

16 Anthropomorphic Aesthetics

Tuesday, March 08, 2016 4:44 PM

Today: Universal Principles of Design

General Aesthetics

- 20 Aesthetic-Usability Effect
- 26 Anthromorphic Form
- 34 Baby-Face Bias
- 242 Uncanny Valley
- 240 Top-Down Lighting Bias

Anthropomorphic Aesthetics

A Faster Horse, 5 pm FLMG 156. No office hours tonight, I'll be at the movie

20 Aesthetic-Usability Effect

<http://www.lynda.com/Higher-Education-tutorials/Aesthetic-usability-effect/193717/436485-4.html>

24 Alignment <http://www.lynda.com/Higher-Education-tutorials/Alignment/193717/421223-4.html>

26 Anthromorphic Form

- 28 Archetypes
- 30 Area Alignment
- 32 Attractiveness Bias

34 Baby-Face Bias

Black effects <http://www.lynda.com/Higher-Education-tutorials/Black-effects/193717/436476-4.html> 2/22/16

- 42 Classical Conditioning
- 46 Cognitive Dissonance
- 48 Color

70 Defensible Space

80 Entry Point

86 Exposure Effect

88 Face-ism Ratio

94 Fibonacci Sequence

108 Framing

114 Golden Ratio

130 Hunter-Nurturer Fixations

156 Mimicry

164 Most Average Facial Appearance Effect

174 Operant Conditioning

190 Propositional Density

192 Prospect-Refuge

202 Red Effect <http://www.lynda.com/Higher-Education-tutorials/Red-effects/193717/436475-4.html>

208 Rule of Thirds

212 Savanna Preference

216 Scarcity

218 Self-Similarity

224 Signal-to-Noise Ratio

226 Similarity

228 Stickiness

230 Storytelling

234 Symmetry

Supernormal stimuli <http://www.lynda.com/Higher-Education-tutorials/Supernormal-stimuli/193717/436479-4.html> 2/22/16

240 Top-Down Lighting Bias <http://www.lynda.com/Higher-Education-tutorials/Top-Down-Lighting-Bias/193717/426774-4.html>

242 Uncanny Valley

248 Veblen Effect

256 Wabi-Sabi

258 Waist-to-Hip Ratio

White effects <http://www.lynda.com/Higher-Education-tutorials/White-effects/193717/436477-4.html> 2/22/16



2016-03-08 17-29 aesthetic use

Aesthetic-Usability Effect

Aesthetic designs are perceived as easier to use than less-aesthetic designs.¹

The aesthetic-usability effect describes a phenomenon in which people perceive more-aesthetic designs as easier to use than less-aesthetic designs—whether they are or not. The effect has been observed in several experiments, and has significant implications regarding the acceptance, use, and performance of a design.²

Aesthetic designs look easier to use and have a higher probability of being used, whether or not they actually are easier to use. More usable but less-aesthetic designs may suffer a lack of acceptance that renders issues of usability moot. These perceptions bias subsequent interactions and are resistant to change. For example, in a study of how people use computers, researchers found that early impressions influenced long-term attitudes about their quality and use. A similar phenomenon is well documented with regard to human attractiveness—first impressions of people influence attitude formation and measurably affect how people are perceived and treated.³

Aesthetics play an important role in the way a design is used. Aesthetic designs are more effective at fostering positive attitudes than unaesthetic designs, and make people more tolerant of design problems. For example, it is common for people to name and develop feelings toward designs that have fostered positive attitudes (e.g., naming a car), and rare for people to do the same with designs that have fostered negative attitudes. Such personal and positive relationships with a design evoke feelings of affection, loyalty, and patience—all significant factors in the long-term usability and overall success of a design. These positive relationships have implications for how effectively people interact with designs. Positive relationships with a design result in an interaction that helps catalyze creative thinking and problem solving. Negative relationships result in an interaction that narrows thinking and stifles creativity. This is especially important in stressful environments, since stress increases fatigue and reduces cognitive performance.⁴

Always aspire to create aesthetic designs. Aesthetic designs are perceived as easier to use, are more readily accepted and used over time, and promote creative thinking and problem solving. Aesthetic designs also foster positive relationships with people, making them more tolerant of problems with a design.

