

# Does Aesthetics' Effect on Usability Extend Beyond Perceptions?

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It is well documented that when someone observes another person, their perception of that person is affected by the person's appearance (Dion *et al.*, 1972; Eagly *et al.*, 1991). These opinions are formed very quickly, at the first observation, and they tend not to change after more exposure or interaction with the person (Gladwell, 2005). Since humans are susceptible to the influence of the aesthetics of another person, it is not surprising that the affect also pertains to physical and virtual devices.

There is increasing interest within the area of Human-Computer Interaction in studying the relationship between aesthetics and usability. Norman (Norman, 2004), for example, discusses many ways emotional and aesthetic aspects of product design can affect people's perception and desire of the product.

Within the realm of computer applications, aesthetics have been shown to strongly affect peoples' perception of the usability of an application (Kurosu & Kashimura, 1995a; Kurosu & Kashimura, 1995b; Tractinsky, 1997; Tractinsky *et al.*, 2000; Hassenzahl, 2004). This research has centered around evaluating the perception of usability either evaluated in isolation or studied in conjunction with how the perception of aesthetics change based on the experienced efficiency and effectiveness of an interface.

Human-Computer Interaction research has traditionally downplayed or ignored the affects emotional and aesthetic attributes have on the usability of a system. That has changed recently, but the research has focused on the study of perceptions. There is a distinct gap in the literature related to evaluating aesthetics' relationship with usability criteria that do not relate to the users' perception of the interface. Nielsen's (Nielsen, 2003) definition of usability — learnability, memorability, efficiency, errors, and satisfaction — provides a definition of usability that contains aspects that have not previously been studied. The components of learnability, memorability, efficiency, and errors are not measured by eliciting user preferences and opinions. The question I'm pursuing is whether aesthetics can influence the usability criteria that are not based on user perception. In other words, does aesthetics effect on usability extend beyond perceptions?

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