

An Eye-Tracking Study: Visual Attention to Fashion Advertisements, Drive for Thinness, and Body Image

Hannah Karl, Southern Illinois University, USA
Seung-Hee Lee, Southern Illinois University, USA

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Background: The media plays a significant role in transmitting and reinforcing appearance ideals (Carter & Vartanian, 2022), particularly through the portrayal of thin models in fashion advertisements as a form of visual persuasion (Clayton et al., 2017). Advertising frequently incorporates social values, norms, and stereotypes, such as the "thin ideal," as a result of its cultural context and significance. Perpetuating unattainable societal beauty standards leads to increased social comparison and countless negative effects such as depression, body dissatisfaction, harmful dieting behaviors and eating disorders, especially among young women (Huang, Qian et al., 2020).

Conceptual Framework: Social Comparison Theory (Festinger, 1954) explains how individuals assess themselves relative to others through comparisons. This theory is particularly relevant in the context of body image and the drive for thinness, as individuals strive to meet societal beauty standards. Recently, eye-tracking technology has become increasingly adopted in marketing (e.g., Hollett et al., 2023) and psychology (e.g., Bauer et al., 2017) research because visual attention indicates ensuing mental processes, offering insights into consumer attention motivations and factors driving purchasing decisions (Schröter et al., 2021). In the fashion area, a few eye-tracking studies have been conducted. For example, Ju and Johnson (2010) examined visual attention in magazine ads and its comparison with appearance. Lee et al. (2021) investigated visual attention to fashion images for further prediction. However, there is little research examining how comparison to idealized thin advertisement images influences young women's drive for thinness, their body image, and self-esteem. Therefore, **the purpose of this study** was to investigate visual attention toward fashion advertising images using eye-tracking software, and to examine its relationship with body image, and self-concept among female college students.

This study consists of Part 1 (eye-tracking) and Part 2 (survey). The research questions for Part I and hypotheses for Part II were proposed as follows:

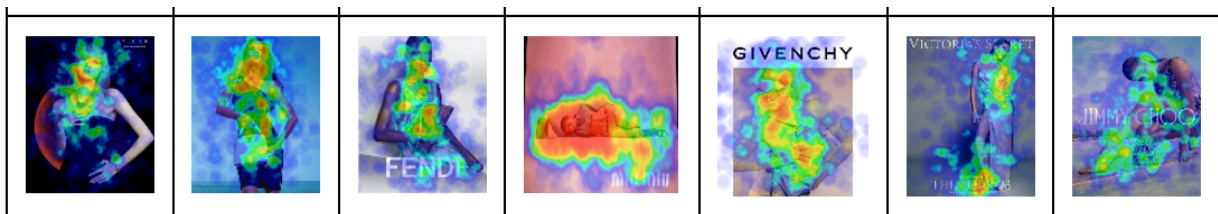
Part I: RQ1) Where do participants first view fashion advertisements (heat map)? RQ2) Which area do participants view for the longest duration, and visit most frequently in the images?

Part II: H1) Comparison to a model in an advertisement is significantly related to a) tendency for social comparison, b) drive for thinness, c) body image dimensions (appearance evaluation, appearance orientation, body satisfaction, weight occupation, self-classified weight). H2) Drive for thinness is significantly influenced by a) comparison to the model in the advertisement, b) social comparison, c) five body image dimensions, and d) self-esteem.

Method: Seven fashion advertisements featuring models exemplifying the "thin ideal" from magazines (e.g., Vogue) were chosen based on criteria including brand logo, model, and product. Fifty female college students from a US midwestern university participated, with an average age of 21 and various majors including fashion. Ethnicity included 31 Caucasians, 10 African Americans, 6 Asian Americans, 2 Hispanic/Latino, and 1 Middle Eastern. The RealEye eye-tracking program recorded participants' eye movements on a 24-inch monitor. Each image was viewed sequentially and displayed for 8 seconds with a 1.5-second interval between. Descriptive statistics were calculated for gaze duration and eye fixations across AOI in three categories: Model (M), Product (P), and Brand Logo (L). Following eye-tracking, participants completed a questionnaire and received a \$7 gift card as compensation.

Questions included demographic information, college major, and questions derived from the following scales: Garner et al. (2004)'s Drive for Thinness Subscale, Rosenberg (1965)'s Self-Esteem, Cash (2017)'s MBSRQ-AS Body Image, Thompson et al. (2004)'s Comparison to Media Images, and Heinburg et al., (1995)'s Comparison to Model-Internalization scale. For the data analysis, descriptive statistics, Cronbach's alpha reliability test, Pearson correlation, and multiple regression were used. The reliability of all scales ranged from 0.76 to 0.92.

Result: In Part I (eye-Tracking), regarding the RQ1, the results showed that the model was the first Area of Interest (AOI) to be looked at, with the least Time to First Fixation (TFF), indicating greater interest in the model's appearance. Seconds till first fixation are as follows, Model (1.22), Logo (2.89), and Product (2.95). Regarding RQ 2, in terms of Fixation Duration (FD) in seconds, the Model garnered the longest attention (4.22), followed by Product (1.34) and Logo (0.73). For Visit Count (VC), the Model (11.23) received the highest numbers of visits, followed by Product (2.62), and Logo (1.21).



In the Part II (survey), for testing H1, comparison to the model in the advertisement was significantly positively correlated with the drive for thinness ($r = .430, p < .001$), social comparison ($r = .706, p < .001$), and appearance orientation ($r = .291, p < .005$). Thus, H1 was partially supported. From testing H2, results revealed that individual's drive for thinness was significantly positively related to social comparison ($r = .412, p < .001$), weight occupation ($r = .775, p < .001$), self-classified weight ($r = .410, p < .001$) and negatively related to appearance evaluation ($r = -.643, p < .001$), body satisfaction ($r = -.616, p < .001$), and self-esteem ($r = -.489, p < .001$). Stepwise multiple regression analyses revealed that weight occupation ($\beta = .860, p < .001$) was a significant predictor of drive for thinness, followed by appearance evaluation ($\beta = -.434, p < .005$) to the model, $R^2 = .721, F(3, 46) = 39.65, p < .001$. H2 was partially supported.

Conclusion & Implication. This eye-tracking study unveiled that fashion ad models attract

the most attention, retain for the longest duration, and receive the highest number of visits, followed by products and brand logos. Comparison to these models in ads positively relates to female college students' drive for thinness and their body image. Specifically, social comparison and weight occupation heavily influence this drive, cautioning against unrealistic model images in ads. Pursuing thinness may lead to negative body image and eating disorders, revealing patterns in visual processing. The study suggests that fashion marketers or retailers should emphasize important visual elements in ads and promote diverse body imagery for socially responsible advertising. These findings enhance understanding of body image and inform marketing or visual merchandising strategies, advancing research on fashion ad impacts.

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