(50-word abstract)

Abstract

Four studies document that exposure to social media logos activates a public mindset, thereby leading to choices of visually superior products. The effect is greater for heavy social media users and gets dampened when the consumption context is private. The authors theorize that transferability of visual qualities drives the effects.

(1000-word Extended Abstract)

Instagrammably Visual: The Impact of Social Media Logos on Aestheticallydriven Consumption

EXTENDED ABSTRACT

Social media platforms are highly ubiquitous in the daily lives of consumers. Particularly, it has recently become common for commercial websites and flyers to include social media logos (e.g., Tuten and Solomon 2017), which invite consumers to visit their own social media sites and share their experiences with peers (Minnik 2016; Schwarz 2011). Although such logos might at first be deemed independent of purchase decisions, we challenge this naïve perception and ask: can exposure to social media logos drive consumers' decision making? If so, how and why?

Visual logos may trigger particular behaviors via priming (e.g., Jiang et al. 2014; Fitzsimons et al. 2008). Social media platforms, due to their asynchrony and photo-uploading functions, may serve as an excellent tool for self-presentation (DeAndrea and Walther 2011; Strano 2008). By connecting these two distinct literatures, our work makes a novel proposition: exposure to social media logos in ads could induce a public mindset, whereby consumers attend to how others view them and are motivated to impress others spontaneously. Because of the public mindset, we propose that social media logos could increase visually (vs. gustatorily- or olfactorily) superior product choices, since visual qualities are more easily transferable online, even without direct contact with tangible objects, and would thereby be more effective for impression management (e.g. Diaconu 2006; Stevanson and Case 2005).

Four studies collectively support our theorizing. Study 1A (N = 201) employed a single factor (social media logo: logo absent vs. just logos vs. logos and sharing message) between-subjects design. We first pretested 31 pairs of images of pastas and hamburgers (N=62), whereby each item's prettiness and tastiness were measured. Importantly, to manipulate perceived taste, we added a yellow star at the upper left corner of some aesthetically-inferior items and told participants that starred items are recommended as delicious. One pair of pasta dishes and another pair of hamburgers were selected as the main stimuli, whereby one item in each pair was prettier yet less tasty than the other item (all ps <.002). We then placed these images on a fictitious café menu and manipulated the presence of social media logos (Instagram and Facebook), thereby creating three versions: 1) logo absent, 2) just logos, and 3) logos and "share your experience" message. Participants saw one of the menu versions and chose one of the four food items. Results revealed significant differences among the three conditions in participants' prettier (vs. tastier) food choices $(M_{\text{logos and message}} = 55\% \text{ vs. } M_{\text{just logos}} = 43\% \text{ vs. } M_{\text{logo absent}} = 33\%; \chi 2 = 6.18, p = .045).$ The difference between the logos and sharing message condition and the logo absent condition was significant ($\chi 2 = 6.03$, p = .018). More importantly, when the two logo present conditions were collapsed, participants in the logo present condition ($M_{logo present} = 49\%$) made significantly higher prettier choices than those in the logo absent condition ($\gamma 2$ = 4.32, p = .038), thereby validating the basic effect.

Study 1B (N = 294) employed a single factor (logo: social media logos vs. company's logo vs. logo absent) between-subjects design. By using flower bouquets instead of food items, we examined whether the effect would also hold in the 'visual vs. olfactory' domain. By including the 'the company's logo' condition, we also tested whether the effect was specifically driven by social media logos. We pretested 21 flower bouquet pictures (N=51)

and selected a pair of bouquets as the main stimuli, where one bouquet was again prettier yet less fragrant than the other (ps <.002). Participants saw one of the three versions and decided between the two flower bouquets. As predicted, participants in the social media logos condition displayed significantly higher visually superior choices than those in the logo absent condition and in the company's logo condition ($M_{\text{social media logos}} = 71\%$ vs. $M_{\text{company's logo}} = 54\%$ vs. $M_{\text{logo absent}} = 56\%$; $\chi 2 = 7.37$, p = .027). Importantly, there were no differences between the latter two conditions ($\chi 2 = 0.08$), suggesting that only social media logos triggered the effects.

