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Building Brand Authenticity on Social Media: The Impact of Instagram Ad Model Genuineness and Trustworthiness on Perceived Brand Authenticity and Consumer Responses

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ABSTRACT

This study builds on the growing literature of social media and brand authenticity literature through an exploration of the impact of Instagram images' expressive facial and visual aesthetics on consumers' evaluation of a source (i.e., model in the image) and brand. The findings showed that a smiling (versus nonsmiling) facial expression and a snapshot (versus studio) photography aesthetic resulted in higher perceived source genuineness. Following the theoretical rationale of the meaning transfer model, our findings further revealed the positive effect of perceived source genuineness on an endorsed brand's perceived authenticity via mediation of perceived source trustworthiness. Moreover, this positive effect of model genuineness was found to carry over to consumers' brand attitudes and behavioral intentions.

KEYWORDS

Brand authenticity; social media advertising; source genuineness; source trustworthiness

Social media platforms are often viewed less as technological services and more as digital spaces for users to consume, respond to, and contribute life content (Appel et al. 2020). Social media's use is thus contingent on how key stakeholders (i.e., laypeople, organizations, institutions, brands, professional content creators) use platforms to generate and engage with content. Given that laypeople are the majority of content creators and consumers on social media, many brands have begun to adapt to users' preferred languages and methods of communication via more "authentic" content (Schnackenberg and Tomlinson 2016).

Scholars have also recognized the importance of brand authenticity as a cornerstone of contemporary marketing because it reflects the values/meanings consumers seek in their communications with today's brands (Brown, Kozinets, and Sherry 2003; Cornelis and Peter 2017). Extant literature has highlighted the core meanings conveyed through brand authenticity as a brand's truthfulness, genuineness, and reliability (e.g., Bruhn et al. 2012; Akbar and Wymer 2017;

Morhart et al. 2015) and have found it can positively impact consumers' attitudinal and behavioral responses toward brands (e.g., Morhart et al. 2015; Schallehn, Burmann, and Riley 2014; Dwivedi and McDonald 2018).

However, in the context of social media where "authenticity" has become a popular buzzword, studies examining how brands' social media content can contribute to consumers' perception of brand authenticity is still underdeveloped. To address this gap in the research, this study adopted the theoretical lens of meaning transfer (McCracken 1989) and source effect (e.g., Choi and Rifon 2007) to analyze the visual characteristics of brands' posted images featuring different models or "sources." Specifically, we examined how visual cues in the images influenced consumers' perceptions of the model (i.e., genuineness and trustworthiness) and how such perceptions further influenced consumers' perceptions of the associated brand (i.e., brand authenticity) and their attitudinal and behavioral responses toward the brand.

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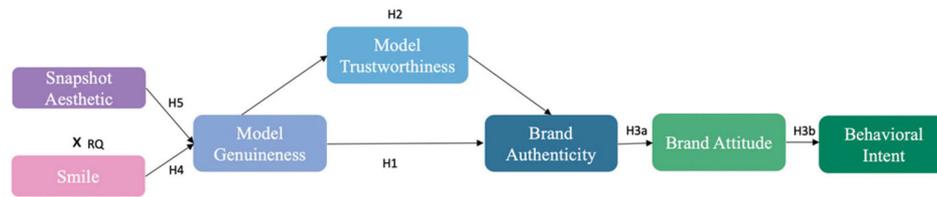


Figure 1. Research hypotheses framework.

In advertising, the term *source* refers to the deliverer of a message in an advertisement and is usually studied as either a media vehicle (Aaker and Brown 1972) or a spokesperson (i.e., celebrity or endorser; Erdogan 1999). As social media has evolved, so have source types—for example, with the advent of digital personalities and influencers. Studies have shown that a source’s genuineness and trustworthiness are important factors that influence consumers’ perceptions and attitudes toward an endorsed brand (Choi and Rifon 2007; Wiedmann and von Mettenheim 2020). The meaning transfer model also suggests that brands borrow meaning from information cues, including sources, to drive communication outcomes (McCracken 1989). Therefore, the presence of models in brands’ social media posts can serve as meaningful cues in conveying a brand’s values and beliefs. As the key attributes of a brand’s authenticity are credibility, genuineness, realness, and truthfulness (Bruhn et al. 2012), we expected featured models’ genuineness and trustworthiness would influence consumers’ perceptions of the brand’s authenticity.

Moreover, the use of visual cues has been found to be an important component of delivering brand meanings, as studies have shown that visual cues like colors, image complexity, and logo design can influence consumers’ perceptions of a brand (Labrecque and Milne 2012; Lee, Hur, and Watkins 2018). To adhere to the “authentic” norm on social media, brands have tried to incorporate visual cues that resemble user-generated content (UGC). For example, Shoenberger, Kim, and Johnson (2020) found that the use of plus-sized models without image modification to body size resulted in more positive consumer attitudes and purchase intentions. A series of studies has also shown that models’ facial characteristics can influence persuasive effectiveness and brand attitude (Kulczynski, Ilicic, and Baxter 2016; Trivedi and Teichert 2019; Ilicic, Baxter, and Kulczynski 2018). The current study thus adopted imagery characteristic analysis to examine the impact of visual characteristics (i.e., smiling/nonsmiling facial expressions and snapshot/studio photography aesthetics) on consumers’ perceptions of source characteristics and their

corresponding influence on brand perception and consumer response.

In sum, the current study applies meaning transfer (McCracken 1989) and source effects to examine the sequential impact of visual characteristics in brands’ Instagram images on consumers’ perceptions of source, brand, and consumers’ attitudinal and behavioral responses. We posit that the visual characteristics of a brand’s social media images (i.e., smiling facial expression and snapshot photography aesthetic) contribute to consumers’ perceptions of a model’s perceived genuineness and trustworthiness. We also posit that this further influence consumers’ perceptions of brand authenticity, thereby leading to positive consumer responses—in other words, increased brand attitude and behavioral intention (see Figure 1 for proposed research framework).

