



ASSOCIATION FOR CONSUMER RESEARCH

Labovitz School of Business & Economics, University of Minnesota Duluth, 11 E. Superior Street, Suite 210, Duluth, MN 55802

Larger Screen, Inaccurate Perceptions: Investigating Visual Framing Effects on Online Shoppers' Product-Size Estimation

Sorim Chung, Rochester Institute of Technology, USA

Maria Karampela, University of Strathclyde

Incorrect size is often a principal reason behind e-commerce returns. This research investigates the visual framing effects of screen size on e-shoppers' accuracy of product-size estimations. Three experiments reveal the mechanism behind screen size effects and inform practical recommendations about optimization of e-retailers' websites.

[to cite]:

Sorim Chung and Maria Karampela (2020) ,"Larger Screen, Inaccurate Perceptions: Investigating Visual Framing Effects on Online Shoppers' Product-Size Estimation", in NA - Advances in Consumer Research Volume 48, eds. Jennifer Argo, Tina M. Lowrey, and Hope Jensen Schau, Duluth, MN : Association for Consumer Research, Pages: 653-654.

[url]:

<http://www.acrwebsite.org/volumes/2662647/volumes/v48/NA-48>

[copyright notice]:

This work is copyrighted by The Association for Consumer Research. For permission to copy or use this work in whole or in part, please contact the Copyright Clearance Center at <http://www.copyright.com/>.

Living in Glass Houses: The Effect of Transparent Products on Self-Presentation

Ann Schlosser, University of Washington, USA

Evelyn Smith, University of Washington, USA

EXTENDED ABSTRACT

What does she keep in that thing?

A recent article about stadium bags (i.e., clear bags) being required at football games posed the above question and continued: “That particular question has been a source of mystery surrounding women’s purses for decades. But now fashion trends—and the National Football League—are making it completely, well, clear” (Fitzgerald 2019). What is unclear is what effect transparent (i.e., visually clear) products have on consumer behavior. In particular, will it cause consumers to be more honest with others and/or to manage their impressions more?

Visual stimuli and imagery can significantly influence consumer behavior (e.g., Andrade et al. 2014; Elder and Krishna 2010; Elder et al. 2017; Ittersum and Wansink 2012). For example, a red (vs. blue) background can cause aggression, leading people to bid with larger jumps (Bagchi and Cheema 2012), and people favor unusual colors in marketing messages (Miller and Kahn 2005). Furthermore, people use products’ visual appearances to manage their impressions on others, such as favoring larger logo sizes to show devotion to a brand (Wang and Griskevicius 2014).

Transparency as a visual design feature has been examined primarily in the food packaging literature (e.g., Cavallo and Piqueras-Fiszman 2017; Deng and Srinivasan 2013; Simmonds, Woods, and Spence 2019). For example, transparent packaging can increase food salience as well as consumption monitoring (Deng and Srivivasan 2013). Our research question is whether transparent products (such as transparent backpacks or shopping bags) automatically trigger self-presentation concerns, and if so, what type? This is an important question from a practical standpoint given that transparent products are fashionable (e.g., Givenchy’s Transparent Windbreaker, Christian Louboutin’s Just Nothing Slide Sandal) and even required at large stadium events (e.g., sports, concerts). This is also important theoretically because it contributes to our understanding of how visual transparency might automatically prompt different self-presentation tactics, including the nuances underlying creating a desirable impression by being honest or self-flattering.

Self-presentation is defined as “the goal-directed activity of controlling information to influence the impressions formed by an audience about oneself” (Schlenker and Wowra 2003, 871), and can take one of two forms: being socially transparent or socially impenetrable (Gilovich, Savitsky, and Medvec 1998; Gilovich, Medvec, and Savitsky 2000; Schlenker and Wowra 2003). On the one hand, transparent products may trigger social transparency. Social transparency occurs when people feel that their “internal states are more readily discernible by audiences than they actually are” (Schlenker and Wowra 2003, 874). This causes people to present themselves more honestly to avoid any negative social repercussions resulting from being discovered as dishonest (Schlenker and Leary 1982). On the other hand, transparent products may trigger social impenetrability, where people feel that “their thoughts and feelings are hidden from others” (Schlenker and Wowra 2003, 874). Under such circumstances, people manage the impression they have on others by presenting themselves in more self-flattering ways, even if these presentations are not entirely true. In fact, transparent (vs. opaque) products may cause consumers to feel more exposed to others’ scrutiny, which may cause them to present themselves in ways that are more favor-

able. Notably, such self-presentation effects can occur automatically (Schlenker and Wowra 2003). We propose that product transparency will be such an automatic cue priming self-presentation. Importantly, how such self-presentation tactics manifest (i.e., to be honest or self-flattering) will depend on whether the self-presentation measure is indirect (self-presentation is inferred from someone’s behavior without explicit instructions to report it) or a direct measure (self-presentation is assessed with explicit instructions to report it; Greenwald and Lai 2002, 420-421).