Study 2 (N = 292) had a fictitious cake shop as the experimental context and employed a single-factor (social media logo: logo present vs. logo absent) between-subjects design. Two pairs of cakes were selected as the main stimuli (all *ps* <.05). In addition to the cake choice, participants also answered a 7-point question asking how heavily they used social media. Again, participants in the logo present condition displayed a greater percentage of prettier cake choice than those in the logo absent condition ($M_{logo present} = 33\%$ vs. M_{logo} absent = 17%; $\chi 2 = 9.9$, *p* =.002). More importantly, there was a significant interaction between social media logos and heaviness of social media usage (*z* = 2.32, *p* = .021), such that heavier social media users were more affected by the presence of social media logos.

Study 3 (N = 478) employed a 2 (social media logo: absent vs. present) x 3 (consumption context: public vs. control vs. private) between-subjects design. The same cake shop was again used as the stimuli, albeit with just one pair of cakes. Importantly, we manipulated the privacy of consumption context such that participants imagined buying a cake for their own private dinner, for just a dinner, or for a dinner with friends invited. As anticipated, we found a significant interaction between social media logos and consumption context (Wald $\chi 2 = 4.72$, p = .029). In the private consumption condition, the effect of social media logos was eliminated ($M_{logo present} = 16\%$ vs. $M_{logo absent} = 21\%$; $\chi 2 = 0.78$, p = .37), although the effects were replicated in the public and control conditions (all ps < .03). In addition, social media logos per se did not significantly influence perceived prettiness of both cakes (ps = ns), thus enabling us to rule out the alternative aesthetic sensitivity account.

Together, the current research uncovers a novel effect that exposure to social media logos results in visually superior choices, driven by the public mindset and moderated by consumers' heavy usage of social media platforms.

(2500-word Extended Abstract for Review)

Instagrammably Visual: The Impact of Social Media Logos on Aestheticallydriven Consumption

EXTENDED ABSTRACT

Social media platforms are highly ubiquitous in the daily lives of consumers worldwide. According to a recent survey (Bham Digital 2018), more than 5 billion consumers are actively using one of the following five social media outlets: Facebook, Instagram, Twitter, Youtube, and Linkedin. Consistent with the trend, more than 96% of businesses employ social media to market their brands and products (Stelzner 2015), whereby social media has been established as a vital tool for communicating their brands with attractive consumer segments (Murdough 2009).

Despite its marketing relevance, consumer research addressing the nature and impact of social media remains scanty. Extant research has only dealt with the limited facets of social media marketing, such as how consumers use social media for product recommendations (e.g., Schivinski and Dabrowski 2016). Yet, the impact of social media in marketing reaches far beyond the plain usage contexts of social media websites. Particularly, it has recently become common for commercial websites, flyers, and even restaurant menus to include social media logos (e.g., Tuten and Solomon 2017), on top of their core advertising content, which invite consumers to visit their own social media sites and share their experiences with peers (Minnik 2016; Schwarz 2011). Although such logos might at first be deemed independent of purchase decisions rendered on the spot, the present research challenges this naïve perception and asks the following question: can exposure to social media logos drive consumers' decision making, and if so, how and why? Prior research on visual logos has shown that exposure to brand and product logos may trigger certain perceptions and behaviors via priming (e.g., Hagtvedt 2011; Jiang et al. 2014; Fitzsimons et al. 2008), and recent research on impression management suggests that social media platforms, due to their asynchrony and photo-uploading functions, may serve as an excellent tool for self-presentation (DeAndrea and Walther 2011; Gonzales and Hancock 2011; Strano 2008; Townsend 2015; Walther 2007; Wilcox and Stephen 2012; Young 2008). By connecting these two distinct literatures, our work makes a novel proposition: exposure to social media logos in ads could induce a public mindset, whereby consumers attend to how others view them and, thus, are motivated to impress others spontaneously. As a consequence of the public mindset, we propose that exposure to social media logos is likely to make consumers prioritize visual qualities when making purchase decisions, since visual qualities, as opposed to other sensory qualities (e.g., gustatory, olfactory), are more easily transferable via online platforms, even without direct contact with tangible objects, and would thereby be more effective for impression management (e.g. Bromberg and Schilder 1934; Diaconu 2006; Stevanson and Case 2005). In a nutshell, we predict that consumers exposed to social media logos are more likely to choose visually superior (vs. gustatorily- or olfactorily superior) products - across diverse product categoriess such as food and flowers.