The importance of this study lies in its theoretical, methodological, and managerial insights regarding social media branding. Theoretically, the findings extend current understandings of building brand authenticity on social media by introducing source effects in advertising literature through the investigation of visual characteristics related to the source. The findings also provide empirical evidence for the meaning transfer process, linking visual cues to source and brand perception. Methodologically, this study advances extant literature through its imagery data analysis approach, which involves the use of a computational tool assisted by artificial intelligence (AI). Managerially speaking, our findings provide actionable guidance for marketing and advertising professionals interested in building an authentic brand on social media and connecting with consumers through authentic brand communication.

Literature Review

Brand Authenticity

Originating from the Greek word *authentikos* and the Latin word *authenticus*, authenticity conveys the meaning of truthfulness, real, and genuine (Cappannelli and Cappannelli 2004; Beverland and Farrelly 2010; Charmley, Garry, and Ballantine 2013).

In branding literature, brand authenticity is often studied as a multidimensional construct that reflects consumers' subjective evaluations of brands' performances in terms of continuity, originality, reliability, naturalness, credibility, symbolism, integrity, and genuineness (Bruhn et al. 2012; Morhart et al. 2015; Akbar and Wymer 2017).

This dimensional range has been derived from several scholarly conceptualizations and operationalizations of authenticity. For example, Bruhn et al. (2012) first defined brand authenticity as “a construct consisting of four dimensions, namely, *continuity*, *originality*, *reliability*, and *naturalness*” (p. 569). Shortly after, Morhart et al. (2015) defined brand authenticity as “the extent to which consumers perceive a brand to be faithful towards itself (*continuity*), true to its consumers (*credibility*), motivated by caring and responsibility (*integrity*) and able to support consumers in being true to themselves (*symbolism*)” (p. 203). Alternatively, a more recent definition comes from Akbar and Wymer (2017), who suggest originality and genuineness are the core of a brand's perceived authenticity.

Although these definitions vary in focus in regard to certain constructs, many of them are interchangeable. For instance, both Morhart et al. (2015) and Bruhn et al. (2012) share the construct of continuity, and both Bruhn et al. (2012) and Akbar and Wymer (2017) share the construct of originality. Moreover, what Bruhn et al. (2012) have defined as reliability is very similar to what Morhart et al. (2015) have termed credibility and integrity; and what Bruhn et al. (2012) have claimed is naturalness is closely related to genuineness in Akbar and Wymer's (2017) scale. In addition, Akbar and Wymer's (2017) scale included three reflective measurement items of brand authenticity adapted from Bruhn et al. (2012). In comparing these various definitions and operationalizations, we concluded that Akbar and Wymer's (2017) operationalization most reflects the core dimensions of authenticity's theoretical origin and interpretations.

Existing literature in branding has also long acknowledged the importance of brand authenticity, which has been referred to as “one of the cornerstones of contemporary marketing” (Brown, Kozinets, and Sherry 2003, p. 21) and has been found essential to constructing a brand's image and identity (Keller 1998; Beverland 2005; Kapferer 2004). Empirical studies have specifically shown the positive influence of brand authenticity on various marketing/branding outcomes, such as positive brand attitude (Fritz, Schoenmüller, and Bruhn 2017; Ewing, Allen, and

Ewing 2012; Spiggle, Nguyen, and Caravella 2012), brand credibility (Blackshaw 2008), brand trust (Schallehn, Burmann, and Riley 2014), brand loyalty (Lu, Gursoy, and Lu 2015), purchase intention (Napoli et al. 2014), and positive word of mouth (Morhart et al. 2015).

Several studies have also explored the antecedents that lead to consumers' perceptions of a brand's authenticity. These include a company's communication style, brand-congruent employee behaviors, brand anthropomorphism (Morhart et al. 2015), and brand's marketing communication, which itself includes a company's advertising, social media content, corporate social responsibility communication, and sponsorship (Dwivedi and McDonald 2018).

Despite these explorations, extant studies on the antecedents and consequences of brand authenticity have been relatively broad in scope. A narrower investigation is needed to examine how different components of a brand's marketing communication (i.e., source, message, channel, and audiences' individual differences) can build people's perceptions of a brand's perceived authenticity. Our study thus extends the literature on brand authenticity by investigating brand communication content on social media with a specific focus on images' sources/models to explore how sources/models influence consumers' perceptions of a brand's authenticity.

Source Genuineness, Trustworthiness, and Brand Authenticity

The notion of human genuineness has become more salient as media usage continues to undergo cultural changes and consumer usage habits shift. Original from Choi and Rifon's (2007) study on celebrity endorsement, the concept of source genuineness was proposed via the exploration of celebrity images. Specifically, they suggested that celebrities are also human and the genuineness of a celebrity reflects the qualities of a good person, which included pleasantness, sophistication, comfortableness, wisdom, and responsibility.

Studies on social media have shown that consumers are more likely to follow more authentic endorsers on social media and that such perceived authenticity can cause increased consumer intentions to purchase the brands/products they recommend (Kowalczyk and Pounders 2016; Pöyry et al. 2019). For example, Ilicic, Kulczynski, and Baxter (2018) revealed that celebrities' perceived genuineness significantly influenced consumers' brand attitudes and purchase intentions. In

addition, Shoenberger, Kim, and Johnson (2020) found consumers responded more positively to more authentic advertising on Instagram (e.g., models without digital enhancements) in ways that influenced advertising outcomes.

Perceived authenticity can be further examined through the meaning transfer model (McCracken 1989), a three-stage model of meaning transfer from culture and society to consumer goods and brands. Studies have specifically revealed that endorsers' qualities can be transferred to the perceived quality of endorsed products and brands (Langmeyer and Walker 1991; Peetz, Parks, and Spencer 2004). In the first stage, McCracken (1989) asserts that endorsers generate meaning from the roles, campaigns, traits, and accomplishments in their professional and personal lives. In the second stage, this meaning is transferred to endorsed brands and products through the endorsement. In the third stage, meaning transfers further onto consumers via consumption. The current study investigates the first two stages of meaning transfer in McCracken's (1989) model in particular, both of which focus on how an endorser's meanings can be transferred to brands using models in Instagram images. As social media has significantly transformed how people influence one another online, we extended the application of meaning transfer to a broader scope through the use of noncelebrity human endorsers.

