



Human-like underdog brands: How brand personality affects self-service technology adoption

Yaeri Kim¹, Kiwan Park², Seojin Stacey Lee³

¹Department of Data Science, Seoul Women's University, Republic of Korea

²College of Business Administration, Seoul National University, Republic of Korea

³Center for Happiness Studies, Seoul National University, Republic of Korea

How to cite: Kim, Y., Park, K., & Lee, S. S. (2022). Human-like underdog brands: How brand personality affects self-service technology adoption. *Social Behavior and Personality: An international journal*, 50(4), e11237

This research explored the effects of service delivery types (conventional face-to-face service vs. self-service technologies; SSTs) and brand personality (underdog brand vs. top-dog brand) on consumers' brand attitudes. Study 1 revealed that consumers perceived more anthropomorphic features in underdog brands than in top-dog brands (Hypothesis 1). The anthropomorphic brand personality of an underdog affected consumers' preferences for service type. The results of Study 2 indicated that consumers preferred face-to-face service to SSTs for underdog brands (Hypothesis 2). The underlying mechanism to explain this phenomenon was revealed by the perceived increased discomfort when using SSTs (Hypothesis 3). These findings offer practical implications for marketing managers in deciding when brand personality should be considered when adopting a new service type.

Keywords

brand personality;
underdog brand; top-dog
brand;
anthropomorphism;
discomfort; self-service
technologies; face-to-face
service

Article Highlights

- Consumers considered underdog brands to have more anthropomorphic features than top-dog brands did.
- Consumers preferred face-to-face service to self-service technologies for underdog brands.
- The underlying mechanism to account for the effects was perceived discomfort.
- Marketers should carefully consider the means of delivering services according to brand personality.

Service Delivery Types

The critical difference between *face-to-face service* and *self-service technologies* (SSTs) is the presence in face-to-face service of human interactions of customers with employees during the service delivery process (S.-Y. Kim & Yi, 2017). As the role of technology increases in service encounters (Huang, 2018), SSTs have attracted more attention in service-related research (Nijssen et al., 2016; Pujari, 2004). Previous research has demonstrated that SSTs benefit both enterprises and consumers with their efficiency (e.g., Orel & Kara, 2014). However, researchers have suggested that SSTs have drawbacks apropos of the relationship quality

CORRESPONDENCE Kiwan Park, College of Business Administration, Seoul National University, 1, Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea. Email: kiwanp@snu.ac.kr, or Seojin Stacey Lee, Center for Happiness Studies, Seoul National University, 1, Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea. Email: eternalsj11@gmail.com

between customers and employees and can block customers from having enjoyable interactions with service providers (Lee, 2017). Further, extant studies on SSTs have mainly investigated the effects on consumer responses of consumer characteristics (i.e., psychological reactance; Feng et al., 2019) or contextual variables (i.e., perceived waiting time, task complexity; Wang et al., 2012). Few studies have been conducted to explore how brand personality positively or negatively affects consumer attitudes toward SSTs (Fan et al., 2016). Therefore, we incorporated brand personality (underdog vs. top-dog brands) and investigated its moderating effects on the link between service delivery types (SSTs vs. face-to-face) and consumer responses.

Anthropomorphic Underdog Brands

Positioning as an underdog is one of the characteristic ways of activating brand anthropomorphism. This anthropomorphic feature of the underdog may originate through consumers' identification with the brand (Paharia et al., 2011). In four experiments, these authors demonstrated high external disadvantage and passion determination as two essential dimensions of underdog biography, and found a positive effect of both on consumers' purchase intention for the brand. The participants were students recruited from colleges in North America and Singapore, and both groups reported stronger purchase intention for brands with an underdog biography than for top-dog brands. The underlying mechanism to support this positive attitude was based on consumers' identification with the underdog brand. Furthermore, in three experiments conducted with college students in Korea, Jun et al. (2015) found that this underdog effect was greater for people with empathic concerns, in that people with stronger (vs. weaker) empathic concern had a more positive attitude toward the underdog brand.

This identification-based underdog effect has been explained by I-sharing (Pinel et al., 2006), which is characterized by the phenomenon that one's personal experience has commonalities with that of another person or other persons. It increases relational qualities such as trust and cooperation (Woolley & Fishbach, 2017). Many people feel they have characteristics in common with underdog brands, such as having a lack of resources or sharing other disadvantages (Paharia et al., 2011). Thus, consumers feel a strong attachment toward underdog brands, experience a perception of reduced psychological distance, and want to build a relationship with the brand (Fu & Xu, 2021; Y. Kim et al., 2019). However, the same mechanism may make consumers feel an increased psychological distance toward the top-dog brand, with the brand personality associated with privileged status (Paharia et al., 2011).