We report four studies that collectively buttress our theorizing. Study 1A was run with the aim of establishing the initial causal relationship between social media logos and visually superior choices. As the first step, we pretested 31 pairs of images consisting of two different food categories: pasta and hamburgers (N=62). We measured perceived aesthetic attractiveness and taste of each food item using a 10-point Likert scale. Notably, in order to manipulate perceived taste, we added a yellow star at the upper left corner of some of the aesthetically-inferior food items, while telling participants that starred food items are

recommended as delicious by both chefs and customers alike. Based on the pretest, we selected one pair of pasta dishes and another pair of hamburgers, as the main stimuli. As for pastas, Eggplant and Ricotta pasta was rated as prettier than Vongolle (starred) pasta $(M_{Eggplant and Ricotta} = 7.0 \text{ vs. } M_{Vongolle} = 5.18; t = 5.07, p < .001)$, whereas the former was rated as less tasty than the latter ($M_{Eggplant and Ricotta} = 6.7 \text{ vs. } M_{Vongolle} = 7.72; t = -3.33, p = .001$). Likewise, Classic Hamburger, rated as prettier than Sunset Perfect Burger ($M_{Classic} = 6.21 \text{ vs.} M_{Sunset} = 4.83; t = 3.8, p < .001$) was rated as less tasty than (starred) Sunset Perfect Burger ($M_{Classic} = 6.78 \text{ vs.} M_{Sunset} = 7.88; t = -3.37, p = .001$). Next, we adopted the menu format of a real existing café called Sunset Café and placed these four food images (2 hamburgers, 2 pastas) on it. We then manipulated the presence of social media logos (Instagram and Facebook), thereby creating three different versions. Specifically, the first version did not have any logos in it, the second version had just social media logos in it, and the third version included the photo-sharing message ("share your experience with us") on top of social media logos.

The main study employed a single-factor (social media logo: logo absent vs. just logos vs. logos and sharing message) between-subjects design. Mturkers (N=201) randomly assigned to one of the three conditions saw one of the three café menus depending on the condition and were asked to choose one of the four items they would like to order, again along with the explanation that the starred items have been recommended as delicious. A chisquare analysis, whereby prettier foods were coded as 1 and tastier foods as 0, revealed that there were significant differences among the three conditions in participants' choices of prettier (vs. tastier) food items ($M_{\text{logos and message}} = 55\%$ vs. $M_{\text{just logos}} = 43\%$ vs. $M_{\text{logo absent}} =$ 33%; $\gamma 2 = 6.18$, p = .045), such that participants in the logo and message condition were the most likely to choose prettier food items whereas those in the logo absent condition were the least likely. A following Wald test confirmed that the difference between the logo and message condition and the logo absent condition was significant ($\chi 2 = 6.03$, p = .018). More importantly, in support of our key hypothesis, when the two logo present conditions were collapsed, participants in the logo present condition ($M_{logo present} = 49\%$) made significantly higher prettier food choices than those in the logo absent condition ($M_{logo absent}$ = 33%; $\gamma 2$ = 4.32, p = .038), suggesting that the presence of social media logos induced aestheticallydriven consumption.

Following Study 1A, we subsequently ran Study 1B for the two main purposes. First and foremost, in order to investigate whether the effect of social media logos observed in Study 1A would likewise hold for other non-food sensory products, we set flower bouquets as the target product category, whereby olfactory qualities will replace gustatory qualities to compete against visual qualities. Secondly, by including the flower delivery shop's company's logo condition as an additional experimental condition, we intended to examine whether the effect is not driven by any visual logos but only triggered by social media logos, thus aiming to strengthen the initial causal relationship. Using the same starring method for perceived fragrance manipulation, we pretested 21 flower bouquet images just as in Study 1A (N=51), and selected a pair of bouquet pictures as the main stimuli: Pink Rose Bouquet and (starred) Red Rose Bouquet. Although the former was rated as more visually attractive than the latter ($M_{\text{Pink Rose}} = 8.68 \text{ vs.} M_{\text{Red Rose}} = 7.8$; t = 3.35, p = .001), it was rated as less fragrant $(M_{\text{Pink Rose}} = 6.94 \text{ vs.} M_{\text{Red Rose}} = 9.04; t = -6.42, p < .001)$, After placing these two pictures as the featured products on the format of a fictitious online flower delivery website called *Flowers Store*, we manipulated the presence of logos, thus creating three different versions. The first version had social media logos; the second version had the company's logo (Flowers Store); and the third version didn't have any logos.

