Do People Have a Thing for Bling? Examining Aesthetic Preferences for Shiny Objects

By: Paul J. Silvia, Alexander P. Christensen, Katherine N. Cotter, Tatyana A. Jackson, Corey B. Galyean, Tanner J. McCroskey, Aaliyah Zeenat Rasheed

Abstract:

Researchers in the evolutionary aesthetics tradition have suggested that people prefer shiny objects because glossiness connotes water. We consider some methodological issues in past research and present an experiment that manipulated the glossiness of metal objects. Young adults ($n = 134$) viewed silver coins that were either dull or in "brilliant uncirculated" condition as well as copper cylinders that were either rough and tarnished, polished with a brushed surface, or polished with a mirror finish. Ratings of attractiveness showed that people preferred the shiny over the tarnished coin and the glossy copper bar over the tarnished and brushed ones. These effects were not simply due to perceived quality or implied effort. The findings demonstrate that, after many potential confounds have been avoided or controlled for, people do seem to have a thing for bling.

Keywords: aesthetics | shininess | gloss | evolutionary aesthetics

Article:

During a visit to a Japanese jewelry store in 1962, Taro Tanaka's eye was caught by the watches:

> As I looked in one of the showcases I saw many watches sparkling brilliantly. Then I looked on the other side and saw watches that had a rather uneven gleam; the difference was all too apparent. The brilliantly sparkling watches were Swiss, and those with the duller finish were by Seiko. (Goodall, 2003, p. 74)

Tanaka was a designer for Seiko, which is now one of the world's largest watch companies but was a minor player in 1962. In a quest "to outshine the Swiss, figuratively and literally" (Lorentzen, 2016), Tanaka developed an innovative "grammar of design" that emphasized flat surfaces, crisp angles, and mirror finishes to catch the light.

But influential designers are not the only ones who like shiny things. *Evolutionary aesthetics*, an increasingly influential school of thought (Chatterjee, 2013; Coss, 2003; Zaidel, Nadal, Flexas,

& Munar, 2013), emphasizes how evolutionary processes have shaped the human brain to influence aesthetic perception and experience. This literature has emphasized low-level features that affect what people find interesting, pleasing, and beautiful, such as symmetry (Chatterjee, 2013), prototypicality (Halberstadt, 2006), curvature (Cotter, Silvia, Bertamini, Palumbo, & Vartanian, 2017; Gómez-Puerto, Munar, & Nadal, 2015; Palumbo & Bertamini, 2016), and markers of health and fertility in the faces and bodies of a viewer's sexually desired gender (Chatterjee, 2013; Rhodes, 2006).

For shininess, several researchers have proposed that the visual appeal of glossiness "is innate and stems from the human need for fresh water as a resource" (Meert, Pandelaere, & Patrick, 2014, p. 196). Coss and Moore (1990) proposed that people find glossy things appealing because of innate mechanisms that many animals use to detect the presence of water, a vital resource that humans cannot survive without for long (Jéquier & Constant, 2010). Stimulus features that imply water, even when imperfect and probabilistic, can thus become affectively tagged to motivate approach behavior. Surfaces that are shiny, reflective, and sparkling, in different degrees, are informative cues to water in natural environments.

People do experience glossy objects as conceptually "wetter." In a semantic differential study, for example, Coss and Moore (1990) found that blank glossy photo paper was rated as much wetter on a *wet:dry* semantic differential scale than sandy, blank matte, and sparkly matte paper. The more intriguing issue is whether people aesthetically prefer shiny, reflective things as a result. In their study, Coss and Moore found that the blank glossy paper was evaluated more positively than the others. More recently, a series of experiments by Meert et al. (2014) tested the effects of glossy surfaces on ratings of attractiveness. The basic design involved showing people pictures of landscapes, holiday icons, or deep space on either high-quality glossy photo paper or ordinary paper. Across a range of images and conditions, both children and adults rated the images as significantly more attractive when they were on glossy paper. And in an intriguing end to the series, they found that this preference was greater when people were made thirsty (Meert et al., 2014; Study 5).

