



## A Cross-Cultural Study of Consumer Perceptions of Clothing Fit

Yingying Wu, Kansas State University, USA  
Susan P. Ashdown, Cornell University, USA

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**Abstract:** Many studies and industry initiatives endeavor to provide well-fitted ready-to-wear products (RTW) to consumers. However, consumer perception of clothing fit has not been fully studied. We conducted a simulated fitting room study and a 3D virtual fitting study to investigate consumers' understanding of fit through their fitting practices and their organic language. It was found that both Chinese and American women experienced difficulties in fit evaluation. They lacked knowledge and methods of fit evaluation as well as vocabulary to describe clothing misfit. Therefore, expand clothing fit evaluation to consumers is demanded.

**Introduction:** Clothing fit is one of the most frequent, important, complex, situational, and dynamic issues to consider for assessing clothing quality and making buying decision in both online and brick-and-mortar situations (Hsu & Burns, 2002; Song & Ashdown, 2010). It requires the wearer and/or viewers to recognize certain qualities in a garment that are commonly categorized as ease, line, grain, set, and balance (Ashdown, Loker, Schoenfelder, & Lyman-Clarke, 2004; Erwin, Kinchen, & Peter, 1979).

In academia, methods of clothing fit evaluation generally fall into two categories: Fit perceptions by experts or by the wearer. It is a common practice in fitting sessions to use a fit evaluation sheet developed on the basis of published fit analysis instruments for both categories. Studies of clothing fit are therefore fundamentally based on the perspectives of fitting experts. In contrast, this study was conducted to understand how clothing fit is assessed and described by untutored consumers living in two different cultures.

**Methodology:** With IRB approval, 20 Chinese and 22 American female staff at universities were recruited through a survey. They were 34–55 years old, and Han Chinese or European American. A simulated fitting room study and a 3D virtual fitting study were conducted to investigate the dynamics in a fitting room and to understand the self-negotiation process of clothing fit for both real and virtual garments. In the simulated garment fitting study, participants were asked to reproduce the garment selection process that they usually performed in a fitting room of a store. A rack of neutral-colored cotton polyester classic pants and shirts were provided in a range of sizes, with size labels removed. In the 3D virtual fitting study, a personalized 3D virtual avatar for each participant was created based on her 3D body scan in minimal clothing. Then 3D virtual pants and shirts were developed based on the digitized 2D patterns of the pants and shirts used in the simulated fitting room experiment. Throughout both of the two studies, participants were instructed to speak out whatever thoughts came into their mind as they were trying different real and virtual items. In addition, they were instructed to choose the “best-fitted items” among the real and virtual garments and elaborate their choices with respect to clothing fit.

**Results and Discussion:** Content analysis of transcripts revealed that both the Chinese and American women, particularly the American women had difficulties in fit evaluation. Four issues were identified. First, participants had limited ideas about fit, as they did not consider criteria such as grain, balance, line or position of darts and yokes, even in cases in which these fit issues were obvious to the researcher. In addition, they rarely commented on neckline fit, shoulder seam and side seam placement. On the other hand, ease and set were the two categories that consumers mentioned the most, even though their words were as simple as “loose,” “tight,” “baggy,” “wrinkles,” and “extra fabric”. Ease distribution at key circumferences including bust, waist, and hip was often identified based on visual cues such as wrinkles, folds, bulges in the fabric, and visible gaps between the body and clothing. Moreover, they usually noticed issues with length such as shirt length, pants length, and sleeve length quickly. However, they often compromised on length for overall fit. Second, they did not know how to assess fit in detail. They did not know what good fit should look and feel like on their body. This occurred more often among the American than among the Chinese women. Third, the majority of the participants did not know how to look at the clothing they were wearing using different postures and checking from different angles. Overall, the language participants used in the process of fit evaluation was very limited. In many cases they were only able to describe the fit as “strange,” “weird,” or “uncomfortable to see,” without any further information. There could be two reasons: they either did not know the reason or did not have the vocabulary to elaborate their concerns. In order to resolve either of these two cases, expanding fit evaluation to consumers is indeed very important and in-demand.

**Conclusion:** Clothing fit has been an area of dissatisfaction concerning RTW products. Both researchers and professionals in the industry have made great efforts to understand and assess clothing fit, in order to provide well-fitted products to consumers. However, it is important to know the discrepancy between consumers’ perceptions of clothing fit and that of fitting experts, which is not generally known either to the industry or within academia. This study identifies areas in fit education that need improvement and calls for an expanding of fit evaluation to consumers. It is extremely important to communicate with consumers about good fit, and also the methods of identifying good fit from poor fit based on the relationship between physical body and clothing.

- Ashdown, S. P., Loker, S., Schoenfelder, K., & Lyman-Clarke, L. (2004). Using 3D scans for fit analysis. *Journal of Textile and Apparel, Technology and Management*, 4(1), 1-12.
- Erwin, M., Kinchen, L., & Peter, K. (1979). *Clothing for moderns*. Englewood Cliffs, NJ: Prentice Hall.
- Hsu, H. J., & Burns, L. D. (2002). Clothing evaluative criteria: A cross-national comparison of Taiwanese and United States consumers. *Clothing and Textiles Research Journal*, 20(4), 242-252.
- Song, H. K., & Ashdown, S. P. (2010). An exploratory study of the validity of visual fit assessment from three-dimensional scans. *Clothing and Textiles Research Journal*, 28(4), 263-278.