People tend to portray themselves in a flattering manner (e.g., never swearing or littering) both intentionally and unintentionally (Paulhus 2002; Holden and Passey 2010; Ziegler, MacCann, and Roberts 2011). Yet, detecting self-presentation can be challenging because sometimes people divulge true information about themselves (e.g., “I read a book a week” or “I work out every day”) because it conveys a desirable impression (e.g., a bibliophile or athlete; Schlosser 2020). One common method used in psychology to detect a positive distortion is the overclaiming technique (Bruce and Trapnell 1995; Müller and Moshagen 2019; Paulhus et al. 2003). A benefit of this technique is that compared to other impression-management and self-deception measures, it is the most distinct indicator of positive distortion that is not confounded with personality and/or cognitive ability (Bensch et al. 2019).

With this technique, participants rate their familiarity with a series of topics, some of which are nonexistent. The nonexistent topics eliminate the possibility that answers reflect an honest response. This technique is an indirect measure because a flattering self-portrayal is inferred by observing whether participants overclaim their knowledge without explicitly telling participants that this is being assessed. We predict that if transparent products cause consumers to present themselves in more self-flattering ways when doing so is ostensibly not detectable (i.e., with an indirect measure), then they should present themselves in more self-flattering (rather than entirely honest) ways by overclaiming their knowledge. We test this prediction in the first two studies.

In Study 1, 223 MTurk participants were randomly assigned to see a transparent, semi-transparent, or opaque backpack image (the transparency manipulation). Specifically, all participants began by imagining that they were going to a sporting event and listing in an open-ended textbox all of the items they would bring. Participants then saw one of three backpacks. To reinforce the transparency manipulation, participants reported where they would put each personal item in the backpack’s different compartments. Afterwards, as part of an ostensibly separate study, participants completed the physics category of the Over-Claiming Questionnaire (OCQ; Paulhus and Bruce 1990; Paulhus et al. 2003). To reduce participants’ fatigue due to a lengthy questionnaire, we chose a single category. We selected physics because we believed it would be outside the areas of expertise of most of the MTurk (and later, business student) samples.

Overclaiming occurs when participants claim familiarity with nonexistent topics. As predicted, a significant transparency effect emerged ($F(2, 220) = 3.05, p = .050$; see Table for all means across studies). Overclaiming was greater for those in the transparent condition than the semi-transparent ($F(1, 220) = 4.18, p = .042$) and opaque conditions ($F(1, 220) = 4.99, p = .027$).

In Study 2, 212 undergraduates at a large university were randomly assigned to have direct experience with a transparent or opaque bag. Specifically, participants were told that the university

bookstore was considering selling the bag with the university's logo on it, but before doing so, it wanted students' opinions of the bag. Participants were informed that in order to get a better sense of the bag, they should place their personal items in the bag. In actuality, this was done to reinforce the transparency manipulation. While their belongings were in the bag, participants completed the OCQ. As in Study 1, overclaiming was greater for those using a transparent (vs. opaque) bag ($F(1,210) = 6.42, p = .012$). Thus, the results of Studies 1-2 suggest that when self-presentation is measured indirectly, consumers will exhibit greater impression management when using a transparent (vs. opaque) product.

In Study 3, we further test the effect of transparent products on self-presentation in two ways. First, we use both an indirect measure (OCQ) and a direct measure of self-presentation. Specifically, the direct measure involves explicitly asking participants to disclose personal information. If consumers are portraying themselves in a positive light with transparent (vs. opaque) products, then they should disclose more flattering information about themselves (e.g., what they are proud of) and less unflattering information (e.g., what they feel guilty about). However, if they are responding more honestly, we should observe more flattering and unflattering disclosures. Second, we varied the extent to which the context supports disclosing more personal details about themselves to others. We expect that when the context does not support disclosing personal details, a transparent (vs. opaque) product will cause consumers to portray themselves favorably on the indirect measure: to overclaim their knowledge (as observed in Studies 1-2). Furthermore, if the results generalize to direct measures, then they should also disclose more flattering (but not unflattering) information. However, when the communication partner speaks more honestly (i.e., disclosing personal information), then the differences between the transparent and opaque product should be attenuated for both flattering and unflattering disclosures. Indeed, it appears that even when interacting with computers, consumers disclose more when the computer discloses (vs. does not disclose) information about itself (Moon 2000).

