas. Social media is considered a platform where brands build strong relationships with consumers. Still, it has been an evergreen question among scholars and practitioners to identify how to maintain and strengthen consumer engagement (e.g., Hayes et al., 2020) and find the benefits of social media engagement for tangible outcomes, such as product purchases (e.g., Syncapse, 2013). Our findings help answer this question by proposing that social media enable brands to reinforce their positioning as socially available and interactive human-like communication partners with whom consumers are likely to develop and retain interpersonal relationships.

Last, our findings may be applied to social media communication strategies. By using personified texts as major communication tools, brands discover benefits of emphasizing humanness. The major finding lies in how human tone-of-voice leads to the social presence of brand entities and brand endorsement activities. While it is still in an emerging state, this finding can be further discussed through practical implications with various forms of personified brand communications that are present within social media, such as Artificial Intelligence (AI)-based interactive techniques (e.g., *Hello Hipmunk Chatbot*, an AI-based virtual travel-planning agent that assists in finding flight and hotel information; *Whole Food Messenger Bot* providing one-to-one conversations and emojis for recipe and product information and cooking inspiration). While the current study focuses on the social presence of brand entities, we suggest that nonhuman social agents, such as chatbots, create this social presence when consumers psychologically overlook the mediated or artificial nature of social interaction with brands (Lee, 2004). Regardless of their potential, however, chatbots are reported as less likely to deliver emotional support than human agents on social media (Xu, Zhe, Yufan, Vibha, & Akkiraju, 2017). For that reason, 43% of Americans prefer to communicate with a real-time human assistant rather than a chatbot (Devaney, 2018); similarly, consumers prefer to engage with human-based emotional texts (Zhao & Zhan, 2019). To overcome such challenges, we advise brands

to make an ongoing effort to improve chatbot-driven posts and replies within social media, possibly by developing more humanized appeals for their interactive dialogues with consumers.

Limitations and Suggestions for Future Studies

Despite the novelty of this study and its findings, several limitations should be noted. First, this study examined fictitious brands within one product (i.e., chocolates). We suggest examining real brands and multiple products in future research to increase the reliability of the study. Second, because of the lack of facilities available, we measured consumer intentions of engagement and purchase as the dependent variables. It is crucial for future studies to directly assess the actual behavior of engaging and purchasing based on brand communications on social media. Last, we are mindful that the study used a college student sample collected from the subject pool provided by a southeastern university. It is advisable to interpret the results with caution, given that college students may not adequately represent social media users communicating with brands. Although the use of a homogeneous sample, such as college students, is preferred for theory and hypothesis testing (Calder, Lynn, & Tybout, 1981; Pernice et al., 2008), and college students are often categorized as those actively using and engaging in social media (Barnes & Noble College, 2019; Pew Research Center, 2019), future investigations of other demographic groups, particularly noncollege students, would provide a more complete picture of understanding how consumers perceive brand personification on social media and endorse brands.

References

Aggarwal, P., & McGill, A. L. (2007). Is that car smiling at me? Schema congruity as a basis for evaluating anthropomorphized products. *Journal of Consumer Research, 34*(4), 468–479. doi:10.1086/518544

Barcelos, R., Dantas, D. C., & Sénécal, S. (2018). Watch your tone: How a brand's tone of voice on social media influences consumer responses. *Journal of Interactive Advertising, 41*(February), 60–80. doi:10.1016/j.intmar.2017.10.001

Barnes & Noble College. (2019, January 2). *Attention brand marketers: Leverage these insights into Generation Z's social media habits*. Retrieved from https://www.bncollege.com/insight/attention-brand-marketers-leverage-these-insights-into-generation-zs-social-media-habits/

Barysevich, A. (2020). How social media increase 71% consumer buying decisions. *Search Engine Watch*. Retrieved from https://www.searchenginewatch.com/2020/11/20/how-social-media-influence-71-consumer-buying-decisions/

Bearden, W. O., Lichtenstein, D. R., & Teel, J. E. (1984). Comparison price, coupon, and brand effects on consumer reactions to retail newspaper advertisements. *Journal of Retailing, 60*(2), 11–34.

