

Three Essays on Online Consumer Engagement

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Abstract

Three Essays on Online Consumer Engagement

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This thesis, comprised of three essays, examines the critical roles in driving consumer engagement on social media. *Essay 1* explores the role of personification in consumer engagement. Drawing on the literature on personification in advertising, the Stereotype Content Model (SCM), and well-being theory, the essay demonstrates that compared with a non-personification appeal, a personification appeal featured in the brand posting leads to a higher level of consumer engagement. Across three studies, the findings show that a personification (vs. non-personification) appeal triggers consumers' perceived warmth of the brand, which in turn heightens their need for social belongingness, thus leading to a higher level of consumer engagement. Further, hedonic motive from the perspective of consumers is identified as a boundary condition to such an effect. Specifically, the results show that hedonic motive enhances the serial mediation effect driving consumer engagement. *Essay 2* draws on the literature on self-brand connections and advertising creativity, examining the downstream consequence of consumer engagement triggered by a personification appeal and identifying a moderator such as brand familiarity. Across two studies, the results demonstrate that a personification (vs. non-personification) appeal strengthens self-brand connections via perceived warmth and consumer engagement. Further, the effect of personification appeals on consumer engagement is amplified when the brand is unfamiliar rather than familiar. *Essay 3* draws on autonomy-connectedness literature, self-construal theory, and self-congruity theory, exploring the interactive effect of autonomy-connectedness appeals and self-construal on consumer engagement. Across two studies, the results reveal that compared with connectedness-appeal content, autonomy-appeal content leads to higher engagement among consumers primed with independent self-construal, whereas connectedness-appeal (vs. autonomy-appeal) content leads to a higher level of engagement among consumers primed with interdependent self-construal. Further, the essay uncovers the underlying mechanism such that content self-congruity mediates the interactive effect of the appeal type and self-construal on consumer engagement. General discussions, theoretical contributions, and managerial

implications are provided, respectively, in these three essays. Limitations and future research are also discussed, respectively.

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Chapter 1: Introduction

By June 2021, Facebook had approximately 2.89 billion monthly active users, becoming the largest, and most powerful social network in the world (Statista 2021). Social media has shaped the way people interact with each other and the way consumers evaluate and purchase brands. Companies constantly leverage social media (e.g., Facebook, Twitter, Instagram, and YouTube) as a communication channel to reach more consumers and connect with them (Kabadayi and Price 2014), thus strengthening their relationship with consumers (Verhoef et al. 2010), nurturing online brand communities and spreading word-of-mouth (Laroche et al. 2012; Libai et al. 2010). Approximately 83% of Fortune 500 companies were using some social media platforms to engage consumers in 2011 (Naylor et al. 2012) and this number has grown to 97% as of 2021 (Porteous 2021). More specifically, 73% of these companies own Twitter accounts, 66% own Facebook brand pages, and 62% own YouTube channels (Colicev et al. 2018). The examples of social media controlled by brands are defined as “owned social media”, whereas activities of “voluntary, user-generated brand mentions, recommendations, and so on”, which are not directly generated from a company, are called “earned social media” (Colicev et al. 2018, p. 37). For example, Facebook brand pages, which are controlled by brands, enable consumers to interact with brands through liking, sharing, and commenting on marketer-generated content comprised of photos, videos, and messages. A typical example of “earned social media” is GoPro user-generated content. The action camera brand GoPro invites its consumers to make their own videos or take photos using GoPro products such as cameras and the “Quik” app to win awards or post user-generated videos on the brand social media platforms such as Facebook, Twitter, and YouTube channels (GoPro 2021; Marketwatch 2021). Therefore, in the process of co-creation in an online brand community, “engaged customers exhibit enhanced customer loyalty, satisfaction, empowerment, connection, emotional bonding, trust, and commitment” (Brodie et al. 2013, p. 105). As such, advertising on social media or content marketing aims at creating effective content that engage consumers effectively, becoming a significant part of a company’ marketing budgets (Lee et al. 2018).

Although recent studies have demonstrated the relationship between brand page postings and online consumer engagement, they have not converged on the effects of brand postings on consumer engagement, such as liking and commenting: Lee et al. (2018) have found the positive effects of brand personality-related content, whereas Stephen et al. (2015) have demonstrated

negative effects. However, De Vries et al. (2012) have identified mixed effects, depending on whether the messages conveyed by the brand posting are implicit or explicit. While examining the negative impact of persuasive tactics (i.e., advertising tone and calls to action) on customer engagement, Weiger et al. (2018) have found that customer-brand community connection can mitigate such a negative effect. Further, Meire et al. (2019, p. 21) have demonstrated that “informational marketer-generated content” (MGC) and emotional content could have different effects on the sentiment of customers’ digital engagement, depending on valence of the event outcomes. MGC is defined as communication made by a firm or brand and shared through social networking sites (Meire et al. 2019). Prior research categorizes message content on social media as informative and persuasive content (Goh et al. 2013); informational, promotional, or community-nurturing content (Saxton and Waters 2014); directly informative and brand personality-related content (Lee et al. 2018); and “information-focused, emotion-focused or commercial-focused content” (Tellis et al. 2019, p. 4).

However, among these aforementioned studies, few of them have examined the firms’ ability through MGC to affect the sentiment of customer engagement (Meire et al. 2019). Prior research has paid little attention to how advertising appeals or message framing featured in MGC affect consumer engagement, and the role of individual differences in such effects. Further, the mechanisms underlying the effect of MGC on consumer engagement have not been explored in prior research due to the nature of secondary data (e.g., Borah et al. 2020; Lee et al. 2018; Li and Xie 2019; Meire et al. 2019). To fill these knowledge gaps, the goal of this thesis is therefore to explore the critical roles of advertising appeals, message framing, brand familiarity, consumer characteristics, and consumer cultural identities such as self-construal in driving consumer engagement on social media, and to uncover the underlying mechanisms. The findings offer marketing researchers and practitioners insights into the interplay among MGC, brands, and consumers, and how it shapes online consumer engagement.

Overview of three essays

The thesis consists of three essays in the format of manuscripts. Each essay is comprised of an abstract, introduction, conceptual background and hypotheses development, research design

and findings, general discussion, theoretical and managerial implications, and limitations and future research. Conclusion is made at the end of the thesis.

Essay 1 investigates the role of personification appeals in consumer engagement. Drawing on personification literature, the warmth-competence Stereotype Content Model (SCM), and well-being theory, I explore how personification (vs. non-personification) appeal in the brand posting affects consumer engagement and identify the underlying mechanism. Across three studies using two fictitious brands, the results show that compared with a non-personification appeal, a personification appeal in the brand posting evokes consumers' perceptions of brand warmth, which in turn heightens their need for social belongingness, thus leading to a higher level of consumer engagement such as liking intention. Further, I identify hedonic motive as a boundary condition to such a serial mediation effect, which enhances the serial mediation effect driving consumer engagement. More specifically, compared to consumers with low hedonic motive, those with high hedonic motive have higher perceptions of brand warmth when they view the brand posting featuring a personification (vs. non-personification) appeal. However, the essay does not explore the downstream outcomes of consumer engagement and other potential factors affecting such a serial mediation effect, posing some limitations.

Essay 2 aims at addressing the limitations raised in *Essay 1*. Building on self-brand connections literature, I propose self-brand connections as a downstream consequence of consumer engagement resulting from a brand posting featuring personification appeals. Further, drawing on advertising creativity literature, I identify brand familiarity as a boundary condition to the serial mediation effect observed in *Essay 1*. Across two studies using fictitious and real brands, I demonstrate that a personification (vs. non-personification) appeal triggers perceived warmth of a specific brand, which in turn increases consumer engagement, thus facilitating self-brand connections. More importantly, brand familiarity moderates the serial mediation path through perceived warmth and need for social belongingness, such that the effect is stronger for an unfamiliar (vs. familiar) brand due to the originality of metaphorical transfer (i.e., personification) and immediate wear-in effect.

Essay 3 continues to pursue the questions regarding message framing utilized in social media marketing and the role of consumer cultural identities. Specifically, it explores the interplay between autonomy-connectedness appeals and self-construal in the context of social media settings. Autonomy-connectedness, a psychological construct, is defined as “the need and capacity

for self-reliance and independence, as well as the need and capacity for intimacy and functioning in intimate relationships” (Bekker et al. 2010, p. 243). While this construct has been extensively examined in the domain of social psychology, little research in marketing has examined autonomy-connectedness as an advertising appeal, except for a few studies (Wang and Mowen 1997; Wang et al. 2000); nor has prior research explored autonomy-connectedness appeals in online consumer engagement. Thus, I propose that autonomy (vs. connectedness) appeal leads to a higher level of consumer engagement when independent (vs. interdependent) self-construal is accessible, constituting an interaction effect, which affects consumer engagement. Across two studies using two real brands, the results support the hypothesized interaction effect and also reveal the underlying psychological process. More specifically, content self-congruity mediates such an interaction effect.

Overarching theory of customer engagement

Engagement has been extensively explored across a wide range of disciplines, such as sociology, political science, psychology, and organizational behavior (Ilic 2008). In the domain of social psychology, Achterberg et al. (2003, p. 213) define social engagement as “a sense of initiative, involvement, adequate response to social stimuli in the social environment, and participation in social activities and interaction with others”. In the field of organizational behavior, Saks (2006, p. 603) conceptualizes employee engagement as “the amount of cognitive, emotional, and physical resources an individual is prepared to devote in the performance of one’s work roles”. However, engagement is an emerging concept in marketing research (Hollebeek 2011). The engagement concept from the marketing perspective involves the interaction between customers and brands (Handelsman et al. 2005).

The current thesis is grounded in customer engagement theory (Pansari and Kumar 2017), which functions as an overarching theoretical framework. Customer engagement (CE) theory conceptualizes CE as “the mechanics of a customer’s value addition to the firm, either through direct or/and indirect contribution” (Pansari and Kumar 2017, p. 295). Direct contributions involve customer purchases, whereas indirect contributions capture incentivized referrals made by the customer, customer feedback, and the interaction between customers and the brand on social media (Pansari and Kumar 2017). A meta-analysis study by Santini et al. (2020) demonstrates that more than twenty studies provide insights into customer engagement in the social media context by

presenting various conceptualizations, contexts, and scale items, which measure customer engagement: community engagement (Algesheimer et al. 2005); online brand community engagement (Balduš et al. 2015); online engagement (Calder et al. 2009; Paruthi and Kaur 2017); brand engagement on social media (Hollebeek et al. 2014; Obilo et al. 2021); brand engagement (Sprott et al. 2009). For example, online consumer engagement is defined as “the cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value” (Mollen and Wilson 2010; p. 923). Adding a behavioral attribute to the dimensions of consume engagement, Holleebeek et al (2014) conceptualize consumer brand engagement (CBE) as “a consumer’s positively valenced brand-related cognitive, emotional, and behavioral activity during or related to focal consumer/brand interactions” (p. 154).

This thesis focuses on indirect contributions such as consumer interaction with the brand or brand-related content on social media. As consumer engagement is analogous to consumer response to advertising such as ad attitude and brand attitude (Santini et al. 2020), recent research measures online consumer engagement using tone or valence of comments, or the number of *likes*, shares, comments, retweets, or liking intention towards the brand-related content or postings (e.g., Borah et al. 2020; Chang et al. 2019; Hughes et al. 2019; Lee et al. 2018; Meire et al. 2019, Tellis et al. 2019). As such, the thesis operationalizes online consumer engagement using liking intention, which functions as the focal dependent variable.

Chapter 2: The Role of Personification in Online Consumer Engagement (Essay 1)

Abstract

While abundant work on digital or online consumer engagement has shown that the content featuring brand personality, emotion, or hedonic value posted by brands leads to liking, sharing, commenting, or retweeting intentions, surprisingly, little research has explored the underlying psychological mechanisms that drive such engagement, and the strategies adopted to generate emotion-focused or hedonic-value content are underexplored. The current research fills these knowledge gaps by demonstrating that the personification (vs. non-personification) appeal featured in a brand posting triggers a higher level of perceived warmth, which in turn heightens the need for social belongingness, thus increasing consumer engagement such as liking intention. Further, the current research identifies hedonic motive as a boundary condition to such a serial mediation effect. Specifically, hedonic motive enhances the serial mediation effect on consumer engagement. Theoretical contributions and managerial implications are provided.

Introduction

Social media has changed the way people acquire, process, and share information, facilitating social interaction with others (Berger 2015; Peters et al. 2013). Companies leverage social media to encourage consumers' engagement with their brands through *likes*, *shares*, *comments*, or *retweets* because they realize that consumers or brand page followers are no longer passive recipients of their marketing communication (Beckers et al. 2018; Kunz et al. 2017). Distinct from traditional marketing communication media, social media platforms such as Facebook, Twitter, Instagram, YouTube, and Pinterest are where companies build online brand communities featuring constant marketer-generated content (MGC), such as brand postings, and user-generated content such as comments and videos (Yoon et al. 2017). As a result, advertisers and marketers are faced with challenges, forcing them to change the way persuasive messages are created and communicated to their audience (Yoon et al. 2017). Consequently, social media advertising on social networking sites is becoming a more significant component of a company's marketing budgets (Lee et al. 2018).

Multidirectional communication and interaction on social media cannot only transform the branding message design but also impact audience's consumption of the messages and their

responses (Van den Bulte et al. 2007), since consumers are frequently exposed to market-generated content and have more chances to personally interact with brands (Chen et al. 2015; Gensler et al. 2013). Meanwhile, “originally-inanimate brands are becoming humanized through intimate conversations with consumers in social networks” (Gensler et al. 2013, p. 250). I propose that this outcome can be amplified if some advertising strategies are effectively implemented in the context of social media. The advertising literature shows that personification, a rhetorical and persuasive device, can activate consumers’ anthropomorphic processing, thus eliciting emotional responses and increasing attributions of brand personality (Delbaere et al. 2011). As such, consumers are likely to form relationships with the brands they perceive to be humanlike (Aaker et al. 2004; Aggarwal 2004). Therefore, marketers seek to capitalize on such a powerful rhetorical technique to encourage consumers to anthropomorphize brands and communicate with brands in a way similar to interpersonal communication (Aggarwal and McGill 2007). MGC featuring brand personality (e.g., humor or emotion) increases consumer engagement such as *likes*, comments, and shares (Lee et al. 2018), because consumers’ anthropomorphic responses are elicited when they engage with such MGC generated through brand personification strategies (Chen et al. 2015).

However, prior advertising literature has explored brand personification only through the personified characters or visual cues in print ads and TV commercials (Callcott and Lee 1994; Delbaere et al. 2011; Phillips and Goyerick 1999). Further, recent research on branding strategies in the social media settings has not provided a deep understanding of brand personification (Chen et al. 2015). Despite the evidence that brand personification applied to MGC can lead to a higher level of consumer engagement on social media, the mechanisms underlying such an effect are not identified (Chen et al. 2015; Lee et al. 2018). To fill these knowledge gaps, the current research examines the role of personification appeal in consumer engagement and explores the mechanisms underpinning such an effect. More specifically, I propose that a personification (vs. non-personification) appeal featured in a brand posting triggers consumers’ perceptions of brand warmth, which in turn heightens their need for social belongingness, thus increasing their engagement with the brand posting.

Across three studies, the empirical findings and theoretical implications of this essay advance our understanding of the brand personification strategy implemented in the social media context, and of the underlying mechanisms driving consumer engagement, such as a serial mediation path through perceived warmth and need for social belongingness. More importantly, I identify a novel

boundary condition – consumer hedonic motive, which strengthens such a serial mediation effect, shedding light on the integrated perspective of well-being and consumer engagement theories. Moreover, this research responds to Lee et al.’s (2018) call for future research exploring mechanisms underlying consumer engagement.

The rest of the essay is structured as follows. I first review literature on personification in advertising, online consumer engagement, Stereotype Content Model, and well-being theory, from which hypotheses are developed. Then, research design is described, and findings are presented. Finally, general discussion, implications, and limitations and future research are provided.

Conceptual background and hypotheses development

Personification in advertising

Personification is identified as one of the most instinctive metaphors, which allows individuals “to comprehend a wide variety of experiences with non-human entities in terms of human motivations, characteristics, and activities (Lakoff and Johnson 1980, p. 33). Similarly, Ricoeur (2004) defines personification as a metaphorical transfer of “turning an inanimate, non-sentient, abstract, or ideal entity into a living and feeling being, into a person” (p. 68). For example, “the drums were weeping today” vividly indicates that drums are like human beings with the emphasis on the sorrow of their sound (Delbaere et al. 2011; Turner 1987). “Inflation is eating up our profits” personifies inflation as a human who tries to steal from us (Lakoff and Johnson 1980, p. 33). While Cohen (2014) contends that personification is sometimes synonymous with anthropomorphism, which is “the process of assigning real or imagined human characteristics, intentions, motivations, or emotions to nonhuman objects” (Connell 2013, p. 462), Delbaere et al. (2011) argue that personification is a characteristic added to a message, whereas anthropomorphism is the inherent characteristic of a recipient who comprehends personification, allowing it to be effective.

Brand personification is defined as “imbuing trademarked or otherwise proprietary-named products and services with a human form and/or human attributes, including a generally distinctive physical appearance and personality” (Cohen 2014, p.3). To cultivate emotional bonds between a brand and consumers, marketers adopt brand personification to trigger anthropomorphic processing in consumers (Aaker 1997; Brown 2011; Cohen 2014). In other words, marketers construct personification messages in their branded product design, packaging, advertising, and

other marketing-related efforts to generate positive outcomes such as brand recognition, recall, and brand loyalty (Cohen 2014). Prior research in advertising has conceptualized brand personification as a spokes-character for the brand in the form of animate beings or animated objects to diffuse branded message with visual or verbal demonstrations (Callcott and Lee 1994; Phillips and Lee 2005). Mr. Peanut, M&M candy characters, and the Michelin Man are explicit examples of spokes-characters (Delbaere et al. 2013). Prior research has shown that anthropomorphism of brands or products can be triggered by visual or verbal personification or both. For example, a print ad with visual personification (e.g., pictures of the product), compared with the one without visual personification, triggers individuals' anthropomorphism, which in turn induces more positive affect, more positive perceptions of brand personality, and greater brand liking. Puzakova and Aggarwal (2018) have activated anthropomorphism of brands through verbal cues using first person in the stimuli and found that the salience of distinctiveness goals decreases positive evaluations of the anthropomorphized brands. Aggarwal and McGill (2007) have primed products in the stimuli with human schema through visual and verbal cues, which activate anthropomorphism of products, thus leading to positive evaluations.

While these aforementioned studies have shown that anthropomorphism of a brand/product or a personification appeal in advertising triggers anthropomorphic processing in consumers, thus leading to positive attitude toward the brand or ads and increasing purchase intentions (Delbaere et al. 2013; Hart and Royne 2017), the current research skips the loop of anthropomorphic brands and anthropomorphic processing by taking another track to uncover the underlying mechanism that affects consumer responses in the social media context. Further, although personification or anthropomorphism is frequently mentioned in many fields, the knowledge of the subject in advertising remains limited (Kiesler 2006), and there is little guidance for practitioners to decide whether the product should be imbued with human attributes, or the product should be featured in the humanlike context to enhance advertising effectiveness (Hart and Royne 2017). As such, the current research addresses these issues by focusing on verbal personification such as a humanlike contextual posting of a brand, which impacts consumer engagement on social media.

Online consumer engagement and social media advertising

Online consumer engagement can be defined as “the cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated

entities designed to communicate brand value” (Mollen and Wilson 2010; p. 5). Online consumer engagement is analogous to consumer response to advertising (Santini et al. 2020). Prior work has identified several key factors affecting consumer responses to social media advertising or consumer engagement, such as the characteristics of content: perceived informativeness and entertainment (Taylor et al. 2011), richness of brand posting content and timeliness (Sabate et al. 2014), and content related to brand personality (Lee et al. 2018). Recent research has further identified other factors such as users’ motivations, brand type, and individual differences. For example, Zhang and Mao (2016) have found that connection motivations lead to ad clicks via perceived congruency between the ad and media content. Consumers are more likely to endorse non-profit brands than for-profit brands on social media due to perceived warmth (Bernritter et al. 2016). Consumers in a higher level of interdependent self-construal have stronger intention to endorse brands on social media via perceived brand symbolism (Bernritter et al. 2017).

Extending brand personification to the context of social media such as Facebook brand pages, Chen et al. (2015) conceptualize brand personification used in Facebook brand postings as two dimensions — graphic and textual contents, constituting interpersonal conversations between humanlike brands and their fans. In textual content on social media, the usage of personal pronouns and imperative verb forms can mitigate impersonality and build relationships between brands and consumers (Kwon and Sung 2011). For example, “join us” communicates the brand’s attempt to build relationships with consumers (Kwon and Sung 2011), whereas using personal pronouns, particularly the first person such as *I*, *my*, *we*, and *us*, can project a lively product image (Chang et al. 2019), and help to initiate relationships with readers (Callow 1998). Chen et al.’s (2015) findings based on content and linguistic analysis demonstrate that textual content using brand personification (i.e., personal pronouns and imperative verbs) is effective in engaging consumers such as *likes*, comments, and shares but there is no significant effect of graphic content using personification. The current research includes but is not limited to personal pronouns and imperative verbs in the textual content of the stimuli used in a series of studies. Synthesizing the aforementioned findings, it is hypothesized that a personification (vs. non-personification) appeal in the textual content of brand posting can increase consumer engagement such as liking intention. Formally,

H1. Compared with the brand posting featuring a non-personification appeal, the brand posting featuring a personification appeal leads to a higher level of consumer engagement such as liking intention.

The mediation role of perceived warmth

The literature in social psychology suggests that individuals depend on two fundamental dimensions of the Stereotype Content Model (SCM) — warmth and competence — to make judgements of people, traits, groups, and cultures (Fiske et al. 2002; Judd et al. 2005). For example, groups of rich people are perceived as low in warmth but high in competence, whereas groups such as housewives and seniors are perceived as low in competence but high in warmth (Fiske et al. 2002). People use the dimensions, which are analogous to warmth and competence, to determine national stereotypes (Eagly and Kite 1987; Poppe and Linssen 1999). Although definitions may vary, warmth judgements capture generosity, friendliness, helpfulness, and trustworthiness, whereas competence judgments capture capability, competency, skillfulness, and intelligence (Aaker et al. 2010). While the two dimensions are correlated to some degree, they are conceptualized as orthogonal: one or the other dimension (not both) can underlie perceptions of groups or cultures (Aaker et al. 2010). Working mothers are typically perceived as only warm or only competent (Cuddy et al. 2004). However, an individual can be perceived as high or low in both dimensions (Judd et al. 2005; Rosenberg et al. 1968)

SCM can be also applied to brands and companies, given that consumers relate to brands in the similar way that they relate to people (Fournier 1998). The fundamental tenet regarding consumer-brand relationships has been supported by numerous empirical studies, which have demonstrated consumers' emotional attachment to their favorite brands (Albert et al. 2008; Thomson et al. 2005), their brand love (Batra et al. 2012), their brand loyalty resembling marriage relationships (Fournier and Yao 1997; Oliver 1999). A large body of literature has supported the application of warmth-competence dimensions to consumer perceptions of brands and companies (e.g., Aaker et al. 2010; Aaker et al. 2012; Bennett and Hill 2012; 2013; Davvetas and Halkias 2019; Ivens et al. 2015; Kervyn et al. 2012; Valta 2013; Wu et al. 2017). For example, nonprofit firms are perceived to be warm whereas for-profit firms are perceived to be competent, and thus consumers are less willing to purchase products made by a nonprofit firm due to perceptions of low competence (Aaker et al. 2010). Consumer perceptions of warmth and competence of brands

such as McDonald's, Burger King, Tropicana, and Advil have an impact on their purchase intentions (Bennett and Hill 2012). Further, Ivens et al.'s (2015) findings support the notion that SCM can be applied to brand perceptions by demonstrating that warmth and competence stereotypes mediate the effect of brand personality on consumers' brand emotions. However, recent research has found that warmth rather than competence has a positive impact on consumer-brand identification and consequently purchase intentions (Kolbl et al. 2019).

Prior research has applied SCM to the domain of advertising, particularly confirming the important role of warmth in advertising. For example, Wang et al. (2017) have found that a broad (vs. slight) smile of a nutritionist featured in an ad induces warmth perceptions of the nutritionist, thus leading to higher purchase intentions towards the online service. Touré-Tillery and McGill (2015) have demonstrated that an individual's low trust and anthropomorphized messenger in ads can lead to stronger persuasion via perceived warmth (goodwill) of the messenger. Further, Zhou et al (2018) have demonstrated that anthropomorphized money in a charitable appeal leads to higher donation intentions via warmth perceptions of money. Thus, warmth perceptions can be triggered when a brand is personified in human form and thus the mediating role of perceived warmth is proposed. Specifically,

H2. Perceived warmth mediates the effect of the brand posting featuring a personification appeal (vs. non-personification) appeal on liking intention.

Perceived warmth, need for social belongingness, and consumer engagement

Research shows that perceived belongingness can be driven by collective brand personification whereby frontline employees function as brand mascots personified in human form (Braxton and Lau-Gesk 2020). This notion is consistent with Chen et al.'s (2017) findings that socially excluded individuals prefer anthropomorphized brands due to their stronger need to belong and this preference is attenuated by their social affiliations with others. In other words, when consumers engage with a brand personified in human form, they would inherently establish emotional bonds resembling the link between two humans (Braxton and Lau-Gesk 2020) and consequently perceive the brand as a social partner (Aggarwal and McGill 2007). However, in these two empirical studies, I argue that there might be a psychological process underlying the

relationship between brand personification/anthropomorphism and need for social belongingness: the mediating role of perceived warmth.