In addition, McCracken (1989) mentioned that forces such as fashion, marketing communication, and arts are critical facilitators of the transfer process. We thus contend that studying the use of human models in fashion branding can provide more empirical evidence of meaning-making in the transfer process. In the current study, we specifically focus on the perceived genuineness of fashion models on Instagram. Following the meaning transfer model, we posit that when brands feature models that are perceived to be genuine in marketing communication on Instagram, consumers are more likely to transfer attributes of genuineness to the brand. Therefore, we offer our first hypothesis:

H1: The perceived model genuineness in a brand's Instagram image will positively influence consumers' perceptions of brand authenticity.

On the other hand, the source credibility model (Hovland, Janis, and Kelley 1953; McCroskey and Young 1981) suggests that perceived credibility (i.e., that consisting of dimensions of perceived expertise and trustworthiness) positively influences consumers' attitudes and behavioral responses toward endorsed brands (Kamins 1989; Priester and Petty 2003).

Priester and Petty (2003) have described a source's perceived trustworthiness as the audience's degree of confidence in the source's intention to provide accurate information. Such a perception is often associated with one's honesty, believability, and integrity (Erdogan 1999; Ohanian 1990). As suggested by existing scholarship on source effects, the embodied meanings of a source, as reflected through its perceived qualities, can effectively form and alter brands' images based on people's established understanding of the source (e.g., Choi and Rifon 2007). Therefore, given that the core meanings of brand authenticity (e.g., originality, reliability, naturalness, credibility, integrity, genuineness) align with the core meanings of source trustworthiness (i.e., honesty, believability, integrity), we posit that perceived trustworthiness of the source (i.e., models in the image) will play an important role in building a brand's perceived authenticity.

In addition, as suggested by Choi and Rifon (2007), the characteristic of human genuineness differs from source trustworthiness in the source credibility model, as the former represents a trait of the source's image, while the latter represents audiences' judgment of whether the source has provided accurate information (Priester and Petty 2003). However, Choi and Rifon (2007) have also suggested that the dimensions and credibility components of a source's image are interconnected, such that the source's perceived genuineness significantly contributed to their perceived trustworthiness as well. In other words, the image dimension of the source being a genuine person induced people's perception of the source as being trustworthy.

Studies have also revealed that social media personalities and digital influencers are perceived to be more credible than traditional celebrities (Djafarova and Trofimenko 2019) because they are perceived being "real" in comparison to traditional celebrities, who have publicity teams behind them. This sense of "realness" has been shown to cultivate authenticity, accessibility, and reliability (Abidin 2015; Duffy 2017; Marwick 2013, 2015). Although models in Instagram images may not always be social media personalities or digital influencers, we posit that the importance of being perceived as authentic on social media applies to them as well. This includes the meaning transfer of a source's perceived genuineness to a source's perceived credibility in an image. Given these expectations, we suggest a second hypothesis:

H2: The perceived trustworthiness of the source/model will positively mediate the relationship between consumers' perceptions of the model's genuineness and the brand's authenticity.

The source credibility model (Hovland, Janis, and Kelley 1953; Ohanian 1990) indicates that source characteristics affect consumers' attitudes and their subsequent behavioral responses toward brands. Consumers' attitudes toward a brand usually refer to a psychological tendency toward a particular entity with some degree of favor or disfavor (Eagly and Chaiken 1993), while consumers' behavioral intentions are usually operationalized as their purchase intentions, recommendation behaviors, store/website visits, and so on (e.g., Oh et al. 2019). In conjunction with existing literature on brand authenticity, studies have revealed that improving a brand's perceived authenticity can lead to higher consumer-brand bonding. This increased bonding can, in turn, lead to a more positive brand attitude on consumers' behalves (Fritz, Schoenmüller, and Bruhn 2017; Ewing, Allen, and Ewing 2012; Spiggle, Nguyen, and Caravella 2012) as well as higher purchase intentions and recommendation behaviors (Lu, Gursoy, and Lu 2015; Napoli et al. 2014; Morhart et al. 2015; Spiggle, Nguyen, and Caravella 2012). Based on these findings, we hypothesize:

H3: Perceived brand authenticity will (a) lead to positive brand attitude, which (b) further leads to higher behavioral intentions toward the brand.

Effects of Expressive Facial and Visual Characteristics

Expressive Facial: The Effects of Smiling

It is common for people to pay close attention to facial expressions that display emotions (LaFrance, Hecht, and Paluck 2003). When one is exposed to an emotionally charged facial expression, the feeling this expression evokes can cause viewers to feel the same or a similar emotion (De Gelder 2006). Research in the field of management has examined emotional expressions in the context of service providers, particularly in terms of impression management for prompting customer satisfaction (Grandey et al. 2005). Overall, the results of these studies show the importance of a positive emotive display in retailing.

In advertising literature, studies have found that genuine smiles (versus ingenuine smile) are usually more powerful and more often linked to perceptions of happiness, enjoyment, and sincerity (Frank, Ekman, and Friesen 1993; Soussignan 2002; Surakka and Hietanen 1998). The use of smiling models in advertisements has been found to have a direct and positive influence on consumers' attitudes toward advertisements and has been shown to increase purchase

intentions (Ilicic, Baxter, and Kulczynski 2018; Frank, Ekman, and Friesen 1993) when mediated through the models' perceived genuineness (Ilicic, Kulczynski, and Baxter 2018).

In addition, recent studies applying the source credibility model to digital spaces have highlighted that consumers tend to rely on simple cues to determine a source's trustworthiness (Lowry, Wilson, and Haig 2014). It has been found that consumers mostly make credibility judgments based on their first visual impressions of a source (Visentin, Pizzi, and Pichierri 2019). Given this, we posit that the effects of a smiling facial expression can further influence consumers' judgment of sources' trustworthiness. Following the source credibility and meaning transfer models, then, we also posit that smiling facial expressions can further influence consumers' cognitive, attitudinal, and behavioral responses. Therefore, we propose:

H4: Smiling (versus not smiling) models in an Instagram image will be perceived as (a) more genuine, (b) thus influencing consumers' evaluations of the source's trustworthiness, brand authenticity, and subsequent consumer responses.