Biocca, F. (1997). The cyborg's dilemma: Progressive embodiment in virtual environments. *Journal of Computer-Mediated Communication, 3*(2), JCMC324. doi.org/10.1111/j.1083-6101.1997.tb00070.x

Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research, 21*(2), 230–258. doi:10.1177/0049124192021002005

Brubaker, P. J., & Wilson, C. (2018). Let's give them something to talk about global brand's use of visual content to drive engagement and build relationships. *Public Relations Review, 44*(3), 342–352. doi:10.1016/j.pubrev.2018.04.010

Calder, B. J., Lynn, W. P., & Tybout, A. M. (1981). Designing research for application. *Journal of Consumer Research, 8*(2), 197–207. doi:10.1086/208856

Chen, K.-J., Lin, J.-S., Choi, J. H., & Hahm, J. M. (2015). Would you be my friends? An examination of marketers' brand personification strategies in social media. *Journal of Interactive Advertising, 15*(2), 1–14. doi:10.1080/15252019.2015.1079508

Choi, Y. K., Miracle, G. E., & Biocca, F. (2001). The effects of anthropomorphic agents on advertising effectiveness and the mediating role of presence. *Journal of Interactive Advertising, 2*(1), 19–32. doi:10.1080/15252019.2001.10722055

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, R. J. (2014). Brand personification: Introduction and overview. *Psychology and Marketing, 31*(1), 1–30. doi:10.1002/mar.20671

Delbaere, M., McQuarrie, E. F., & Phillips, B. J. (2011). Personification in advertising: Using a visual metaphor to trigger anthropomorphism. *Journal of Advertising, 40*(1), 121–130. doi:10.2753/JOA0091-3367400108

Devaney, E. (2018, January 23). The 2018 state of chatbots report: How chatbots are reshaping online experiences. *Drift*. Retrieved from drift.com/blog/Chatbots-report/

De Vries, L., Gensler, S., & Leeflang, P. S. H. (2012). Popularity of brand posts on brand fan page: An investigation of the effect of social media marketing. *Journal of Interactive Marketing, 26*(2), 83–91. doi:10.1016/j.intmar.2012.01.003

Dhar, J., & Jha, A. K. (2014). Analyzing social media engagement and its effect on online product purchase decision behavior. *Journal of Human Behavior in the Social Environment, 24*(7), 791–798. doi:10.1080/10911359.2013.876376

eMarketer. (2020, June 29). *The eMarketer Facebook flash survey*. Retrieved from
https://www.insiderintelligence.com/chart/235148/which-facebook-activities-have-us-facebook-users-done-past-month-of-respondents-march-2020

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1:
Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149–1160.
doi:10.3758/brm.41.4.1149

Felix, S. (2012). The 20 most-liked Facebook companies ever. *Business Insider*. Retrieved from
https://www.businessinsider.com/the-20-most-liked-companies-on-facebook-2012-8#1-coca-cola-476-million-likes-20

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables
and measurement error. *Journal of Marketing Research, 18*(1), 39–50.
doi:10.1177/002224378101800104

Gavilanes, J. M., Flatten, T. C., & Brettel, M. (2018). Content strategies for digital consumer engagement
in social networks: Why advertising is an antecedent of engagement. *Journal of Advertising,
47*(1), 4–23. doi:10.1080/00913367.2017.1405751

Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-commerce and the importance of social
presence: Experiments in e-products and e-services. *Omega, 32*(6), 407–424.
doi:10.1016/j.omega.2004.01.006

Grétry, A., Horváth, C., Belei, N., & van Riel, A. (2017). Don't pretend to be my friend! When an informal
brand communication style backfires on social media. *Journal of Business Research, 74*(May),
77–89. doi:10.1016/j.jbusres.2017.01.012

Guido, G., & Peluso, A. M. (2015). Brand anthropomorphism: Conceptualization, measurement, and
impact on brand personality and loyalty. *Journal of Brand Management, 22*(1), 1–19.
doi:10.1057/bm.2014.40

Hair, J. F., Babin, B. J., & Krey, N. (2017). Covariance-based structural equation modeling. *Journal of
Advertising, 46*(1), 163–177. doi:10.1080/00913367.2017.1281777

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper
Saddle River, NJ: Prentice-Hall.

Hajdu, N. (2018, June 18). Why "always-on" doesn't cut it anymore. *SocialMediaToday*. Retrieved from
https://www.socialmediatoday.com/news/why-always-on-doesnt-cut-it-anymore/525863/

Haverila, M., McLaughlin, C., Haverila, K. C., & Arora, M. (2020). Beyond lurking and posting: Segmenting the members of a brand community on the basis of engagement, attitudes and identification. *Journal of Product & Brand Management, 30*(3), 449–466. doi:10.1108/jpbm-08-2019-2543

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd ed.). New York, NY: Guilford Publications.