Prior research has demonstrated that social media use is primarily motivated by the need to belong and the need to present the self (Nadkarni and Hofmann 2012). A need to belong, or need for social belongingness, is conceptualized as a need to establish and sustain interpersonal relationships, which should be found in all human beings across all cultures, because humans naturally depend on associations with others and the social support of others (Baumeister and Leary 1995). Although social media use such as Facebook (FB) can facilitate relationship development and approval from peers (Yue et al. 2010), the relationship between social media use and social connection is complex, as evidenced by Sheldon and Abad's (2011) findings that frequency of FB use is paradoxically associated with more social disconnection and more social connection. Considering that the need for social belongingness is one of primary motivations for social media use, the current research expects that the need for social belongingness can be also a driver of consumer engagement with the brand postings or the brand. Applying SCM to the social media context, Chang et al (2019) have confirmed the important role of need to belong in consumer engagement with in-feed ads by demonstrating that a warm brand together with first-person narration gain more user "likes" via social belongingness, whereas a competent brand together with third-person narration leads to more "likes" via self-enhancement. Therefore, it is hypothesized that a personification-appeal brand posting would trigger perceived warmth of the brand, which in turn heightens the need for social belongingness, thus increasing liking intention. Formally,

H3. Perceived warmth and the need for social belongingness serially mediate the effect of a personification-appeal brand posting on liking intention, such that the brand posting featuring a personification (vs. non-personification) appeal induces higher perceived warmth, which in turn heightens the need for social belongingness, thus leading to stronger liking intention.

The moderating role of hedonic motive

Prior research on well-being has adopted two approaches to define well-being: hedonic and eudaimonic approaches, which can be both distinct and overlapping (Ryan and Deci 2001). "Hedonic approach, which focuses on happiness and defines well-being in terms of pleasure

attainment and pain avoidance; and the eudaimonic approach, which focuses on meaning and self-realization and defines well-being in terms of the degree to which a person is fully functioning” (Ryan and Deci 2001, p. 141). While prior research suggests that entertainment selection is generally driven by hedonic motive (pleasure-seeking), Oliver and Raney (2011) have demonstrated that besides hedonic motive, eudaimonia (truth-seeking) motive can be an additional motive for selection of melancholy music or tragic drama, which seems counter to hedonic goals.

However, the literature on social media focuses more on hedonic well-being, which positively affects life satisfaction (Disabato et al. 2016; Kim et al. 2017) and individuals’ ability to fulfill the need for connections, competence, and autonomy (Berezan et al. 2020). Social media networking sites offer individuals opportunities to fulfill these needs through activities on these platforms (Berezan et al. 2019; Sheldon and Gunz 2009; Sheldon et al. 2011). Therefore, in the current research, I propose the moderating role of hedonic motive, with which individuals approach activities on social media sites. Further, prior research has found that hedonic goals are associated more with positive affect whereas eudaimonic goals are associated more with learning (Huta and Ryan 2009). Given that consumer engagement captures emotional or affective responses (Chen et al. 2015), more related to hedonic rather than eudaimonic motive, I hypothesize that the serial mediation effect of a personification (vs. non-personification) appeal on consumer engagement via perceived warmth and the need for social belongingness will be stronger for consumers adopting high (vs. low) hedonic motive. Thus, I propose a first stage moderated serial multiple mediation (Hayes 2015). Formally:

H4. Hedonic motive strengthens the serial mediation effect indicated in H3, such that for consumers with high (vs. low) hedonic motive, the effect of a personification-appeal (vs. non-personification appeal) brand posting on perceived warmth is stronger, and thus leads to a stronger need for social belongingness, consequently increasing liking intention.

Overview of studies

The current research tests the proposed research model (Figure 1.1) in three studies. Study 1 tested the main hypothesis that a personification (vs. non-personification) appeal leads to a higher level of consumer engagement and uncovered the underlying process whereby perceived warmth mediates the main effect. Study 2 used a different brand/product to replicate the mediation effect

observed in Study 1, and more importantly, tested the serial mediation effect via perceived warmth and the need for social belongingness. Study 3 tested the moderated mediation effect by identifying hedonic motive as a moderator, which enhances the hypothesized serial mediation effect.

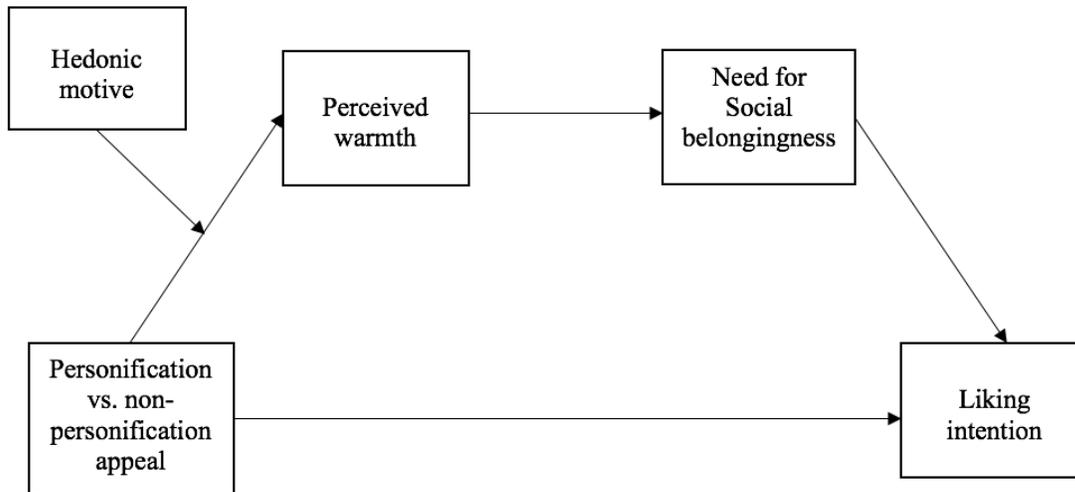


Figure 1. 1 Research model

Research design and findings

Pretest

One hundred seventeen undergraduate students from a North American university were recruited to participate in the pretest of selecting the stimuli (i.e., Lorium coffee) in exchange for course credit (female = 47.9%, $M_{age} = 21$). Participants in the personification appeal condition read, “It’s new day. You got this. Love, coffee.” Participants in the non-personification appeal condition read, “It’s a new day. You got coffee” (Appendix A). I then measured the level of personification ($\alpha = .94$) as manipulation checks with the adapted 3-item scale developed by Hart and Royme (2017), which includes “the brand posting personifies the brand as a human”, “the brand posting makes me think of the brand as a person,” and “in the brand posting, the brand seems like a human in one or more ways (1= strongly disagree, 7 = strongly agree). One-way ANOVA result showed that participants in the personification appeal condition perceived Lorium coffee brand to be more humanlike than did the participants in the non-personification appeal condition ($M_{personification} = 4.60$, $SD = 1.66$; $M_{non-personification} = 3.30$, $SD = 1.73$; $F(1, 115) = 17.31$, $p = .000 < .001$). Thus, the

manipulation was successful and the stimuli of two Lorium coffee brand postings would be used in the main studies.

Another one hundred fourteen undergraduate students from a North American university were recruited to participate in the pretest of the stimuli (i.e., Cardiley camera) in exchange for course credit (female = 50%, $M_{\text{age}} = 21$). They read a posting from the brand “Cardiley” on Twitter (Appendix B). Participants in the personification appeal condition read, “Hi friend, I have high image quality with a 20 Megapixel full-frame CMO sensor! I’d love to catch the AWESOME moments in your daily life! Are you ready for our adventure?” Participants in the non-personification appeal condition read, “Cardiley SOE 6 has high image quality with a 20 Megapixel full-frame CMO sensor. It catches every moment in your daily life. It’s time for adventure with Cardiley”. Then the level of personification ($\alpha = .94$) was measured with the same scale used in the previous pretest. One-way ANOVA result showed that participants in the personification appeal condition perceived Cardiley camera brand to be more humanlike than did the participants in the other condition ($M_{\text{personification}} = 4.58$, $SD = 1.96$; $M_{\text{non-personification}} = 3.57$, $SD = 1.61$; $F(1, 112) = 8.94$, $p = .003 < .01$). Therefore, the Cardiley camera brand postings were selected for the stimuli.

Study 1

The objective of Study 1 is twofold. First, it demonstrates the effect of a personification (vs. non-personification) appeal on consumer engagement such as liking intention. Second, it identifies the mediating role of perceived warmth in the relationship between a personification-appeal brand posting and liking intention.

Method

Participants and procedure. One hundred and fifteen undergraduate students from a North American university were recruited to participate in the study in exchange for course credit (female = 45.2%; $M_{\text{age}} = 21$). First, they were asked whether they had a social media networking account such as Facebook, Twitter, or Instagram. Their frequency of using social media accounts was then measured. Participants were randomly assigned to one of the two conditions: a personification appeal or a non-personification appeal. They read a posting from a fictitious coffee brand “Lorium”

on Facebook, as described in the pretest. Afterwards, they answered how likely they would give a “like” to the brand posting (liking intention), which captures consumer engagement as the dependent variable. After that, I measured perceived warmth of the coffee brand as a mediator using a 3-item scale adapted from Grandey et al. (2005) such as “I find the brand is warm/generous/friendly” ($\alpha = .89$). Then the level of personification ($\alpha = .95$) was measured as a manipulation check. All the scales were 7-point Likert (1 = strongly disagree, 7 = strongly agree). In the end, participants provided demographics.

Results

Manipulation checks. One-way ANOVA was conducted to confirm that the coffee brand in the personification appeal condition ($M = 5.12$, $SD = 1.31$) was perceived to be more humanlike than the same brand in the non-personification appeal condition ($M = 3.91$, $SD = 1.83$, $F(1, 113) = 16.46$, $p = .000 < .001$). Thus, manipulation was successful.

Main effect. One-way ANOVA was conducted with the appeal type as the independent variable and liking intention as the dependent variable. The results showed that the personification appeal led to stronger liking intention than did the non-personification appeal ($M_{\text{personification}} = 3.39$, $SD = 2.22$; $M_{\text{non-personification}} = 2.08$, $SD = 1.67$; $F(1, 113) = 12.80$, $p = .001 < .01$), supporting *H1* and offering initial evidence that a brand posting with a personification (vs. non-personification) appeal is more likely to generate a higher level of consumer engagement.

Mediation analysis. I performed a mediation analysis in PROCESS (5,000 bootstrapped samples; Model 4; Hayes, 2013) with the appeal type as the independent variable, perceived warmth as the mediator, and liking intention as the dependent variable. Usage frequency was included as a covariate. Estimated path coefficients and results on all indirect effects are reported in Figure 1.2. As expected, a significant indirect effect for the mediation path through perceived warmth ($B = .42$; $SE = .17$, 95% CI [.12, .79]) was observed. The direct effect of the appeal type on liking intention was significant ($B = .89$; $SE = .35$, 95% CI = [.20, 1.58]), indicating partial mediation through perceived warmth, thus supporting *H2*. Further, there was no significant effect of the covariate (usage frequency) on the mediator or the dependent variable because all confidence intervals include zero.

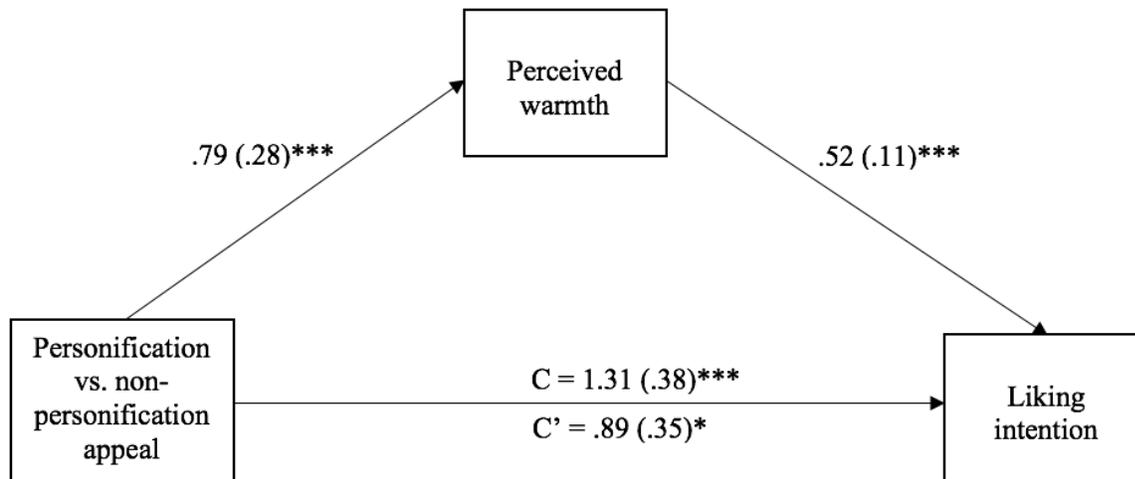


Figure 1. 2 Study 1 results: Mediation

Notes. The mediation analysis with 5,000 bootstrap samples (model 4 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

The indirect effect through perceived warmth (the effect hypothesized in *H2*) was significant ($B = .42$; $SE = .17$, 95% CI [.12, .79]).

Study 2

The objective of Study 2 is twofold. First, it replicates the mediation effect of the appeal type on liking intention via perceived warmth observed in Study 1. Second, it identifies the serial mediation process of perceived warmth and social belongingness. Moreover, another product type (a fictitious brand “Cardiley” camera) was used to enhance the generalizability of the findings.

Method

Participants and procedure. The procedure was similar to Study 1 except that need for social belongingness was measured after perceived warmth. Undergraduate students from a North American university were randomly assigned to one of two conditions: a personification appeal or a non-personification appeal ($N = 85$; female = 37%; $M_{age} = 21$). They read a posting from a “Cardiley” on Twitter, as indicated in the pretest. Then, participants indicated how likely they would click a “like” on this brand posting. After that, I measured perceived warmth ($\alpha = .89$) and then need for social belongingness ($\alpha = .95$) using a 5-item scale adapted from Nadkarni and

Hofmann (2012) and Seidman (2013), which includes “I like this brand Tweet to feel included”, “I like this brand Tweet to make others feel closer to me”, “I like this brand Tweet to feel closer to others,” “I like this brand Tweet to show caring for others,” and “I like this brand Tweet to support others”. Then, the level of personification was measured as manipulation checks ($\alpha = .96$). All the scales were 7-point Likert (1 = strongly disagree, 7 = strongly agree). In the end, participants provided demographics.

Results

Manipulation checks. One-way ANOVA was conducted to confirm that the coffee brand in the personification appeal condition ($M = 3.78$, $SD = 1.89$) was considered to be more like a human than the same brand in the non-personification appeal condition ($M = 2.75$, $SD = 1.64$, $F(1, 83) = 7.27$, $p = .008 < .01$). Thus, the manipulation was successful.

Mediation analysis. I performed a mediation analysis in PROCESS (5,000 bootstrapped samples; Model 4; Hayes, 2013) to replicate the mediation effect observed in Study 1. Estimated path coefficients and results on all indirect effects are reported in Figure 1.3. Again, a significant indirect effect for the mediation path through perceived warmth ($B = .33$; $SE = .17$, 95% CI [.07, .74]) was observed. The direct effect of the appeal type on liking intention was not significant (95% CI = [-.67, .83]), indicating full mediation through perceived warmth, thus supporting $H2$. Further, there was no significant effect of the covariate (usage frequency) on the mediator or the dependent variable because all confidence intervals include zero.

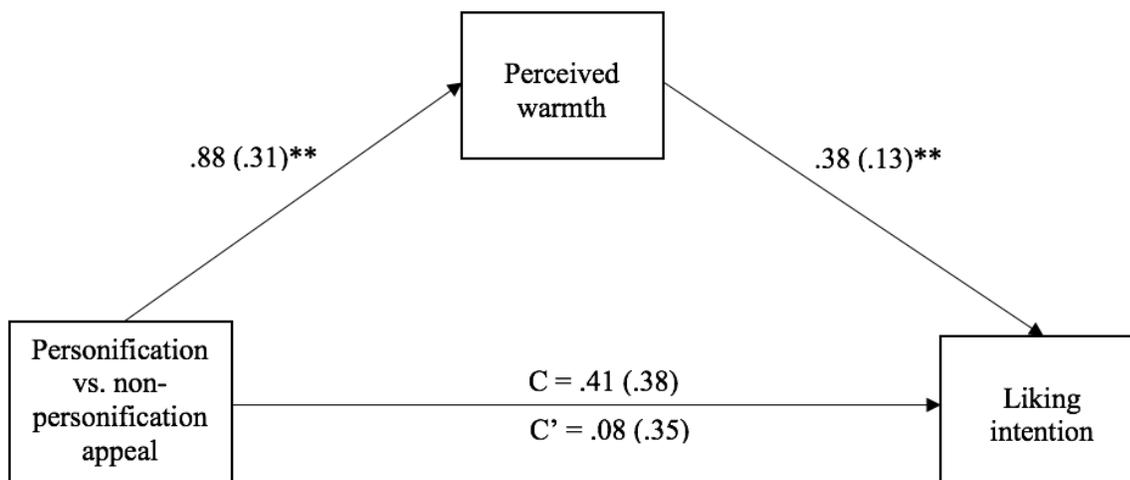


Figure 1. 3 Study 2 results: Mediation

Notes. The mediation analysis with 5,000 bootstrap samples (model 4 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

The indirect effect through perceived warmth (the effect hypothesized in $H2$) was significant ($B = .33$; $SE = .17$, 95% CI [.07, .74]).

Serial mediation analysis. Then I proceeded to perform a multiple-step mediation analysis in PROCESS (5,000 bootstrapped samples; Model 6; Hayes 2013) with the appeal type as the independent variable, perceived warmth as the first mediator, need for social belongingness as the second mediator, and liking intention as the dependent variable. Usage frequency was included as a covariate. Estimated path coefficients and results on all indirect effects are reported in Figure 1.4. As expected, there was a significant indirect effect for the serial mediation path through perceived warmth and need for social belongingness ($B = .12$; $SE = .09$., 95% CI [.01, .34]), thus supporting $H3$. As a further check, the analysis with the mediators in reverse order (need for social belongingness and then perceived warmth) was conducted. The indirect effect was not significant when both mediators were reversed ($B = .02$; $SE = .03$; 95% CI [-. 02, .09]). Again, there was no significant effect of the covariate (usage frequency) on the mediator or the dependent variable because all confidence intervals include zero.

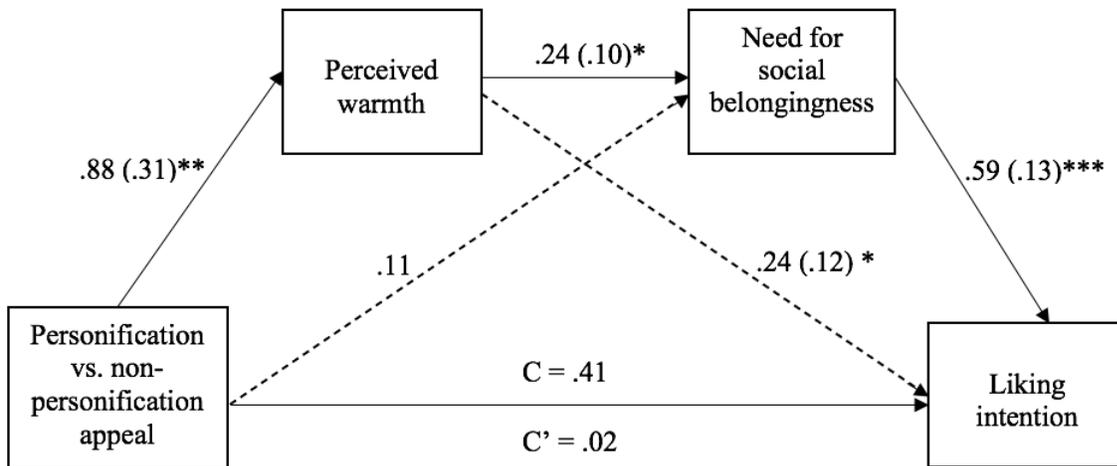


Figure 1. 4 Study 2 results: Serial mediation

Note. Serial mediation analysis with 5,000 bootstrap samples (model 6 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

The total indirect effect was not significant (B = .29; 95% CI [-.08, .95]).

The indirect effect through perceived warmth and social belonging (the effect hypothesized in *H2*) was significant (B = .12; 95% CI [.01, .34]).

The indirect effect through perceived warmth was not significant (B = .21; 95% CI [-.02, .54]).

The indirect effect through social belonging was not significant (B = .06; 95% CI [-.31, .40]).

Study 3

The objective of study 3 is to test a first stage moderated serial multiple mediation hypothesized in *H4*. More specifically, it tests the moderating role of hedonic motive in the relationship between the appeal type and liking intention via perceived warmth and need for social belongingness. In other words, the serial mediation effect of a personification (vs. non-personification) appeal on liking intention is stronger for the consumer with a high (vs. low) level of hedonic motive.

Method

Participants and procedure. One hundred and nine undergraduate students from a North American university were recruited to participate in the study in exchange for course credit (female = 36%; *M*_{age} = 21). The procedure was similar to that of Study 2 and the same stimuli of coffee brand “Lorium” on Facebook was used. Perceived warmth ($\alpha = .95$), need for social belongingness ($\alpha = .90$), and the level of personification was measured as manipulation checks ($\alpha = .96$) were measured. After that, I adopted Huta and Ryan’s (2010) 5-item scale to assess hedonic motive ($\alpha = .86$) as the moderator by asking the participants about their opinions regarding their intentions, with which they approach their activities, including “seek enjoyment/pleasure/fun/relaxation/to take it easy”. All scales were 7-point Likert. Participants provided their demographics at the end of the questionnaire.

Results

Manipulation checks. One-way ANOVA was performed to confirm that the coffee brand in the personification appeal condition ($M = 5.44$, $SD = 1.53$) was perceived to be more like a human than the same brand in the non-personification appeal condition ($M = 3.14$, $SD = 2.05$, $F(1, 107) = 44.36$, $p = .000 < .001$). Thus, the manipulation was effective.

Moderated mediation analysis. The current research proposes a first stage interaction between the personification appeal and hedonic motive, such that the effect of the personification (vs. non-personification) appeal on perceived warmth is stronger when hedonic motive level is high. As an initial test, PROCESS model 1 (Hayes 2013) was used to test whether there was an interactive effect of the appeal type (independent variable) and hedonic motive (moderator) on perceived warmth (dependent variable). As expected, there was a significant interaction effect ($B = .85$, $SE = .29$, 95% CI [.27, 1.4]), such that participants in the personification (vs. non personification) appeal condition had higher perceptions of brand warmth when their hedonic motive was high (1 SD above the mean; $B = 3.18$; $SE = .43$; 95% CI [2.33, 4.02]) than when hedonic motive was low (1 SD below the mean; $B = 1.39$; $SE = .42$; 95% CI [.54, 2.23]). Then, I proceeded to test the full model by conducting a moderated serial mediation analysis (PROCESS Model 83; Hayes, 2013) with the appeal type (personification = 1, non-personification = 0) as the independent variable, perceived warmth as the first mediator, need for social belongingness as the second mediator, liking intention as the dependent variable, and hedonic motive as a first-stage moderator. A full report of all results is presented in Figure 1.5. Usage frequency was also included as the covariate variable.

First, the results show that the effect of the appeal type on perceived warmth was significantly moderated by hedonic motive ($B = .85$, $SE = .29$, 95% CI [.27, 1.43]). Participants in the personification (vs. non-personification) appeal condition had higher perceptions of brand warmth when their hedonic motive was high (1 SD above the mean; $B = 3.18$; $SE = .43$; 95% CI [2.33, 4.02]), but the effect of the appeal type on perceived warmth was attenuated when hedonic motive was low (1 SD below the mean; $B = 1.39$; $SE = .42$; 95% CI [.54, 2.23]). Second, perceived warmth had a significant positive effect on need for social belongingness ($B = .53$, $SE = .09$, 95% CI [.35, .71]), which in turn led to stronger liking intention ($B = .395$, $SE = .11$, 95% CI [.18, .61]). Finally, the serial indirect effect through perceived warmth and need for social belongingness was significantly moderated by hedonic motive (index of moderated mediation = .18, $SE = .10$, 95% CI

[.004, .379]). In other words, the personification appeal → perceived warmth → need for social belongingness → liking intention path was significantly positive and greater for the participants with high hedonic motive (B = .29, SE = .15, 95% CI [.08, .65]); B = .48, SE = .18, 95% CI [.16, .86]; B = .66, SE = .25, 95% CI [.21, 1.20]) at three levels of hedonic motive (1SD below the mean; mean; 1 SD above the mean). There was no significant effect of the covariate (usage frequency) on the mediator or the dependent variable because all confidence intervals include zero. Taken together, these results supported *H4* that the serial mediation effect is stronger for the consumers with high (vs. low) hedonic motive.