In a between-subjects design, 294 MTurkers were randomly assigned to one of the

three (logo: social media logos vs. company's logo vs. logo absent) experimental conditions and saw the *Flowers Store* website image along with the two flower bouquets, both of which were equally priced at \$59.99. Upon entering the study, participants were told to imagine that they were buying a flower bouquet for their colleague's upcoming wedding ceremony and were asked to choose between the two flower bouquets. Replicating the results of Study 1A, and consistent with the hypothesis, there were significant differences among the three conditions in participants' visually (vs. olfactorily) superior choices ($M_{\text{social media logos}} = 71\%$ vs. $M_{\text{company's logo}} = 54\%$ vs. $M_{\text{logo absent}} = 56\%$; $\chi 2 = 7.37$, p = .027). A series of Wald tests confirmed that participants in the social media logos condition were significantly more likely to select visually superior flower bouquets than those in the logo absent condition ($\chi 2$ = 4.91, p = .026) and those in the company's logo condition ($\chi 2 = 6.22$, p = .013). Importantly, there were no differences between the latter two conditions ($\chi 2 = 0.08$). As anticipated, it was only the social media logos that triggered the effects.

The objectives of Study 2 were twofold: 1) replicating the effects observed in Studies 1A-1B using different food stimuli and 2) examining their relationship to consumers' social media usage behavior. Using the menu of a real existing cake shop called *Sarah's Cake Shop* as the experimental context, we first pretested (N = 50) 33 cake images just as in prior studies and selected two pairs of cakes as the main stimuli. In one pair, Flower Cake was rated as prettier than (starred) Crown Cake ($M_{Flower} = 8.48 \text{ vs. } M_{Crown} = 6.89$; t = 5.4, p < .001), while being rated as less tasty than Crown Cake ($M_{Flower} = 7.22 \text{ vs. } M_{Crown} = 7.97$; t = -2.73, p = .008). In another pair, Candy Cake was rated as prettier than (starred) Choco Cake ($M_{Candy} = 8.0 \text{ vs. } M_{Choco} = 7.08$; t = 2.2, p = .032), though it was rated as less tasty ($M_{Candy} = 7.34 \text{ vs.} M_{Choco} = 8.28$; t = -2.13, p = .038). We then placed these four cake images on the menu and manipulated the presence of social media logos to create two versions: logo present and logo absent. The cake orders were counterbalanced.

In the main study, Mturkers (N = 292) randomly assigned to one of the two conditions (social media logo: logo present vs. logo absent) saw the cake shop menu and chose one of the four cakes. Thereafter, participants answered a 7-point question asking how heavily they use social media (1 = not at all, 7 = very much). Replicating the results of previous studies, participants in the logo present condition displayed a greater percentage of prettier cake choice than those in the logo absent condition ($M_{logo present} = 33\%$ vs. $M_{logo absent} = 17\%$; $\chi 2 = 9.9$, p = .002). More importantly, there was a significant interaction between social media logos and heaviness of social media usage (z = 2.32, p = .021). A following spotlight analysis revealed that while the difference between logo present and logo absent conditions becomes greater at 1 SD above the mean (3.91) of heaviness of usage (5.73; $M_{logo present} = 49\%$ vs. $M_{logo absent} = 16\%$; p = .002), it gets dampened at 1SD below the mean (2.09; $M_{logo present} = 16\%$ vs. $M_{logo absent} = 14\%$; p = .81). Heavier social media users were more affected by the presence of social media logos.