To test the predicted interactive effect, 194 MTurk participants were randomly assigned to a condition in a 2 (transparency: transparent vs. opaque) \times 2 (disclosure: disclose vs. control) design. Participants were shown a picture of a transparent versus opaque artificial intelligence (AI) speaker (the transparency manipulation) and were told to engage in a conversation with this speaker. We chose an AI speaker because we wanted to assess whether the effects were driven by (a) product transparency itself or (b) participants' personal belongings being observable to others. With the transparent speaker, only its inside mechanics were observable. Furthermore, we varied whether the AI speaker disclosed personal information about itself or not. The questions and information provided by the AI speaker were like that used in prior research (Moon 2000). More specifically, the AI speaker asked eight questions (e.g., "what are your favorite things to do in your free time?") after stating either a similar answer of itself (e.g., "When this speaker doesn't have any work to do, it usually just runs its energy saver program"), or a control paragraph with similar word counts (e.g., "The next question in this part asks about the different things you like to do in your spare time"). Number of disclosures in participants' answers were coded by two independent judges blind to the conditions ($\alpha > .83$ between judges' codings across the questions). Afterwards, participants completed the OCQ.

For responses to the OCQ, there was a significant transparency \times disclosure interaction for overclaiming ($F(1,190) = 4.22, p = .041$). Specifically, in the control condition (i.e., when the AI speaker did not disclose any information), overclaiming was greater for those who spoke to a transparent (vs. opaque) AI speaker ($F(1,190) = 3.43,$

$p = .066$), consistent with the results of Studies 1-2. However, the effect was attenuated when the speaker behaved honestly by disclosing flattering and unflattering information about itself ($F(1,190) = 1.13, p = .289$).

For number of disclosures to the AI's questions, we observed more disclosures in the transparent (vs. opaque) condition ($F(1,190) = 4.45, p = .036$), although closer examination revealed that the effects were stronger in the control condition as predicted (see Table). Looking more specifically at each question, we find that the transparent speaker led to more proud disclosures ($F(1,190) = 5.32, p = .022$). However, participants also disclosed more in areas that are unflattering, such as what made them furious ($F(1,190) = 3.37, p = .068$), and what they felt guilty about ($F(1,190) = 5.80, p = .017$). Overall, the results suggest that when self-presentation is ostensibly undetectable (i.e., with an indirect measure), participants present themselves in a self-flattering way by overclaiming their knowledge, replicating the results of Studies 1-2. This effect was attenuated when they had recent experience favoring honesty (i.e., interacting with an honest AI speaker). Moreover, when self-presentation is more clearly detectable (i.e., with a direct measure), participants in the transparency (vs. opaque) condition are more honest (i.e., disclose flattering and unflattering information about the self).

In the final study, we examine further the nature of self-presentation by applying a social comparison framework. According to social comparison theory, an upward (vs. downward) social comparison occurs when consumers compare themselves to someone who is better (vs. worse) off than themselves (Buunk and Gibbons, 2007; Festinger 1954; Taylor, Wayment, and Carrillo 1996). Being a smart shopper is one important positive self-evaluation and the failure to do so is self-threatening (Argo et al. 2006; Schindler 1998). For example, after learning that they paid more than another consumer for the same product (an upward comparison), consumers might be honest by admitting to paying a higher price (an unflattering portrayal), or they might manage impressions by stating that they paid a lower price (a flattering portrayal). In other words, impression management is most likely to emerge when one's shopping ability is more threatened (i.e., when they paid more for the same product as someone else).

To test this, 303 MTurk participants were randomly assigned to a condition in a 2 (transparency: transparent vs. opaque) \times 2 (comparison: upward vs. downward) design. For the transparency manipulation, participants saw a picture of a transparent or opaque shopping bag. All participants were told to imagine carrying their newly purchased bath towels in the pictured shopping bag while walking through the mall and the parking lot to their car where they run into a co-worker. Based on prior research (Argo et al. 2006), we told participants that their co-worker informs them that they just purchased the same new car as they did for a specific price, which was either lower (upward comparison) or higher (downward comparison) than the amount they paid. Participants recorded the price they would tell the co-worker that they paid. They also learned that the co-worker had purchased the same set of bath towels for a lower (vs. higher) price. Participants reported the towel prices they would disclose to the co-worker.

We standardized the car and towel prices and analyzed them as repeated measures in a mixed-design ANOVA. The transparency \times comparison interaction was significant ($F(1,299) = 3.75, p = .054$). As predicted, those in the upward condition (i.e., those who paid a higher price than their co-worker) stated higher prices to their co-worker when their shopping bag was transparent than opaque ($M_s = 1.06$ vs. $.88; F(1,299) = 6.33, p = .012$). There was no transparency effect in the downward condition ($F(1,299) = .49, p = .483$).