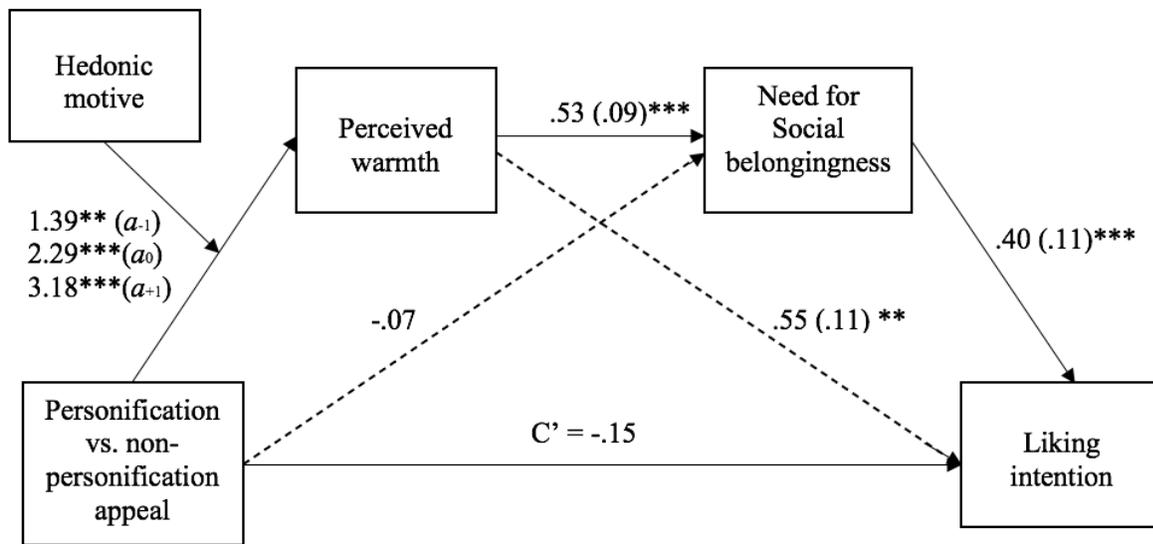


Figure 1. 5 Study 3 results: Moderated mediation

Note. Moderated multiple mediation analysis with 5,000 bootstrap samples (model 83 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$. The three parameter estimates on the left of the figure indicate the conditional effects of personification appeal at 1 SD below the mean (a_{-1}), mean (a_0), and 1SD above the mean (a_{+1}) of hedonic motivation

The index of moderated mediation was significant (B = .18, SE = .10, 95% CI [.004, .379]).

The indirect effect through perceived warmth and social belongingness was significant at three levels of the moderator:

1 SD below the mean: B = .29, SE = .15, 95% CI [.08, .65]

Mean: B = .48, SE = .18, 95% CI [.16, .86]

1 SD above the mean: B = .66, SE = .25, 95% CI [.21, 1.20].

General discussion

Across three studies using different product categories, the current research has demonstrated that a personification (vs. non-personification) appeal featured in a brand posting leads to a higher level of consumer engagement on social media. More importantly, the underlying mechanisms have been uncovered. Specifically, the brand posting featuring a personification (vs. non-personification) appeal induces higher perceptions of brand warmth, which in turn strengthens the need for social belongingness, thus leading to stronger liking intention (Study 1 and Study 2). Further, the current research identifies a moderator from the perspective of consumer characteristics. Specifically, the serial mediation effect of the personification appeal on consumer engagement is enhanced by consumer hedonic motive, such that when consumers have high (vs. low) hedonic motive to approach social media activities, they perceive the brand warmer when exposed to the personification (vs. non-personification) appeal and show stronger need for social belongingness, thus exhibiting their higher liking intention (Study 3).

Theoretical contributions

The current work makes contributions to several streams of literature. It has extended personification effects in advertising to the social media context, confirming the previous findings that brand personification, particularly the textual content, is effective in engaging consumers (Chen et al. 2015). While prior research in advertising shows that visual personification without verbal cues in a print ad can trigger anthropomorphism, thus evoking positive attitudes towards the ads and increasing purchase likelihood (e.g., Delbaere et al. 2011; Phillips and Goyerick 1999), the current research demonstrates the alternative dimension of personification — verbal personification without visual cues — can elicit high perceptions of brand warmth, which in turn strengthens the need to belong, thus increasing consumer engagement.

The current research also expands the literature on anthropomorphism and its effect on consumer behavior. While prior research on anthropomorphism has demonstrated that anthropomorphism of a brand/product through verbal/visual cue or both leads to positive evaluations (Aggarwal and McGill 2007; Touré-Tillery and McGill 2015), undermines self-control (Hur et al. 2015), affects materialistic consumers' brand preference for a servant brand (Kim and Kramer 2015), or leads to consumer behavior consistent with anthropomorphized partner brands (Aggarwal and McGill 2012), the current research broadens the knowledge of anthropomorphism

by exploring another consequence resulting from anthropomorphism — consumer engagement on social media. While prior research has found that socially excluded consumers prefer anthropomorphized brands via need for social affiliation (Chen et al. 2017), and that engaging with anthropomorphic products can reduce social exclusion effects via need for social assurance (Mourey et al. 2017), the current research offers a deeper understanding by identifying perceived warmth as a mediating role in the relationship between anthropomorphism and need for social belongingness. Moreover, the current work has ruled out an alternative explanation that need for social belongingness leads consumers to perceive the brand to be warmer, consequently increasing liking intention.

Further, the current work enriches the Stereotype Content Model by identifying the antecedent (verbal personification) and the consequence (consumer engagement) in the context of social media. The findings confirm the important role of warmth in social media behavior by demonstrating perceptions of brand warmth heighten users' need for social belongingness, which in turn leads to liking intention towards the brand posting. The current work also contributes to the literature on digital consumer engagement. While previous research has identified anthropomorphic processing/responses or positive emotions as an underlying mechanism that drives consumer engagement or positive attitudes towards the brand and ads, the current research offers a different lens to uncover a psychological process whereby perceptions of warmth and need for social belongingness serially mediate the effect of a personification-appeal brand posting on consumer engagement. As such, the current work offers a more nuanced understanding of consumer engagement on social media. Further, the current research does not limit verbal personification to personal pronouns and imperative verbs, which are emphasized by prior research (Chen et al. 2015; Kwon and Sung 2011); rather, it adopts a metaphorical transfer of turning an inanimate brand into a person in Study 1 (e.g., a coffee brand's note), thus offering broader insight into verbal personification.

Finally, the confirmed moderated serial mediation results contribute to well-being theory. While prior research on well-being focuses more on the link between hedonic-eudaimonic motive and media consumption or entertainment such as TV programs, films, and video games (e.g., Igartua and Barrios 2013; Oliver and Raney 2011; Odağ et al. 2018; Tamborini et al. 2010), the current research extends the theory to the context of consumer behavior on social media. Specifically, the current work demonstrates that consumers with high hedonic motive perceive the

brand to be warmer when exposed to the brand posting featuring personification (vs. non-personification) appeal, thus exhibiting stronger need for social belongingness and higher liking intention. Therefore, the current research sheds light on well-being theory by demonstrating the interactive effect of hedonic motive and personification-appeal brand posting on consumer engagement.

Managerial implications

The current research provides evidence that a personification appeal featured in a brand posting can be an effective persuasive tactic. In particular, the current work offers practitioners or brand managers guidance on whether the product should be imbued with human characteristics or featured in a humanlike context. While prior research demonstrates that visual personification without verbal cues can enhance advertising effectiveness, the present research reveals that verbal personification can also be a powerful tool to trigger consumers' perceived warmth of a specific brand, thus enhancing their engagement with the brand on social media. Brand postings usually feature vivid pictures of products or advertising videos on social media such as Facebook and Instagram, together with a large amount of content and information, posing a great distraction (Hughes et al. 2019). Thus, marketers may adopt verbal personification in a concise way to achieve the goal of effectively engaging their consumers on social media, as the current findings demonstrate.

While prior research shows that consumer engagement on social media can be driven by characteristics of the content such as entertainment and vividness (Cvijikj and Michahelles 2013), content with high arousal emotions (Berger and Milkman 2012), networked narratives and the tone of the content (Wang et al. 2017), and postings featuring positive emotions (Tellis et al. 2019), the current research reveals that verbal personification can be an important driver of consumer engagement because it triggers consumer perceptions of brand warmth and need for social belongingness.

Although the current research draws on SCM in the domain of social psychology by proposing perceived warmth as a mediator, warmth is also a positive emotion, which can be triggered by an advertisement, and can lead to positive responses such as ad liking, purchase intentions, and ad recall. (Aaker et al. 1986). However, analyzing the sample of 79 brands' YouTube ads, Tellis et al. (2019) have found that marketers have failed to optimize the effect of positive emotions on

consumer sharing (e.g., 45% of the ads were emotion-focused). Given that brand personality-related content plays a key role in long-term brand building (Lee et al. 2019), the current research suggests that marketer should amplify the positive impact of warmth perceptions on digital consumer engagement by manipulating the brand posting with human characteristics. The stimuli used in the current research and the findings indicate that verbal personification includes but is not limited to personal pronouns or imperative verb forms, and thus marketers can use a variety of metaphors to achieve personification effects.

Further, need for social belongingness is a primary motivation driving individuals' use of social media (Nadkarni and Hofmann 2012), which should also be an inherent force driving consumer interaction with the brand and brand postings. Particularly during the pandemic and post-pandemic time, need for social belongingness would compensate for long-time loneliness or anxiety caused by social distancing and lockdown measures. Therefore, it is strongly suggested that practitioners or marketers adopt personification strategies through verbal cues to trigger perceptions of brand warmth, which in turns enhances users' need for social belongingness, thus increasing their engagement.

Finally, the current research might offer implications for competent brands. The marketers can manipulate brand postings with personification appeals to increase consumer engagement through perceived warmth and need for social belongingness. For example, BMW, Prada, and Louis Vuitton brands who are perceived to be sophisticated and competent, can create personification-appeal content to engage with their brand page followers, particularly in this unprecedented time when most of countries are imposing social distancing and curfew among citizens. It would be good for competent brands to demonstrate their social or psychological caring or support to their followers or fans on social media.

Limitations and future research

The current research focuses on one of the SCM dimensions as a mediator — warmth. However, omission of one dimension (competence) in advertising leads to negative brand attitudes (Peter and Ponzi 2018). Moreover, warmth and competence constitute four quadrants (Kervyn et al. 2012), and thus some brands can land in the “golden quadrant” by enjoying reputations of both warmth and competence (Aaker et al. 2012) or they can land in other quadrants such as the warm-incompetent or cold-competent quadrant (Kervyn et al. 2012). Further, the anthropomorphism

literature suggests that brands can be perceived as a servant who shows caring or as a partner who collaborates with the consumer to achieve personal goals (Aggarwal and McGill 2012), corresponding to warmth and competence perceptions, respectively. Thus, future research may test how these two dimensions interact in the relationship between the personification-appeal brand posting and consumer engagement.

Second, while the current research examines the moderating role of hedonic motive, there might be other factors playing out such as cultural values, which have strong effects on consumer response to advertising (Zhang and Neelankavil 1997; Hatzithomas et al. 2011). For example, American participants prefer the ads with individualistic appeals whereas Chinese participants prefer collectivistic appeals (Zhang and Neelankavil 1997). Moreover, culture influences anthropomorphism by shaping norms and ideologies about how individuals relate to others (Epley et al. 2007). As such, future research may explore whether collectivist consumers have a higher level of warmth perceptions and stronger need for social belongingness than individualist consumers when exposed to the personification-appeal content.

Third, two fictitious brands were used in our studies without considering brand familiarity in the real business world. In other words, consumers might be familiar with some brands or unfamiliar with others or totally new brands. “Approximately 23.1 million consumers between 13 and 80 years of age use social media to discover new brands or products, and 22.5 million people use social media to learn about unfamiliar brands or products” (Naylor et al. 2012, p. 116). As such, future research can replicate the findings using real brands to explore whether and how brand familiarity moderates the effect of personification-appeal content on consumer engagement.

Fourth, the types of social media platforms and audience are not considered in this research, posing another limitation. There are various types of social media platforms such as Facebook, Instagram, Twitter, Tiktok, and WeChat. The current research only used Facebook and Twitter in all the studies. Will different social media platforms alter the findings? Future research may examine the moderating role of platform differences. Audience on social media consists of “narrow/wide, and core/non-core fans on a social media platform” (Stephen et al. 2015, p. 39). Core fans are defined as the consumers who actively follow a particular brand, frequently engage with the brand postings, and are more likely to be actual consumers (Stephen et al. 2015). As such, personification-appeal content might work better for non-core fans than core fans because consumers may not be able to draw from their previous experiences when exposed to the

personification-appeal content of a brand they are following (Rosengren et al. 2020). Alternatively, personification-appeal content may trigger higher engagement among core fans because they have already developed consumer-brand relationships or brand affinity. Whether the audience type will enhance or attenuate the effect of personification-appeal content on consumer engagement is worthwhile to explore in future research.

Finally, the current research only focuses on *likes* as the dependent variable; however, the number of *likes*, comments, and shares constitute the metrics of consumer engagement (Chang et al. 2019; Lee et al. 2018). Prior research has demonstrated that sensory and visual cues lead to *likes* whereas rational, sensory, visual cues lead to shares (Kim and Yang 2017). Thus, future research can explore when and how personification-appeal content can lead to shares and *likes*. The current research did not examine the downstream outcomes of consumer engagement, posing another limitation. Future research may include brand attitude, purchase intentions, and self-brand connections (Escalas and Bettman 2003) as the downstream consequences. I believe that future research pursuing to address these limitations would provide a broader and rich understanding of consumer engagement on social media and insightful managerial implications.

Transition from Essay 1 to Essay 2

Essay 1 explores the effect of a personification (vs. non-personification) appeal featured in a brand posting on consumer engagement such that a personification appeal triggers consumers' warmth perceptions of the brand, which in turn heightens their need for social belongingness, thus increasing their engagement with the brand. The research also identifies a boundary condition of consumer hedonic motive, which enhances the serial mediation effect observed. As discussed in the section of limitations and future research, downstream consequences of consumer engagement should be further investigated, and other moderators can be identified.

Therefore, *Essay 2* continues to pursue these research questions by examining the downstream outcome of consumer engagement triggered by a personification appeal and identifying brand familiarity as another boundary condition from the perspective of brands rather than consumers. More specifically, drawing on the literature on self-brand connections and digital extended self, *Essay 2* explores whether a personification (vs. non-personification) appeal featured in a brand posting leads to a higher level of self-brand connections via perceived warmth and consumer engagement. Further, building on the advertising creativity theory, *Essay 2* examines whether the effect of a personification appeal on consumer engagement via perceived warmth and need for social belongingness observed in *Essay 1* will be stronger for a familiar or unfamiliar brand. Taken together, these two essays, focusing on a personification appeal featured in a brand posting, contribute to several streams of literature: brand personification, warm-competent Stereotype Content Model, social belongingness, well-being, digital extended self, self-brand connections, and advertising creativity. Two essays offer significant implications for marketers who are increasingly leveraging social media to connect their brands with consumers and cultivate online brand communities.

Chapter 2: The Moderating Role in Online Consumer Engagement (Essay 2)

Abstract

This essay extends the previous findings observed in *Essay 1* by exploring the downstream consequence of consumer engagement resulting from a personification (vs. non-personification) appeal and identifying another important boundary to the serial mediation effect. Two studies were conducted to test all the hypotheses. Study 1 shows that a personification-appeal brand posting triggers perceived warmth, which in turn increases consumer engagement, thus facilitating self-brand connections. Study 2 demonstrates that the serial mediation effect of a personification appeal on consumer engagement via perceived warmth and need for social belongingness is contingent on brand familiarity. In other words, the effect is stronger for an unfamiliar brand than for a familiar brand.

Introduction

“All this content forms a rich collection that reflects who you are and what you think... When others respond with a comment or retweet, they’re adding value to your collection. As more family photos, home movies, and email messages are created, the entire collection becomes a fuller reflection of you”
(Carroll and Romano 2011, p. 3).

While the conceptualization of extended self was proposed by Belk (1988), suggesting that what we possess contributes to and reflect our identities, the wave of digital technology, including emails, social media, smart phones, and applications, has transformed our daily life, thus leading to the formation of digital extended self. Distinct from the original concept of extended self, *digital extended self* features “dematerialization (e.g., electronic books, photos, music, or consumption), re-embodiment (e.g., avatar), sharing (e.g., sharing images, information, films, or music.), co-construction of self (e.g., affirmation and aggregation from friends and lovers), and distributed memory (e.g., online or outsourcing memory)” (Belk 2013, p. 477). Further, in the digital world, an individual’s content is connected to others, intentionally or unintentionally, within a content ecosystem (Carroll and Romano 2011). Similarly, when brands post content on their brand pages

such as Facebook, Twitter, or Instagram, their followers (consumers) click “like”, comment, share, or retweet to interact with the content. Such activities are visible to their social media friends or are even imitated through like, comment, share, or retweet in this connected digital world. “Liking” a specific posting is a typical self-presentation behavior, contributing to creating and maintaining one’s online social capital (Ellison et al. 2007). Social capital refers to “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu and Wacquant 1992, p. 14).

Resonant with the notion that the content an individual posts is a reflection of this person, my argument is made that liking, sharing, retweeting, or commenting on specific content reflects what the person is and what he/she thinks. Consequently, I propose that by engaging with a certain brand posting, the connections between the brand and consumers are strengthened in a way similar to interpersonal communication, particularly when the brand is perceived to be humanlike, because consumers exhibit positive affect towards this humanlike brand (Chen et al. 2015). Thus, extending the previous findings observed in *Essay 1*, I explore the downstream outcome of consumer engagement resulting from a personification appeal, such as self-brand connections, which captures the extent to which an individual has extended a brand into his/her self-concept (Escalas and Bettman 2003).

Further, in *Essay 1*, I have demonstrated that a personification appeal featured in a brand posting triggers warmth perceptions, which in turn heighten the need for social belongingness, thus increasing consumer engagement. However, would this serial mediation effect apply to all brands? Prior research in advertising has found that consumers respond to advertising differently according to familiarity (Machleit et al. 1993; Sethuraman et al. 2011). More specifically, advertising is more persuasive for an unfamiliar brand than a familiar brand, because consumers are unable to draw from their own previous experiences or other’s when exposed to unfamiliar brands (Machleit et. al. 1993; Rosengren et al. 2020; Sethuraman et al. 2011). Thus, to address the limitation regarding potential moderators pointed out in *Essay 1*, the current research further investigates whether the effect of personification appeal on consumer engagement via perceived warmth and need for social belongingness will be amplified in the presence of brand familiarity.

Thus, the objective of the essay is twofold. First, I explore whether a personification (vs. non-personification) appeal will lead to self-brand connections via perceived warmth and consumer

engagement. Second, I examine when the serial mediation effect of a personification appeal on consumer engagement via perceived warmth and need for social belongingness will be strengthened. The rest of the essay is structured as follows. First, hypotheses are developed from the literature review on self-brand connections, digital extended self, consumer engagement, and brand familiarity. Then research design and findings are presented, followed by general discussion, theoretical implications, and managerial implications. Finally, limitations and future research are discussed.

Conceptual background and hypotheses development

Self-brand connections and digital extended self

Our possessions significantly reflect our identities (Belk 1988), and thus we (consumers) use or experience brands or products to project desired self-images and enhance self-concept (McCracken 1986; Sirgy 1982; Zinkhan and Hong 1991). Prior consumer research has demonstrated that consumers gain psychological and symbolic benefits from their possessions, thus construing their self-concept, enhancing and presenting self-identity, and making distinct from peers and emphasizing their individuality (e.g., Ball and Tasaki 1992; Belk 1998; Wallendorf and Arnould 1988).

Applying these findings to brands, recent research suggests that consumers project their self-identity and express themselves through the consumption of brands or products based on the congruity between self-image and brand-used image (Escalas and Bettman 2003; Fournier 1998). Thus, a young consumer may use Apple iPhones to fit in with their peers, whereas another may wear Lululemon to differentiate him/herself from an outgroup of non-yogis/yoginis. A senior consumer may take a luxury cruise to indicate his/her superiority and leisure life after retirement, whereas a middle-aged consumer drives a BMW car to project his/her personal achievements. Therefore, self-brand connections are formed, capturing “the extent to which individuals have incorporated a brand into their self-concept” (Escalas and Bettman 2003, p. 340). The value and meaning of a brand not only allow consumers to engage in self-presentation but help them to construe their self-identities through the formation of self-brand connections, which constitute an important facet of consumers’ self-concept (Escalas and Bettman 2003).

The construct of “extended self” captures which is perceived as “me” (the self), and which is perceived as “mine” (James 1890) and “to a large degree, we are what we have and possess” (Tuan 1980, p. 472). The construct of extended self remains alive and active in the digital world (Belk 2013), because “All this content forms a rich collection that reflects who you are and what you think... When others respond with a comment or retweet, they’re adding value to your collection. As more family photos, home movies, and email messages are created, the entire collection becomes a fuller reflection of you” (Carroll and Romano 2011, p. 3). Therefore, social media users construe their social identities or express themselves not only by posting content but by engaging with a specific brand through *likes*, comments, shares, and retweets. In other words, we are what we post, like, comment on, share, or retweet in the digital world.

Perceived warmth and self-brand connections

As discussed in *Essay 1*, warmth-competence Stereotype Content Model (SCM) has been applied to brands and companies, because consumers relate to brands in the similar way that they relate to people (Fournier 1998). For example, perceived warmth and competence of real brands such as McDonald’s, Burger King, and Tropicana affect consumers’ purchase intentions (Bennett and Hill 2012). Prior research demonstrates that warmth and competence predict individuals’ emotional responses towards others such as admiration, pride, pity, and envy (Cuddy et al. 2008; Fiske et al. 2002). Extend these findings to consumer research, Kervyn et al. (2012, p. 166) have developed “Brands as Intentional Agents Framework (BIAF)”, based on which the authors categorize brands into four types (i.e., popular brands, troubled brands, paternalized brands, and envied brands), corresponding to emotions of admiration, contempt, pity, and envy, respectively. Further, Ivens et al. (2015) have found that warmth and competence stereotypes of brands trigger these four types of emotions, thus influencing consumer attitude towards the brand and behavioral intention. Perceived warmth has a positive impact on consumer-brand identification, attitude towards the ads, and purchasing pleasure of brands (Jeong and Kim 2021). As discussed in *Essay 1*, warmth perceptions can be triggered when a brand is personified in human form. Synthesizing these findings, I argue that perceived warmth of the brand evokes positive emotions in consumers and foster the connections or emotional bonds between the consumer and the brand. More specifically,

H1. Compared with a non-personification appeal, a personification appeal featured in a brand posting triggers perceived warmth, thus strengthening self-brand connections.

The mediating role of online consumer engagement

Online consumer engagement is conceptualized as “the cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value” (Mollen and Wilson 2010, p. 5). Some researchers use consumer brand engagement on social media (Hollebeek et al. 2014), whereas others use digital (consumer) engagement (Gavilanes et al. 2018; Yoon et al. 2018). Notwithstanding, the operationalization of the construct remains the same, including *likes*, comments, shares, or retweets. Research on social media marketing has demonstrated that consumer brand engagement with social networking sites positively affects self-brand connections (Hollebeek et al. 2014). More recent research has found that gamified interactions increase brand engagement involving the dimensions of emotions and cognition, thus facilitating self-brand connections (Berger et al. 2018). Further, consumer brand engagement positively affects self-brand connections and intention to use a branded tourism site (Harrigan et al. 2018). In *Essay 1*, I have demonstrated that a personification appeal triggers perceived warmth, which in turn increases consumer engagement. Synthesizing these findings, I therefore examine the downstream consequences of consumer engagement resulting from a personification appeal. More specifically, I propose that perceived warmth and consumer engagement serially mediate the relationship between a personification appeal and self-brand connections (see Figure 2.1 for research model 1). Formally,

H2. Compared with a non-personification appeal, a personification appeal featured in a brand posting triggers perceived warmth, which in turn leads to a higher level of liking intention, thus strengthening self-brand connections.

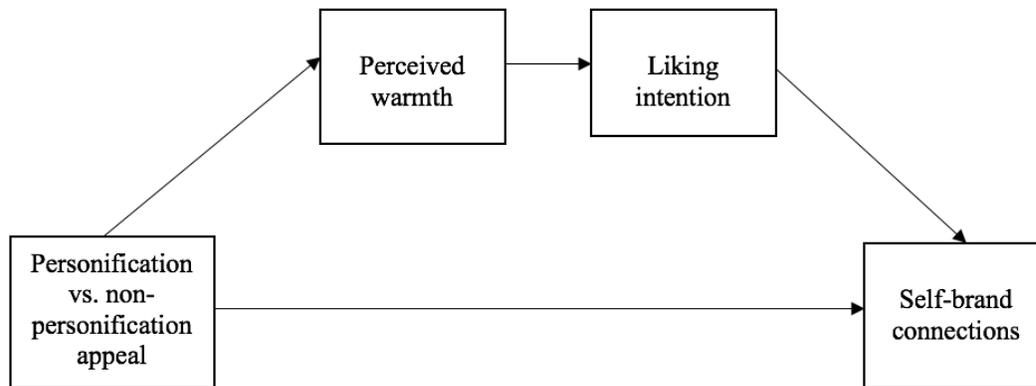


Figure 2. 1 Research model 1

The moderating role of brand familiarity

Brand familiarity is considered as another potential moderating role in the current research, as it has been found to impact the advertising effectiveness in prior research. Familiarity captures the extent to which consumers have direct or indirect experience with a stimulus such as a brand or a product (Alba and Hutchinson 1987; Campbell and Keller 2003). Prior research in advertising has demonstrated that the advertising is generally more effective for unfamiliar than familiar brands, because consumers are unable to draw from their own previous experiences or others' during the exposure to unfamiliar brands (Rosengren et al. 2020; Machleit et. al. 1993; Sethuraman et al. 2011).