See also Attractiveness Bias, Contour Bias, Form Follows Function, Golden Ratio, Law of Prägnanz, Ockham's Razor, and Rule of Thirds.

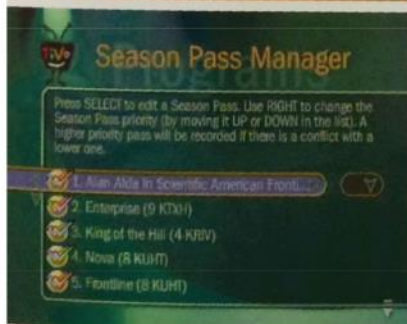
¹ Note that the authors use the term *aesthetic-usability effect* for convenient reference. It does not appear in the seminal work or subsequent research.

² The seminal work on the aesthetic-usability effect is "Apparent Usability vs. Inherent Usability: Experimental Analysis on the Determinants of the Apparent Usability" by Masaaki Kurosu and Kaori Kashimura, *CHI '95 Conference Companion*, 1995, p. 292-293.

³ "Forming Impressions of Personality" by Solomon E. Asch, *Journal of Abnormal and Social Psychology*, 1946, vol. 41, 258-290.

⁴ "Emotion & Design: Attractive Things Work Better" by Donald Norman, www.jnd.org, 2002.

Nokia was one of the first companies to realize that adoption of cellular phones required more than basic communication features. Cellular phones need to be recharged frequently, carried around, and often suffer from signal loss or interference; they are not trouble-free devices. Aesthetic elements like color covers and customizable rings are more than ornaments; the aesthetic elements create a positive relationship with users that, in turn, make such troubles more tolerable and the devices more successful.



While VCR's around the world continue flashing 12:00 because users cannot figure out the poorly designed time and recording controls, TiVo is setting a new bar for recording convenience and usability. TiVo's intelligent and automated recording features, simple navigation through attractive on-screen menus, and pleasant and distinct auditory feedback are changing the way people record and watch their favorite programs.

Anthropomorphic Form

Tuesday, March 08, 2016 6:53 PM

Anthropomorphic Form

A tendency to find forms that appear humanoid or exhibit humanlike characteristics appealing.

Humans are predisposed to perceive certain forms and patterns as humanlike—specifically, forms and patterns that resemble faces and body proportions. This tendency, when applied to design, is an effective means of getting attention, establishing a positive affective tone for interactions, and forming a relationship based, in part, on emotional appeal. To explore how anthropomorphic form can be applied, consider the design of three bottles.

The classic 1915 Coca-Cola "contour" bottle, often referred to as the "Mae West" bottle due to its distinctly feminine proportions, was a break with the straight and relatively featureless bottles of its day. In addition to its novelty, however, the bottle benefited from a number of anthropomorphic projections such as health, vitality, sexiness, and femininity, attributes that appealed to the predominantly female buyers of the time. The Mae West comparison is apt, because like the actress, the Coke bottle demured (and got) the attention of all passersby.

Anthropomorphic forms do not necessarily need to look like a face or body to be compelling. Consider the Adiri Natural Nurser baby bottle. The bottle is designed to look and feel like a female breast, and not surprisingly it elicits the positive associations people have with breastfeeding. The affective tone set by the bottle is one of nurturance and caring. What parent would choose a traditional, inorganic-looking bottle when such a supple, natural-looking substitute for the real thing was available? This, of course, does not mean the bottle performs better than nonanthropomorphic bottle designs, but it does mean the general inference of most people, based on its appearance, is that it does perform better.

Lastly, the Method Dish Soap bottle, nicknamed the "dish butter," brings a more abstract anthropomorphic form to bear. The bottle transforms the perception of dish soap bottles from utilitarian containers to be hidden beneath counters to sculptural pieces to be displayed proudly atop counters. The large bulbous head triggers baby-face bias cognitive wiring, reinforcing its aesthetic appeal as well as associations such as safety, honesty, and purity. Labeling is applied in what would be the chest region, with a round logo on top, giving it the appearance of a kind of superhero costume. It is more than a dish soap bottle—it is a helper, an art piece, and a symbol of sophistication and cleanliness.