Several methodological issues in this small literature, however, suggest a need for further research. Thus far, nearly all the experiments have used within-person manipulations of glossiness, typically by contrasting glossy paper with paper that is sandy, matte, or sparkly (Coss & Moore, 1990; Meert et al., 2014). When two conditions are strikingly different, exposing participants to both can prompt them to notice the distinction and explicitly compare the stimuli on the dimension.

In addition, the literature has overwhelmingly focused on the material of paper, either blank paper (Coss & Moore, 1990) or paper with photographic images (Meert et al., 2014). Varying the glossiness of paper introduces several likely confounds. First, glossy, photo-quality paper is significantly heavier, stiffer, and brighter than basic 20-pound photocopy paper. As a result, it is much more expensive, thus affecting the implied value of the image. Implied value affects people's judgments of aesthetic merit: When objects are in culturally significant contexts (e.g., museums; Smith, 2014) or required human expertise and effort to make (Kruger, Wirtz, Van Boven, & Altermatt, 2004), people see them as aesthetically more valuable. Second, photographers use expensive, glossy paper for good reasons: It yields much better results.

Resolution, color rendering, and sharpness are much better on glossy photo paper than common office paper. Third, when people are allowed to handle the images, the papers vary in texture, and the role of tactile processes in the experience of the visual images is likely complex. Finally, it is unclear if participants are properly focusing on the images printed on the paper, the paper itself, or some combination when giving their ratings of attractiveness. In one experiment (Meert et al., 2014; Study 2), for example, instructing participants to focus on the "landscape" depicted in a photo or the "photo" itself had no effect on their preference for images on glossy over standard paper.

In short, printing images on varying kinds of paper introduces an array of possible confounds connected to paper texture, implied value, and image quality. And the paradigm yields an indirect test of the hypothesis because it is hard to disentangle aesthetic judgments of the image itself and the material it is printed on. In the present research, we sought converging evidence for the idea that shiny objects are appealing by taking a different methodological approach. We used small metal objects that people could handle (Lichtenauer, Schuetz, & Zolliker, 2013). A metal's surface can be manipulated to increase the relative specular reflection, causing a bright and glossy surface, versus diffuse reflection, causing a bright but matte surface (Hunter & Harold, 1987). In addition, we sought to evaluate perceived quality as a possible confound by measuring and controlling for it.

Method

Participants and Design

A total of 142 young adults enrolled in psychology classes at the University of North Carolina at Greensboro (UNCG) took part and received credit toward a research participation option. We excluded 8 people based on elevated scores on items and scales designed to catch inattentive and random responding (McKibben & Silvia, 2016, 2017), which left a final sample of 134 people. This final sample was predominantly young (age: $M = 19.22$, $SD = 1.51$, range from 18 to 43) and female (101 women, 32 men, and 1 person who declined to endorse either category), and it was racially and ethnically diverse (6% Hispanic or Latino/a, 38% African American, and 59% European American; people could pick several categories or decline to pick any).

Participants were randomly assigned to one of the six between-group conditions using randomized blocks. Each experimenter had a different set of randomized blocks to ensure roughly equal distributions of conditions across the experimenters. The independent variables were silver coin appearance (*dull* vs. *shiny*) and copper bar condition (*tarnished* vs. *brushed* vs. *shiny*), which were manipulated orthogonally.

Procedure

The project was approved by the institutional review board at UNCG. People took part in groups of one to six people. After they completed consent forms, the participants learned that the study was interested in people's aesthetic experiences of everyday objects. Each person in the session was in a different condition. The participants received a small container with five objects with a range of colors, shapes, materials, and textures. Three distractor objects were constant across all

conditions: a pebbled glass fermentation weight, a blue plastic baby shoe, and a wood candleholder cup. The two key objects—the silver coin and copper bar—varied between groups.