While Campbell and Keller (2003) have found that advertising repetition decreases effectiveness for unfamiliar brands, recent research, focusing on advertising creativity, which is defined as originality and appropriateness (Rosengren et al. 2020), has found that brand familiarity plays a role in the relationship between advertising creativity and consumers' responses to the ad (Chen et al. 2016; Pieters et al. 2002). For example, Chen et al. (2016) have found that advertising creativity has more positive effects during the first exposure and then resists wear-out after more exposure. Rosengren et al.'s (2020) meta-analysis results show that the effect of advertising creativity on consumers response to the ad is marginally stronger for unfamiliar brands, due to its attention-getting nature (Pieters et al. 2002). Given that personification is a metaphor used in advertising, reflecting the originality and appropriateness, together with the fact that brand postings are not repetitive themselves but will soon be replaced by new ones (i.e., immediate wear-

in effect), it is expected that the similar effect will occur for unfamiliar (vs. familiar) brands. Specifically, the effect of a personification appeal on consumers' warmth perceptions of a given brand is contingent on brand familiarity, thus affecting consumer engagement. Therefore, a first stage moderated serial multiple mediation is hypothesized (Hayes 2015; see Figure 2.2 for research model 2):

H3. Brand familiarity moderates the serial mediation effect through perceived warmth and need for social belongingness, such that for an unfamiliar (vs. familiar) brand, a personification (vs. non-personification) appeal featured in a brand posting triggers higher perceived warmth, which in turn leads to stronger need for social belongingness, consequently increasing liking intention.

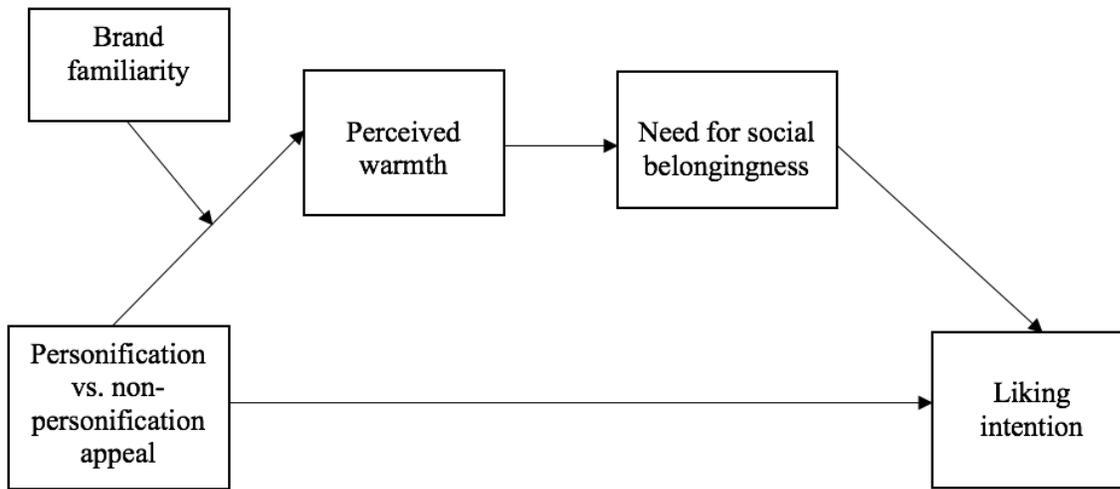


Figure 2. 2 Research model 2

Overview of studies

Two studies were conducted to test the proposed research models. Study 1 tested the serial mediation effect of a personification (vs. non-personification) appeal on self-brand connections via perceived warmth and consumer engagement. In Study 2, a real brand and a fictitious brand were used to test that the serial mediation effect is amplified when the brand is unfamiliar rather than familiar.

Research design and findings

Study 1

The objective of Study 1 is twofold. First, it replicates the mediation effect observed in *Essay 1* using a real brand “Starbucks”. Second, it explores the downstream outcome of consumer engagement resulting from a personification appeal featured in a brand posting. More specifically, I examine whether a brand posting featuring a personification (vs. non-personification) appeal strengthens self-brand connections via perceived warmth and liking intention.

Method

Participants and procedure. One hundred and fifteen undergraduate students from a North American university were recruited to participate in the study in exchange for course credit. All the responses were valid except for one respondent who did not have a social media account and thus was removed ($N = 114$, female = 53.5%; $M_{\text{age}} = 21$). Participants were randomly assigned one of the two conditions: a personification or non-personification appeal. They read a posting from a real coffee brand “Starbucks” on Facebook. Participants in the personification appeal condition read, “It’s new day. You got this. Love, coffee.” Participants in the non-personification appeal condition read, “It’s a new day. You got coffee” (See Appendix D.). After reading the brand posting, they answered how likely they would click the “like” button for the brand posting to assess their liking intention as the second mediator. Afterwards, I measured perceived warmth of the coffee brand as the first mediator using a 3-item scale adapted from Grandey et al. (2005) such as “I find the brand is warm/generous/friendly” ($\alpha = .81$). 7-item self-brand connections were measured as the dependent variable and the scale was adopted from Escalas and Bettman (2003), including “This brand reflects who I am,” “I can identify with this brand”, “I feel a personal connection to this brand”, “I use this brand to communicate who I am to other people”, “I think this brand helps me become the type of person I want to be”, “I consider this brand to be ‘me’”, and “This brand suits me well”. Then the level of personification ($\alpha = .95$) was measured as a manipulation check with the same scale used in *Essay 1*, which is the adapted 3-item scale developed by Hart and Royme (2017). All the scales were 7-point Likert (1 = strongly disagree, 7 = strongly agree). Participants’ frequency of using social media accounts was also measured as a covariate.

Results

Manipulation checks. One-way ANOVA was conducted to confirm that the brand in the personification appeal condition ($M = 4.93$, $SD = 1.30$) was perceived to be more like a human than the same brand in the non-personification appeal condition ($M = 4.35$, $SD = 1.51$, $F(1, 112) = 4.88$, $p = .029 < .05$). Thus, the manipulation of personification was effective.

Mediation analysis. I performed a mediation analysis in PROCESS (5,000 bootstrapped samples; Model 4; Hayes, 2013) with the appeal type as the independent variable, perceived warmth as the mediator, and self-brand connections as the dependent variable. Usage frequency was included as a covariate. Estimated path coefficients and results on all indirect effects are reported in Figure 2.3. As expected, a significant indirect effect for the mediation path through perceived warmth ($B = .31$; $SE = .13$, 95% CI [.08, .58]) was observed. The direct effect of the appeal type on self-brand connections was not significant (95% CI = [-.73, .41]), indicating full mediation through perceived warmth, thus supporting *H1* and offering initial evidence that the brand posting with a personification appeal facilitates self-brand connections via perceived warmth. Further, there was no significant effect of the covariate (usage frequency) on the mediator or the dependent variable because all confidence intervals include zero.

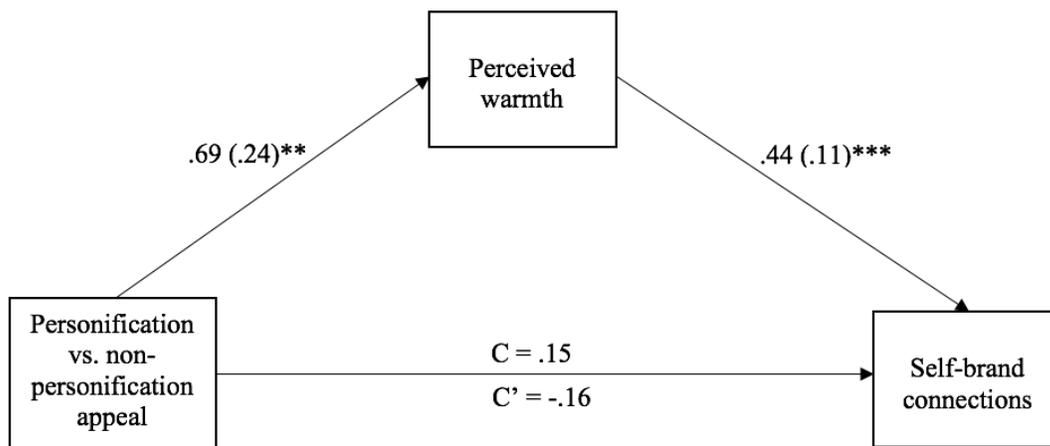


Figure 2. 3 Study 1 results: Mediation

Notes. The mediation analysis with 5,000 bootstrap samples (model 4 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

The indirect effect through perceived warmth (the effect hypothesized in *H1*) was significant ($B = .31$; $SE = .13$, 95% CI [.08, .58]).

Serial mediation analysis. I performed a multiple-step mediation analysis in PROCESS (5,000 bootstrapped samples; Model 6; Hayes 2013) with the appeal type as the independent variable, perceived warmth as the first mediator, and liking intention as the second mediator. Usage frequency was included as a covariate. Estimated path coefficients and results on all indirect effects are reported in Figure 2.4. As expected, there was a significant indirect effect for the serial mediation path through perceived warmth and liking intention ($B = .13$; $SE = .07$., 95% CI [.03, .29]), thus replicating the findings observed in *Essay 1*. As a further check, the analysis with the mediators in reverse order (liking intention and perceived warmth) was conducted. The indirect effect was not significant when both mediators were reversed (95% CI [-.02, .09]). Again, there was no significant effect of the covariate (usage frequency) on the mediator or the dependent variable because all confidence intervals include zero.

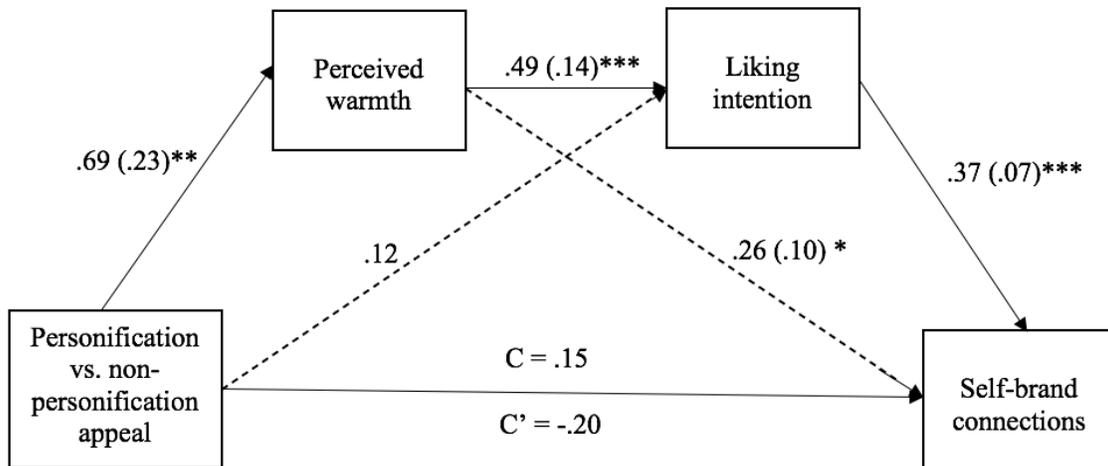


Figure 2. 4 Study 1 results: Serial mediation

Note. Serial mediation analysis with 5,000 bootstrap samples (model 6 in PROCESS; Hayes 2013). Coefficients significantly different from zero are indicated by asterisks ($*p < .05$; $**p < .01$; $***p < .001$).

The total indirect effect was significant ($B = .35$; 95% CI [.03, .67]).

The indirect effect through perceived warmth and liking intention (the effect hypothesized in *H2*) was significant ($B = .13$; 95% CI [.03, .29]).

The indirect effect through perceived warmth was significant ($B = .18$; 95% CI [.04, .38]).

The indirect effect through liking intention was not significant ($B = .04$; 95% CI [-.23, .33]).

Study 2

The objective of Study 2 is to explore whether brand familiarity moderates the positive effect of personification (vs. non-personification) appeal on consumer engagement via perceived warmth and need for social belongingness. More specifically, I expect that the serial mediation effect is stronger for an unfamiliar brand than for a familiar brand.

Method

Participants and procedure. Two hundred and twenty-seven undergraduate students from a North American university were recruited to participate in the study in exchange for course credit. After screening out three participants who did not have any social media accounts, I kept all the other valid responses ($N = 224$, female = 50%; $M_{age} = 21$). Participants were randomly assigned one of the four conditions in a 2 (personification vs. non-personification appeal) \times 2 (familiar vs. unfamiliar brand) between-subjects design. Starbucks coffee brand was used in the condition of a familiar brand and Lorium coffee brand in the condition of an unfamiliar brand. The brand posting was identical in two appeals. The procedure was similar to that of Study 1 and stimuli were the same used in *Essay 1* and Study 1 in *Essay 2*. Perceived warmth ($\alpha = .88$), need for social belongingness ($\alpha = .89$), and the level of personification ($\alpha = .93$) were measured as a manipulation check. Then, one-item scale of brand familiarity was adopted as a manipulation check (i.e., How familiar are you with the coffee brand? 1= not at all familiar, 7= extremely familiar). Participants provided their demographics at the end of the questionnaire. All scales were 7-point Likert.

Results

Manipulation checks. One-way ANOVA was conducted to confirm that the brands in the personification appeal condition ($M = 4.86$, $SD = 1.57$) was perceived to be more like a human than the same brands in the non-personification appeal condition ($M = 3.98$, $SD = 1.75$, $F(1, 222) =$

15.62, $p = .000 < .001$). Thus, the manipulation of personification was successful. Further, one-way ANOVA analysis shows that participants in the condition of a familiar brand scored much higher regarding the brand familiarity than those in the condition of an unfamiliar brand ($M_{\text{familiar}} = 6.33$, $SD = 1.04$; $M_{\text{unfamiliar}} = 1.40$, $SD = 1.17$; $F(1, 222) = 1121.37$, $p = .000 < .001$).

Moderated mediation analysis. The current work proposes a first stage interaction between the appeal type and brand familiarity, such that the effect of the personification (vs. non personification) appeal on perceived warmth is stronger for an unfamiliar (vs. familiar) brand. I conducted a two-way ANCOVA analysis with the appeal type as the independent variable, brand familiarity as the moderator, perceived warmth as the dependent variable, and usage frequency as a covariate. The results showed that the main effect of the appeal type on perceived warmth ($F(1, 219) = 37.76$, $p = .000 < 0.001$) was significant but the main effect of brand familiarity was not significant ($p = .217 > 0.1$). As expected, there was an interaction effect between the personification appeal and brand familiarity ($F(1, 219) = 5.76$, $p = .017 < .05$). In addition, usage frequency did not have a main effect on perceived warmth ($p = .129 > .05$). In support of the proposed hypotheses, planned contrasts revealed that, in the personification appeal condition, an unfamiliar brand led to a higher level of perceived warmth than did a familiar brand ($M_{\text{unfamiliar}} = 5.83$ vs. $M_{\text{familiar}} = 5.16$; $F(1, 219) = 6.56$, $p = .011 < .05$). However, in the non-personification appeal condition, there was no difference in perceived warmth between two brands ($M_{\text{unfamiliar}} = 4.26$ vs. $M_{\text{familiar}} = 4.47$; $F(1, 219) = .68$, $p = .41 > .05$).

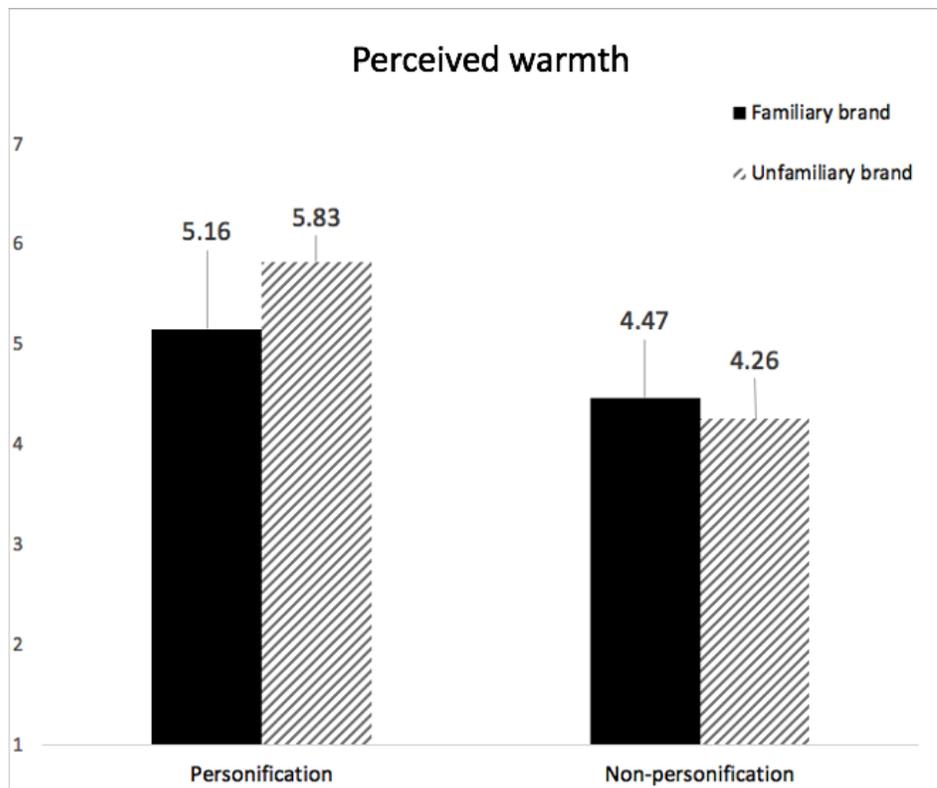


Figure 2. 5 Study 2 results: The interaction effect of personification (vs. non-personification) appeal and brand familiarity on perceived warmth

Thus, I proceeded to test the full model by conducting a moderated serial mediation analysis (PROCESS Model 83; Hayes 2013), with the appeal type (personification = 1, non-personification = 0) as the independent variable, perceived warmth as the first mediator, need for social belongingness as the second mediator, liking intention as the dependent variable, and brand familiarity (unfamiliar =1, familiar =0) as a first stage moderator. A full report of all results is presented in Figure 2.6. Usage frequency was included as the covariate variable.

First, the results showed that the effect of the personification appeal on perceived warmth was significantly moderated by brand familiarity ($B = .88$, $SE = .37$, 95% CI [.16, 1.61]). Perceived warmth had a significant positive effect on need for social belongingness ($B = .33$, $SE = .07$, 95% CI [.20, .46]), which in turn had a significant positive effect on liking intention ($B = .60$, $SE = .08$, 95% CI [.44, .77]). As expected, the indirect effect through perceived warmth and need for social belongingness was significantly moderated by brand familiarity (index of moderated mediation = .17, $SE = .09$, 95% CI [.03, .37]), confirming the hypothesized moderated mediation effect. More importantly, the indirect effect was stronger when the brand was unfamiliar ($B = .31$, $SE = .10$,

95% CI [.15, .52]) than when the brand was familiar ($B = .14$, $SE = .06$, 95% CI [.04, .27]). Taken together, the results support $H3$ that the serial mediation effect of the personification appeal on consumer engagement is stronger for an unfamiliar brand than for a familiar brand.

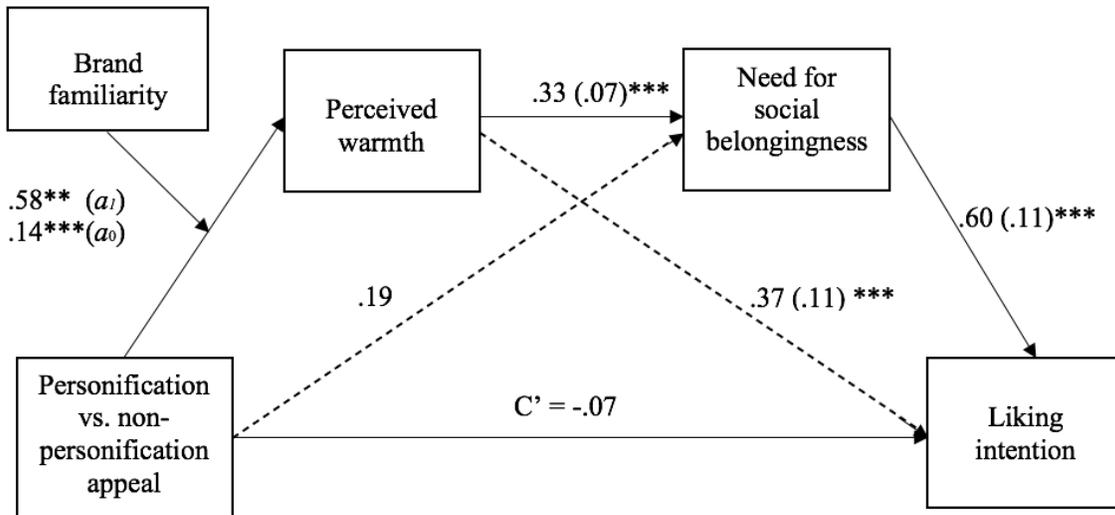


Figure 2. 6 Study 2 results: Moderated mediation

Note. Moderated multiple mediation analysis with 5,000 bootstrap samples (model 83 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$. The two parameter estimates on the left of the figure indicate the conditional effects of personification appeal when the brand is unfamiliar (a_1), and when the brand is familiar (a_0)

The index of moderated mediation was significant ($B = .17$, $SE = .09$, 95% CI [.03, .37])

The indirect effect through perceived warmth and social belongingness was significant at two levels of the moderator:

Unfamiliar: $B = .31$, $SE = .10$, 95% CI [.15, .52])

Familiar: $B = .14$, $SE = .06$, 95% CI [.04, .27])

General discussion

Across two studies using real and fictitious brands, the current work explores the downstream outcome of consumer engagement triggered by a personification appeal and another boundary

condition. First, the findings show that the personification (vs. non-personification) appeal evokes perceived warmth, which in turn increases consumer engagement such as liking intention, thus facilitating self-brand connections. Further, the current research demonstrates that the effect of the personification appeal on consumer engagement via perceived warmth and need for social belongingness is contingent on brand familiarity. More specifically, the effect of the personification appeal featured in the brand posting is stronger for an unfamiliar brand than for a familiar brand. In other words, when the brand is unfamiliar (vs. familiar) to the consumers, the personification appeal triggers their higher perceptions of brand warmth, which in turn increases their need for social belongingness, thus leading to a higher level of engagement with the brand posting.

Theoretical contributions

The current research makes several contributions to the existing literature. First, this research enriches the literature on self-brand connections by demonstrating the serial mediation effect of the personification appeal on self-brand connections through perceived warmth and consumer engagement. While most recent research focuses on two dimensions of consumer engagement (i.e., cognition, emotion) and self-brand connections (Berger et al. 2018), the current research focuses on behavioral consumer engagement such as liking intention, thus complementing the previous research and corroborating the previous findings that consumer engagement on social media positively affects self-brand connections (Harrigan et al. 2018). More importantly, the current work uncovers the underlying mechanism driving self-brand connections in the social media context by demonstrating that personification appeal facilitates self-brand connections via perceived warmth and consumer engagement, thus shedding light on the extant literature.

Second, the current research contributes to warmth-competence Stereotype Content Model by showing that perceived warmth functions as the first mediator, along with consumer engagement, serially mediating the relationship between the personification appeal and self-brand connections. This novel finding provides an integrated perspective of SCM, extended digital self, and self-brand connections theories, which has not been explored in prior research, particularly in the domain of social media marketing. An individual's content collection on social media is a reflection of this person and others' comments or retweets enrich this collection (Carroll and Romano 2011). Therefore, consumers construe their social identities or engage in self-presentation not only by

posting content but by engaging with a specific brand through *likes*, comments, shares, and retweets. By doing so, their connections with the brand have been strengthened, as the current research demonstrates.

Finally, the current research contributes to the existing literature on advertising creativity by demonstrating that the serial mediation effect of the personification appeal on consumer engagement is amplified when the brand is unfamiliar to consumers in the social media setting. The current work corroborates the previous findings that advertising effectiveness or elasticity is stronger for unfamiliar brands than for familiar brands (Campbell and Keller 2003; Machleit et al. 1993; Sethuraman et al. 2011). Further, the current research captures the effectiveness of advertising creativity (personification) using consumer engagement rather than ad attitude, and more importantly the research uncovers the underlying mechanisms whereby perceived warmth and need for social belongingness function as serial mediators.

Managerial implications

The current research has significant implications for marketers, particularly digital marketing managers, as brands have increasingly leveraged social media platforms (e.g., Facebook, Twitter, Instagram, or Pinterest) to encourage consumer engagement with the brands, thus yielding word of mouth (WOM) or “earned media” (Grewal et al. 2019). The current research used a real brand “Starbucks” to demonstrate that the personification (vs. non-personification) appeal highlighted in the brand posting facilitates self-brand connections via perceptions of brand warmth and need for social belongingness. As such, digital marketing managers can utilize these findings to foster stronger connections between consumers and brands by encouraging their followers to like, share, retweet, or comment on their content, thus leading to the diffusion of WOM and social sharing. Increasing consumer engagement can be achieved by manipulating the brand posting with personification appeals such as verbal cues, which in turn elicits high warmth perceptions of the brand.