Consider anthropomorphic forms to attract attention and establish emotional connections. Favor more abstract versus realistic anthropomorphic forms, as realistic depictions of breasts will increase aesthetic appeal. Use feminine body proportions to elicit associations of sexuality and vitality. Use round anthropomorphic forms to elicit babylike associations, and more angular forms to elicit masculine, aggressive associations.

See also Baby-Face Bias, Contour Bias, Uncanny Valley, and Waist-to-Hip Ratio.

26 Universal Principles of Design

Empirical literature on anthropomorphic design is surprisingly nascent. See, for example, "From Seduction to Fulfillment: The Use of Anthropomorphic Form in Design" by Carl Dalsike and Francine Genovese, *Proceedings of the 2003 International Conference on Designing Pleasurable Products and Interfaces*, 2003, p. 61–72.



Mary Jane "Mae" West (August 17, 1893 – November 22, 1980) was an American actress, singer, playwright, screenwriter, and sex symbol.

https://en.wikipedia.org/wiki/Mae_West

Adiri Natural Nurser. Designed by Whipsaw Inc
<http://www.yankodesign.com/2008/12/04/better-bottle-for-baby-adiri-natural-nurser-review/>



Baby-Face Bias

A tendency to see people and things with baby-faced features as more naïve, helpless, and honest than those with mature features.

People and things with round features, large eyes, small noses, high foreheads, short chins, and relatively lighter skin and hair are perceived as babylike and, as a result, as having babylike personality attributes: naiveté, helplessness, honesty, and innocence. The bias is found across all age ranges, cultures, and many mammalian species.¹

The degree to which people are influenced by the baby-face bias is evident in how babies are treated by adults. For example, babies with weak baby-face features receive less positive attention from adults and are rated as less likable, less attractive, and less fun to be with than babies with strong baby-face features. Large, round heads and eyes appear to be the strongest of the facial cues contributing to this bias. For example, premature babies often lack these key baby-face features (e.g., their eyes are closed, and their heads are less round) and are rated by adults as less desirable to care for or be around. A potentially related phenomenon is the rate of child abuse for premature babies, which is approximately 300 percent greater than for normal-term babies.²

Baby-faced adults are subject to a similar bias. However, unlike with children, there are liabilities to being a baby-faced adult. Baby-faced adults appearing in commercials are effective when their role involves innocence and honesty, such as a personal testimonial for a product, but ineffective when their role involves speaking authoritatively about a topic, such as a doctor asserting the benefit of a product. Baby-faced adults are perceived as simple and naïve, and have difficulty being taken seriously in situations where expertise or confrontation is required. In legal proceedings, baby-faced adults are more likely to be found innocent when the alleged crime involves an intentional act, but are more likely to be found guilty when the alleged crime involves a negligent act. It is apparently more believable that a baby-faced person would do wrong accidentally than purposefully. Interestingly, when a baby-faced defendant pleads guilty, they receive harsher sentences than mature-faced defendants—it seems the contrast between the expectation of innocence and the conclusion of guilt evokes a harsher reaction than when the expectation and the conclusion align.

Consider the baby-face bias in the design of characters or products when facial attributes are prominent (e.g., cartoon characters for children). Characters of this type can be made more appealing by exaggerating the various neonatal features (e.g., larger, rounder eyes). In marketing and advertising, use mature-faced people when conveying expertise and authority; use baby-faced people when conveying testimonial information and submissiveness.

See also Anthropomorphic Form, Contour Bias, Attractiveness Bias, Mimicry, and Savanna Preference.

¹ The seminal work on the baby-face bias is “Ganzheit und Teil in der tierischen und menschlichen Gemeinschaft” [Part and Parcel in Animal and Human Societies] by Konrad Lorenz, *Studium Generale*, 1950, vol. 3(9).

² See *Reading Faces: Window to the Soul* by Leslie A. Zebrowitz, Westview Press, 1998. There are many other factors that could account for this statistic. For example, the level of care and frequency of crying in premature babies is significantly higher than for normal-term babies, which could contribute to the stress of the caregiver.