Hayes, J., L., Britt, B. C., Applequist, J., Ramirez, A. Jr., & Hill, J. (2020). Leveraging textual paralanguage and consumer-brand relationships for more relatable online brand communication: A social presence approach. *Journal of Interactive Advertising, 20*(1), 17–30. doi:10.1080/15252019.2019.1691093

Hodge, C., Pederson, J. A., & Walker, M. (2015). How do you "like" my style? Examining how communication style influences Facebook behaviors. *International Journal of Sport Communication, 8*(3), 276–292. doi:10.1123/ijsc.2015-0052

Jeong, H. J., & Jiang, M. (2021). Signaling consumer impressions with CSR support on social media: The roles of industry stigma and consumer self-disclosure. *Journal of Interactive Advertising, 21*(3), 256–268. doi:10.1080/15252019.2021.2000524

Kelleher, T. (2009). Conversational voice, communicated commitment, and public relations outcomes in interactive online communication. *Journal of Communication, 59*(1), 172–188. doi:10.1111/j.1460-2466.2008.01410.x

Kelleher, T., & Miller, B. M. (2006). Organizational blogs and the human voice: Relational strategies and relational outcomes. *Journal of Computer-Mediated Communication, 11*(1), 395–414. doi:10.1111/j.1083-6101.2006.00019.x

Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube. *Computers in Human Behavior, 66*(January), 236–247. doi:10.1016/j.chb.2016.09.024

Kim, H., Suh, K.-S., & Lee, U.-K. (2013). Effects of collaborative online shopping on shopping experience through social and relational perspectives. *Information & Management, 50*(4), 169–180. doi:10.1016/j.im.2013.02.003

King, R. C., & Xia, W. (1997). Media appropriateness: Effects of experience on communication media choice. *Decision Sciences, 28*(4), 877–910. doi:10.1111/j.1540-5915.1997.tb01335.x

Labrecque, L. I. (2014). Fostering consumer–brand relationships in social media environments: The role of parasocial interaction. *Journal of Interactive Marketing, 28*(2), 134–148. doi:10.1016/j.intmar.2013.12.003

Lee, K. M. (2004). Presence, explicated. *Communication Theory, 14*(4), 27–50. doi:10.1111/j.1468-2885.2004.tb00302.x

Letheren, K., Martin, B., & Jin, H. S. (2017). Effects of personification and anthropomorphic tendency on destination attitude and travel intentions. *Tourism Management, 62*(October), 65–75. doi:10.1016/j.tourman.2017.03.020

Lombard, M. (1995). Direct responses to people on the screen: Television and personal space. *Communication Research, 22*(3), 288–324. doi:10.1177/009365095022003002

Lombard, M., & Ditton, T. B. (1997). At the heart of it all: The concept of presence. *Journal of Computer-Mediated Communication, 3*(2), JCMC321. doi:10.1111/j.1083-6101.1997.tb00072.x

Lua, A. (2019). 21 Top social media sites to consider for your brand. *Buffer Marketing Library*. Retrieved from https://buffer.com/library/social-media-sites/

MacInnis, D. J., & Folkes, V. S. (2017). Humanizing brands: When brands seem to be like me, part of me, and in a relationship with me. *Journal of Consumer Psychology, 27*(3), 355–374. doi:10.1016/j.jcps.2016.12.003

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology, 58*(1), 593–614. doi:10.1146/annurev.psych.58.110405.085542

McCarthy, J. (2015, April 24). Facebook influences over half of shoppers says DigitalLBi's connected commerce report. *The Drum*. Retrieved from https://www.thedrum.com/news/2015/04/24/facebook-influences-over-half-shoppers-says-digitaslbi-s-connected-commerce-report

Men, L. R., & Tsai, W.-S. H. (2015). Infusing social media with humanity: Corporate character, public engagement, and relational outcomes. *Public Relations Review, 41*(3), 395–403. doi:10.1016/j.pubrev.2015.02.005

Mintel. (2021). Social media trends–US–May 2021. *Mintel group*. Retrieved from https://store.mintel.com/report/us-social-media-trends-market-report

Mintz, S. W., & Du Bois, C. M. (2002). The anthropology of food and eating. *Annual Review of Anthropology, 31*(1), 99–119. doi:10.1146/annurev.anthro.32.032702.131011

Mittal, B. (1995). A comparative analysis of four scales of consumer involvement. *Psychology & Marketing, 12*(7), 663–682. doi:10.1002/mar.4220120708

Moon, J. H., Kim, E., Choi, S. M., & Sung, Y. (2013). Keep the social in social media: The role of social interaction in avatar-based virtual shopping. *Journal of Interactive Advertising, 13*(1), 14–26. doi:10.1080/15252019.2013.768051