Expressive Visuals: Photography Aesthetics (Snapshot versus Studio)

Visuals and aesthetics have always been essential factors in influencing consumers' satisfaction with technologies (Hartmann, Sutcliffe, and De Angeli 2007; Schenkman and Jönsson 2000). Social media has normalized the daily public sharing of photos from individuals' everyday lives with followers, friends, families, and fans. This normalization has given rise to the "snapshot aesthetic," a new form of photography aesthetic defined as "pictures that portray average situations and appear as though they could have been taken by the average consumer" (Colliander and Marder 2018). In response to changes in consumers' self-expression on social media, brands have attempted to keep pace with consumer culture "norms" like these.

Such adaptations have resulted in the use of snapshot aesthetic photography in brand communication (Chae 2017; Chua and Chang 2016; Colliander, Dahlén, and Modig 2015). This shift in overall brand communication strategy is most evident on platforms like Instagram, due in part to its position as an image-based platform built for the sharing of user-generated photos with snapshot aesthetics (Sheldon and Bryant 2016).

However, studies on the effects of photographic aesthetics in advertising and branding are notably limited. For instance, some studies have shown that images with snapshot aesthetics are seen as more personal and authentic (Mojca 2015) and can result in more favorable brand attitudes and word-of-mouth intentions (Colliander and Marder 2018) through the mediation of higher liking rates on an image and increases in source credibility. It has been explained that this effect of snapshot aesthetics holds greater congruence with the custom of the medium (Miller 2008), which has led to more a more fluid user experience which, in turn, has yielded favorable responses to images in brand communication (Colliander and Marder 2018).

To build on the literature outlined, we investigated how snapshot aesthetics can influence consumers' perceptions of a source, such as a model's perceived genuineness in a brand's Instagram images. As already proven by Colliander and Marder (2018), images taken with a snapshot aesthetic are often perceived to be more credible than traditional professional studio shots. This study takes this finding a step further by examining whether the perceived genuineness of a model additionally influences perceived genuineness and credibility. To return to the meaning transfer model (McCracken 1989) mentioned previously, each source contains a variety of cultural cues that can be associated with him or her to deliver meaningfulness through the endorsement of products/brands. When applied to the snapshot aesthetic approach, sources give contextual cues that liken them to ordinary people on social media and, thereby, to people's perceptions of the source/brand. As source and brand perceptions can influence consumers' attitudinal and behavioral responses (e.g., Morhart et al. 2015; Priester and Petty 2003), we offer an additional hypothesis:

H5: Instagram images taken with a snapshot aesthetic (versus studio aesthetic) will (a) result in higher perceived model genuineness, (b) thus influencing consumers' evaluations of the source's trustworthiness, brand authenticity, and subsequent consumer responses.

Furthermore, we examine whether the effects of certain facial expressions—smiling, specifically—lead to higher perceived genuineness through the provision of additional contextual cues in a given image—here, photos with snapshot aesthetics. We therefore propose the following research question:

RQ: (a) Is there an interaction effect between smiling and the snapshot photography aesthetic that

influences consumers' perceptions of the model? (b) If so, how does it further influence the subsequent influence on consumers' cognitive, attitudinal, and behavioral responses toward the brand?

Method

Similar to Holbrook and Batra's study (1987) on television commercials, this study used the message evaluation survey to evaluate consumers' perception of brand-posted images on social media. The units of analysis in this study, thus, are Instagram images retrieved from different brand accounts. Such an analysis—across stimuli, as opposed to across participants—has frequently appeared in advertising studies (e.g., Holbrook and Lehmann 1980; Allan 2008) and viewer response profiles building (Schlinger 1979; Wells and Tigert 1971). Leveraging the accessibility of crowdsourcing platforms, scholars studying information systems have also adopted this method in analyzing media content characteristics on the Internet (e.g., Peng and Jemmott 2018; Young, Gillespie, and Otto 2019). As such, this study follows the same logic in exploring the effects of Instagram images and their impact on consumer evaluations and responses. Specifically, we involved both human evaluation and the computational categorization of the images. The data set was prepared in three phases: (1) image data collection, (2) image characteristics retrieval, and (3) human evaluation of the image. The details of each phase are presented next.

Phase 1: Image Data Collection

In selecting images for analysis in the current study, we first identified the focal product category: fashion products. This decision was based on a previous study that indicated Instagram allows for the quick diffusion of fashion and trends and can thus be used as an effective tool for influencing consumer behaviors (Esteban-Santos et al. 2018). Following online industry reports (Cook 2018; Amato-McCoy 2017), we selected six fashion brands—ASOS, Everlane, Old Navy, Forever 21, Uniqlo, and Zara—for their social media performance and statuses as top fashion brands. We also took into consideration the brands' Instagram follower numbers, targeting audience characteristics, and brand popularity to generate representative data.

To retrieve image data on Instagram, we used Instagram-Scraper (accessed through <https://github.com/rarcega/instagram-scraper>), a command-line application written in Python that scrapes and

downloads Instagram users' photos and videos. We collected the most recent 150 Instagram posts (from January 9 to August 17, 2020) from each brand account, which resulted in 750 images total. Images were selected that satisfied the criteria of (a) use of a human model and (b) absence of brand logo and identifiable brand information. We then used the randomization function in Microsoft Excel to select 50 out of 150 images for each brand. The final selection resulted in 50 images from each brand and a total of 300 images for analysis using a computational tool and human subjects. See the [supplemental online appendix](#) for examples of Instagram images.

Phase 2: Image Characteristics Retrieval

Computer vision has become a promising tool for automatic analyses of imagery data from brands on social media (Nanne et al. 2020). With the assistance of machine learning techniques, the functions of present-day computer vision tools include not only object detection and labeling but also thematic content categorization through image pattern retrieval (Liu, Yang, and Li 2015). A commercial product, Clarifai, was adapted for the current study. Clarifai is an AI-empowered platform recognized by Forrester Research (2019) as a leading computer vision platform that allows researchers to categorize images based on the researcher's criteria. Prior studies in the social sciences have adopted this platform to train customized models for various image analysis purposes (e.g., Engel et al. 2019).