Second, consumers have increasingly referred to social media to acquire knowledge about unfamiliar brands or discover new products or brands (Naylor et al. 2012). Thus, the current findings regarding the moderating role of brand familiarity are particularly important for the marketers who want to promote their new or unknown brands. While Rosengren et al.’s (2020) meta-analysis results show that the impacts of advertising creativity on ad attitude are marginally

stronger for unfamiliar brands ($p < .10$) and there is no statistically significant effect on brand attitudes, the current research demonstrates that the effect of the personification appeal on consumer engagement is stronger for unfamiliar brands. Further, given that platforms such as Facebook are more distracting and cause low-involvement due to the large amount of information provided (Hughes et al. 2019), techniques to achieve attention-grabbing effects are more critical for brands. Thus, marketers of unknown or new brands should invest more in advertising creativity and adopt creativity strategies such as the personification metaphor or other novel ways to achieve the goal of engaging consumers more effectively.

Limitations and future research

This research only focuses on one dimension of consumer engagement such as behavioral dimension, which is operationalized with liking intention, overlooking the other two dimensions (i.e., cognition, emotion) and posing a limitation. Therefore, future research may explore how a personification appeal affects cognitive, emotional, and behavioral dimensions of consumer engagement. Another limitation is that the current work only explores one form of personification such as verbal cues; however, some brand postings combine verbal and visual cues of personification or only use visual cues, as “a picture is worth a thousand words” and leads to a higher level of consumer engagement (Li and Xie 2020, p. 1). As such, it is important to investigate how verbal or visual cues affect consumer engagement respectively or how they jointly affect engagement in future research.

Second, while the current research explores the downstream consequence of consumer engagement triggered by a personification appeal, such as self-brand connections, other downstream outcomes related to consumer behavior might be further examined in future research. For example, does consumer engagement such as *likes*, comments, shares or retweets positively affect purchase intentions or actual purchase behavior or firm performance? Future research may use field data or secondary data (e.g., data scraped from social media platforms, or data of a company’s sales or stock prices) to corroborate the findings observed in this research.

Third, while the current work explores the moderating role of brand familiarity, other factors might also moderate the relationship between the personification appeal and consumer engagement, for example, dimensions of brand personality, which consists of “*Sincerity, Excitement, Competence, Sophistication, and Ruggedness*” (Aaker 1997, p. 347). Will these

dimensions interact with the personification appeal, strengthening, weakening or nullifying the effect of the personification appeal on consumer engagement? For example, *Sophistication* may not resonate with brand warmth, thus possibly weakening the effect of the personification appeal on perceived warmth. Will *Competence* weaken the aforementioned effect? Further, a brand can comfortably land in the “golden quadrant” by sharing both warmth and competence (Aaker et al. 2012), and thus will such “golden quadrant” nature nullify the interaction effect with personification appeals? Pursuing these questions would provide more nuanced understanding of the interaction of brand personality and personification appeals.

Finally, only one product category such as coffee was used in the stimuli, constituting another limitation. Will the findings apply to other product categories such as clothing, cars, jewelry, sportswear or experiential consumption (i.e., Disneyland Park, or La Ronde theme park)? Future research may replicate or extend the current findings to other product categories or experiential brands. Further, only for-profit brands (coffee brands) were used in two studies to demonstrate that the personification appeal featured in a brand posting leads to a higher level of consumer engagement and self-brand connections. Therefore, can these findings also apply to non-profit organizations or brands? What consequences will be if the personification appeal is utilized by non-profit brands, including charities for homeless people or children and government organizations for better health or environment? Will personification appeals promote consumer prosocial behavior such as time/money donations or sustainable and ethical consumption via perceived warmth and consumer engagement? I believe that future research pursuing these questions will offer critical implications for non-profit or government organizations, thus contributing to consumer well-being and our community sustainability.

Transition from Essay 2 to Essay 3

While *Essay 1* and *Essay 2* explore critical roles of the personification appeal, hedonic motive, and brand familiarity in online consumer engagement and the engagement-related downstream consequence such as self-brand connections, consumer cultural identities have not been taken into consideration. Particularly, self-construal, an important cultural construct, has been identified as a moderator and extensively explored in consumer behavior research such as decision making, information persuasion, consumer-brand relationship, and joint consumption. Notwithstanding, little is known about the role of self-construal in online consumer engagement.

Thus, *Essay 3* aims at filling this knowledge gap by introducing a psychological construct “*autonomy-connectedness*”, which can be framed in a brand posting and interact with independent-interdependent self-construal, jointly affecting consumer engagement on social media. Further, building on self-congruity theory, this essay uncovers the underlying mechanism driving this effect. The essay contributes to multiple streams of literature, including autonomy-connectedness, self-construal, and self-congruity by integrating these theories into the context of social media, thus offering marketers insights into the integration of effective message framing and cultural identities priming when communicating with their consumers on social media.

Chapter 4: The Role of Self-Construal in Online Consumer Engagement (Essay 3)

Abstract

While prior research focusing on social media has identified some key factors, which affect online consumer engagement, it has overlooked the role of consumer cultural identities such as self-construal. Although cross-cultural advertising research has found that an advertisement emphasizing individualistic (vs. ingroup) benefits appeals to consumers in an individualistic (vs. collective) culture (country-level), the current research takes a perspective of the individual level and identifies the underlying process in the social media context. Integrating the autonomy-connectedness literature, self-construal theory, and self-congruity theory, the current research examines the interactive effect of autonomy-connectedness appeals and independent-interdependent self-construal on online consumer engagement. Across two studies, the findings show that autonomy-appeal (vs. connectedness-appeal) content increases consumer engagement when independent (vs. interdependent) self-construal is accessible. More importantly, the current work reveals that content self-congruity mediates such an interaction effect on consumer engagement.

Introduction

Marketers often make every effort to link their brands with one or more dimensions of consumer social identity, including gender, ethnicity, or nationality (White et al. 2012). For example, Gillette campaign attempts to link its brand to the identity of male gender using the tagline “The best a man can get”, whereas Secret associates its deodorant brand with the identity of female gender through the tagline “Strong like a woman”. Dunkin Donuts (American brand) connects its brand with the national identity of the U.S. through the tagline “America runs on Dunkin”, whereas global brands such as Gucci, Louis Vuitton, and Burberry attempt to connect the brands with the ethnical or cultural identity of Chinese consumers by incorporating Chinese artifacts, symbols, colors, or characters into their product design (Laroche et al. 2021). From the perspective of consumers, by linking their social identities to a certain brand, consumers show more favorable attitudes towards the brand and its product(s) if congruence occurs between the

brand and a certain dimension of their social identities (Kleine et al. 1993; White et al. 2012) or between the brand and the situationally primed identities (Forehand and Deshpande 2001).

Similarly, in the burgeoning field of social media marketing, companies attempt to connect their brands with cultural identity of their followers. To illustrate, Nike posted “Outplay *yourself*” and “*Only you* can cross *your* finish line” on its Facebook brand page whereas Coca-Cola tweeted “*Sharing* is caring! *Share* Coke with *friends and family* today!” While Adidas tweeted “*We’ve* always believed in the power of coming *together...*” and “*We’re* going to be taking action and making change in this world...”, Audi posted “Hold the future in *your* hands.” Do these brand postings lead to a higher level of engagement such as *likes*, comments, shares or retweets among consumers holding different identities? In advertising research, such a language as “*only you*” and “*yourself*” highlights individualistic advantages and autonomy whereas words like “*sharing, friends, family, we, together*” emphasize collectivistic benefits and connectedness to a community, affecting advertising persuasiveness (Han and Shavitt 1994; Wang et al. 2000). Resonant with the notion that “we are what we have and possess” (Tuan 1980, p. 472), I argue that we are what we post, like, comment, share, or retweet in the digital world. As such, the digital extended self (Belk 2013) involving the congruence between the cultural self and brand posting theme might account for consumer engagement with these cultural identity-related brand postings.

Specifically, the objective of this essay is to explore how message framing or appeals in a brand posting interacts with a consumer’s cultural identity, which is situationally primed (i.e., self-construal), jointly affecting consumer engagement on social media. Further, the current research identifies the underlying psychological process driving such an effect by drawing on self-congruity theory. Two studies test the proposed hypothesis that autonomy (vs. connectedness) appeal interacts with independent (vs. interdependent) self-construal, leading to a higher level of consumer engagement such as liking intention. Through the moderated mediation path, the findings also uncover the underlying mechanism by demonstrating that autonomy (vs. connectedness) appeal matches consumer independent (vs. interdependent) self-construal, and thus it leads to higher content self-congruity, which in turn drives their engagement. While prior advertising research reveals that the effect of connectedness-separateness appeal or individualistic-collectivistic appeal varies from country to country, it overlooks the fact that cultural identity such as self-construal can be temporarily activated or situationally primed (e.g., Aaker and Lee 2001; Agrawal and Maheswarran 2005; Brewer and Gardner 1996; Ng and Houston 2006). Nor has prior

research investigated the underlying process, which affects consumer evaluations of a given brand or an ad. The current research therefore fills these knowledge gaps in the burgeoning field of social media marketing, which is becoming a significant part of a company's marketing budgets (Lee et al. 2018).

I begin by reviewing psychological and cultural research on autonomy-connectedness and self-construal, relevant consumer research related to these two constructs, and self-congruity theory, in which the proposed research model is grounded. I then present two studies using different stimuli featuring different brand postings to test the research model. General discussion and implications are provided, and then limitations and future research are discussed.

Conceptual background and hypotheses development

Autonomy-connectedness

Autonomy, a historical and central concept, has been long discussed in both psychology and philosophy (Bekker 1993). The classical conceptualization of autonomy, developed by Erikson (1974), Mahler et al. (1975), and Kohlberg (1984), refers to a psychological stage to be reached in the process of one's adulthood, highlighting independence and separation (Erikson 1968). Autonomy is perceived to be the result of the process whereby an individual has developed the ability for separation and a sense of independence and separateness (Bekker 1993). The more modern conceptualization of *autonomy-connectedness*, however, includes the capacity to deal with relationships with others (Bekker 1993; Bekker and Van Assen 2006) because relation to others constitutes a prerequisite for autonomy (Bekker 1993). According to Bekker et al. (2010), autonomy-connectedness is a psychological construct, which refers to "the need and capacity for self-reliance and independence, as well as the need and capacity for intimacy and functioning in intimate relationships" (p. 243).

Autonomy-connectedness comprises "*self-awareness, sensitivity to others, and capacity for managing new situations*" (Bekker and Van Assen 2006, p. 52). Self-awareness is "the capacity to be aware of one's own opinions, wishes, and needs, and the capacity to express these in social interactions", whereas sensitivity to others refers to "the sensitivity to the opinions, wishes, and needs of other people; empathy; and capacity and need for intimacy and separation" (Bekker and Van Assen 2006, p. 52). The third facet is capacity for managing new situations, which adopts the

perspective of attachment style theory (i.e., secure attachment), and captures one's feelings of (dis)comfort in new situations, flexibility, tendency to explore, and dependence from trusted structures (Bekker and Van Assen 2006).

Although autonomy-connectedness and secure attachment are associated, the difference is that autonomy-connectedness deficits indicate the deficits in the self-image and its steering capacity in relation to others, whereas insecure attachment styles reflect the coping with the attachment insecurity (Bekker et al. 2017). More specifically, autonomy-connectedness deficits occur when sensitivity to others is high but self-awareness and capacity for managing new situations are low (Bekker et al. 2017; Maas et al. 2017), thus leading to anxiety, depression, and eating disorder (Bekker and Belt 2006; Bekker and Croon 2010; Bekker et al. 2008). However, low sensitive to others and high capacity for managing new situations lead to antisocial behavior (Bekker et al. 2007).

Despite the abundant empirical work on autonomy-connectedness in psychology, little is known about the application of this psychological concept to marketing research, particularly advertising message appeals, except for a few studies (Wang and Mowen 1997; Wang et al. 2000). Advertising emphasizing separateness is more effective for consumers adopting a separate self-schema whereas advertising emphasizing connectedness is more persuasive for consumers adopting a connected self-schema (Wang and Mowen 1997). However, this study showing an interaction effect between appeals and self-schema has not identified the underlying mechanism, and the concept of separateness-connectedness was proposed in the very early literature (Bakan 1966; Markus and Oysermen 1988). While Wang et al.'s (2000) findings have shown the interaction between gender and connectedness-separateness appeal at the country-level, the underlying mechanism is unclear. Given that the modern conceptualization of autonomy-connectedness was proposed (Bekker 1993; Bekker and Van Assen 2006) and that the marketing research on this subject is lacking, the current research fills this knowledge gap by focusing on the consequences of autonomy-connectedness message framing or appeals adopted in brand postings on social media.

Independent versus interdependent self-construal

While autonomy-connectedness captures independence and interdependence from the psychosocial perspective, self-construal denotes the self-view in relation to social groups from the

cultural perspective (Maas et al. 2019). Research in cultural psychology suggests that individuals perceive themselves to be related to or separate from others, thus construing themselves as independent versus interdependent self-construal (Markus et al. 1996; Markus and Kitayama 1991; Singelis 1994). People with independent self-construal perceive themselves to be unique individuals with distinct attributes and traits, whereas people with interdependent self-construal perceive themselves as part of a social network of relationships, connected to others (Hong and Chang 2015; Ji et al 2000; Lalwani and Shavitt 2013; Markus and Kitayama 1991; Nisbett et al. 2001). While both facets of self-construal coexist within a single person (Kolstad and Horpestad 2009; Markus and Kitayama 1994; Singelis 2000), either independent or interdependent self-construal can be more dominant, and this chronic level of accessibility is shaped by social or cultural contexts (Aaker and Schmitt 2001; Sung and Choi 2012).

Prior research in cultural psychology suggests that two self-construals are culturally nurtured: independent self-construal is related to Western cultures that hold the values of independence and uniqueness, whereas interdependent self-construal is related to Eastern cultures that hold the values of fulfilling duties and obligations over one's own wills (Aaker and Lee 2001; Markus and Kitayama 1991). However, with the influence of the society, self-construal can become chronically accessible at the individual level (Aaker and Lee 2001). Despite the culturally nurtured nature, recent research suggests that both self-construals can be made temporarily accessible or can be temporarily activated through situational contexts and different priming techniques (e.g., Aaker and Lee 2001; Agrawal and Maheswaran 2005; Brewer and Gardner 1996; Gardner et al. 1999; Hong and Chang 2009; Ng and Houston 2006), thus demonstrating the malleable self (Aaker 1999; Kleine et al. 1993). For example, Chinese participants were primed with independent self-construal when exposed to a personal goal story, whereas American participants were primed with interdependent self-construal when exposed to a family responsibilities story, consistent with the prime but inconsistent with their predominant values (Gardner et al. 1999).

A large body of research has confirmed the important role of self-construal in consumer behavior: self-construal matches promotion-focused or prevention-focused goal, thus affecting information persuasion (Aaker and Lee 2001); self-construal impacts consumer-brand relationship such as self-concept and brand country-of-origin connection (Swaminathan et al. 2007); interdependent self-construal induces higher acceptance of brand extension via the perceived fit (Ahluwalia 2008); self-construal affects impulsive consumption via impulsivity (Zhang and Shrum

2009); self-construal influences feeling-based or reason-based decision (Hong and Chang 2015); self-construal interacts with attainment (vs. maintenance) goal, jointly impacting consumer motivation (Yang et al. 2015); interdependent self-construal leads to higher perceived attractiveness of marketing stimuli via visual harmony (Haberstroh et al. 2017); self-construal affects donation amounts in the public (vs. private) setting via agentic motive activation (Simpson et al. 2018); self-construal shapes joint consumption choice for self and others via differential attention (Wu et al. 2019).

Surprisingly, little research has paid attention to the role of self-construal in consumer engagement on social media except for a few studies. For example, Lee et al. (2012) have demonstrated that primed interdependent self-construal leads to higher engagement self-efficacy in online brand community and social outcome expectations, thus leading to stronger electronic word-of-mouth (eWOM) intention. Xu et al. (2019) have found that participants interacting with (vs. browsing) content exhibited a higher level of interdependent (vs. independent) self-construal, thus leading to affective (vs. cognitive) thinking style, inconsistent with Hong and Chang's (2015) findings. Further, Bernritter et al. (2017) have found that participants with interdependent rather than independent self-construal showed stronger online endorsement of brands via perceived brand symbolic value, but such perceived value was related to brand attitude only for participants with independent self-construal. Considering the critical role of self-construal in consumer behavior and the knowledge gap in the social media setting, the current research explores how self-construal affects consumers' perceptions of brand postings and downstream outcomes, shedding light on the role of self-construal in online consumer engagement. Further, most of the aforementioned studies suggest that self-construal itself does not exert a main effect on consumer behavior, such as information persuasion, decision, motivation, and donation; rather, self-construal functions as an important moderator in these causal relationships. As such, the present research identifies self-construal as a moderator, which interacts with autonomy-connectedness appeal featured in brand postings, jointly affecting consumer engagement on social media.

Self-construal and autonomy-connectedness appeal

Psychological research has explored the relationships between self-construal and autonomy-connectedness among young adults with various cultural backgrounds (Bekker et al. 2011; Maas et al. 2019). For example, Maas et al. (2019) have found that an independent self-construal is

positively related to self-awareness and capacity for managing new situations, whereas an interdependent self-construal is positively related to sensitivity to others among both Dutch immigrants and natives, largely replicating the findings by Bekker et al (2011). While these studies have tested the relationship between both constructs in psychology, the present research investigates both constructs in the domain of consumer behavior, because individuals' different views of the self may affect their information processing and emotional responses (Markus and Oysermen 1988).

Further, marketing researchers argue that advertising message appeals can be developed to correspond to the specific cultures of the target audience such as individual versus collective cultures (Han and Shavitt 1994) or resonate with the target consumers' connectedness-separation self-schema (Wang and Mowen 1997). Message appeal is defined as "the overall style of the advertising – whether it relies on logic, sex, humor, and so forth – rather than the details of message claims or format" (Percy and Rossiter 1992, p. 78). Han and Shavitt (1994) have found that advertising appeals emphasizing individualistic benefits (e.g., uniqueness and personal success) are more persuasive in the U.S., whereas appeals highlighting collectivistic benefits (e.g., family and in-group benefits) are more persuasive in Korea. Building on the notion that self-schema may shape one's thinking about the self, objects, and events (Markus and Oysermen 1988), Wang and Mowen (1997) have demonstrated that individuals holding a separate self-schema preferred the advertising appeal highlighting separateness, whereas individuals holding a connectedness self-schema preferred the advertising appeal highlighting connectedness. However, these aforementioned studies have not further identified the underlying process explaining why different appeals influence different consumers.

People with predominantly independent self-construal view themselves as independent, egocentric, autonomous entities who have unique internal attributes, and believe that these attributes guide their behavior, emotions, cognition, and motivation (Markus and Kitayama 1991). They tend to emphasize self-other boundaries, separateness, and the values of autonomy, engage in self-enhancement or self-presentation strategies (Ahluwalia 2008; Lalwani and Shavitt 2009; Wien and Olsen 2014), and view themselves as distinct from and better than others to maintain self-esteem (Wang 2000). Applying these findings to the social media context, I argue that brand postings highlighting uniqueness, individual choice, and autonomy appeal to people with predominantly independent self-construal. In contrast, people with predominantly interdependent

self-construal perceive themselves to be related to others in the social relations and thus are more likely to focus on connectedness, harmony, and continuity of social ties (Markus and Kitayama 1991), and to adhere to sense of belongingness and stable relationships with others (Gudykunst et al. 1996). Therefore, it is expected that brand posting content highlighting connectedness with others is preferred by those with interdependent self-construal. Although Wang (2000) proposes what advertising appeals are right for different self-construals, these propositions have not been empirically tested. Taken together, I apply the psychological construct of autonomy-connectedness to the social media context, exploring the interaction effect between such appeal content and self-construal. Formally, it is hypothesized:

H1. Compared with connectedness-appeal content, autonomy-appeal content leads to a higher level of consumer engagement when independent self-construal is accessible.

H2. Compared with autonomy-appeal content, connectedness-appeal content leads to a higher level of consumer engagement when interdependent self-construal is accessible.

The mediating role of self-congruity

Prior research suggests that consumers purchase or experience brands/products to maintain and enhance their self-concept (McCracken 1986; Sirgy 1982; Zinkhan and Hong 1991). Self-congruity theory proposes “consumer behavior is determined, in part, by the congruence from a psychological comparison involving the product-user image and the consumer’s self-concept” (Sirgy et al. 1997, p.230). When the brand image is congruent with the consumer’s self-image, his or her emotional bonds with the brand would be strengthened (Evanschitzky and Wunderlich 2006; Oliver 1999). Self-congruity theory has been extensively tested across most product categories such as soft drinks and cars (Sirgy et al. 1997), jewelry (Roy and Rabbane 2015), sportswear (Lu and Xu 20015), bioplastic products (Confente et al. 2020), and electronic products (Fastoso and González-Jiménez 2020). The theory has also been tested in different contexts, such as retailing (O’Cass and Grace 2008; Sirgy et al. 2000), advertising (Bjerke and Polegato 2006; Hong and Zinkhan 1995), tourism (Beerli et al. 2007; Sirgy and Su 2000), and sponsorship/event (Close et al. 2009). For example, customers’ perceived value for money increases when self-store image congruity occurs (O’Cass and Grace 2008); self-congruity between a coffee shop and visitor’ self-

image positively affects cognitive and affective loyalty (Kang et al. 2012); congruity between the brand image and consumer ideal self-image contributes to positive brand attitudes (e.g., Helgeson and Supphellen 2004; Malhotra 1988; Solomon et al. 1992); knowledge about the sponsor enhances event self-congruity, which in turn leads to the event persuasiveness and purchase intention (Close et al. 2009); self-congruity with the event positively affects brand loyalty via event affect and brand affect (Mazodier and Merunka 2012).

Self-congruity theory has recently been tested in the social media setting because social network sites allow consumers to express an “ideal self” (Schau and Gilly 2003) or self-concepts such as inner or social self through *likes*, shares, and comments (Lee et al. 2014; Lee et al. 2020; Lipsman et al. 2012). For example, self-congruity and value congruity positively affect brand loyalty via consumer engagement (Islam et al. 2018); brand personality self-congruity has a positive effect on brand engagement, thus increasing purchase intentions (Lee et al. 2020); activated actual and social self-congruity orientations positively impact brand attachment, thus leading to consumer engagement (Rabbanee and Spence 2020). While these studies focus on the congruity between the brand and actual, social or ideal self-image, the current research takes a different track by focusing on the congruity between brand posting content and consumer cultural self-image. Specifically, the current research defines content self-congruity as the extent to which the content matches the consumer self-image embedded in the social cultures such as self-construal. I argue that companies use different advertising appeals to target different consumers when composing content on social media, because effective advertising should appeal to the values held in the culture of its target audience (Belk et al. 1985). As such, autonomy-appeal content should be appropriate for the audience holding independent self-construal, whereas connectedness-appeal content should be appropriate for the audience holding interdependent self-construal, due to the congruence between the message appeals and cultural self-image. Consequently, content self-congruity accounts for the psychological process underlying the interaction effect on consumer engagement. Specifically, the following hypothesis is formulated:

H3. *The interactive effect of the appeal type (autonomy vs. connectedness) and self-construal (independent vs. interdependent) on consumer engagement is mediated by content self-congruity.*

Thus, Figure 3.1 illustrates the research model:

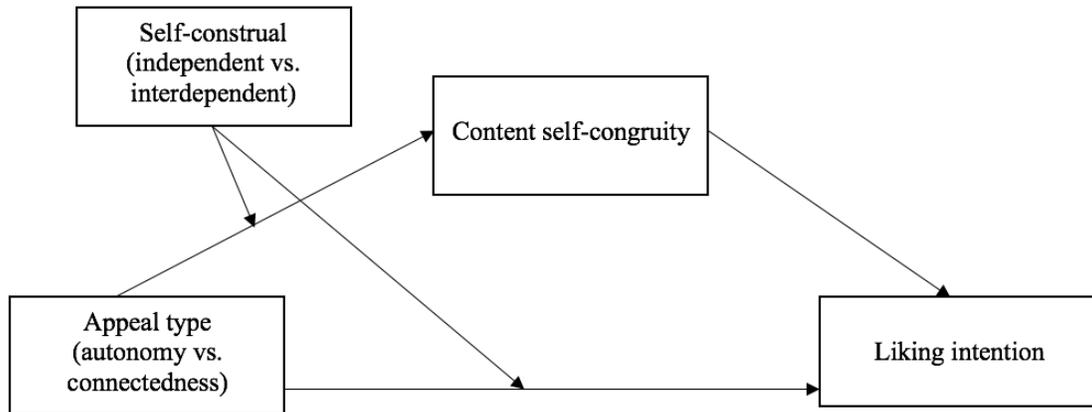


Figure 3. 1 Research model

Overview of studies

Two studies were conducted to test the proposed research model. Study 1 tested the main hypothesis that there is an interaction effect between autonomy-connectedness appeal and independent-interdependent self-construal, jointly affecting consumer engagement. Study 2 used a different brand to replicate the interaction effect observed in Study 1. More importantly, it tested the moderated mediation effect such that content self-congruity mediates the interaction effect of appeal type and self-construal on consumer engagement.

Research design and findings

Study 1

The objective of Study 1 is to test the interaction effect between autonomy-connectedness appeal and independent-interdependent self-construal on consumer engagement.