Each container had either a dull or shiny coin (see Figure 1). These coins, minted by the Austrian National Mint from 99.9% pure silver, were chosen for a few reasons. First, they are freakishly shiny in their mint state. Second, we wanted coins that our American college-aged participants would not recognize. Because the coins are foreign and noncirculating, they ought to be unfamiliar to our participants. And third, the coins shouldn't have the emotional and patriotic connotations of American coins. They have German text and appealing images of orchestral instruments, but they do not have English text or depict people or American patriotic icons (e.g., eagles or flags). Half the people received a shiny coin in its mint, "brilliant uncirculated" condition. The other half received a dull coin that had been tarnished by soaking it in bleach. This darkened the coin and gave it a dull, matte surface. The shiny coins were cleaned often with a Selvyt cloth to maintain their shine.

Figure 1. The dull and shiny silver coins.

Each container had one of the three copper bars, which were 4 oz cylinders of 99.9% copper (see Figure 2). Pure copper quickly tarnishes when exposed to air and handled with bare hands. People received one of the three bars. In the *tarnished* condition, the bar had been roughly sanded, creating a matte surface, and then exposed to handling and the elements. After a week, the bar developed a mottled, brown appearance. This bar was thus dull and did not appear as if a person had devoted effort and expertise to improve its appearance. In the *brushed* condition, the bar was given a brushed, scalloped finish using a jeweler's matte buffing wheel. This gives the copper a clean look and a silky finish, but the light reflected from it is relatively more diffuse than specular. As a result, this bar is not shiny, but it obviously took human skill and effort to make it look that way. Finally, in the *shiny* condition, the bar was polished to a mirror finish. This bar was thus shiny as a result of human effort. The bars were placed in identical transparent plastic bags, and participants were asked not to remove the bars from the bags when they handled them. The bags eliminated confounding texture differences between the conditions and prevented the bars from quickly tarnishing. The bags could have affected impressions of glossiness, but such an effect would be constant across the three conditions.
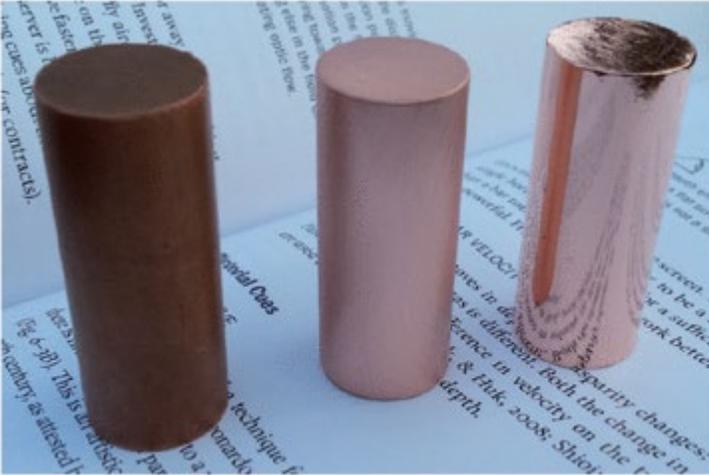
Figure 2. The tarnished, brushed, and mirror-polished copper bars.

People were invited to handle each object, form an impression of it, and then answer some questions. For each object in the container, people responded to the following items:

- Overall, how ATTRACTIVE is this coin/copper bar (1 = *not at all attractive*, 7 = *very attractive*)?
- Overall, how APPEALING is this coin/copper bar (1 = *not at all appealing*, 7 = *very appealing*)?
- Overall, how INTERESTING is this coin/copper bar (1 = *not at all interesting*, 7 = *very interesting*)?
- Overall, what is your impression of the QUALITY of this coin/copper bar (e.g., 1 = *very low quality*, 7 = *very high quality*)?

Attractiveness was the main item in past work (Meert et al., 2014) and was thus our primary outcome as well. Interest was measured because it is a long-standing outcome in empirical aesthetics research (Berlyne, 1974) that often diverges from measures of liking (Silvia, 2006). Afterward, people completed a range of self-report scales and surveys unrelated to this study and were later debriefed about the study's purposes.