Communal Relationships and Service Delivery Types

Anthropomorphic brands have been studied from a relationship perspective. Researchers (e.g., Long et al., 2015) extended analysis of consumer and brand relationships—which was pioneered by Fournier (1998)—by incorporating into their research models the social norms utilized in human relationships. Aggarwal (2004) found that brand relationships differ depending on the social norms guiding the extent to which they are based on the norm of exchange or are communal. *Exchange relationships* are based on the quid pro quo mode of transactions, which are typical in the business context. In *communal relationships* the brand is prioritized as part of an in-group. Therefore, the relational norm should be applied to an anthropomorphic underdog brand with brand identification. According to Alvarez and Fournier (2016), anthropomorphism is a predominant condition for managing human interactions with brands. He et al. (2018) contended that consumers treat anthropomorphic, compared to nonanthropomorphic, brands as social agents with increased communal relationships.

We anticipated that when service delivery type and brand personality were integrated, consumers would not prefer delivery via SSTs for brands with an underdog personality. This is because delivery via SSTs might be considered a violation of the communal relational norm. In the context of communal relationships, where mutual warmth is an essential factor (Bolton & Mattila, 2015), consumers expect affective interaction with human agents. Delivery via SSTs, which aligns with an exchange relationship in which the focus is on the

service outcome, might not fully satisfy consumers' effective needs in the service delivery process. Fan and Mattila (2020) identified this conformity or violation of relationship norms in the context of service encounters. These authors observed increased consumer satisfaction with communal relationships when human interaction was involved (vs. delivery via SSTs). Further, they found that the underlying mechanism to support this phenomenon was explained by the perception of warmth during the service delivery process. Thus, consumers preferred face-to-face service to delivery via SSTs when interacting with underdog brands because, according to the communal relationship norm, they expect warmth during the service delivery process. However, consumer responses differ depending on relational bonds (Hedrick et al., 2007). Accordingly, we expected that, for top-dog brands, consumers would not expect communal relationships rooted in the anthropomorphic features of brand personality. Thus, consumers' preferences for human-related services would not be roused.

Discomfort in the Perspective of Communal Relationships

A reliable indicator of whether the relationship norm is observed is the partner's reaction when this norm is violated. Few studies have explored this area from the perspective of brand transgression (Khamitov et al., 2020; Sayin & Gürhan-Canlı, 2015). With regard to anthropomorphic brands in particular, consumers feel betrayed when their moral expectations toward the underdog are not satisfied (Y. Kim & Park, 2020). Further, compared to top-dog brands, consumers are less likely to forgive underdog brands for transgressions in relationships and, as a result, are more likely to become angry (Y. Kim et al., 2019). This mechanism could be further evidence that the consumer's relationship with the underdog brand falls into the communal category, because anger or perceived betrayal are usually observed in the relationship between individuals and their partners or friends (Bhattacharya & Sen, 2003; Finkel et al., 2002). According to these studies, it is plausible that consumers' negative emotional responses could explain their reluctance toward delivery via SSTs in the communal-brand relationship. However, the intensity of consumers' perception differs depending on the seriousness of the norm violation, expressed with an appropriate degree of affective response (Grappi et al., 2013). Accordingly, distinction should be made between brand wrongdoing and simple relational norm violation (Li et al., 2020). In addition, in the realm of SST literature, compared with other negative emotions, discomfort could be a more natural emotion for customers to feel when they are not satisfied with SSTs (Liljander et al., 2006). Therefore, we sought to capture the discomfort and attenuated emotions causing dissatisfaction that may lead to consumers' reluctance to engage with SSTs for service delivery of brands that fall into the communal-relationships category. The conceptual framework is presented in Figure 1.

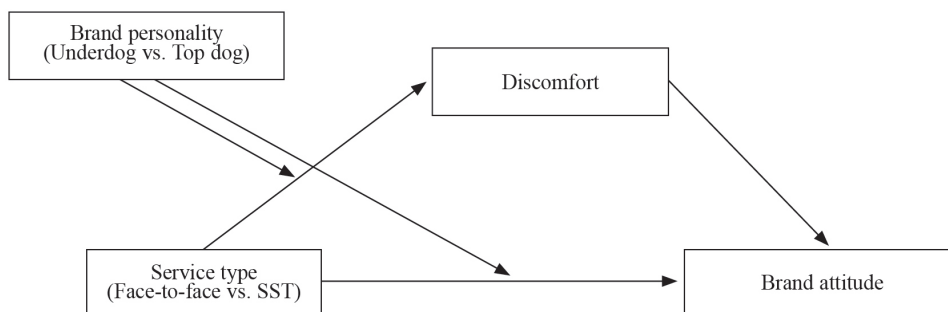


Figure 1. *Conceptual Framework*

Note. SST = self-service technology.