Method

Participants and procedure. Two hundred and twenty undergraduate students from a North American university were recruited to participate in the study in exchange for course credit. First, they were asked whether they had any social media networking account such as Facebook, Twitter, or Instagram. One response was removed because the participant did not have any social media account, leaving 219 valid responses (female = 47.5%; $M_{age} = 21$) Then they indicated the frequency of using their social media accounts. Participants were randomly assigned to one of four

conditions in a 2 (independent vs. interdependent) \times 2 (autonomy vs. connectedness appeal) between-subjects design. First, participants were exposed to a self-view priming manipulation, which was adapted from Aaker and Williams (1998) and Haberstroh et al. (2017) (see Appendix E). Specifically, participants were told that a printer company wanted to have their opinions about their printer advertisement. Half of the participants viewed a fictitious advertisement featuring an image of a person enjoying a quiet moment on the beach with the caption “Remember the day by yourself at the beach ... The warm light of sun shining down on you. The sound of the waves crashing on the beach. Nothing beats a quiet moment alone, by yourself! Your memories... and Alpha’s top color quality printer captures Your Feelings!” (independent self-construal prime). The other half view an advertisement featuring an image of a group of people having a good time together on the beach with the caption “Remember the day at the beach with your best friends ... The warm light of sun shining down on all of you. The sound of the waves crashing on the beach. Nothing beats a moment with your best friends! Friendship memories ... and Alpha’s top color quality printer captures the feelings of friendship!” (interdependent self-construal prime). After exposed to the priming manipulation, participants were told to write down their thoughts about the scenario to reinforce the prime. A 6-item semantic differential scale adopted from Aaker and Lee (2001) functions as manipulation checks for self-construal. Three items measured the extent to which they focused on themselves ($\alpha = .94$), such as “your thoughts just about yourself; your thoughts were focused on just you”, and another three items rated the extent to which they focused on their friends ($\alpha = .97$), such as “your thoughts about you and your friends; your thoughts were focused on you and your friends”.

Afterwards, participants in the autonomy-appeal condition viewed the brand “GoPro” Twitter brand page with a description, “The brand ‘GoPro’ is an American technology company, which manufactures action cameras and develops its own mobile apps and video-editing software”. They then viewed a tweet posted by GoPro: “Starring ... yourself! Your life is a unique experience! Explore and believe your victories!” (Appendix F). Participants in the connectedness-appeal condition viewed the same brand page and a tweet, “Connect with your friends! Life is the shared experience with friends! Explore and have fun together!” After reading the brand tweet, participants indicated how likely they would give a “like” to the tweet, capturing consumer engagement as the dependent variable. Then, as manipulation checks of autonomy-connectedness appeal, participants were asked to identify the stimulus appeal as autonomous or connected. The

measure was adapted from Wang and Mowen (1997), which consists of six 7-point Likert items. Three items measured the autonomy appeal (i.e., people are different/independent/autonomous), and another three items assessed the connectedness appeal (i.e., people help/are dependent/have empathy for each other). Connectedness items were reverse coded so that higher scores on this index indicated autonomy and lower scores indicated connectedness ($\alpha = .76$). At the end of the questionnaire, participants provided demographic information and were debriefed. All the scales are summarized in Appendix G.

Results

Manipulation checks. A repeated-measures ANOVA with self-construal as a between-subjects factor and thoughts (themselves vs. friends) as a repeated measure was conducted to confirm that the self-construal prime manipulation was successful ($F(1, 217) = 42.16, p = .000 < .001$). The results showed that participants in the independent prime condition had more thoughts about themselves ($M = 4.22, SD = 1.86$) than their friends ($M = 2.72, SD = 1.59$). Those in the interdependence prime condition had more thoughts about their friends ($M = 5.47, SD = 1.53$) than themselves ($M = 3.53, SD = 1.87$). A one-way ANOVA was conducted to confirm that the autonomy-connectedness appeal manipulation was successful ($F(1, 217) = 132.73, p = .000 < .001$), since significant mean differences were found between the autonomy-appeal condition ($M = 4.94$) and connectedness-appeal condition ($M = 3.63$). Participants in the autonomy-appeal condition reported that the stimulus focused more on autonomy, whereas participants in the connected-appeal condition reported that the stimulus focused more on connectedness.

Moderation analysis. The current research proposes a first stage interaction between autonomy-connectedness appeal and self-construal. As an initial test, I explored whether there was an interactive effect of the appeal type and self-construal on consumer engagement. A two-way ANCOVA was performed with the appeal type as the independent variable, self-construal as the moderator, liking intention as the dependent variable, and usage frequency as a covariate. The results showed that neither the main effect of the appeal type ($p = .811 > 0.1$) nor the main effect of self-construal was significant ($p = .942 > 0.1$). However, there was an interaction effect of appeal type and self-construal on liking intention ($F(1, 214) = 9.45, p = .002 < .01$). In addition, usage frequency did not have a main effect on liking intention ($p = .395 > .05$). In support of our hypotheses, planned contrasts revealed that, when independent self-construal was accessible,

autonomy-appeal content led to a higher level of liking intention than connectedness appeal ($M_{\text{autonomy}} = 3.92$ vs. $M_{\text{connectedness}} = 3.16$; $F(1, 214) = 4.00, p = .047 < .05$). Further, when interdependent self-construal was accessible, connectedness-appeal content led to a higher level of liking intention than autonomy appeal ($M_{\text{connectedness}} = 4.00$ vs. $M_{\text{autonomy}} = 3.12$; $F(1, 214) = 5.51, p = .02 < .05$). Figure 3.2 presents the interaction effect. Thus, the findings supported *H1* and *H2*.

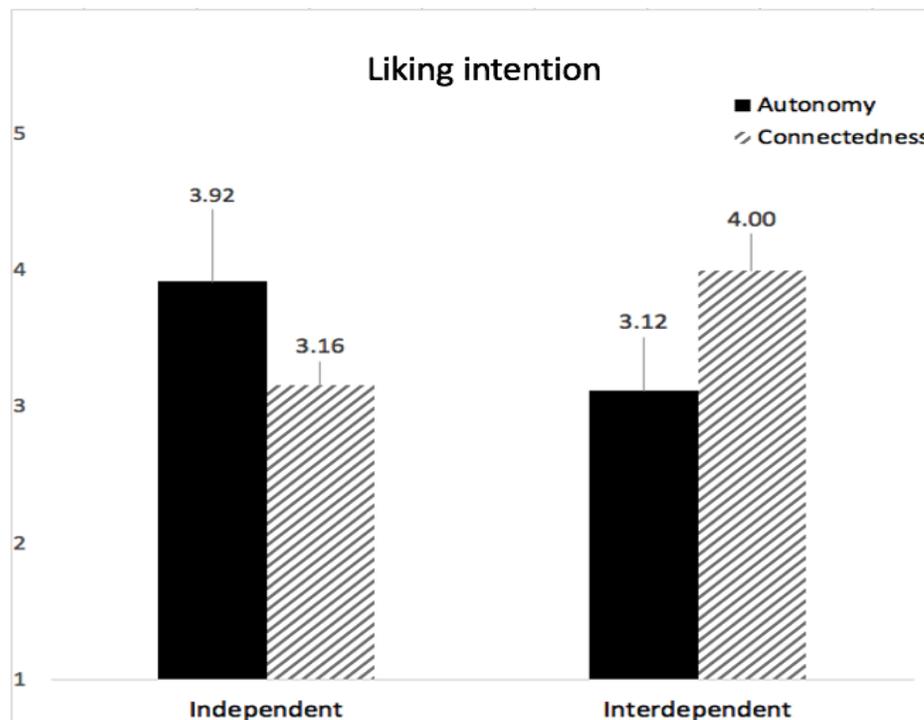


Figure 3. 2 Study 1 Results: The interaction effect of autonomy-connectedness appeals and self-construal on liking intention

Study 2

The objective of Study 2 is twofold. First, using stimuli featuring another brand to manipulate autonomy-connectedness appeal, I replicate the interaction effect observed in Study 1. Second, I identify the underlying mechanism that drives consumer engagement. More specifically, I test whether content self-congruity mediates the interaction effect of self-construal and autonomy-connectedness appeal on liking intention.

Method

Participants and procedure. Two hundred and five undergraduate students from a North American university were recruited to participate in the study in exchange for course credit (female = 52.2%; $M_{\text{age}} = 21$). The procedure was similar to that of Study 1. Participants were randomly assigned to one of four conditions in a 2 (independent vs. interdependent) \times 2 (autonomy vs. connectedness appeal) between-subjects design. First, participants were exposed to a self-view priming manipulation. Half of the participants were exposed to the stimulus of independent and the other half were exposed to the stimulus of interdependent self-construal and the stimuli were the same ones used in Study 1.

After exposed to the priming manipulation, participants were told to write down their thoughts about the advertisement to reinforce the prime. The same 6-item semantic differential scale used in Study 1 measured the level of self-construal as manipulation checks. Three items measured the extent to which they focused on themselves ($\alpha = .93$), and another three items rated the extent to which they focused on their friends ($\alpha = .97$). After this, they read a tweet from the brand “Nike” on Twitter (Appendix H). Participants in the condition of autonomy appeal read, “Nothing can stop what you can do for yourself because you are unique” with a black-white image of a female soccer player and hashtag “just do it”. Participants in the condition of connectedness appeal viewed a tweet stating, “Nothing can stop what we can do together because we are united” with a black-white image of five female soccer players holding hands together and hashtag “can’t stop us”. After reading the brand tweet, participants indicated how likely they would give a “like” to the tweet, capturing consumer engagement as the dependent variable. Then, a 4-item scale adapted from Close et al. (2009) and Sirgy et al. (1997) measured content self-congruity ($\alpha = .83$), including “I am very much like the typical person who gives the tweet a “like”, “People who likes the tweet are similar to me”, “Liking the tweet reflects who I am”, and “The tweet is consistent with how I see myself”. The same 6-item scale used in Study 1 measured the extent to which participants identified the stimulus appeal as autonomous or connected as manipulation checks. Three items measured the autonomy appeal, and another three items assessed the connectedness appeal. Connectedness items were reverse coded so that higher scores on this index indicated autonomy and lower scores indicated connectedness ($\alpha = .79$). At the end of the questionnaire, participants provided demographic information and were debriefed.

Results

Manipulation checks. A repeated-measures ANOVA with self-construal as a between-subjects factor and thoughts (themselves vs. friends) as a repeated measure was conducted to confirm that the self-construal prime manipulation was effective ($F(1, 203) = 24.21, p = .000 < .001$). The results showed that participants in the independent prime condition had more thoughts about themselves ($M = 4.27, SD = 1.86$) than their friends ($M = 3.05, SD = 1.71$). Those in the interdependence prime condition had more thoughts about their friends ($M = 5.58, SD = 1.49$) than themselves ($M = 2.88, SD = 1.46$). A one-way ANOVA was conducted to confirm that the autonomy-connectedness appeal manipulation was successful ($F(1, 203) = 236.72, p = .000 < .001$) as significant mean differences were found between the autonomy-appeal condition ($M = 5.05$) and connectedness-appeal condition ($M = 3.09$). Participants in the autonomy-appeal condition reported that the stimulus focused more on autonomy whereas participants in the connected-appeal condition reported that the stimulus focused more on connectedness.

Moderation analysis. The current research proposes a first stage interaction between the autonomy-connectedness appeal and self-construal. To replicate the interaction effect observed in Study 1, a two-way ANCOVA was conducted with usage frequency as a covariate. The results showed that neither the main effect of the appeal type ($p = .354 > 0.1$) nor the main effect of self-construal on liking intention was significant ($p = .335 > 0.1$). However, there was an interaction effect of the appeal type and self-construal on liking intention ($F(1, 200) = 16.89, p = .000 < .01$). In addition, usage frequency did not have a main effect on consumer engagement ($p = .191 > .05$). Replicating the findings observed in Study 1, planned contrasts revealed that, when independent self-construal was accessible, autonomy appeal led to a higher level of liking intention than connectedness appeal ($M_{\text{autonomy}} = 5.20$ vs. $M_{\text{connectedness}} = 3.90; F(1, 200) = 13.003, p = .000 < .001$). Furthermore, when interdependent self-construal was accessible, connectedness appeal led to a higher level of liking intention than autonomy appeal ($M_{\text{connectedness}} = 5.21$ vs. $M_{\text{autonomy}} = 4.39; F(1, 200) = 4.92, p = .028 < .05$). Figure 3.3 presents the interaction effect. The findings again supported *H1* and *H2*.

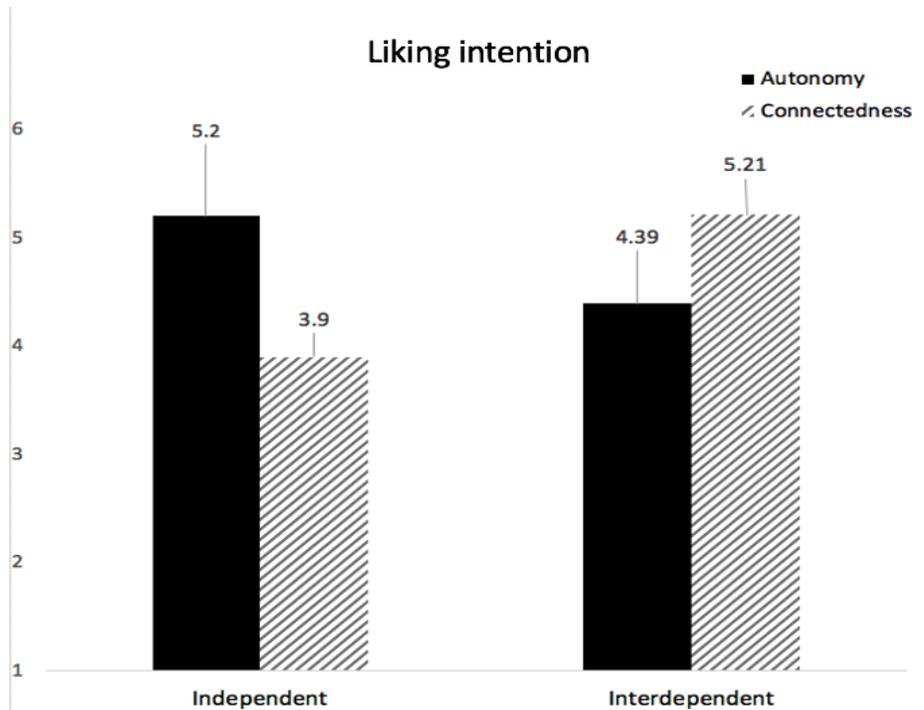


Figure 3. 3 Study 2 Results: The interaction effect of autonomy-connectedness appeals and self-construal on liking intention

Moderated mediation analysis. I then proceeded to test the full model by conducting a moderated mediation analysis (PROCESS Model 8; Hayes 2013), with the appeal type (1 = autonomy, 0 = connectedness) as the independent variable, self-construal as the moderator (1 = independent, 0 = interdependent), content self-congruity as the mediator, and liking intention as the dependent variable. Usage frequency was included as the covariate variable.

First, the results showed that the effect of autonomy-connectedness appeal on content self-congruity was significantly moderated by self-construal ($B = .89$, $SE = .41$, 95% CI [.08, 1.69]) and content self-congruity had a significant positive effect on liking intention ($B = .69$, $SE = .08$, 95% CI [.54, .84]). As expected, the indirect effect through content self-congruity was significantly moderated by self-construal (index of moderated mediation = .61, $SE = .28$ 95% CI [.06, 1.15]), confirming the hypothesized moderated mediation effect. Further, the analysis showed that content self-congruity mediated only the results for independent self-construal ($B = .44$, $SE = .20$, 95% CI [.036, .84]). There was no mediation effect for interdependent self-construal, as the 95% confidence interval included zero (95% CI [-.57, .23]). Taken together, the results support *H3*.

General discussion

The current research explores how different appeals featuring autonomy or connectedness interact with consumers' cultural identity such as self-construal. Across two studies using different brands, the current research has demonstrated that the brand posting featuring autonomy appeal leads to a higher level of consumer engagement when independent self-construal is accessible, whereas the brand posting featuring connectedness appeal leads to a higher level of consumer engagement when interdependent self-construal is accessible (Study 1). Further, such an interaction effect between the appeal type and self-construal on consumer engagement is mediated by content self-congruity, such that when independent (vs. interdependent) self-construal is accessible, the autonomy (vs. connectedness) appeal triggers a higher level of self-content congruity, thus increasing consumer engagement (Study 2).

Theoretical contributions

The key contribution of the current work is that I provide an integrated perspective of autonomy-connectedness theory, self-construal theory, and self-congruity theory to hypothesize when independent (vs. interdependent) self-construal is accessible, autonomy-appeal (vs. connectedness-appeal) content leads to higher content self-congruity between the cultural self and the brand posting content, thus increasing like intention on social media. In testing all the hypotheses, the current research not only sheds light on the domain of social media marketing, but also contributes to each stream of literature. In terms of psychological literature on autonomy-connectedness, while prior research in psychology focuses on this construct in the context of adulthood and its consequences related to mental health and social behavior (Bekker and Belt 2006; Bekker et al. 2007), the current research applies this psychological construct to the domain of social media marketing by framing it as an advertising appeal featured in the brand's Twitter content to generate persuasive effect. However, the autonomy-connectedness appeal itself does not have any effect on consumer engagement in the absence of self-construal.

Further, the current research contributes to the self-construal theory by integrating self-construal with autonomy-connectedness theory. While past work has demonstrated that self-construal influences the consumer behavior such as consumer-brand relationship (Swaminathan et al. 2007), acceptance of brand extension (Ahluwalia 2008), impulsive consumption (Zhang and Shrum 2009), consumer decision making (Hong and Chang 2015), consumer choice (Wu et al.

2019), reactions to social-identity threat (White et al. 2012), the current work empirically shows self-construal differences in response to the autonomy (vs. connectedness) appeal featured in a brand posting, thus providing a new perspective to the literature on self-construal in the context of social media. In particular, the current research demonstrates that consumers with independent (vs. interdependent) self-construal reacts more favorably to the autonomy (vs. connected) appeal content and thus engage more actively with the brand posting. The findings also resonate with prior findings regarding persuasion effects of cultural difference such that the ads highlighting individualism are more effective for people with independent self-construal and the ads highlighting collectivism are more persuasive for people with interdependent self-construal (Han and Shavitt 1994; Zhang and Gelb 1996). However, different from these studies focusing on self-construal at the country-level, the current research demonstrates such persuasion effects at the individual-level through temporary activation of participants' self-construal.

Finally, the current research enriches the construct of self-congruity by adding cultural self-image to the existing dimensions of self-congruity. While previous research has tested self-congruity between the brand personality and actual/ideal/social/ideal social identity (Sirgy and Samli 1985) in different contexts such as products, advertising, retailing, tourism, and sponsorship (Bjerke and Polegato 2006; Close et al. 2009; O'Cass and Grace 2008; Sirgy et al. 1997), the current research focuses on self-congruity between the cultural self and brand posting content in the domain of social media marketing. In particular, this research emphasizes the congruity between independent (vs. interdependent) self-construal and autonomy (vs. connectedness) appeal, which leads to a high level of consumer engagement on social media.

Managerial implications

The findings of this research offer important managerial implications to marketers. Making individuals' independent (vs. interdependent) self-construal salient may lead them to engage with the brand posting content featuring autonomy (vs. connectedness) appeal. Autonomy appeal may resonate with those brands who are perceived to be cool, autonomous, competent, exciting, and sophisticated, such as Nike, BMW, and Apple, whereas connectedness appeal may resonate with brands who are perceived warm, sincere, agreeable, and friendly, such as Campbell and Hallmark (Aaker 1997). Specifically, marketers can cue their brand page followers' independent self-construal by using more self-oriented language such as *I*, *mine*, *you*, and *yourself* (Gardner et al.

1999) if the brand posting highlights autonomy appeal, whereas marketers can cue consumers' interdependent self-construal by using more relationship-highlighted language such as *we*, *us*, *family*, *team*, and *friends* if the brand posting emphasizes connectedness appeal.

Further, it is important for marketers to ensure the congruence between the content and the cultural self-image of the target consumers. The findings show that content self-congruity positively affects consumer engagement. While the current research did not test the research model at the country-level (e.g., Western vs. Eastern country), prior research shows that ads featuring individualistic (vs. in-group) benefits are preferred by people living in an individualistic culture, whereas ads featuring in-group benefits are preferred by people living in a collectivistic culture. Therefore, content self-congruity should be significantly important when marketers design brand posting content in a country holding a specific culture and value. For example, autonomy-appeal content might be appropriate for the consumers in the Western cultures, whereas connectedness-appeal content might be appropriate for the consumers in the Eastern cultures.

Limitations and future research

While the current research identifies content self-congruity as a mediator, explaining why interaction between autonomy-connectedness appeals and self-construal drives online consumer engagement, other factors might be explored in future research. For example, individuals with independent self-construal pursue personal success and achievement, and thus they are more likely to engage in self-enhancement, which may drive them to spread positive word-of-mouth (Berger 2014; Dubois et al. 2016). As *like*, share, retweet, or comment on specific content reflects what the person is and what he/she thinks, will consumers with independent self-construal enhance the self through their *likes*, shares, or comments on a brand posting featuring autonomy appeal? In contrast, consumers with interdependent self-construal highlight their connections to others and their social embeddedness (Hong and Chang 2015). Thus, when interdependent self-construal matches connectedness-appeal content, will these consumers show a higher level of engagement with the brand posting via their need for social belongingness or social connections? Future research might explore these two mediators (i.e., self-enhancement and need for social belongingness) in the interaction effect observed in this research findings, providing novel understanding of online consumer engagement.

Further, the current research operationalizes the dependent variable (consumer engagement) using liking intention, overlooking commenting, sharing or retweeting. Swani and Labrecque (2020) have demonstrated that (1) brand relationship connections drive likes and reactions; (2) “both brand relationship connections and self-presentation” motivate comments (p. 279); (3) self-presentation motivates shares. Thus, it would be interesting to explore whether consumers with independent self-construal are more likely to share or comment on the brand posting when autonomy-appeal content triggers their self-presentation motivation, whereas consumers with interdependent self-construal are more willing to “like” and comment on connectedness-appeal content via their connections with the brand. Future research may integrate the perspectives of the current study and Swani and Larbreceque’s (2020) study, providing more nuanced understanding of the role of self-construal in online consumer engagement.

Finally, as the objective of this research is to examine the interaction effect between autonomy-connectedness appeals and individual-level self-construal, country-level self-construal is not explored. Thus, researchers may conduct cross-cultural research to replicate the findings of the interaction effect and moderated mediation effect observed in the current research. For example, data can be collected from American participants (independent self-construal) and Chinese participants (interdependent self-construal). Pursuing this replication will offer global brands insights into their digital communication strategies in different cultural settings.

Chapter 5: Conclusion

Social media has changed the way individuals present themselves and communicate with each other. Need for self-presentation and need for social belongingness motivate individuals to use social networking sites, where individuals connect with peers or friends and obtain social acceptance and engage in impression management through their postings, *likes*, shares, and comments on others' postings (Nadkarni and Hofmann 2012). All the content a person posts, shares or comments on constitutes a rich reflection of what the person is or thinks, thus extending the self to the digital world (Carroll and Romano 2011; Belk 2013).

Meanwhile, social media has been considered one of the most transformative technologies greatly impacting all aspects of a company, from marketing, operations, finance, to human resources management (Aral et al. 2013). Particularly, social media has shaped the way brands or companies communicate and engage with their consumers. Companies are increasingly leveraging social media platforms to reach a larger base of consumers, encourage consumer engagement with their brands (Kabadayi and Price 2014), foster online brand communities (Laroche et al. 2012; Libai et al. 2010), and diffuse WOM or gain earned media, which can have a multiplicative impact on expected sales (Batra and Keller 2016). American companies spent 14.9% of marketing budgets on social media in 2020, with an expected 24.5% in the next five years (CMO Survey 2021). Thus, understanding the critical roles in driving consumer engagement is very important to marketers.

Integrating consumer social media use with social media marketing of brands, the current thesis, consisting of three essays, explores the critical roles of personification appeals, brand familiarity, hedonic motive, autonomy-connectedness framing, self-congruity, and self-construal, advancing our understanding of how these factors significantly impact consumer engagement and explaining when and why these factors play out.

Focusing on consumer psychology and behavior, *Essay 1* explores how a personification (vs. non-personification) appeal emphasized in a brand posting leads to a higher level of consumer engagement such as liking intention. Across three studies using two fictitious brands (i.e., Lorium coffee and Cardiley camera brands), the essay demonstrates that, compared with a non-personification appeal in a brand posting, a personification appeal imbues the brand with human characteristics such as warmth, generosity, and friendliness, thus eliciting consumer perceptions of brand warmth, which in turn strengthens their need for social belongingness. When such a need

is heightened, consumer engagement is more active through their higher intentions to give a “like” to the brand posting. More importantly, the essay identifies hedonic motive as a boundary condition, such that when consumer hedonic motive is high (vs. low), the serial mediation effect of the personification appeal on engagement via perceived warmth and need for social belongingness is amplified. However, the essay does not explore downstream consequences of consumer engagement triggered by the personification appeal, nor does it identify any boundary condition from the perspective of branding, posing the limitations that future research should address.

Therefore, responding to the call for future research made in the first essay, *Essay 2* focuses on branding and consumer-brand relationship. More specifically, the research explores the positive downstream consequence resulting from consumer engagement due to the personification appeal in a brand posting, such as self-brand connections. Study 1 demonstrates that the personification appeal triggers consumer perceived warmth, which in turn leads consumers to more actively engage with the brand posting by clicking the “like” button, thus facilitating self-brand connections. Further, using the real brand “Starbucks”, the essay replicates the findings of the serial mediation effect observed in the first essay, enhancing generalizability. More importantly, the essay continues to pursue what other factors might influence the serial mediation effect observed in *Essay 1*. Drawing on advertising creativity, I identify brand familiarity as a moderator such that when a brand is unfamiliar, the personification appeal has a stronger effect on consumer engagement through perceived warmth and need for social belongingness, because consumers have difficulty drawing from their own previous experiences with the unfamiliar brand or other’s experiences (Machleit et al. 1993; Rosengren et al. 2020; Sethuraman et al. 2011).