Results

Analytic Approach

We analyzed the data with regression models in Mplus 7.4 using maximum likelihood with robust standard errors. The regression coefficients are standardized; 95% confidence intervals are in brackets. The raw data and Mplus input files are available on Open Science Framework (https://osf.io/234dp/).

Silver Coins

Did people prefer the shiny coins to the dull ones? A multivariate regression model was estimated using shininess as the predictor (coded 0 = *dull*, 1 = *shiny*) and the four ratings

(attractiveness, appeal, interest, and quality) as the outcomes (see Table 1 and Figure 3). As expected, people rated the shiny coin as significantly more attractive (β = .41 [.26, .55], $p < .001$) and appealing (β = .28 [.13, .44], $p < .001$) than the dull one. The shiny coin was not more or less interesting (β = .00 [−.17, .17], $p = .999$), but it was rated as significantly higher in perceived quality (β = .28 [.06, .40], $p < .001$).

Table 1. Ratings for the Dull and Shiny Silver Coin.

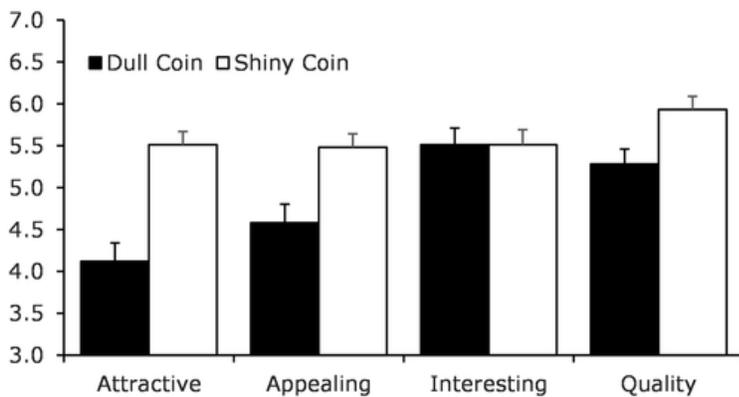|	Dull coin			Shiny coin		
Outcome	*M*	*SD*	95% CI	*M*	*SD*	95% CI
Attractive	4.12	1.77	[3.68, 4.56]	5.51	1.32	[5.19, 5.83]
Appealing	4.58	1.75	[4.15, 5.02]	5.48	1.29	[5.17, 5.79]
Interesting	5.51	1.58	[5.12, 5.90]	5.51	1.52	[5.14, 5.87]
Quality	5.28	1.43	[4.92, 5.63]	5.93	1.36	[5.60, 6.26]

Figure 3. Effects of shininess on ratings for the silver coin. Error bars are standard errors; the scale ranges from 1 to 7.

Because the shiny coins were rated as both more attractive and higher in perceived quality, we estimated a mediation model with shininess as the predictor, perceived quality as the mediator, and attractiveness as the outcome. This model examines whether perceived quality carries the effect of shininess on attractiveness. The indirect effects were estimated using bias-corrected bootstrapped confidence intervals. As Figure 4 shows, the shininess manipulation had a significant effect on perceived quality (β = .23 [.05, .40], $p = .010$), and perceived quality in turn had a significant effect on attractiveness (β = .46 [.30, .61], $p < .001$). This indirect effect was significant (unstandardized $b = .35$ [.11, .71], $p = .022$). Shininess, however, still had a significant direct effect on attractiveness (β = .30 [.16, .45], $p < .001$). As a result, the effect of shininess on attractiveness is not entirely due to its effect on perceived quality.
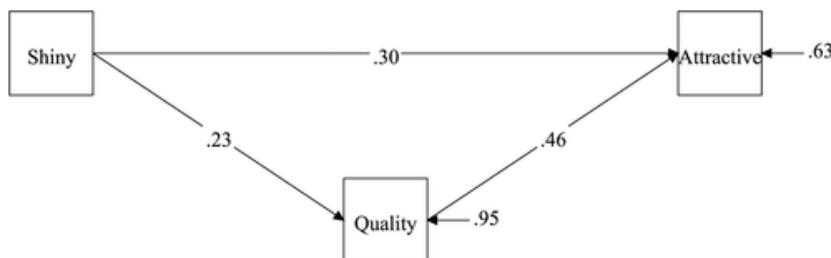

Figure 4. Mediation model for shiny condition, perceived quality, and attractiveness of the silver coin.