Our hypotheses are as follows:

Hypothesis 1: Participants will consider underdog brands to have more anthropomorphic features than top-dog brands do.

Hypothesis 2a: For underdog brands, participants will show a more favorable attitude toward face-to-face services than toward self-service technologies.

Hypothesis 2b: For top-dog brands, there will be no significant difference between participants' attitude toward face-to-face service and toward self-service technology.

Hypothesis 3: The interaction effect of service delivery type and brand biography on participants' brand attitude will be mediated by their perceived discomfort.

Study 1

Method

Both this study and Study 2 were conducted in accordance with the ethical standards of the Institutional Review Board of Seoul National University, Seoul, South Korea (1908/002-013). The objective of Study 1 was to investigate consumers' perception of a brand's anthropomorphism according to its personality.

Participants

Participants were 60 adults from the US (40 women, 20 men; $M_{\text{age}} = 38.30$ years, $SD = 14.15$, range = 19–77) who were recruited via the Prolific Academic online panel service (www.prolific.ac). We chose the sample size based on the G*Power program (Faul et al., 2007). For this study, based on the input parameters (effect size $f = .40$, α error probability = .05, power = .80, number of groups = 2), a minimum sample size of 52 was recommended (Faul et al., 2007). The participants were randomly assigned to one of two conditions, representing either the underdog or top-dog brand biography (adopted from Paharia et al., 2011; see Appendix A).

Procedure

After reading the assigned scenario, the participants indicated the degree to which they identified human-like features in the brand profile: "I see some human-like features in this brand" and "This brand looks like a person." The item regarding brand anthropomorphism was slightly tailored to the current study context by removing the name, Jasper, for the human-like product (H.-Y. Kim & McGill, 2018). Finally, the degree of passion, determination, and external difficulty in checking the manipulation of brand biography were verified for both biographies: "Brand A has passion and determination" and "Brand A has restrictions from an external disadvantage." The manipulation check of brand biography was slightly tailored for the current study context by adding Brand A as the conceptual name (Paharia et al., 2011). All items were assessed using a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) and, after the survey was completed, participants were debriefed.

Results

Manipulation Checks

An independent samples t test of both manipulation checks indicated a significant difference between the two biographies. The underdog biography received higher scores for passion and determination ($M = 5.90$, $SD = 1.17$) than did the top-dog biography ($M = 3.24$, $SD = 1.92$), $t(58) = -6.44$, $p < .001$, 95% confidence interval (CI) $[-3.49, -1.83]$. The participants perceived the underdog biography as having a greater external disadvantage ($M = 5.39$, $SD = 1.12$) than the top-dog biography ($M = 3.28$, $SD = 1.65$), $t(58) = -5.85$, $p < .001$, 95% CI $[-2.83, -1.39]$.

Human-Like Features

An independent samples t test of human-like features ($\alpha = .93$) revealed a significant perceived difference between the two biographies. The participants considered the underdog brand ($M = 4.73$, $SD = 1.70$) to have more human-like features than the top-dog brand ($M = 3.71$, $SD = 1.84$), $t(58) = -2.23$, $p = .030$, 95% CI

Discussion

We found that participants inferred more human-like features for the underdog than the top-dog brand (Figure 2). In Study 2 we investigated the effects of these anthropomorphized brand personality and service delivery types on participants' brand attitude and the underlying psychological mechanisms.

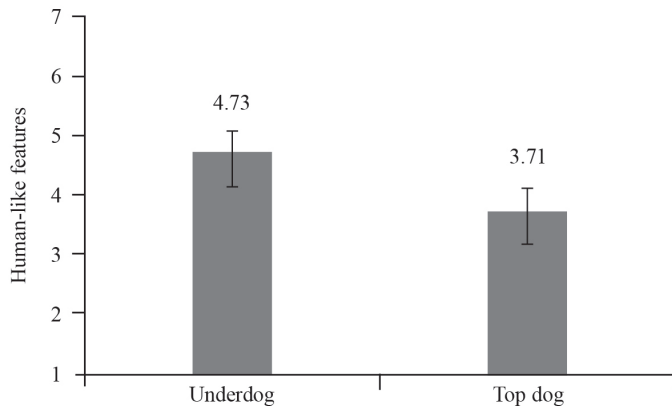


Figure 2. *Effects of Brand Personality on Human-Like Features (Study 1)*

Note. Error bars show the 95% confidence intervals around the means.