To train our customized classification model on Clarifai, we first used 200 images from the unselected image pool in Phase 1 as the training data set. By using the machine learning neural network model (i.e., transfer learning) embedded in the Clarifai platform (Clarifai 2020), we manually labeled two custom models: one for "smile" versus "no smile" and one for "snapshot aesthetic" versus "studio aesthetic." Based on our human-labeled input, also known as the pre-trained neural network basis, Clarifai's context-based classifier model algorithm learned how to sort the smile versus no smile and snapshot aesthetic versus studio aesthetic to categorize the selected 300 images. For each image, Clarifai presented a numerical output within the range of 0 to 1 to represent its prediction confidence that the image is in the category of smile, no smile, snapshot aesthetic, or studio aesthetic. We then retrieved the output value for each image.

We further operationalized the custom model of smile versus no smile into 0 and 1 (0 = *No smile*, 1 =

Smile) using the output (value from 0 to 1) of the computational analysis on Clarifai. We coded value outputs above 0.5 as 1, indicating that the image contained a smile, while coding outputs below 0.5 as 0, indicating the image did not contain a smile. The custom model regarding the snapshot photography aesthetic was operationalized as 0 and 1 (0 = *Studio aesthetic*, 1 = *Snapshot aesthetic*) using the output (value from 0 to 1) of the computational analysis on Clarifai software. We coded value outputs above 0.5 as 1, indicating the image was taken in a snapshot aesthetic, such as street shots. We then coded output values lower than 0.5 as 0, indicating that the photo was taken in a studio aesthetic, such as a professional fashion print ad. We then further examined the accuracy of these categorizations based on Clarifai's output. The results showed about 92% accuracy. Miscategorized images were corrected manually.

Phase 3: Human Evaluation of Images

Human evaluation of imagery data was used to map the relationships between image characteristics and consumers' evaluations of the models and associated brand. A total of 300 images were examined in the study. Each participant was asked to view and evaluate six images (one from each brand), and the images were randomly assigned to each participant.

Participants

A total of 647 participants located in the United States were recruited from Amazon.com's Mechanical Turk (MTurk), an efficient tool for collecting reliable data (Buhrmester, Talaifar, and Gosling 2018). Participants who did not pass the filter question (i.e., Instagram user and U.S. resident) or failed the attention-check questions were removed from the data set. The final analysis consisted of 553 valid responses. More than half of the respondents were male (51.2%), aged from 19 to 64 ($M=31.27$, $SD=6.17$), non-Hispanic White (64.6%), with a bachelor's degree or higher (77.7%). [Table 1](#) presents the details.

Procedure

An online survey was conducted on Qualtrics.com with the selected stimuli. Participants who agreed to participate through the MTurk platform were directed to the online survey. After providing consent to participate in the study, they were asked about their Instagram usage, which served as a filter question. Participants who were

Table 1. Participant sample.

Demographics	Number	Percentage
Gender		
Male	283	51.2
Female	270	48.8
Age		
18–24	111	20.0
25–34	297	53.7
35–44	35	6.3
45–54	9	1.6
55–64	5	0.9
Education		
High school graduate	25	4.5
Some college	84	15.2
Two-year associate's degree	14	2.5
Four-year bachelor's degree	316	57.1
Professional/master's degree	109	19.7
Doctoral degree	5	0.9
Ethnicity/race		
White	357	64.6
Black or African American	142	25.7
American Indian or Alaska Native	2	0.4
Asian	37	6.7
Native Hawaiian or Pacific Islander	2	0.4
One or more	13	2.4

not Instagram users were directed to the end of the survey with an explanation for their disqualification. Those remaining were then randomly exposed to six images (one from each brand) in the primary survey. For each image, participants were asked to evaluate the perceived genuineness and trustworthiness of the model, the perceived authenticity of the brand, and their general attitude toward the brand. We originally intended to collect 15 human evaluations for each image. However, as some images received dropped responses, the final results showed that each image received about seven to 16 independent evaluations (83% of the images received more than 10 independent evaluations, $M = 11.38$, $SD = 2.07$).

Measures

Perceived Human Genuineness

Perceived human genuineness (Cronbach's $\alpha = 0.875$) was measured using a scale adapted from Choi and Rifon (2007). Participants indicated their evaluations of the model through a 7-point Likert semantic scale with items including *Unpleasant/Pleasant*, *Uncomfortable/Comfortable*, *Socially irresponsible/Socially responsible*, *Stupid/Wise*, *Naive/Sophisticated*.

Perceived Trustworthiness

Perceived trustworthiness (Cronbach's $\alpha = 0.913$) was adapted from Ohanian's (1990) bipolar 7-point Likert scale. Participants indicated their evaluations of the perceived model's trustworthiness through the following items: *Dependable/Undependable*, *Honest/Dishonest*, *Reliable/Unreliable*, *Sincere/Insincere*, and *Trustworthy/Untrustworthy*.

Perceived Brand Authenticity

The measurement of perceived brand authenticity (Cronbach's $\alpha = 0.935$) was adopted from Akbar and Wymer (2017), which emphasizes the dimensions of brand genuineness and originality. The scale measuring the genuineness dimension included items such as *Pretentious/Unpretentious*, *Fake/Real*, and *Disguised/Undisguised*. Meanwhile, the scale measuring the originality dimension included items asking participants to evaluate the brand as *Follower/Pioneer*, *Ordinary/Innovative*, and *Copied/Unique*. The scale also included three reflective items anchored with 1 = *Strongly disagree* and 7 = *Strongly agree*: “[Brand] stays true to itself”; “[Brand] clearly stands out from other brands”; and “[Brand] delivers what it promises.”