Essay 3 continues to pursue the question of what other cultural factors might affect online consumer engagement by considering consumer cultural identities such as self-construal. The essay explores how autonomy-connectedness framing in a brand positing matches with temporarily activated or situationally primed cultural identities such as self-construal, jointly affecting consumer engagement. More specifically, the findings demonstrate that, when independent self-construal is temporarily activated, consumers prefer a brand posting highlighting autonomy appeal, thus leading to a higher level of engagement with the brand posting via a higher level of content self-congruity. In contrast, when interdependent self-construal is situationally

primed, consumers prefer a brand posting emphasizing connectedness appeal, thus exhibiting stronger intention to give a “like” to the brand posting.

Overall, this thesis makes multiple contributions to existing literature and theories. The thesis extends personification in advertising to the social media context, which is integrated with warmth-competence Stereotype Content Model, demonstrating the underlying process prior research has not identified. Specifically, the personification appeal highlighted in a brand posting triggers consumer perceptions of brand warmth, which leads to stronger need for social belongingness, thus increasing consumer engagement. The thesis enriches well-being theory by identifying a boundary condition (i.e., hedonic motive) to the aforementioned serial mediation effect such that high hedonic motive strengthens the positive mediation effect. Further, the investigation into the downstream outcome of consumer engagement contributes to the self-brand connections literature, corroborating the most recent findings that consumer interaction with a brand positively affects self-brand connections (Berger et al. 2018; Harrigan et al. 2018). The thesis also identifies another boundary condition (i.e., brand familiarity) to the serial mediation path through perceived warmth and need for social belongingness, thus contributing to the advertising creativity literature. Finally, the thesis provides an integrated perspective of autonomy-connectedness, self-construal, and self-congruity theories by demonstrating that content self-congruity mediates the interaction effect of autonomy-connectedness appeals and situationally primed self-construal on consumer engagement. As such, the thesis enriches these theories by applying psychological and cultural constructs to the domain of social media marketing.

The current thesis has significant managerial implications for marketers. To address the issue on little guidance for practitioners to decide whether to personify a specific product or to create the humanlike context describing the product (Hart and Royme 2017), this thesis demonstrates that even verbal cues adopted in the brand posting content can trigger consumer perceived warmth of the brand, thus increasing their engagement with the brand. More importantly, self-brand connections can be enhanced as a result of more active engagement with the brand. Further, this personification strategy is particularly important for unfamiliar brands or new brands/products, as the findings show that consumers exhibit stronger intention to give a “like” to a fictitious coffee brand “Lorium” than a familiar brand “Starbucks”. The findings also suggest that a personified brand posting gains more “likes” among the consumers with high hedonic motive than those with low hedonic motive. According to Hofstede (2018), individuals living in Western countries such

as the U.S. score much higher on the indulgence scale (68 out of 100) than those living in Eastern countries such as China (24 out of 100). As such, marketers may consider utilizing personification in the brand postings targeting consumers in the countries with a high level of indulgence such as the U.S., who are more likely to use social media with high hedonic motive. Further, the findings suggest that marketers can facilitate the congruence between a brand posting featuring autonomy appeal and independent self-construal through situationally priming techniques, such as highlighting *I*, *mine*, and *myself*. The findings might be applied to a country level. For example, autonomy appeal might be more effective in the countries with high individualism such as the U.S. and the U.K., whereas connectedness appeal might be more persuasive in the countries with high collectivism such as China and South Korea (Hofstede 2018).

References

- Aaker, J.L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347-356.
- Aaker, J.L. (1999). The malleable self: The role of self-expression in persuasion. *Journal of Marketing Research*, 36(1), 45-57.
- Aaker, J.L. , Fournier, S. & Brasel, S.A. (2004). When good brands do bad. *Journal of Consumer Research*, 31(1), 1-16.
- Aaker, J.L., Garbinsky, E.N., & Vohs, K.D. (2012). Cultivating admiration in brands: Warmth, competence, and landing in the “golden quadrant”. *Journal of Consumer Psychology*, 22(2), 191-194.
- Aaker, J.L., & Lee, A.Y. (2001). “I” seek pleasures and “we” avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28(1), 33-49.
- Aaker, J. L., & Schmitt, B. (2001). Culture-dependent assimilation and differentiation of the self: Preferences for consumption symbols in the United States and China. *Journal of Cross-Cultural Psychology*, 32, 561-576.
- Aaker, D.A., Stayman, D.M., & Hagerty, M.R. (1986). Warmth in advertising: Measurement, impact, and sequence effects. *Journal of Consumer Research*, 12(4), 365-381.
- Aaker, J.L., Vohs, K.D., & Mogilner, C. (2010). Nonprofits are seen as warm and for-profits as competent: Firm stereotypes matter. *Journal of Consumer Research*, 37(2), 224-237.
- Aaker, J.L., & Williams, P. (1998). Empathy versus pride: The influence of emotional appeals across cultures. *Journal of consumer research*, 25(3), 241-261.
- Achterberg, W., Pot, A.M., Kerkstra, A., Ooms, M., Muller, M., & Ribbe, M. (2003). The effect of depression on social engagement in newly admitted Dutch nursing home residents. *The Gerontologist*, 43(2), 213–218.
- Aggarwal, P. (2004). The effects of brand relationship norms on consumer attitudes and behavior. *Journal of Consumer Research*, 31(1), 87-101.

- 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.
- Aggarwal, P., & McGill, A.L. (2012). When brands seem human, do humans act like brands? Automatic behavioral priming effects of brand anthropomorphism. *Journal of Consumer Research*, 39(2), 307-323.
- Agrawal, N., & Maheswaran, D. (2005). The effects of self-construal and commitment on persuasion. *Journal of Consumer Research*, 32(1), 841-849.
- Ahluwalia, R. (2008). How far can a brand stretch? Understanding the role of self-construal. *Journal of Marketing Research*, 45(3), 337-350.
- Alba, J.W., & Hutchinson, J.W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13(4), 411-454.
- Albert, N., Merunka, D., & Valette-Florence, P. (2008). When consumers love their brands: Exploring the concept and its dimensions. *Journal of Business Research*, 61(10), 1062–1075.
- Algesheimer, R., Dholakia, U. M., & Herrmann, A. (2005). The social influence of brand community: Evidence from European car clubs. *Journal of Marketing*, 69(3), 19–34.
- Aral, S., Dellarocas, C., & Godes, D. (2013). Introduction to the special issue—social media and business transformation: A framework for research. *Information Systems Research*, 24(1), 3-13.
- Bakan, D. (1966). *The duality of human existence*. New York: Beacon Press.
- Baldus, B. J., Voorhees, C., & Calantone, R. (2015). Online brand community engagement: Scale development and validation. *Journal of Business Research*, 68(5), 978–985.
- Ball, A. D., & Tasaki, L. H. (1992). The role and measurement of attachment in consumer behavior. *Journal of Consumer Psychology*, 2, 155-172.
- Ballard, R., Crino, M. D., & Ruberfeld, S. (1988). Social desirability response bias and the Marlowe-Crowne Social Desirability Scale. *Psychological Reports*, 63, 227–237.
- Batra, R., Ahuvia, A., & Bagozzi, R. P. (2012). Brand Love. *Journal of Marketing*, 76(2), 1–16.
- Batra, R., & Keller, K.L., 2016. Integrating marketing communications: New findings, new lessons, and new ideas. *Journal of Marketing*, 80(6), 122-145.

- Baumeister, R.F., & Leary, M.R. (2017). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Interpersonal Development*, 57-89.
- Berli, A., Meneses, G.D., & Gil, S.M. (2007). Self-congruity and destination choice. *Annals of Tourism Research*, 34(3), 571-587.
- Beckers, S.F., Van Doorn, J., & Verhoef, P.C. (2018). Good, better, engaged? The effect of company-initiated customer engagement behavior on shareholder value. *Journal of the Academy of Marketing Science*, 46(3), 366-383.
- Bekker, M. H. (1993). The development of an autonomy scale based on recent insights into gender identity. *European Journal of Personality*, 7, 177-194.
- Bekker, M.H., Arends-Tóth, J., & Croon, M.A. (2011). Autonomy-connectedness, acculturation, and independence–interdependence among various cultural groups in a multicultural society. *International Journal of Intercultural Relations*, 35(3), 368-376.
- Bekker, M. H., Bachrach, N., & Croon, M. A. (2007). The relationships of antisocial behavior with attachment, autonomy-connectedness, and alexithymia. *Journal of Clinical Psychology*, 63, 507–527.
- Bekker, M. H., & Belt, U. (2006). The role of autonomy-connectedness in anxiety and depression. *Depression and Anxiety*, 23, 274-280.
- Bekker, M. H., & Croon, M. A. (2010). The roles of autonomy–connectedness and attachment styles in depression and anxiety. *Journal of Social and Personal Relationships*, 27(7), 908–923
- Bekker, M.H., Croon, M.A., Van Balkom, E.G., & Vermeë, J.B. (2008). Predicting individual differences in autonomy-connectedness: The role of body awareness, alexithymia, and assertiveness. *Journal of Clinical Psychology*, 64(6), pp.747-765.
- Bekker, M. H., & Van Assen, M. A. (2006). A short form of the autonomy scale: Properties of the Autonomy-Connectedness Scale (ACS-30). *Journal of Personality Assessment*, 86(1), 51–60.
- Bekker, M.H., & Van Assen, M.A. (2017). Autonomy-connectedness mediates sex differences in symptoms of psychopathology. *PloS one*, 12(8), p.e0181626.
- Bekker, M.H., Willemsse, J.J., & De Goeij, J.W. (2010). The role of individual differences in particular autonomy-connectedness in women’s and men’s work-family balance. *Women & Health*, 50(3), 241-261.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15, 139-

168.

- Belk, R.W. (2013). Extended self in a digital world. *Journal of Consumer Research*, 40(3), 477-500.
- Belk, R.W., Bryce, W.J., & Pollay, R.W. (1985). Advertising themes and cultural values: A comparison of US and Japanese advertising. In Proceedings of the inaugural meeting of the Southeast Asia region (pp. 11-20). Hong Kong: Academy of International Business.
- Bennett, A. M., & Hill, R. P. (2012). The universality of warmth and competence: A response to brands as intentional agents. *Journal of Consumer Psychology*, 22(2), 199–204.
- Berger, J. (2015). “Word of Mouth in Interpersonal Communication,” in Michael I. Norton, Derek D. Rucker, and Cait Lamberton, (Eds.), *The Cambridge Handbook of Consumer Psychology* (pp.332–367), New York, NY: Cambridge University Press
- Berger, J., & Milkman, K.L. (2012). What makes online content viral? *Journal of Marketing Research*, 49(2), 192-205.
- Berger, A., Schlager, T., Sprott, D.E., & Herrmann, A. (2018). Gamified interactions: Whether, when, and how games facilitate self–brand connections. *Journal of the Academy of Marketing Science*, 46(4), 652-673.
- Bernritter, S.F., Loermans, A.C., Verlegh, P.W., & Smit, E.G. (2017). ‘We’ are more likely to endorse than ‘I’: The effects of self-construal and brand symbolism on consumers’ online brand endorsements. *International Journal of Advertising*, 36(1), 107-120.
- Bernritter, S.F., Verlegh, P.W., & Smit, E.G. (2016). Why nonprofits are easier to endorse on social media: The roles of warmth and brand symbolism. *Journal of Interactive Marketing*, 33, 27-42.
- Berezan, O., Krishen, A.S., Agarwal, S., & Kachroo, P. (2020). Exploring loneliness and social networking: Recipes for hedonic well-being on Facebook. *Journal of Business Research*, 115, 258-265.
- Berezan, O., Krishen, A.S., & Jenveja, A. (2019). Loneliness and social media: The interplay of physical and virtual social space. *Marketing and Humanity: Discourses in the Real World*, 49-68.
- Bjerke, R., & Polegato, R. (2006). How well do advertising images of health and beauty travel across cultures? A self-concept perspective. *Psychology & Marketing*, 23, 865–884.

- Borah, A., Banerjee, S., Lin, Y.T., Jain, A., & Eisingerich, A.B. (2020). Improvised marketing interventions in social media. *Journal of Marketing*, 84(2), 69-91.
- Bourdieu, P., & Wacquant, L.J. (1992). *An invitation to reflexive sociology*. University of Chicago press.
- Braxton, D., & Lau-Gesk, L. (2020). The impact of collective brand personification on happiness and brand loyalty. *European Journal of Marketing*. 54(10), 2365-2386
- Brewer, M.B., & Gardner, W. (1996). Who is this “We”? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71(1), 83-93.
- Brodie, R.J., Ilic, A., Juric, B., & Hollebeck, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105-114.
- Brown, S. (2011). It’s Alive Inside! A Note on the Prevalence of Personification. *Irish Marketing Review*, 21 (1&2), 3–11.
- Calder, B. J., Malthouse, E. C., & Schaedel, U. (2009). An experimental study of the relationship between online engagement and advertising effectiveness. *Journal of Interactive Marketing*, 23(4), 321–331.
- Callcott, M.F., & Lee, W.N. (1994). A content analysis of animation and animated spokes-characters in television commercials. *Journal of Advertising*, 23(4), 1-12.
- Callow, K. (1998). *Man and Message. A Guide to Meaning-based Text Analysis*. University Press of America, Boston, MA
- Campbell, M.C., & Keller, K.L. (2003). Brand familiarity and advertising repetition effects. *Journal of Consumer Rresearch*, 30(2), 292-304.
- Carroll, E., & Romano, J., (2010). *Your digital afterlife: When Facebook, Flickr and Twitter are your estate, what’s your legacy?* New Riders.
- Chang, Y., Li, Y., Yan, J., & Kumar, V. (2019). Getting more likes: the impact of narrative person and brand image on customer–brand interactions. *Journal of the Academy of Marketing Science*, 47(6), 1027-1045.
- Chen, K.J., Lin, J.S., Choi, J.H., & Hahm, J.M. (2015). Would you be my friend? An examination of global Marketers’ brand personification strategies in social media. *Journal of Interactive Advertising*, 15(2), 97-110.

- Chen, R.P., Wan, E.W., & Levy, E. (2017). The effect of social exclusion on consumer preference for anthropomorphized brands. *Journal of Consumer Psychology*, 27(1), 23-34.
- Chen, J., Yang, X., & Smith, R.E. (2016). The effects of creativity on advertising wear-in and wear-out. *Journal of the Academy of Marketing Science*, 44(3), 334-349.
- Close, A.G., Krishen, A.S., & Latour, M.S. (2009). This event is me!: How consumer event self-congruity leverages sponsorship. *Journal of Advertising Research*, 49(3), 271-284.
- CMO Survey (2021) The transformation of marketing: Emerging digital, social, and political trends, The highlights and insights report -February 2021. Retrieved from https://cmosurvey.org/wp-content/uploads/2021/02/The_CMO_Survey-Highlights_and_Insights_Report-February-2021.pdf
- Cohen, R.J., (2014). Brand personification: Introduction and overview. *Psychology & Marketing*, 31(1), 1-30.
- Colicev, A., Malshe, A., Pauwels, K., & O'Connor, P. (2018). Improving consumer mindset metrics and shareholder value through social media: The different roles of owned and earned media. *Journal of Marketing*, 82(1), 37-56.
- Confente, I., Scarpi, D., & Russo, I. (2020). Marketing a new generation of bio-plastics products for a circular economy: The role of green self-identity, self-congruity, and perceived value. *Journal of Business Research*, 112, 431-439.
- Connell, P.M. (2013). The role of baseline physical similarity to humans in consumer responses to anthropomorphic animal images. *Psychology & Marketing*, 30(6), 461-468.
- Cuddy, A.J., Fiske, S.T., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, 60(4), 701-718.
- Cuddy, A.J., Fiske, S.T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in experimental social psychology*, 40, 1-149.
- Cvijikj, I.P., & Michahelles, F. (2013). Online engagement factors on Facebook brand pages. *Social Network Analysis and Mining*, 3(4), 843-861.
- Davvetas, V., & Halkias, G. (2019). Global and local brand stereotypes: Formation, content transfer, and impact. *International Marketing Review*, 36(5), 675-701.

- Delbaere, M., McQuarrie, E.F., & Phillips, B.J. (2011). Personification in advertising. *Journal of Advertising*, 40(1), 121-130.
- De Vries, L., Gensler, S., & LeeFlang, P.S. (2012). Popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing. *Journal of Interactive Marketing*, 26(2), 83-91.
- Disabato, D.J., Goodman, F.R., Kashdan, T.B., Short, J.L., & Jarden, A. (2016). Different types of well-being? A cross-cultural examination of hedonic and eudaimonic well-being. *Psychological Assessment*, 28(5), 471-482.
- Eagly, A.H., & Kite, M.E. (1987). Are stereotypes of nationalities applied to both women and men? *Journal of Personality and Psychology*, 53(3), 451-462.
- Ellison, N.B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- Epley, N., Waytz, A., & Cacioppo, J.T. (2007). On seeing human: a three-factor theory of anthropomorphism. *Psychological Review*, 114(4), p.864-886.
- Erikson, E.H. (1968). *Identity: Youth and crisis*. WW Norton & company.
- Escalas, J. E., & Bettman, J. R. (2003). You are what they eat: The influence of reference groups on consumer connections to brands. *Journal of Consumer Psychology*, 13, 339-348.
- Evanschitzky, H., Wunderlich, M., 2006. An examination of moderator effects in the four-stage loyalty model. *J. Serv. Res*, 8, 330-345.
- Fastoso, F., & González-Jiménez, H. (2020). Materialism, cosmopolitanism, and emotional brand attachment: The roles of ideal self-congruity and perceived brand globalness. *Journal of Business Research*, 121, 429-437.
- Fiske, S.T., Cuddy, A.J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.
- Forehand, M.R., & Deshpandé, R. (2001). What we see makes us who we are: Priming ethnic self-awareness and advertising response. *Journal of Marketing Research*, 38(3), 336-348.

- Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343–373.
- Fournier, S., & Yao, J. (1997). Reviving brand loyalty: A reconceptualization within the framework of consumer–brand relationships. *International Journal of Research in Marketing*, 14(5), 451–472.
- Gardner, W.L., Gabriel, S., & Lee, A.Y. (1999). “I” value freedom, but “we” value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological science*, 10(4), 321-326.
- Gensler, S., Völckner, F., Liu-Thompkins, Y., & Wiertz, C. (2013). Managing brands in the social media environment. *Journal of Interactive Marketing*, 27(4), 242-256.
- Goh, K.Y., Heng, C.S., & Lin, Z. (2013). Social media brand community and consumer behavior: Quantifying the relative impact of user-and marketer-generated content. *Information Systems Research*, 24(1), 88-107.
- GoPro (2021) GoPro awards recognize you. Retrieved from <https://gopro.com/en/us/awards>
- Grandey, A.A., Fisk, G.M., Mattila, A.S., Jansen, K.J., & Sideman, L.A. (2005). Is “service with a smile” enough? Authenticity of positive displays during service encounters. *Organizational Behavior and Human Decision Processes*, 96(1), 38-55.
- Grewal, L., Stephen, A.T., & Coleman, N.V. (2019). When posting about products on social media backfires: the negative effects of consumer identity signaling on product interest. *Journal of Marketing Research*, 56(2), 197-210.
- Gudykunst, W.B., Matsumoto, Y., Ting-Tommey, S., Nishida, T., Kim, K., & Heyman, S. (1996). The influence of cultural individualism–collectivism, self-construals, and individual values on communication styles across cultures. *Human Communication Research*, 22(4), 510-543.
- Haberstroh, K., Orth, U.R., Bouzdine-Chameeva, T., Cohen, J., Corsi, A.M., Crouch, R., & De Marchi, R. (2018). Through the lens of self-construal. *International Marketing Review*, 35(3), 429-457.
- Han, S.P., & Shavitt, S. (1994). Persuasion and culture: Advertising appeals in individualistic and collectivistic societies. *Journal of Experimental Social Psychology*, 30(4), 326-350.
- Handelsman, M.M., Briggs, W.L., Sullivan, N., & Towler, A. (2005). A measure of college student course engagement. *Journal of Educational Research*, 98(3), 184–191.

- Harrigan, P., Evers, U., Miles, M.P., & Daly, T. (2018). Customer engagement and the relationship between involvement, engagement, self-brand connection and brand usage intent. *Journal of Business Research*, 88, 388-396.
- Hart, P., & Royne, M.B. (2017). Being human: How anthropomorphic presentations can enhance advertising effectiveness. *Journal of Current Issues & Research in Advertising*, 38(2), 129-145.
- Hayes, A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hayes, A.F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50(1), 1-22.
- Helgeson, J. G., & Supphellen, M. (2004). A conceptual and measurement comparison of self-congruity and brand personality: The impact of socially desirable responding. *International Journal of Marketing Research*, 46, 205–233
- Hofstede, G. (2018) “Compare Countries,” Hofstede Insights. Retrieved from <https://www.hofstede-insights.com/country-comparison/china/>
- Hollebeek, L.D. (2011). Demystifying customer brand engagement: Exploring the loyalty nexus. *Journal of Marketing Management*, 27(7-8), 785-807.
- Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149–165.
- Hong, J., & Chang, H.H. (2015). “I” follow my heart and “We” rely on reasons: The impact of self-construal on reliance on feelings versus reasons in decision making. *Journal of Consumer Research*, 41(6), 1392-1411.
- Hong, J. W., & Zinkhan, G. M. (1995). Self-concept and advertising effectiveness: The influences of congruency, conspicuousness, and response modes. *Psychology & Marketing*, 12, 53–77.
- Hughes, C., Swaminathan, V., & Brooks, G. (2019). Driving brand engagement through online social influencers: An empirical investigation of sponsored blogging campaigns. *Journal of Marketing*, 83(5), 78-96.

- Hur, J.D., Koo, M., & Hofmann, W. (2015). When temptations come alive: How anthropomorphism undermines self-control. *Journal of Consumer Research*, 42(2), 340-358.
- Huta, V., & Ryan, R.M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, 11(6), 735-762.
- Igartua, J.J., & Barrios, I. (2013). Hedonic and eudaimonic motives for watching feature films. Validation of the Spanish version of Oliver–Raney’s scale. *Communications*, 38(4), 411-431
- Ilic, A. (2008). Towards a conceptualisation of consumer engagement in online communities: A netnographic study of vibration training online community. Unpublished master’s thesis, University of Auckland (Department of Marketing), Auckland, New Zealand.
- Islam, J.U., Rahman, Z., & Hollebeek, L.D. (2018). Consumer engagement in online brand communities: a solicitation of congruity theory. *Internet Research*, 28 (1), 23-45
- Ivens, B. S., Leischnig, A., Muller, B., & Valta, K. (2015). On the role of brand stereotypes in shaping consumer response toward brands: An empirical examination of direct and mediating effects of warmth and competence. *Psychology & Marketing*, 32(8), 808–820.
- James, W. (1890). *The principles of psychology*, Vol. 1. New York: Henry Holt.
- Jeong, H.J., & Kim, J. (2021). Human-like versus me-like brands in corporate social responsibility: the effectiveness of brand anthropomorphism on social perceptions and buying pleasure of brands. *Journal of Brand Management*, 28(1), 32-47.
- Ji, L.J., Peng, K., & Nisbett, R.E. (2000). Culture, control and perception of relationships in the environment. *Journal of Personality and Social Psychology*, 78 (5), 943– 955
- Judd, C.M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89(6), 899-913.
- Kabadayi, S., & Price, K. (2014). Consumer–brand engagement on Facebook: liking and commenting behaviors. *Journal of Research in Interactive Marketing*, 8 (3), 203-223
- Kang, J., Tang, L., Lee, J.Y., & Bosselman, R.H. (2012). Understanding customer behavior in name-brand Korean coffee shops: The role of self-congruity and functional congruity. *International Journal of Hospitality Management*, 31(3), 809-818.

- Kervyn, N., Fiske, S. T., & Malone, C. (2012). Brands as intentional agents framework: How perceived intentions and ability can map brand perception. *Journal of Consumer Psychology*, 22(2), 166–176.
- Kiesler, D.L. (2006). Anthropomorphism and consumer behavior. *ACR North American Advances*, 33, 149.
- Kim, J., Kim, Y., & Kim, D. (2017). Improving well-being through hedonic, eudaimonic, and social needs fulfillment in sport media consumption. *Sport Management Review*, 20(3), 309-321.
- Kim, H.C., & Kramer, T. (2015). Do materialists prefer the “brand-as-servant”? The interactive effect of anthropomorphized brand roles and materialism on consumer responses. *Journal of Consumer Research*, 42(2), 284-299.
- Kim, C., & Yang, S. U. (2017). Like, comment, and share on Facebook: how each behavior differs from the other. *Public Relations Review*, 43(2), 441–449.
- Kleine, R.E., Kleine, S.S., & Kernan, J.B. (1993). Mundane consumption and the self: A social-identity perspective. *Journal of Consumer Psychology*, 2(3), 209-235.
- Kolbl, Ž., Arslanagic-Kalajdzic, M., & Diamantopoulos, A. (2019). Stereotyping global brands: Is warmth more important than competence? *Journal of Business Research*, 104, 614–621.
- Kolstad, A., & Horpestad, S. (2009). Self-construal in Chile and Norway: Implications for cultural differences in individualism and collectivism. *Journal of Cross-Cultural Psychology*, 40, 275-281.
- Kunz, W., Aksoy, L., Bart, Y., Heinonen, K., Kabadayi, S., Ordenes, F.V., Sigala, M., Diaz, D., & Theodoulidis, B. (2017). Customer engagement in a big data world. *Journal of Services Marketing*, 31(2), 161-171
- Kwon, E.S., & Sung, Y. (2011). Follow me! Global marketers’ Twitter use. *Journal of Interactive Advertising*, 12(1), 4-16.
- Lalwani, A.K., & Shavitt, S. (2009). The “me” I claim to be: Cultural self-construal elicits self-presentational goal pursuit. *Journal of Personality and Social Psychology*, 97(1), 88-102.
- Lalwani, A.K., & Shavitt, S. (2013). You get what you pay for? Self-construal influences price-quality judgments. *Journal of Consumer Research*, 40(2), 255-267.