** $p < .01$. *** $p < .001$.

Study 2

Pilot Test

A pilot test was conducted to check the manipulation of Study 2. We recruited 80 participants (37 women, 43 men; $M_{\text{age}} = 28.14$ years, $SD = 9.93$, range = 18–60) from Prolific to test in a 2 (service delivery type: face-to-face vs. SST) \times 2 (brand personality: underdog vs. top dog) between-subjects design analysis of variance (ANOVA). The participants read one of the two hypothetical scenarios describing service delivery in a café. In the face-to-face service scenario, they were asked to imagine ordering a cappuccino from an employee. In the SST scenario, they were asked to imagine ordering a cappuccino via a tablet (see Appendix B for details). First, regarding service delivery types, the participants perceived the scenario as intended. The face-to-face service-based scenario received higher scores for the statement “In the scenario a human employee took your order” ($M = 6.78$, $SD = 0.61$) than the SST scenario did ($M = 1.18$, $SD = 0.60$), $t(78) = 41.23$, $p < .001$, 95% CI [5.33, 5.87]. The SST-based scenario received higher scores for the statement “In the scenario you didn’t have any interaction with the employees at the coffee shop” ($M = 5.97$, $SD = 1.99$) than the face-to-face scenario did ($M = 1.93$, $SD = 1.86$), $t(78) = -9.39$, $p < .001$, 95% CI [-4.91, -3.19]. Further, with regard to brand personality, an independent samples t test of both manipulation checks indicated a significant difference in participants’ perception between the two biographies. The underdog biography received higher scores for passion and determination ($M = 5.44$, $SD = 1.64$) than the top-dog biography did ($M = 3.59$, $SD = 1.80$), $t(78) = -4.80$, $p < .001$, 95% CI [-2.62, -1.08]. The participants perceived the underdog biography as having a greater external disadvantage ($M = 4.56$, $SD = 1.57$) than the top-dog biography did ($M = 3.46$, $SD = 1.70$), $t(78) = -3.01$, $p = .004$, 95% CI [-1.83, -0.37]. Thus, as we had expected, the manipulation scenarios were confirmed in this pilot test, and we utilized the scenarios in Study 2.

Method

Participants

For Study 2, based on the input parameters (effect size $f = .40$, α error probability = .05, power = .80, number of groups = 4), a minimum sample size of 76 was recommended. Participants were 157 adults from the US (109 women, 48 men; $M_{\text{age}} = 35.39$ years, $SD = 11.56$, range = 18–68 years) who were recruited via Prolific. The participants were randomly assigned to one of four conditions in a 2 (service delivery type) \times 2 (brand personality) between-subjects design ANOVA.

Procedure

After reading the same scenarios as had been tested in the pilot test, the participants responded to questions to measure brand attitude: “How much do you like this [Brand A] coffee shop?” and “How likely is it that you would revisit Brand A coffee shop?” (adapted from Bidmon, 2017). The participants reported their level of perceived discomfort associated with the coffee-ordering process. Items in the discomfort scale developed by Liljander et al. (2006) are as follows: “Technical support lines are not helpful because they don’t explain things in terms that you understand,” “When you get technical support from a provider of a high-tech product or service, you sometimes feel as if you are being taken advantage of by someone who knows more than you do,” and “It is embarrassing when you have trouble with a high-tech gadget while people are watching.” However, the items in the discomfort scale as developed by Liljander et al. (2006) have shown low reliability, indicating the scale is not reliable as a unique dimension. Thus, we modified the scale items to improve reliability and tailored them to the context of this study. In particular, the second item was removed because its relevance to our study was comparatively low. Subsequently, the reliability of the tailored discomfort scale satisfied the reliability standards. The final scale items we utilized were “When I ordered my cappuccino, I felt uncomfortable” and “When I ordered my cappuccino, I felt displeased.” Items were assessed using a 7-point Likert scale (1 = *not at all*, 7 = *very much*), and a debriefing session followed the completion of the survey.

Results

Brand Attitude

A 2 \times 2 ANOVA of brand attitude ($\alpha = .91$) revealed a significant two-way interaction, $F(1, 153) = 3.89$, $p = .050$, $\eta_p^2 = .025$; the main effects of service delivery type ($p = .003$) and brand biography ($p = .005$) were also significant). The planned contrasts test (Figure 3) indicated that for the underdog brand, face-to-face service generated a more favorable brand attitude ($M = 5.67$, $SD = 0.91$) than SSTs did ($M = 4.50$, $SD = 1.56$), $t(59.28) = -3.98$, $p < .001$, whereas there was no significant difference for the top-dog brand between face-to-face service ($M = 4.54$, $SD = 1.41$) and SSTs ($M = 4.29$, $SD = 1.80$), $t(75.37) = -0.68$, $p = .479$.