Brand Attitude and Behavioral Intent

Brand attitude (Cronbach's $\alpha = 0.877$) was measured using a scale adapted from Sengupta and Johar (2002) of a 7-point Likert scale anchored with “I think [brand] is a very good brand”; “I think [brand] is a very useful brand”; and “My opinion of [brand] is very favorable.” Consumers' behavioral intention (Cronbach's $\alpha = 0.923$) was measured using the scale from Oh et al. (2019) and asked participants to rate their intentions for “visiting a store/website in the future,” “buying a product,” “recommending the brand to other people” on a 7-point Likert scale.

Given that the unit of analysis in this study is each image, we aggregated each image's associated participant evaluations by averaging their ratings of perceived human genuineness, perceived trustworthiness, perceived brand authenticity, brand attitude, and behavioral intent. The final data set included 300 images and its associated attributes reflected both computational categorizations and human evaluations.

Data Analysis

Mediation Analysis

To test the proposed hypotheses 1 through 5, we conducted two sets of serial mediation analyses using Model 6 in Hayes's (2017) PROCESS macro with 5,000 bootstrap samples. The smile condition (0 = *No smile*, 1 = *Smile*) and the photography aesthetic (0 = *Studio aesthetic*, 1 = *Snapshot aesthetic*) were entered as the categorical independent variables, respectively. Because there were two conditions for both the photography aesthetic and smile conditions, two dummy variables were created; one used no smile as the reference level, while the other one used studio aesthetic as

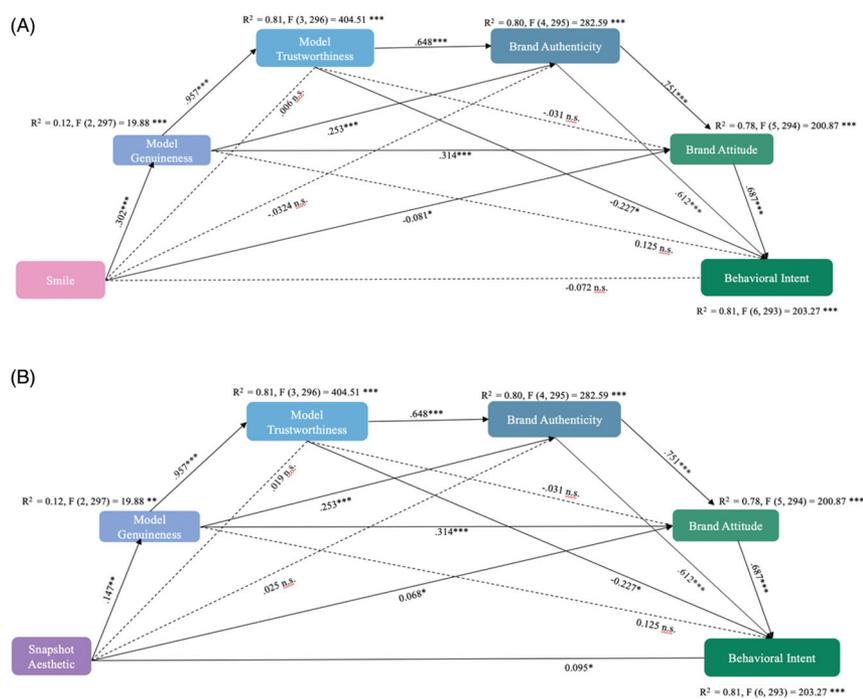


Figure 2. (A) Serial mediation model results (smile). Values represent standardized regression coefficients; * $p < .05$; ** $p < .01$; *** $p < .001$. (B) Serial mediation model results (snapshot aesthetic). Values represent unstandardized regression coefficients; * $p < .05$; ** $p < .01$; *** $p < .001$

the reference level. Participants' behavioral intent was entered as the dependent variable, and their evaluation of human genuineness, trustworthiness, brand authenticity, and brand attitude were entered as the mediators.

When smile condition was the independent variable (controlling effects from snapshot condition), the results revealed a significant serial mediation model effect ($effect = 0.10$, $BootSE = 0.02$, $BootCI_{LL-UL} = 0.05$ to 0.15). Specifically, images with smiling models (versus nonsmiling models) resulted in greater perceived human genuineness ($effect = 0.30$, $SE = 0.06$, $p < 0.0001$, $CI_{LL-UL} = 0.19$ to 0.41). Perceived model genuineness positively influenced perceived model trustworthiness ($B = .96$, $SE = .03$, $p < 0.0001$), which further positively influenced the brand's perceived authenticity ($B = .65$, $SE = .06$, $p < 0.0001$). Moreover, perceived brand authenticity also positively contributed to consumers' attitudes toward the brand ($B = .75$, $SE = .07$, $p < 0.0001$), which further positively influenced consumers' behavioral intent ($B = .69$, $SE = .07$, $p < 0.0001$). Therefore, hypotheses 1 through 4 were all supported. See Figure 2A for details.

When the snapshot photography aesthetic condition was the independent variable (controlling effects from smiling condition), the results similarly indicated a significant serial mediation model effect ($effect = 0.05$, $BootSE = 0.02$, $BootCI_{LL-UL} = 0.01$ to

0.10). Specifically, images rendered in the snapshot photography aesthetic (versus studio photography aesthetic) resulted in greater perceived human genuineness ($effect = 0.15$, $SE = 0.05$, $p < 0.01$, $CI_{LL-UL} = 0.04$ to 0.25). Moreover, perceived model genuineness positively influenced perceived model trustworthiness ($B = .96$, $SE = .03$, $p < 0.0001$), which further positively influenced the brand's perceived authenticity ($B = .65$, $SE = .06$, $p < 0.0001$). In addition, perceived brand authenticity also positively contributed to consumers' attitudes toward the brand ($B = .75$, $SE = .07$, $p < 0.0001$), which further positively influenced consumers' behavioral intent ($B = .69$, $SE = .07$, $p < 0.0001$). Therefore, hypotheses 1, 2, 3, and 5 were all supported. See Figure 2B for details.