We then conducted Study 3 with the two key objectives. First, we aimed to examine the causal mechanism more thoroughly by directly manipulating the proposed mediator: the public mindset. In addition, we planned to rule out an alternative hypothesis that exposure to social media logos, regardless of the public mindset, increases participants' sensitivity to visual aesthetics momentarily, thereby making them view target items as even prettier. As for stimuli, we used the same stimuli employed in Study 2, albeit with just one pair of cakes (i.e., Flower Cake vs. Choco Cake). The pairwise comparisons confirmed that these two cakes differed significantly in both aesthetics and taste, yet in opposite directions (all *ps* <.002). Importantly, this time we manipulated the privacy of consumption context by three versions. In the public consumption condition, we asked participants to imagine that they were buying a cake for a dinner to which their friends were invited. In the private consumption condition, we asked them to imagine that they were buying a cake for their own private dinner. In the control condition, we simply asked participants to imagine that they were buying a cake for a dinner. The study was therefore a 2 (social media logo: absent vs. present) x 3 (consumption context: control vs. public vs. private) between-subjects design.

478 Mturkers randomly assigned to one of the six conditions above saw the cake shop menu and selected one of the two cakes, just as in previous studies. Thereafter, participants rated visual attractiveness of the two cakes on a 7-point scale (1 = not at all, 7)= very much). As anticipated, a binary logistic regression yielded a significant interaction between social media logos and consumption context (Wald $\chi 2 = 4.72$, p = .029). In the control condition, as with previous studies, participants were more likely to choose a prettier cake when exposed to social media logos ($M_{\text{logo present}} = 32\%$ vs. $M_{\text{logo absent}} = 16\%$; $\chi 2 = 5.36$, p = .02). The same was observed in the public consumption condition ($M_{logo present}$ = 33% vs. $M_{\text{logo absent}}$ = 17%; $\chi 2$ = 5.58, p =.01). Notably, there were no differences between the control and public consumption conditions ($\chi 2 < 1$). Finally, as hypothesized, in the private consumption condition, the effect of social media logos was eliminated (M_{logo present} = 16% vs. M_{logo absent} = 21%; $\chi 2 = 0.78$, p = .37), suggesting that the effect is driven by participants' public mindset that in turn increases their goal of impression management. In addition, the presence of social media logos per se did not significantly influence perceived visual attractiveness of both Flower Cake ($M_{logo present} = 6.26$ vs. M_{logo} absent = 6.11; t = 1.44, p = .14) and Choco Cake ($M_{logo present} = 4.56$ vs. $M_{logo absent} = 4.71$; t = 1.44, p = .14) 0.99, p = .32), thus enabling us to rule out the alternative aesthetic sensitivity account.

Together, the current research uncovers a novel effect that exposure to social media logos results in aesthetically-driven consumption, which is driven by the public mindset and moderated by consumers' heavy usage of social media platforms. Our work makes theoretical contributions to social media, logo research, visual aesthetics, and selfpresentation literatures. Our research also carries practical implications for marketing practitioners in food and other sensory product industries, by elucidating the effect of social media logos.

REFERENCES

Bham Digital (2018), "Social Media in Pharma – Knowing The Numbers", http://www.bhamdigital.com/2018/02/14/social-media-in-pharma-statistics