Perceived Discomfort

The same 2 \times 2 ANOVA of perceived discomfort ($\alpha = .74$) produced a significant two-way interaction, $F(1, 153) = 6.50$, $p = .012$, $\eta_p^2 = .041$, in which the main effect of service delivery type ($p < .001$) was significant, but that of brand biography was not ($p = .477$). For the underdog brand, SSTs induced greater perceived discomfort ($M = 3.13$, $SD = 1.54$) than face-to-face service did ($M = 1.83$, $SD = 1.13$), $t(153) = 4.07$, $p < .001$. In contrast, no significant difference in perceived discomfort was found for the top-dog brand between SSTs ($M = 2.40$, $SD = 1.49$) and face-to-face service types ($M = 2.24$, $SD = 1.40$), $t(153) = 0.51$, $p = .613$.

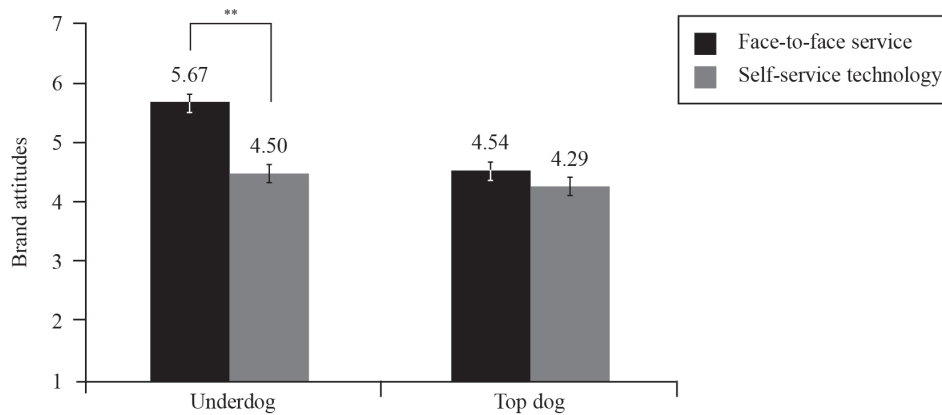


Figure 3. *Effects of Brand Personality and Service Type on Brand Attitudes (Study 2)*

Note. Error bars show the 95% confidence intervals around the means.

** $p < .01$.

Mediation Analysis

To demonstrate whether perceived discomfort mediated the moderating effect of brand biography on brand attitude, we employed a bootstrapping analysis using the PROCESS 3.0 macro (Model 8) for SPSS with 5,000 resamples, which validates the reliability of the analyses (Hayes, 2017; Preacher & Hayes, 2004). In the model, service-delivery type was used as the independent variable (0 = face-to-face service, 1 = SST), brand biography as the moderator (0 = top dog, 1 = underdog), perceived discomfort as the proposed mediator, and brand attitude as the dependent variable. The indirect effect via perceived discomfort was significant, 95% CI [-0.81, -0.09]. Further, as shown in Figure 4, the conditional indirect effect was significant only for the underdog brand, 95% CI [-0.89, -0.16]; top-dog brand 95% CI [-0.36, 0.14]. Thus, the results support Hypotheses 2a, 2b, and 3, in that participants preferred face-to-face services to SSTs for the underdog brand, and perceived discomfort mediated the interaction.

Discussion

We found that participants liked SSTs less than they liked face-to-face service for the underdog brand, and their perceived discomfort mediated the interaction.

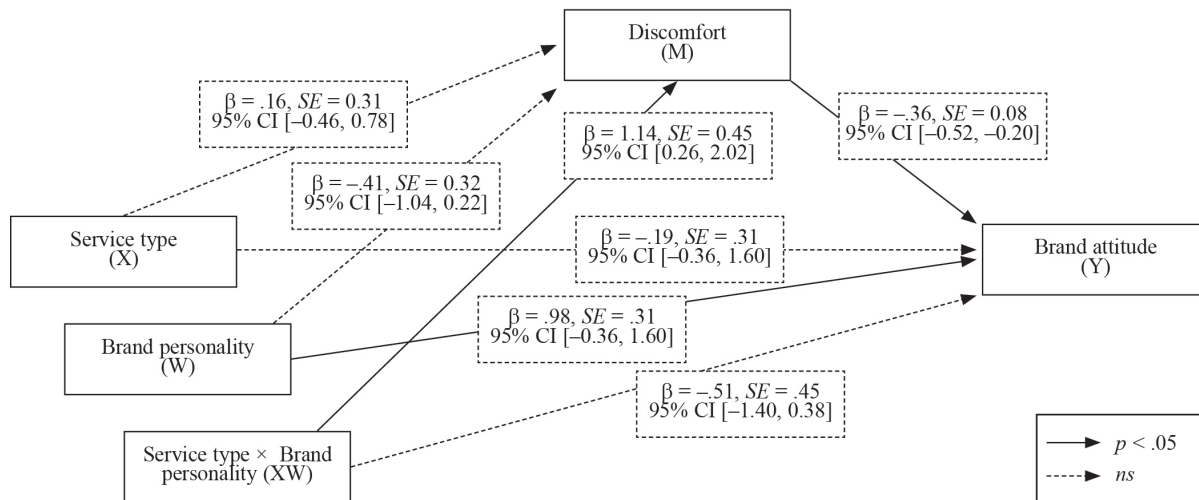


Figure 4. Conceptual Model With Estimates

Note. CI = confidence interval.