Moran, G., Muzellec, L., & Johnson, D. (2019). Message content features and social media engagement: Evidence from the media industry. *Journal of Product & Brand Management, 29*(5), 533–545. doi:10.1108/jpbm-09-2018-2014

Park, H., & Cameron, G. T. (2014). Keeping it real: Exploring the roles of conversational human voice and source credibility in crisis communication via blogs. *Journalism & Mass Communication Quarterly, 91*(3), 487–507. doi:10.1177/1077699014538827

Pernice, R. E., Ommundsen, R., van der Veer, K., & Larsen, K. (2008). On the use of student samples for scale construction. *Psychological Reports, 102*(2), 459–464. doi:10.2466/pr0.102.2.459-464

Pew Research Center. (2019). *Social media fact sheet*. Retrieved from https://www.pewresearch.org/internet/fact-sheet/social-media/

Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods, 16*(2), 93–115. doi:10.1037/a0022658

Short, J. A., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. London, UK: Wiley.

Sprout. (2021). *The Sprout social index, edition XVII: Accelerate*. Retrieved from https://sproutsocial.com/insights/data/index-accelerate/

Statista Research Department. (2011, July 14). *Fast food franchises most "liked" on Facebook by U.S. college students in 2011*. Retrieved from https://www.statista.com/statistics/195750/most-liked-fast-food-franchises-on-facebook-by-us-college-students/

Sung, K. H., & Kim, S. (2021). Do organizational personification and personality matter? The effect of interaction and conversational tone on relationship quality in social media. *International Journal of Business Communication, 58*(4), 582–606. doi:10.1177/2329488418796631

Syncapse. (2013). *The value of a Facebook fan 2013: Revisiting consumer brand currency in social media*. Retrieved from https://www.r-evolutionindustries.com/pdf/SYNCAPSE-TheValueOfAFacebookFan2013.pdf

Verhagen, T., van Nes, J., Feldberg, F., & van Dolen, W. (2014). Virtual customer service agents: Using social presence and personalization to shape online service encounters. *Journal of Computer-Mediated Communication, 19*(3), 529–545. doi:10.1111/jcc4.12066

Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research, 19*(1), 52–90. doi:10.1177/009365092019001003

Wen, Z., & Fan, X. (2015). Monotonicity of effect sizes: Questioning kappa-squared as mediation effect size measure. *Psychological Methods, 20*(2), 193–203. doi:10.1037/met0000029

Xiang, L., Zheng, X., Lee, M. K. O., & Zhao, D. (2016). Exploring consumers' impulse buying behavior on social commerce platform: The role of parasocial interaction. *International Journal of Information Management, 36*(3), 333–347. doi:10.1016/j.ijinfomgt.2015.11.002

Xu, A., Zhe, L., Yufan, G., Vibha, S., & Akkiraju, R. (2017, May). A new chatbot for customer service on social media. In *2017 CHI Conference on Human Factors in Computing Systems* (pp. 3505–3510). New York, NY: Association for Computing Machinery.

Yoplait. (2017a, December 13). *Hello. Thank you for the question. Our Girl Scout Cookie flavors in single serving size are available in [. . .]* [Facebook post]. Facebook. Retrieved from https://www.facebook.com/Yoplait/posts/pfbid0FEwieb2Tsu48sVunyhtXLqguhdkV3wnm9LCBAuN QAK91eXsShhxBjP7s75LbrUYFl

Yoplait. (2017b, December 13). *Hi, Allie! Can you please send us a DM with any additional details about what you like so we can [. . .]* [Facebook post]. Facebook. Retrieved from https://www.facebook.com/Yoplait/posts/pfbid0FEwieb2Tsu48sVunyhtXLqguhdkV3wnm9LCBAuN QAK91eXsShhxBjP7s75LbrUYFl

Yun, G. W., Allgayer, S., & Park, S.-Y. (2020). Mind your social media manners: Pseudonymity, imaginary audience, and incivility on Facebook vs. YouTube. *International Journal of Communication, 14*, 3418–3438. Retrieved from https://ijoc.org/index.php/ijoc/article/view/11034/3131

Zhao, X., & Zhan, M. M. (2019). Appealing to the heart: How social media communication channels affected users' liking behavior during the Manchester Terrorist Attack. *International Journal of Communication, 13*, 3826–3847. Retrieved from https://ijoc.org/index.php/ijoc/article/view/11816/2753