- Lakoff, G., & Johnson, M. (1980). The metaphorical structure of the human conceptual system. *Cognitive Science*, 4(2), 195-208.
- Laroche, M., Habibi, M.R., Richard, M.O., & Sankaranarayanan, R. (2012). The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty. *Computers in Human Behavior*, 28(5), 1755-1767.
- Laroche, M., Li, R., Richard, M.O., & Shao, M. (2021). Understanding Chinese consumers' and Chinese immigrants' purchase intentions toward global brands with Chinese elements. *Journal of Product & Brand Management*. ahead-of-print
- Lee, E., Ahn, J., & Kim, Y. J. (2014). Personality traits and self-presentation at Facebook. *Personality and Individual Differences*, 69, 162–167.
- Lee, J.K., Hansen, S.S., & Lee, S.Y. (2020). The effect of brand personality self-congruity on brand engagement and purchase intention: The moderating role of self-esteem in Facebook. *Current Psychology*, 39, 2116-2128.
- Lee, D., Hosanagar, K., & Nair, H.S. (2018). Advertising content and consumer engagement on social media: Evidence from Facebook. *Management Science*, 64(11), 5105-5131.
- Lee, D., Kim, H.S., & Kim, J.K. (2012). The role of self-construal in consumers' electronic word of mouth (eWOM) in social networking sites: A social cognitive approach. *Computers in Human Behavior*, 28(3), 1054-1062.
- Li, Y., & Xie, Y. (2020). Is a picture worth a thousand words? An empirical study of image content and social media engagement. *Journal of Marketing Research*, 57(1), 1-19.
- Libai, B., Bolton, R., Bügel, M.S., De Ruyter, K., Götz, O., Risselada, H., & Stephen, A.T. (2010). Customer-to-customer interactions: broadening the scope of word of mouth research. *Journal of service research*, 13(3), 267-282.
- Lipsman, A., Mudd, G., Rich, M., & Bruich, S. (2012). The power of “like”. *Journal of Advertising Research*, 52(1), 40–52.
- Lu, J., & Xu, Y. (2015). Chinese young consumers' brand loyalty toward sportswear products: a perspective of self-congruity. *Journal of Product & Brand Management*, 24 (4), 365-376
- Maas J, Van Assen M.A., Van Balkom AJ, Rutten E.A, Bekker M.H. (2019). Autonomy–connectedness, self-construal, and acculturation: Associations with mental health in a multicultural society. *Journal of Cross-Cultural Psychology*, 50(1), 80-99.

- Machleit, K.A., Allen, C.T., & Madden, T.J. (1993). The mature brand and brand interest: An alternative consequence of ad-evoked affect. *Journal of Marketing*, 57(4), 72-82.
- Malhotra, N.K. (1981). A scale to measure self-concepts, person concepts, and product concepts. *Journal of Marketing Research*, 18(4), 456-464.
- Malhotra, N.K. (1988). Self concept and product choice: An integrated perspective. *Journal of Economic Psychology*, 9(1), 1-28.
- Marketwatch (2021). GoPro's new App 'Quik' helps you get the most out of your photos and videos, no matter what phone or camera you're using. Retrieve from <https://www.marketwatch.com/press-release/gopros-new-app-quik-helps-you-get-the-most-out-of-your-photos-and-videos-no-matter-what-phone-or-camera-youre-using-2021-03-16?siteid=bigcharts&dist=bigcharts&tesla=y>
- Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Markus, H., & Kitayama, S. (1994). A collective fear of the collective: Implications for selves and theories of selves. *Personality and Social Psychology Bulletin*, 20, 568-579.
- Markus, H., Kitayama, S., & Heiman, R. J. (1996). Culture and basic psychological principles. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 857-913). New York: Guilford.
- Markus, H., & Oyserman, D. (1988). Gender and thought: The role of the self concept. In M. Crawford and M. Hamilton (Eds.), *Gender and thought: Psychological perspectives* (pp. 100–127). New York: Springer.
- Mazodier, M., & Merunka, D. (2012). Achieving brand loyalty through sponsorship: The role of fit and self-congruity. *Journal of the Academy of Marketing Science*, 40(6), 807-820.
- McCracken, G. (1986). Culture and consumption: a theoretical account of the structure and movement of the cultural meaning of consumer goods. *Journal of Consumer Research*, 13 (June), 71-84.
- Meire, M., Hewett, K., Ballings, M., Kumar, V., & Van den Poel, D., 2019. The role of marketer-generated content in customer engagement marketing. *Journal of Marketing*, 83(6), 21-42.
- Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, 63(9-10), 919-925.

- Mourey, J.A., Olson, J.G., & Yoon, C., 2017. Products as pals: Engaging with anthropomorphic products mitigates the effects of social exclusion. *Journal of Consumer Research*, 44(2), 414-431.
- Nadkarni, A., & Hofmann, S. (2012). Why do people use Facebook? *Personality and Individual Differences*, 52(3), 243–249
- Naylor, R.W., Lamberton, C.P., & West, P.M. (2012). Beyond the “like” button: The impact of mere virtual presence on brand evaluations and purchase intentions in social media settings. *Journal of Marketing*, 76(6), 105-120.
- Ng, S., & Houston, M.J. (2006). Exemplars or beliefs? The impact of self-view on the nature and relative influence of brand associations. *Journal of Consumer Research*, 32(4), 519-529.
- Nisbett, R.E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108(2), 291-310.
- Obilo, O.O., Chefor, E., & Saleh, A. (2021). Revisiting the consumer brand engagement concept. *Journal of Business Research*, 126, 634-643.
- O’Cass, A., & Grace, D. (2008). Understanding the role of retail store service in light of self-image–store image congruence. *Psychology & Marketing*, 25(6), 521–537.
- Odağ, Ö., Uluğ, Ö.M., Arslan, H., & Schiefer, D. (2018). Culture and media entertainment: A cross-cultural exploration of hedonic and eudaimonic entertainment motivations. *International Communication Gazette*, 80(7), 637-657.
- Oliver, R. (1999). Whence consumer loyalty? *Journal of Marketing*, 63 (Special Issue), 33–44.
- Oliver, M.B., & Raney, A.A. (2011). Entertainment as pleasurable and meaningful: Identifying hedonic and eudaimonic motivations for entertainment consumption. *Journal of Communication*, 61(5), 984-1004.
- Paruthi, M., & Kaur, H. (2017). Scale development and validation for measuring online engagement. *Journal of Internet Commerce*, 16(2), 127–147.
- Pansari, A., & Kumar, V. (2017). Customer engagement: the construct, antecedents, and consequences. *Journal of the Academy of Marketing Science*, 45(3), 294-311.
- Percy, L., & Rossiter, J.R. (1992). Advertising stimulus effects: A review. *Journal of Current Issues & Research in Advertising*, 14(1), 75-90.

- Peter, C., & Ponzi, M. (2018). The risk of omitting warmth or competence information in ads: Advertising strategies for hedonic and utilitarian brand types. *Journal of Advertising Research*, 58(4), 423–432.
- Peters, K., Chen, Y., Kaplan, A.M., Ognibeni, B., & Pauwels, K. (2013). Social media metrics— A framework and guidelines for managing social media. *Journal of interactive marketing*, 27(4), 281-298.
- Phillips, B.J., & Gyoerick, B. (1999). The cow, the cook, and the Quaker: Fifty years of spokes-character advertising. *Journalism & Mass Communication Quarterly*, 76(4), 713-728.
- Phillips, B.J., & Lee, W.N. (2005). Interactive animation: Exploring spokes-characters on the Internet. *Journal of Current Issues & Research in Advertising*, 27(1), 1-17.
- Pieters, R., Warlop, L., & Wedel, M. (2002). Breaking through the clutter: Benefits of advertisement originality and familiarity for brand attention and memory. *Management science*, 48(6), 765-781.
- Poppe, E., & Linssen, H. (1999). In-group favouritism and the reflection of realistic dimensions of difference between national states in Central and Eastern European nationality stereotypes. *British Journal of Social Psychology*, 38(1), 85-102.
- Porteous, C. (2021). 97% of Fortune 500 companies rely on social media. Here's how you should use it for maximum impact. Retrieved from: <https://www.entrepreneur.com/article/366240>
- Puzakova, M., & Aggarwal, P. (2018). Brands as rivals: Consumer pursuit of distinctiveness and the role of brand anthropomorphism. *Journal of Consumer Research*, 45(4), 869-888.
- Rabbanee, F.K., Roy, R., & Spence, M.T. (2020). Factors affecting consumer engagement on online social networks: self-congruity, brand attachment, and self-extension tendency. *European Journal of Marketing*, 54(5), 1407-1431.
- Ricoeur, P. (2004). *The rule of metaphor: The creation of meaning in language*. Routledge.
- Rosenberg, S., Nelson, C., & Vivekananthan, P.S. (1968). A multidimensional approach to the structure of personality impressions. *Journal of Personality and Social Psychology*, 9(4), 283-294.
- Rosengren, S., Eisend, M., Koslow, S., & Dahlen, M. (2020). A meta-analysis of when and how advertising creativity works. *Journal of Marketing*, 84(6), 39-56.

- Roy, R., & Rabbanee, F.K. (2015). Antecedents and consequences of self-congruity. *European Journal of Marketing*, 49(3/4), 444-466
- Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141-166.
- Sabate, F., Berbegal-Mirabent, J., Cañabate, A., & Lebherz, P.R. (2014). Factors influencing popularity of branded content in Facebook fan pages. *European Management Journal*, 32(6), 1001-1011.
- Saks, A.M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600–619.
- Santini, F.O., Ladeira, W.J., Costa Pinto, D., Herter, M.M., Sampaio, C.H., & Babin, B.J. (2020), Customer engage in social media: A framework and meta-analysis. *Journal of the Academy of Marketing Science*, 48(6)
- Saxton, G.D., & Waters, R.D. (2014). What do stakeholders like on Facebook? Examining public reactions to nonprofit organizations' informational, promotional, and community-building messages. *Journal of Public Relations Research*, 26(3), 280-299.
- Schau, H. J., & Gilly, M. C. (2003). We are what we post? Self- presentation in personal web space. *Journal of Consumer Research*, 30(3), 385–404.
- Sethuraman, R., Tellis, G.J., & Briesch, R.A. (2011). How well does advertising work? Generalizations from meta-analysis of brand advertising elasticities. *Journal of Marketing Research*, 48(3), 457-471.
- Sheldon, K.M., Abad, N., & Hinsch, C. (2011). A two-process view of Facebook use and relatedness need-satisfaction: Disconnection drives use, and connection rewards it. *Psychology of Popular Media Culture*, 1(S), 2–15
- Sheldon, K.M., & Gunz, A. (2009). Psychological needs as basic motives, not just experiential requirements. *Journal of Personality*, 77(5), 1467-1492.
- Singelis, T.M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, 20(5), 580-591.
- Singelis, T.M. (2000). Some thoughts on the future of cross-cultural social psychology. *Journal of Cross-Cultural Psychology*, 31(1), 76-91.

- Simpson, B., White, K., & Laran, J. (2018). When public recognition for charitable giving backfires: The role of independent self-construal. *Journal of Consumer Research*, 44(6), 1257-1273.
- Sirgy, M.J. (1982). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research*, 9(3), 287-300.
- Sirgy, M.J., Grewal, D., & Mangleburg, T. (2000). Retail environment, self-congruity, and retail patronage: An integrative model and a research agenda. *Journal of Business research*, 49(2), 127-138.
- Sirgy, M.J., Grewal, D., Mangleburg, T.F., Park, J.O., Chon, K.S., Claiborne, C.B., Johar, J.S., & Berkman, H. (1997). Assessing the predictive validity of two methods of measuring self-image congruence. *Journal of the Academy of Marketing Science*, 25(3), 229-241.
- Sirgy, M.J., & Samli, A.C. (1985). A path analytic model of store loyalty involving self-concept, store image, geographic loyalty, and socioeconomic status. *Journal of the Academy of Marketing Science*, 13(3), 265-291.
- Sirgy, M.J., & Su, C. (2000). Destination image, self-congruity, and travel behavior: Toward an integrative model. *Journal of Travel Research*, 38(4), 340-352.
- Solomon, M.R., Ashmore, R.D., & Longo, L.C. (1992). The beauty match-up hypothesis: Congruence between types of beauty and product images in advertising. *Journal of Advertising*, 21(4), 23-34.
- Sprott, D., Czellar, S., & Spangenberg, E. (2009). The importance of a general measure of brand engagement on market behavior: Development and validation of a scale. *Journal of Marketing Research*, 46(1), 92-104.
- Statista. (2021). Facebook: number of monthly active users worldwide as of 2nd quarter 2021. Retrieved from <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>
- Stephen, A.T., Sciandra, M., & Inman, J. (2015). Is it what you say or how you say it? How content characteristics affect consumer engagement with brands on Facebook. How Content Characteristics Affect Consumer Engagement with Brands on Facebook. *Unpublished manuscript*, United Kingdom: Saïd Business School, 1-59
- Sung, Y., & Choi, S.M. (2012). The influence of self-construal on self-brand congruity in the

- United States and Korea. *Journal of Cross-Cultural Psychology*, 43(1), 151-166.
- Swaminathan, V., Page, K.L., & Gürhan-Canli, Z., 2007. “My” brand or “our” brand: The effects of brand relationship dimensions and self-construal on brand evaluations. *Journal of Consumer Research*, 34(2), 248-259.
- Swani, K., & Labrecque, L.I. (2020). Like, Comment, or Share? Self-presentation vs. brand relationships as drivers of social media engagement choices. *Marketing Letters*, 31, 279-298.
- Tamborini, R., Bowman, N.D., Eden, A., Grizzard, M., & Organ, A. (2010). Defining media enjoyment as the satisfaction of intrinsic needs. *Journal of Communication*, 60(4), 758-777.
- Taylor, D.G., Lewin, J.E., & Strutton, D. (2011). Friends, fans, and followers: do ads work on social networks?: how gender and age shape receptivity. *Journal of Advertising Research*, 51(1), 258-275.
- Tellis, G.J., MacInnis, D.J., Tirunillai, S., & Zhang, Y. (2019). What drives virality (sharing) of online digital content? The critical role of information, emotion, and brand prominence. *Journal of Marketing*, 83(4), 1-20.
- Thomson, M., MacInnis, D. J., & Park, C. W. (2005). The ties that bind: Measuring the strength of consumers’ emotional attachments to brands. *Journal of Consumer Psychology*, 15(1), 77–91.
- Touré-Tillery, M., & McGill, A.L. (2015). Who or what to believe: Trust and the differential persuasiveness of human and anthropomorphized messengers. *Journal of Marketing*, 79(4), 94-110.
- Tuan, Y.F. (1980). The significance of the artifact. *Geographical Review*, 462-472.
- Turner, M. (1987). *Death is the mother of beauty: Mind, metaphor, criticism*. University of Chicago Press.
- Valta, K. S. (2013). Do relational norms matter in consumer-brand relationships? *Journal of Business Research*, 66(1), 98–104.
- Van den Bulte, C., & Wuyts, S.H.K. (2007). *Social networks in marketing*. Cambridge, MA: Marketing Science Institute.
- Verhoef, P.C., Reinartz, W.J., & Krafft, M. (2010). Customer engagement as a new perspective in customer management. *Journal of Service Research*, 13(3), 247-252.
- Wallendorf, M., & Arnould, E. J. (1988). “My favorite things”: A cross-cultural inquiry into object

- attachment, possessiveness, and social linkage. *Journal of Consumer Research*, 14, 531-547.
- Wang, C.C. (2000). Right appeals for the 'right self': connectedness–separateness self-schema and cross-cultural persuasion. *Journal of Marketing Communications*, 6(4), 205-217.
- Wang, C.L., Bristol, T., Mowen, J.C., & Chakraborty, G. (2000). Alternative modes of self-construal: Dimensions of connectedness–separateness and advertising appeals to the cultural and gender-specific self. *Journal of Consumer Psychology*, 9(2), 107-115.
- Wang, C.L., & Mowen, J.C. (1997). The separateness-connectedness self-schema: Scale development and application to message construction. *Psychology & Marketing*, 14(2), 185-207.
- Wang, R., Kim, J., Xiao, A., & Jung, Y.J. (2017). Networked narratives on Humans of New York: A content analysis of social media engagement on Facebook. *Computers in Human Behavior*, 66, 149-153.
- Wang, Z., Mao, H., Li, Y.J., & Liu, F. (2017). Smile big or not? Effects of smile intensity on perceptions of warmth and competence. *Journal of Consumer Research*, 43(5), 787-805.
- Weiger, W.H., Hammerschmidt, M., & Wetzel, H.A. (2018). Don't you dare push me: how persuasive social media tactics shape customer engagement. *Journal of the Association for Consumer Research*, 3(3), 364-378.
- White, K., Argo, J.J., & Sengupta, J., 2012. Dissociative versus associative responses to social identity threat: The role of consumer self-construal. *Journal of Consumer Research*, 39(4), 704-719.
- Wien, A.H., & Olsen, S.O. (2014). Understanding the relationship between individualism and word of mouth: A self-enhancement explanation. *Psychology & Marketing*, 31(6), 416-425.
- Wu, E.C., Moore, S.G., & Fitzsimons, G.J. (2019). Wine for the table: Self-construal, group size, and choice for self and others. *Journal of Consumer Research*, 46(3), 508-527.
- Wu, J., Chen, J., & Dou, W. (2017). The Internet of Things and interaction style: The effect of smart interaction on brand attachment. *Journal of Marketing Management*, 33(1–2), 61–75.
- Xu, H., Gong, Y., Zhang, Q., & Xie, J. (2019). Relationship between social media activities and thinking styles. *Marketing Intelligence & Planning*, 38(2), 195-208
- Yang, H., Stamatogiannakis, A., & Chattopadhyay, A. (2015). Pursuing attainment versus maintenance goals: The interplay of self-construal and goal type on consumer

- motivation. *Journal of Consumer Research*, 42(1), 93-108.
- Yoon, G., Li, C., Ji, Y., North, M., Hong, C., & Liu, J. (2018). Attracting comments: Digital engagement metrics on Facebook and financial performance. *Journal of Advertising*, 47(1), 24-37.
- Yu, A.Y., Tian, S.W., Vogel, D., & Kwok, R.C.W. (2010). Can learning be virtually boosted? An investigation of online social networking impacts. *Computers & Education*, 55(4), 1494-1503.
- Zhang, Y., & Gelb, B.D. (1996). Matching advertising appeals to culture: The influence of products' use conditions. *Journal of Advertising*, 25(3), 29-46.
- Zhang, Y., & Neelankavil, J.P. (1997). The influence of culture on advertising effectiveness in China and the USA: A cross-cultural study. *European Journal of Marketing*, 31(2), 134-149
- Zhang, J., & Mao, E. (2016). From online motivations to ad clicks and to behavioral intentions: An empirical study of consumer response to social media advertising. *Psychology & Marketing*, 33(3), 155-164.
- Zhang, Y., & Shrum, L.J. (2009). The influence of self-construal on impulsive consumption. *Journal of Consumer Research*, 35(5), 838-850.
- Zhou, X., Kim, S., & Wang, L. (2019). Money helps when money feels: Money anthropomorphism increases charitable giving. *Journal of Consumer Research*, 45(5), 953-972.
- Zinkhan, G. M., & Hong, J. W. (1991). Self concept and advertising effectiveness: A conceptual model of congruency, conspicuousness, and response mode. In R. Holman & M. Solomon (Eds.), *Advances in consumer research* (Vol, 18, pp. 348-354). Provo, UT: Association for Consumer Research.

Appendix A: Stimuli in Essay 1

Stimuli used in Study 1 & 3

Personification appeal



It's a new day. You got this.

Love,

Coffee ☕❤️



Non-personification appeal



It's a new day. You got coffee.



Appendix B: Stimuli in Essay 1

Essay 1: Stimuli used in Study 2

Personification appeal



Cardiley Camera @Cardiley

Hi friend, I have high image quality with a 20 Megapixel full-frame CMO sensor! I'd love to catch the AWESOME moments in your daily life! Are you ready for our adventure? 📷 😊



Non-personification appeal



Cardiley Camera @Cardiley

Cardiley SOE 6 has high image quality with a 20 Megapixel full-frame CMO sensor. It catches every moment in your daily life. It's time for adventure with Cardiley.



Appendix C: Scales in Essay 1

Essay 1: Scales (1 = strongly disagree, 7 = strongly agree)

Personification appeal manipulation checks (Hart and Royne 2017):

1. The brand posting personifies the brand as a human.
2. The brand posting makes me think of the brand as a person.
3. In the brand posting, the brand seems like a human in one or more ways.

Liking intention

1. How likely is it that you would give this brand posting a “like”?

Perceived warmth (Grandey et al. 2005)

1. I find the brand is warm.
2. I find the brand is generous.
3. I find the brand is friendly.

Need for social belongingness (Nadkarni and Hofmann 2012; Seidman 2013)

1. I like this brand Tweet to feel included.
2. I like this brand Tweet to make others feel closer to me.
3. I like this brand Tweet to feel closer to others.
4. I like this brand Tweet to show caring for others.
5. I like this brand Tweet to support others”.

Hedonic motive (Huta and Ryan 2010)

Usually, people approach their activities with each of the following intentions, whether or not they actually achieve their aim. What’s your opinion about the following intentions?

1. I seek enjoyment.
2. I seek pleasure.
3. I seek fun.
4. I seek relaxation.
5. I seek to take it easy.

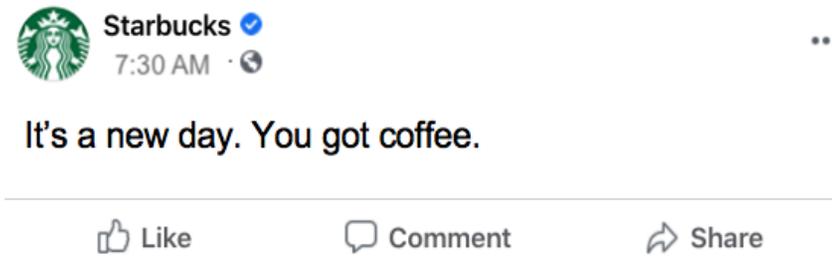
Appendix D: Stimuli in Essay 2

Essay 2: Stimuli used in Study 1 & Study 2

Personification appeal



Non-personification appeal



Appendix E: Stimuli in Essay 3

Essay 3: Stimuli used in Study 1 & Study 2

Independent self-construal



"Remember the day by **yourself** at the beach ...
The warm light of sun shining down on *you*. The sound of the waves
crashing on the beach. Nothing beats a quiet moment alone, *by yourself!*"

YOUR MEMORIES ... AND **Alpha's** TOP COLOR QUALITY Printer
Capture Your Feelings!

Interdependent self-construal



"Remember the day at the beach with **your best friends** ...
The warm light of sun shining down on *all of you*. The sound of the waves
crashing on the beach. Nothing beats a moment *with your best friends!*"

Friendship MEMORIES ... AND **Alpha's** TOP COLOR QUALITY Printer
Capture the Feelings of Friendship!

Appendix F: Stimuli in Essay 3

Essay 3: Stimuli used in Study 1

Autonomy appeal

 GoPro  @GoPro · 4h 

Starring ... yourself! Your life is a unique experience!
Explore and believe your victories!
[#BeAHero](#)



Connectedness appeal

 GoPro  @GoPro · 4h 

Connect with your friends! Life is the shared experience
with friends! Explore and have fun together!
[#FunTotegether](#)



Appendix G: Scales in Essay 3

Essay 3: Scales

Self-construal manipulation checks (Aaker and Lee 2001; 1= not at all, 7 = a lot)

We would like to know your feelings and thoughts about the advertisement. Please describe the extent to which:

1. You thought just about yourself.
2. Your thoughts about the message were focused on just yourself.
3. Your thoughts were focused on just you.
4. Your thought about you and your friends.
5. Your thoughts about the message were focused on you and your friends.
6. Your thoughts were focused on you and your friends.

Autonomy-connectedness appeal manipulation checks (Wang and Mowen 1997)

The tweet theme highlights _____.

1. People are different.
2. People are independent.
3. People are autonomous (i.e., having the freedom to act independently).
4. People help each other.
5. People are dependent on each other.
6. People have empathy for each other (i.e., understanding and feeling each other).

Liking intention

1. How likely is it that you would give this tweet a “like”?

Content self-congruity (Close and Krishen 2009; Sirgy et al. 1997)

What are your thoughts about the tweet and yourself?

1. I am very much like the typical person who gives the tweet a “like”.
2. People who likes the tweet are similar to me.
3. Liking the tweet reflects who I am.
4. The tweet is consistent with how I see myself.

Appendix H: Stimuli in Essay 3

Essay 3: Stimuli used in Study 2

Autonomy appeal



Connectedness appeal