General Discussion

This study explored the effects of human-like brand personality and service delivery type on consumers' brand attitude. We demonstrated that consumers inferred more anthropomorphic features in underdog brands than in top-dog brands (Study 1). Therefore, for underdog brands, we surmised that consumers would have more favorable attitudes toward face-to-face services than toward SSTs because they perceive underdogs as social entities and feel more comfortable when interacting with humans than with machines (Study 2).

Our findings provide important theoretical contributions to the literature. First, this research builds on the extant literature on underdog brands by revealing that consumers perceive underdog brands as more human-like agencies compared to top-dog brands. Although extensive research has been conducted to investigate the effects of underdog brands in diverse marketing contexts (e.g., Jun et al., 2015; Y. Kim et al., 2019), few studies have examined brands' anthropomorphic image (e.g., Y. Kim & Park, 2020). Our findings suggest that it is possible to personify brands using underdog biographies rather than manipulating the physical appearance of the advertised product (Aggarwal & McGill, 2007; He et al., 2018).

Moreover, this research makes a theoretical contribution to the literature on SSTs in that we identified brand personality as a significant moderator of the link between service delivery type and consumer response. This finding has implications for marketers, in that consumer traits and situational factors at the time of purchase decision are often uncontrollable, but positioning the brand personality is more manageable. Thus, our findings advance not only extant theories but also will aid marketers in deciding whether to adopt SSTs in their business for service delivery based on brand personality.

However, the research did not address possible solutions to reduce consumer discomfort when facing SSTs as service deliverer for anthropomorphic brands. To provide a concrete guide for marketing of brands with strong human-like features, research to reduce consumers' perceived discomfort is needed (e.g., MacInnis & Folkes, 2017). A coffee shop was the only scenario we utilized, but this could be replicated in other service contexts (e.g., supermarkets and hotel lobbies) with a larger sample size to enhance the generalizability of

our findings. Moreover, future researchers could suggest other underlying mechanisms to describe consumer responses toward underdog brands caused by anthropomorphized features, such as psychological distance (Fu & Xu, 2021), trust (Woolley & Fishbach, 2017), and familiarity (Paharia et al., 2011). Finally, the perceived discomfort scale we utilized has low validity owing to the modifications we made. Future studies could investigate the development of a more reliable discomfort scale to better capture perceived discomfort in the context of brand relationships (e.g., Pang et al., 2017).

Consumers like underdog brands, which induce intimacy because of their human-like features (Y. Kim et al., 2019; Paharia et al., 2011). However, because of the anthropomorphic characteristics of these brands, consumers expect relational and warm services from them (He et al., 2018). Our research demonstrates that consumers prefer human interaction to SSTs for delivery of services of underdog brands because they perceive underdogs as anthropomorphic entities capable of shared communication (Fan & Mattila, 2020; Y. Kim et al., 2019). Therefore, marketers should carefully consider the means of delivering the service, not only for underdog brands but also for highly anthropomorphic brands.

Acknowledgments

This research was financially supported by grants from Seoul Women's University (2021-0429), the Center for Happiness Studies at Seoul National University (0404-20190002), the Institute of Management at Seoul National University, and the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2021S1A5A8070305).

References

- Aggarwal, P. (2004). The effects of brand relationship norms on consumer attitudes and behavior. *Journal of Consumer Research*, 31(1), 87–101.
<https://doi.org/10.1086/383426>
- 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.
<https://doi.org/10.1086/518544>
- Alvarez, C., & Fournier, S. (2016). Consumers' relationships with brands. *Current Opinion in Psychology*, 10, 129–135.
<https://doi.org/10.1016/j.copsyc.2015.12.017>
- Bhattacharya, C. B., & Sen, S. (2003). Consumer–company identification: A framework for understanding consumers' relationships with companies. *Journal of Marketing*, 67(2), 76–88.
<https://doi.org/10.1509/jmkg.67.2.76.18609>
- Bidmon, S. (2017). How does attachment style influence the brand attachment – Brand trust and brand loyalty chain in adolescents? *International Journal of Advertising*, 36(1), 164–189.
<https://doi.org/10.1080/02650487.2016.1172404>
- Bolton, L. E., & Mattila, A. S. (2015). How does corporate social responsibility affect consumer response to service failure in buyer–seller relationships? *Journal of Retailing*, 91(1), 140–153.
<https://doi.org/10.1016/j.jretai.2014.10.001>
- Fan, A., & Mattila, A. S. (2020). Touch versus tech in service encounters. *Cornell Hospitality Quarterly*, 62(4), 468–481.
<https://doi.org/10.1177/1938965520957282>
- Fan, A., Wu, L., & Mattila, A. S. (2016). Does anthropomorphism influence customers' switching intentions in the self-service technology failure context? *Journal of Services Marketing*, 30(7), 713–723.
<https://doi.org/10.1108/JSM-07-2015-0225>