- Bromberg, Walter, and Paul Schilder (1934), "Olfactory imagination and olfactory hallucinations: an experimental and clinical study of the sense of smell in normal and in psychotic persons," *Archives of Neurology & Psychiatry*, 32 (3), 467-492.
- DeAndrea, David C., and Joseph B. Walther (2011), "Attributions for inconsistencies between online and offline self-presentations," *Communication Research*, 38 (6), 805-825.
- Diaconu, Mădălina (2006), "Reflections on an aesthetics of touch, smell and taste," *Contemporary aesthetics*, 4 (1), 8.
- Fitzsimons, Grainne M., Tanya L. Chartrand, and Gavan J. Fitzsimons (2008), "Automatic Effects of Brand Exposure on Motivated Behavior: How Apple Makes You 'Think Different," *Journal of Consumer Research*, 35 (1), 21–35.
- Gonzales, Amy L., and Jeffrey T. Hancock (2011), "Mirror, mirror on my Facebook wall: Effects of exposure to Facebook on self-esteem," *Cyberpsychology, behavior, and social networking*, 14 (1-2), 79-83.
- Hagtvedt, Henrik (2011), "The impact of incomplete typeface logos on perceptions of the firm," *Journal of Marketing*, 75 (4), 86-93.
- Jiang, Yuwei, Gerald J. Gorn, Maria Galli, and Amitava Chattopadhyay (2016), "Does Your Company Have the Right Logo? How and Why Circular and Angular Logo Shapes Influence Brand Attribute Judgments," *Journal of Consumer Research*, 42 (5), 709–26.
- Kamps, Haje Jan (2013), The Rules of Photography and When to Break Them, Focal Press.
- Klugman, Craig M., Jennifer Peel, and Diana Beckmann-Mendez (2011), "Art rounds:
- Mandel, Naomi (2003), "Shifting selves and decision making: The effects of self-construal priming on consumer risk-taking," Journal of Consumer Research, 30 (1), 30-40.
- Murdough, Chris (2009), "Social media measurement: It's not impossible," *Journal of Interactive Advertising*, 10 (1), 94-99.
- Patrick, Vanessa. M., Laura A. Peracchio (2010), "Curating" the JCP special issue on aesthetics in consumer psychology: An introduction to the aesthetics issue," *Journal of Consumer Psychology*, 20 (4), 393-397.
- Schivinski, Bruno, and Dariusz Dabrowski (2016), "The effect of social media communication on consumer perceptions of brands," *Journal of Marketing Communications*, 22 (2), 189-214.
- Stelzner, Michael A. (2015), "Social media marketing industry report," Social Media Examiner, 41, 1-10.
- Stevenson, Richard J., and Trevor I. Case (2005), "Olfactory imagery: a review," *Psychonomic Bulletin & Review*, 12 (2), 244-264.
- Strano, Michele M (2008), "User descriptions and interpretations of self-presentation through Facebook profile images," *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2 (2).
- Studies in the new experimental aesthetics: Steps toward an objective psychology of aesthetic appreciation, Hemisphere.

Teaching interprofessional students visual thinking strategies at one school," *Academic Medicine*, 86 (10), 1266-1271.

Townsend, Claudia and David T. Neal (2015), "Click to Share If You Dare: the Impact of the Mere Presence of Social Media Share Icons on Product Evaluation," *in NA* -

Advances in Consumer Research Volume 43, eds. Kristin Diehl and Carolyn Yoon, Duluth, MN : Association for Consumer Research, 717-718.

Tuten, Tracy L., and Michael R. Solomon (2017), Social media marketing, Sage.

- Verou, Lea (2015), CSS Secrets: Better Solutions to Everyday Web Design Problems, O'Reilly Media, Inc.
- Walther, Joseph B. (2007), "Selective self-presentation in computer-mediated communication: Hyperpersonal dimensions of technology, language, and cognition," *Computers in Human Behavior*, 23 (5), 2538-2557.
- Wilcox, Keith, and Andrew Stephen (2013), "Are Close Friends the Enemy? Online Social Networks, Self-Esteem, and Self Control," *Journal of Consumer Research*, 40 (3), 12–57.
- Young, K. (2008), "Online social networking: An Australian perspective", *Paper presented at the AOIR 0.9 Conference*, Copenhagen, Denmark.

<u>Study</u>	DV	Main and Interaction Effects			
1A	Prettier food choice	Main effect of social media logos on prettier food choice ($\chi 2 = 6.28$, $p = .04$.			
		Logos and sharing message	55%		
		Just logos	43%		
		Logo absent	33%		
1B	Prettier flower choice	Main effect of logo on prettier flower choice ($\chi 2 = 7.37, p = .027$)			
		Social media logos	71%		
		Company's logo	54%		
		Logo absent	56%		
2	Prettier cake choice	Main effect of social media logos on prettier cake choice ($\chi 2 = 9.9, p = .002$)			
		Logo present	33%		
		Logo absent	17%		
		Interaction between social media logos and heavy usage ($z = 2.32, p = .021$)			
			1SD above th	1SD above the mean 1S	
		Logo present	49%		16%
		Logo absent	16%		14%
3	Prettier cake choice	Interaction between social media logos and context (Wald $\chi 2 = 4.72$, $p = .029$)			
			Control	Public	Private
		Logo present	32%	33%	16%
		Logo absent	16%	17%	21%

 Table 1

 Summary of Main and Interaction Effects

Figure 1: Social Media Logos (L), Company's Logo (M), and Logo Absent (R) Study Stimuli Example (Study 1B)