Copper Bars

What about the copper bars? Because there were three conditions, we used polynomial coding to estimate the linear (−1, 0, 1) and quadratic (−1, 2, −1) effects of shininess (tarnished, brushed, mirror polished; see Table 2 and Figure 5). Only the linear effects were significant for ratings of *attractiveness* (β = .36 [.21, .50], p < .001) and *appeal* (β = .25 [.10, .41], p = .001). These ratings increased as glossiness increased. According to the 95% confidence intervals around each mean, people found the tarnished copper bar less attractive and appealing than the brushed and mirror polished bars. In addition, the mirror-finished bar was rated as more attractive than the brushed bar. (The pattern was the same for ratings of appeal, but the confidence intervals included the other condition's mean.) For *interest*, the linear effect was small (β = .14 [− .02, .30], p = .075) and not significant at the .05 level.

Table 2. Ratings for the Tarnished, Brushed, and Mirror-Polished Copper Bars.

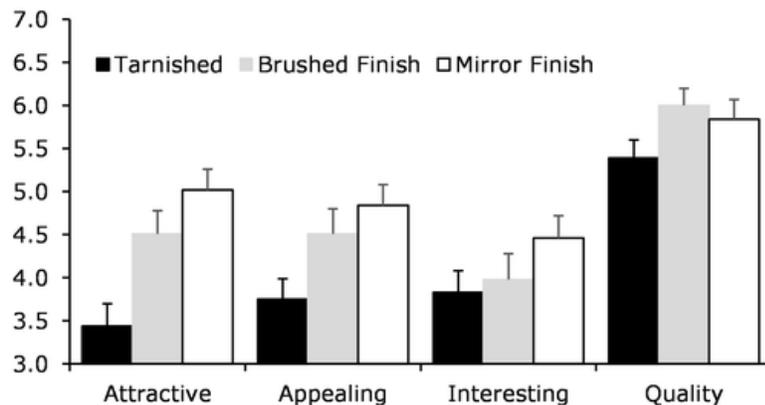| Outcome	Tarnished			Brushed finish			Mirror finish		
	M	*SD*	95% CI	*M*	*SD*	95% CI	*M*	*SD*	95% CI
Attractive	3.44	1.82	[2.91, 3.97]	4.51	1.79	[3.96, 5.06]	5.02	1.57	[4.54, 5.51]
Appealing	3.75	1.70	[3.27, 4.23]	4.51	1.88	[3.93, 5.09]	4.84	1.60	[4.34, 5.33]
Interesting	3.83	1.71	[3.34, 4.33]	3.98	1.97	[3.37, 4.58]	4.46	1.72	[3.93, 5.00]
Quality	5.39	1.45	[4.97, 5.82]	6.00	1.31	[5.60, 6.40]	5.84	1.48	[5.38, 6.29]

Figure 5. Effects of shininess on ratings for the copper bar. Error bars are standard errors; the scale ranges from 1 to 7.

Ratings of the copper bar's perceived *quality* had a 2 versus 1 pattern that was not fully captured by the linear (β = .13 [−.05, .30], p = .156) and quadratic forms (β = .13 [−.03, .29], p = .123). The confidence intervals around the means indicated that the brushed and mirror polished bars were rated equally highly, and both were rated as significantly higher in quality than the tarnished bar (see Figure 4).