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>

Feng, W., Tu, R., Lu, T., & Zhou, Z. (2019). Understanding forced adoption of self-service technology: The impacts of users' psychological reactance. *Behaviour & Information Technology*, 38(8), 820–832. <https://doi.org/10.1080/0144929X.2018.1557745>

Finkel, E. J., Rusbult, C. E., Kumashiro, M., & Hannon, P. A. (2002). Dealing with betrayal in close relationships: Does commitment promote forgiveness? *Journal of Personality and Social Psychology*, 82(6), 956–974. <https://doi.org/10.1037//0022-3514.82.6.956>

Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343–373. <https://doi.org/10.1086/209515>

Fu, R., & Xu, W. (2021). How social exclusion and high self-esteem negatively affect consumer attitudes toward anthropomorphized products. *Social Behavior and Personality: An international journal*, 49(1), Article e9604. <https://doi.org/10.2224/sbp.9604>

Grappi, S., Romani, S., & Bagozzi, R. P. (2013). Consumer response to corporate irresponsible behavior: Moral emotions and virtues. *Journal of Business Research*, 66(10), 1814–1821. <https://doi.org/10.1016/j.jbusres.2013.02.002>

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.

He, D., Chen, F., & Jiang, Y. (2018). How do consumers react to anthropomorphized brand alliance? Applying interpersonal expectations to business-to-business relationships. *NA – Advances in Consumer Research*, 46, 587–590.

Hedrick, N., Beverland, M., & Minahan, S. (2007). An exploration of relational customers' response to service failure. *Journal of Services Marketing*, 21(1), 64–72. <https://doi.org/10.1108/08876040710726301>

Huang, T.-L. (2018). Creating a commercially compelling smart service encounter. *Service Business*, 12(2), 357–377. <https://doi.org/10.1007/s11628-017-0351-8>

Jun, S., Sung, J., Gentry, J. W., & McGinnis, L. P. (2015). Effects of underdog (vs. top dog) positioning advertising. *International Journal of Advertising*, 34(3), 495–514. <https://doi.org/10.1080/02650487.2014.996199>

Khamitov, M., Grégoire, Y., & Suri, A. (2020). A systematic review of brand transgression, service failure recovery and product-harm crisis: Integration and guiding insights. *Journal of the Academy of Marketing Science*, 48(3), 519–542. <https://doi.org/10.1007/s11747-019-00679-1>

Kim, H.-Y., & McGill, A. L. (2018). Minions for the rich? Financial status changes how consumers see products with anthropomorphic features. *Journal of Consumer Research*, 45(2), 429–450. <https://doi.org/10.1093/jcr/ucy006>

Kim, S. Y., & Yi, Y. (2017). Embarrassed customers: The dark side of receiving help from others. *Journal of Service Management*, 28(4), 788–806. <https://doi.org/10.1108/JOSM-11-2016-0296>

Kim, Y., & Park, K. (2020). When the underdog positioning backfires! The effects of ethical transgressions on attitudes toward underdog brands. *Frontiers in Psychology, 11*, Article 1988.
<https://doi.org/10.3389/fpsyg.2020.01988>

Kim, Y., Park, K., & Lee, S. S. (2019). The underdog trap: The moderating role of transgression type in forgiving underdog brands. *Psychology & Marketing, 36*(1), 28–40.
<https://doi.org/10.1002/mar.21155>

Lee, H.-J. (2017). Personality determinants of need for interaction with a retail employee and its impact on self-service technology (SST) usage intentions. *Journal of Research in Interactive Marketing, 11*(3), 214–231.
<https://doi.org/10.1108/JRIM-04-2016-0036>

Li, Z., Tao, W., & Wu, L. (2020). Examining the joint impact of relationship norms and service failure severity on consumer responses. *Journal of Public Relations Research, 32*(1–2), 76–91.
<https://doi.org/10.1080/1062726X.2020.1795867>