Moderated Mediation Analysis

To test the proposed research question, we conducted a moderated serial mediation analysis using Model 83 in Hayes's (2017) PROCESS macro with 5,000 bootstrap samples. The smile condition variable (0 = *No smile*, 1 = *Smile*) was entered as the categorical independent variable, and the photography aesthetic (0 = *Studio aesthetic*, 1 = *Snapshot aesthetic*) was entered as the categorical moderator. Because there were two conditions for both the photography aesthetic and smile condition, two dummy variables were created;

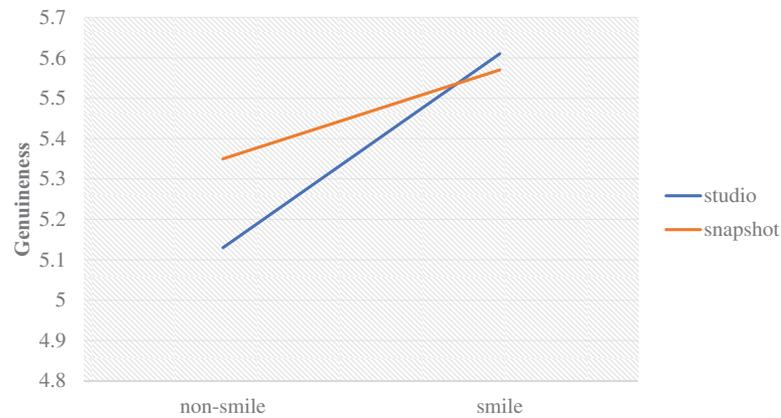


Figure 3. Estimated marginal means of model genuineness.

one used no smile as the reference level, while the other used studio aesthetic as the reference level. Participants' behavioral intent was entered as the dependent variable, and their evaluation of human genuineness, trustworthiness, brand authenticity, and brand attitude were entered as the mediators.

Results showed a significant moderated mediation effect of the model ($effect = -0.08$, $BootSE = 0.04$, $BootCI_{LL-UL} = -0.17$ to -0.01 , such that when the image was in studio aesthetic, the indirect effect of smiling on consumers' behavioral intent—through the sequential mediation of perceived human genuineness, trustworthiness, brand authenticity and brand attitude ($effect = 0.16$, $BootSE = 0.04$, $BootCI_{LL-UL} = 0.08$ to 0.26)—was greater than the condition when the image was in snapshot aesthetic ($effect = 0.08$, $BootSE = 0.03$, $BootCI_{LL-UL} = 0.03$ to 0.13). A post hoc two-way analysis of variance (ANOVA) was then performed to show the details of the interaction effect between photography aesthetic and smiling condition. The results revealed a significant interaction effect between smiling and photographic aesthetic, $F(3, 296) = 4.39$, $p < .05$, $R^2 = 0.13$. Smiling models photographed with a studio aesthetic were perceived as more genuine ($M = 5.61$, $SD = 0.43$) compared to smiling models photographed with the snapshot aesthetic ($M = 5.57$, $SD = 0.40$). Furthermore, nonsmiling models in studio aesthetic images were perceived as less genuine ($M = 5.13$, $SD = 0.43$) than nonsmiling models in snapshot aesthetic images ($M = 5.35$, $SD = 0.46$). See Figure 3 for details.

General Discussion

Summary of Findings

In terms of social media platform etiquette, it is becoming increasingly important to understand the role of brand authenticity in consumers' decision-

making processes. This importance is compounded by the iconic role brand authenticity plays in booming market trends, such as those of fast fashion, corporate social responsibility, and brand innovation (Pine and Gilmore 1999). Given the limited nature of literature on the building of brand authenticity on social media, this study applied meaning transfer and source credibility in examining the sequential effects of the visual characteristics of brands' Instagram image posts (i.e., smiling versus nonsmiling and snapshot versus studio photography aesthetic). This study specifically analyzed source credibility's influence on consumers' perceptions of the source (i.e., source genuineness and trustworthiness), which further influenced perceived authenticity and subsequent consumer responses (i.e., attitude and behavioral intent).

Overall, our findings revealed that consumers' evaluations of a brand's perceived authenticity on social media were impacted by their perception of the sources featured in the brand's posts. Specifically, models with smiling (versus nonsmiling) facial expressions resulted in higher perceived source genuineness, which further influenced their perceived trustworthiness and, thereby, the associated brand's perceived authenticity. Consequently, it also positively influenced consumers' attitudinal and behavioral responses toward the brand. This finding is consistent with prior literature on the positive effect of smiling on consumer attitudes and source perceptions (Ilicic, Kulczynski, and Baxter 2018). What's more, this study shows that the snapshot (versus studio) photography aesthetic can yield higher perceived model genuineness and influence the brand's perceived authenticity and subsequent consumer responses. This finding similarly aligns with literature on the positive effect of the snapshot aesthetic on consumer attitudes, particularly that the snapshot aesthetic leads to higher perceived content congruence with a given social media

platform (Colliander and Marder 2018). As social media has become a collection of digital spaces for people to share and consume “lightweight” communication (Zhao and Rosson 2009) and commercialized brand content, the use of the snapshot photography aesthetic may be more effective in achieving positive consumer responses.

From a broader perspective, these findings further supported recent literature on the source credibility model that argues consumers rely on simple visual impressions to evaluate a source (e.g., Lowry, Wilson, and Haig 2014). The serial mediation results also presented empirical support for the meaning transfer model (McCracken 1989), in that a source’s visual characteristics could influence consumers’ perception of the source, which can be further carried over to their brand perception—in other words, they may influence their attitudinal and behavioral responses toward the brand.

Interestingly, the interaction effects of smiling facial expressions and the snapshot photography aesthetic showed that the studio photography aesthetic can escalate the effects of smiling/nonsmiling facial expressions on consumers’ perceptions of a model’s genuineness and that the effects can be further carried over to the subsequent influence on consumers’ evaluation of brand authenticity and their attitude and behavioral intent. In other words, smiling in the studio aesthetic images (versus snapshot aesthetic) led to much higher positive consumer responses and brand evaluation, while nonsmiling facial expressions featured in the studio aesthetic (versus snapshot aesthetic) resulted in lower consumer responses and brand evaluations. This finding introduces a boundary condition to the results of previous studies on the positive effect of the snapshot aesthetic on social media (Colliander and Marder 2018). It specifically shows that when models in the images smile, images in the studio aesthetic (i.e., higher image quality and professional setting) can increase the positive effects of smiling on consumers’ evaluations of the source, brand, and their subsequent responses.