To explore the role of perceived quality further, we ran a mediation model with shininess as the predictor, perceived quality as the mediator, and attractiveness as the outcome. As Figure 6 shows, neither the linear (β = .13 [−.07, .30], p = .173) nor the quadratic (β = .13 [− .05, .27], p = .126) effect of shininess condition significantly predicted perceived quality. Quality, in turn, significantly predicted attractiveness (β = .44 [.28, .59], p < .001). The indirect effect was

not significant for either the linear (unstandardized $b = .13$ [−.06, .30], $p = .168$) or quadratic (unstandardized $b = .07$ [−.02, .18], $p = .157$) component of condition. In addition, there remained a significant linear effect of condition on attractiveness ($\beta = .30$ [.18, .44], $p < .001$). Taken together, the effect of shiny condition on attractiveness was not simply due to an indirect effect of perceived quality.
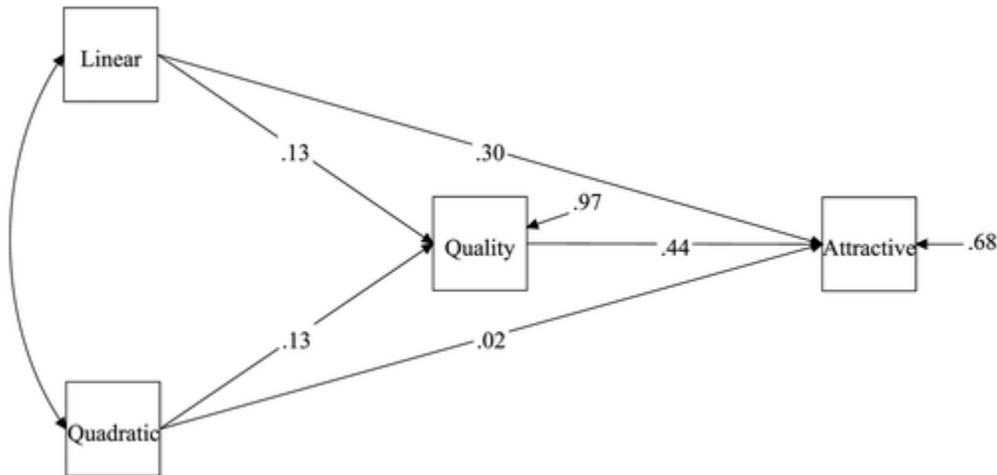

Figure 6. Mediation model for shiny condition, perceived quality, and attractiveness of the copper bar.

Discussion

The present study examined the effects of shininess on aesthetic preference. Our goal was to use methods, materials, and outcomes to rule out some potential problems in past research, such as implied value and perceived quality. Taken together, the findings conceptually replicate past research and support the notion of an aesthetic preference for shiny objects. For both the silver coin and copper bar, people rated the shiny form as more attractive and appealing than the dull form. Using real objects allowed us to avoid the potentially confusing issue involved with photographs—whether people are responding to the attractiveness of the image or to the paper stock it is printed on.

The investment of human effort and attention seems unlikely as a reason for this effect. The brushed copper bar was rated as less attractive than the glossy mirror-polished bar, but both had a clean, professional appearance that was clearly brought about by human effort and skill. Likewise, perceived quality seems unlikely as a reason. The dull coin was rated as lower in quality than the shiny coin, which is not surprising, but a mediation model indicated that the effect of shininess on attractiveness was not simply due to higher perceived quality. In addition, the brushed and mirror-polished bar were rated as equally high in quality and higher than the tarnished bar, but the mirror-polished bar was nevertheless rated as the most attractive one.

In conclusion, after examining several methodological issues, the present study supports the view that people find glossy objects more attractive. These findings, however, do not directly speak to whether the "water connotation" mechanism suggested by evolutionary aesthetics research is the reason why. Given the complexity of the perception of glossiness (e.g., Araki et al.,

2011; Hansmann-Roth & Mamassian, 2017; Obein, Knoblauch, & Viénot, 2004), studying how the factors that affect perceived glossiness influence a viewer's eventual aesthetic reaction is a fertile direction for future research.

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