Liljander, V., Gillberg, F., Gummerus, J., & van Riel, A. (2006). Technology readiness and the evaluation and adoption of self-service technologies. *Journal of Retailing and Consumer Services, 13*(3), 177–191.
<https://doi.org/10.1016/j.jretconser.2005.08.004>

Long, C. R., Yoon, S., & Friedman, M. (2015). How lonely consumers relate to brands: Insights from psychological and marketing research. In S. Fournier, M. Breazeale, & J. Avery (Eds.), *Strong brands, strong relationships* (pp. 135–145). Routledge.
<https://doi.org/10.4324/9781315767079-17>

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

Nijssen, E. J., Schepers, J. J. L., & Belanche, D. (2016). Why did they do it? How customers' self-service technology introduction attributions affect the customer-provider relationship. *Journal of Service Management, 27*(3), 276–298.
<https://doi.org/10.1108/JOSM-08-2015-0233>

Orel, F. D., & Kara, A. (2014). Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market. *Journal of Retailing and Consumer Services, 21*(2), 118–129.
<https://doi.org/10.1016/j.jretconser.2013.07.002>

Paharia, N., Keinan, A., Avery, J., & Schor, J. B. (2011). The underdog effect: The marketing of disadvantage and determination through brand biography. *Journal of Consumer Research, 37*(5), 775–790.
<https://doi.org/10.1086/656219>

Pang, J., Keh, H. T., Li, X., & Maheswaran, D. (2017). “Every coin has two sides”: The effects of dialectical thinking and attitudinal ambivalence on psychological discomfort and consumer choice. *Journal of Consumer Psychology, 27*(2), 218–230.
<https://doi.org/10.1016/j.jcps.2016.10.001>

Pinel, E. C., Long, A. E., Landau, M. J., Alexander, K., & Pyszczynski, T. (2006). Seeing I to I: A pathway to interpersonal connectedness. *Journal of Personality and Social Psychology, 90*(2), 243–257.
<https://doi.org/10.1037/0022-3514.90.2.243>

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*(4), 717–731.
<https://doi.org/10.3758/BF03206553>

Pujari, D. (2004). Self-service with a smile? Self-service technology (SST) encounters among Canadian business-to-business. *International Journal of Service Industry Management, 15*(2), 200–219.
<https://doi.org/10.1108/09564230410532510>

Sayin, E., & Gürhan-Canlı, Z. (2015). Feeling attached to symbolic brands within the context of brand transgressions. In D. MacInnis, C. Whan Park, & N. K. Malhotra (Eds.), *Brand meaning management: Review of marketing research* (Vol. 12, pp. 233–256). Emerald Group.

<https://doi.org/10.1108/S1548-64352015000001200>

Wang, L., Li, T., & Zhou, T. (2012). Intraseasonal SST variability and air–sea interaction over the Kuroshio Extension region during boreal summer. *Journal of Climate*, 25(5), 1619–1634.

<https://doi.org/10.1175/JCLI-D-11-00109.1>

Woolley, K., & Fishbach, A. (2017). A recipe for friendship: Similar food consumption promotes trust and cooperation. *Journal of Consumer Psychology*, 27(1), 1–10.

<https://doi.org/10.1016/j.jcps.2016.06.003>

Appendix A

Study 1—Coffee Shop

Brand biography	
Underdog	Top dog
<p>Brand A is a relatively small and new local coffee shop that had to compete against longtime powerful producers like Starbucks. Even though they had smaller marketing and distribution budgets, the founders always believed that their dedication and passion for gourmet coffee would help them overcome the odds and bring their high-quality coffee to the market. They felt that they would not accept their current position in the marketplace, even though they lacked the resources or connections to compete.</p>	<p>Brand A is a coffee shop that is well resourced and has done well in the coffee industry. The founders have significant experience in the gourmet coffee industry and are known to maintain quality at every step of the production process. They are now owned by an international coffee corporation that was able to build the brand with a large public relations budget without compromising quality. They knew that they did not have to try hard to compete in this industry. They were unmotivated to try to change their current position in the marketplace.</p>

Appendix B

Study 2—Service Type

Service type	
Face-to-face	Self-service technology
<p>You visited a coffee shop of Brand A. When you took a seat near the window, a server in the shop came to get your order. You ordered a cappuccino with two pumps of vanilla syrup. You also paid through the server. The server took your order and now you are waiting for the cappuccino.</p>	<p>You visited a coffee shop of Brand A. When you took a seat near the window, you noticed a tablet on the table for placing your order. There was no server to assist you. On the screen, you selected a cappuccino and chose the option for two pumps of vanilla syrup. You also paid through the tablet. The order is now processed and you are waiting for the cappuccino.</p>