Theoretical Contributions and Managerial Implications

The current study is among the first to explore how the images utilized by brands on social media can be used to build consumers’ perceptions of a brand’s authenticity. As noted, brand authenticity is an essential component of contemporary marketing (e.g., Brown, Kozinets, and Sherry 2003; Morhart et al. 2015) and is receiving a push from the rapid adoption of social media (Loewen 2018). As of now, extant

literature has yet to fully analyze how the perception of brand authenticity can be achieved through social media brand communication. This study addresses this information gap by exploring visual components (i.e., expressive visual and expressive facial characteristics) of brands’ imagery content that contribute to consumers’ perceptions of a brand’s authenticity.

Moreover, this study evidences the importance of source effects in social media branding and advertising through the analysis of a source’s visual characteristics (i.e., expressive visual and expressive facial characteristics) as featured in a brand’s social media posts. Recent studies on source effects on social media advertising have devoted significant attention to sources’ characteristics (e.g., trustworthiness, attractiveness, expertise, perceived similarity) in influencing consumers’ attitudes toward the endorsed brand and consumers’ purchase intentions (e.g., Lou and Yuan 2019; Wiedmann and von Mettenheim 2020; Schouten, Janssen, and Verspaget 2020). Yet few have examined factors influencing consumers’ perceptions of a source (Ilicic and Brennan 2020; Shoenberger, Kim, and Johnson 2020). Following this stream of research, the current study advances source effects literature on social media advertising by revealing the effects of smiling facial expressions and photography aesthetics in building brand authenticity and corresponding consumer responses on social media.

In addition, extant studies on meaning transfer have been criticized for lacking a pragmatic research model (Roy 2018). In examining the sequential mediation of relationships from sources’ perceived genuineness to endorsed brands’ perceived authenticity, our findings provide significant statistical support for the meaning transfer model. Furthermore, this study connects meaning transfer (McCracken 1989) with source credibility (Hovland, Janis, and Kelley 1953; Ohanian 1990), two models which have rarely been tied together in prior literature. Our findings revealed that within the positive source impact (i.e., perceived trustworthiness) on consumers’ attitudes and behavioral intentions, there is a transfer process of meaning from source to brand—in our case, from sources’ perceived trustworthiness to brands’ perceived authenticity.

Another novel result of this study is the method of connecting computational visual analysis and human evaluation. Computer visual analysis has been applied to social science research for some time, particularly for the classification of objects (Engel et al. 2019). Built upon aggregated visual data and training data sets, computers can quickly detect patterns and

subjects in a large scale of visual images, which provides a faster, alternative method for analyzing online content. While the majority of computational visual analyses have been mainly tied to consumers' behavioral data, the underlying mechanism of *why* such effects occur on social media remains under-researched. By connecting the use of computational visual analysis with human evaluation, the current study presents a possible research direction involving the use of computational methods in addressing traditional research topics in consumer psychology.

From a managerial perspective, the current study also provides key implications for brands that are considering using social media platforms for building brand authenticity. As previously discussed, authenticity is a crucial factor influencing the consumer-brand relationship and consumers' brand attitudes (Choi et al. 2015). Our findings suggest that brands should consider using more images featuring genuine and trustable models. Assisted by computational vision data categorization, we found that brands can benefit from smiling models in professional photography studio settings. Our study also indicated that brand authenticity is a key contributor to consumers' positive attitudes toward brands, which can lead to strong behavioral intent. As such, brands should consider strategically emphasizing their management of brand authenticity. Finally, the results of this study can be used to aid social media tech companies in building more effective algorithms for brands. Our findings may be especially appealing to companies that wish to feature more authenticity-driven brand content, as increased use of authenticity can improve a brand's overall communication in social media spaces while maintaining an authentic user experience.

Limitations and Future Studies

Although this research yielded insightful findings, it is not without its limitations. First, participants evaluated only 300 images on Instagram, and the study used only fashion brands, which limits generalizations to other industries and brands. Future studies should thus consider using imagery data from a variety of industries and brands to examine more comprehensively the effects explored in this study, as there may be conditional effects across different industries and products.

Second, the current study focused only on the effect of visual and facial expressions on consumers' perceptions of brand authenticity on social media and did not involve other important outcome variables, such as consumers' social media engagement behaviors (i.e., like, comment, share). As consumer

engagement is central to social media advertising and consumer relationship building (e.g., de Vries, Gensler, and Leeflang 2012), future studies should further examine the impact of visual characteristics of social media content on consumers' engagement behaviors on social media, as well as the underlying mechanism and connection with other advertising and branding outcomes, such as purchase behavior, click-through, and consumer-brand relationship. Future studies should also consider other visual and facial expression cues, such as a model's eye gaze direction, as well as model's age, gender, body size, race, and ethnicity in influencing consumers' perceptions of sources and associated brands.

Third, although the current study intended to ensure external validity by using social media posts from actual brands, there were limitations in controlling for certain confounding variables. For instance, as much as we tried to avoid exposing participants to brand logos or other identifiable brand information in the image, we were not able to control for this in participants who had high familiarity with the posts or models in the images. Therefore, future studies might consider carrying out this investigation in an experimental setting to examine the effects of visual characteristics on consumers' source and brand perception with more variables (i.e., brand familiarity, preexisting brand attitude, model's physical appearance, age, gender, body size, ethnicity) under control.

Finally, another exciting area to explore is how individuals' differences might play a role in their evaluations of the model and brand. For example, individuals' personal authenticity might play a moderating role in influencing consumers' responses to authentic brand communication. Other boundary conditions, such as advertising skepticism, brand-self congruence, and model-self similarity, also warrant further investigation that, together, can build on the work of this study.

Supplemental Material

A supplemental online appendix (Sample Stimuli: Example of Evaluated Images) is available on the publisher's website at <https://doi.org/10.1080/15252019.2020.1860168>.

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