Difference Curvature of Product Shape Evoked Emotional Variation in Preferences

Yen-nien Lu\textsuperscript{1}, Chun-heng Ho\textsuperscript{2}
Department of Industrial Design, National Cheng Kung University, Taiwan

Keywords: Appreciation, Object Preference, Contour, Curvature
Introduction

❖ Emotions play an important role in product design (Laparra-Hernandez, Belda-Lois, Medina, Campos, & Poveda, 2009).

❖ Furthermore, aesthetic and design are decisive buy-arguments in markets in which the technical level of competing products is very similar (Demirbilek & Sener, 2003).

❖ Thus, to understand the user’s aesthetic appreciation for industrial products is an important issue in design (Liu, 2003).
Users can evaluate products in their entirety or individual elements of products which is good for them.

Angular forms not only can provide people such cues for danger (Berlyne, 1974) but also increase people’s attention (Lidwell, Holden, & Butler, 2010).

People prefer to appreciation the object with curved form (Bar & Neta, 2006).
(Bar & Neta, 2006; Silvia & Barona, 2009)
Does people liking rating of product increase follow the curvature of product contour?
Purpose

❖ This study’s aim is to explore whether people liking rating of product increase will follow the stimuli that are the same object but difference between its curvatures of contour.
Method

❖ Stimuli

The curvatures of stimuli are divided into 0, 1.5, 3.5, 5.5, 7.5, 9.5, 11.5, 13.5, 15.5 and 17.5 mm.
Method

Participants

Fifteen students (seven female) were recruited as volunteers. Their age ranged from 23 to 34 years with a mean age of 26.6 years (SD = 3.22 years).
The ratings assessed included liking, curvilinear, technological and comfortable
First Step
Second Step

\[ Y = 0.003 X^3 + 0.119 X^2 + 1.195 X + 1.959 \]

\[ R^2 = 0.97 \]
Conclusions

- Bar and Neta indicted that the participants generally prefer curved visual objects.

- Hence, this study investigated the relationship between curvature and liking rating.

- We find that liking scales followed the curvature of shape in certain case (lower 9.5 mm). The trend has a turning point.
Conclusions

❖ First, it may be due to people familiar with iPhone image.

❖ Secondly, it may be possible that each kinds of product have the most suitable curvature contour.
THANKS YOURS ATTENTION!