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Renaissance Beauty = Today's Ugly:
Socioculturally Relative Appearance Factors and Attractiveness Judgments.

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Author Note

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I acknowledge the use of images under the fair use for research provision of stimuli from Merle Norman Cosmetics, Victoria Jackson Cosmetics, and Mademoiselle magazine for before/after makeover photos of contemporary women. Similarly, I acknowledge the use of photos from Lynn Lawner's book Renaissance Courtesans. A list of web sites where those images may be viewed is in Appendix A.

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Abstract

By comparing photos of portraits of the faces of Renaissance courtesans to photos of attractive contemporary women's faces this study estimates the importance of sociocultural factors in the person perception of the attractiveness of faces. Physical attractiveness is an important causal factor in choosing a sex partner so the difference between averaged attractiveness judgments, a focus of attractiveness research, and individual attractiveness judgment, most relevant to choosing a sex partner, is important. Except for modesty and faithfulness, 13 normally attractive contemporary models were rated much more positively by college student participants (N = 189) than were eight celebrated Renaissance courtesans, both in attractiveness (contemporary stimuli 63%; Renaissance courtesans 31%) and personality traits. All of the Renaissance courtesan trait ratings showed more variability than the contemporary stimuli. This study supports the view that once a relatively low baseline level of biological attractiveness is surpassed, latent and explicit sociocultural factors, culturally relative gender role appearance expectations, culturally relative aesthetic judgment factors, individual differences, and interpersonal dynamics are major determining factors of judgments of pretty and/or beautiful with large cultural, subcultural, and individual differences in these. Pretty and beautiful may be discrete concepts with beautiful strongly culturally determined.

Renaissance Beauty = Today's Ugly:

Socioculturally Relative Appearance Factors and Attractiveness Judgments.

For heterosexuals, physical attractiveness has long been regarded as a key element in how attractive a sex partner a woman is regarded as being. How important are sociocultural factors or reproductive fitness judgments in physical attractiveness judgments? Human female beauty is currently thought to be primarily a biological trait reflecting youth, health, and good genes, while sociocultural factors and judges' individual differences are of secondary significance. Youth is clearly a major ingredient for female attractiveness judgments but within the young population there are significant attractiveness differences not explained by the emphasis on reproductive potential. Reproductive potential is a filter, a restriction on who can be considered attractive (Singh, 1993). This study suggests that once the relatively low biological tipping point to appear in the reproductively viable category is reached, sociocultural and individual difference factors influence how attractive the individual is regarded as being.

Prioritizing health and good genes as the reason for how attractive an individual is in human female beauty judgments is therefore problematic and may represent an overextension of a biological, evolutionary approach. For example, fluctuating asymmetry is considered important as a measure of resistance to developmental disturbances. But a meta-analysis shows that overall this is, at best, a very minor factor in attractiveness ratings (Von Dongen, 2012).

Since only about 10% of women have difficulty conceiving (National Institutes of Health, 2013) seeing attractiveness as mainly a fecundity judgment is not plausible. A number of famously attractive (to different subcultures) media ideals who were sterile or had serious fertility problems shows the implausibility of reproductive value leading to attractiveness

judgments. It seems more congruent with these facts that the attractiveness of people, like the attractiveness of other objects, is more a social status issue (e.g. Webster & Driskell, 1983; Sigall & Landy, 1973; Kalick, 1988). This judgment reflects strong individual differences and/or the judged person's similarity to the subculturally based prototype of either an attractive or ugly person (Principe & Langlois, 2012; Sorokowski & Koscinski, 2013). One reason differences in status judgments occurs is because of the different values subcultures place on traits; for example weight of the target may be a negative, neutral, or a positive depending on one's subgroup. Individual differences occur because of the unique experiences individuals have which shapes their preferences.

The view that the attractive male is one with social status, where resource command is more important than appearance (e. g. youth or health) has been widely accepted for male attractiveness. Though seeing this as a rigid gender differentiation may be, to some degree, an obsolete belief (cf. Zhang, You, Teng, & Chan, 2014; Eastwick, Luchies, Finkel, & Hunt, 2014). The characteristics that define social status have changed for women. For female attractiveness the current research suggests conformity to local standards is an important factor influencing views of female attractiveness (cf. Doosje, Rojahn, & Fisher, 1999; Lanier & Byrne, 1981; Groom, 2012; Kowner, 1996; Sofer, Dotsch, Wigboldus, & Todorov, 2015). There has been a stronger emphasis in modern, image-saturated Western culture on a highly attractive female's personal traits whereas in earlier times external factors (e.g. clothing, setting) provided by wealthy benefactors were used to express female physical attractiveness and status. This change may have come about as women were judged more on their own socially desirable personal traits rather than receiving their standing from their high status male associates and the accouterments supplied by them (Reimer, 2012),.

Changes in Western society with the lowered infant death rate, rise of the two-income family, the new role of personal choice in a marriage partner, and women's greater achievement of academic credentials and subsequently earning power suggests the idea that a contemporary woman's attractiveness in modern society is based mainly on her fecundity is a questionable theory. Sterility is a very small factor in fecundity (Bongaarts, 1978) so to see this judgment as the determining factor of attractiveness is illogical. Of course, beauty as a reproductive potential judgment may be like the human longing for fats, sugars, and salt; dysfunctional and irrelevant to survival in the modern world but embedded in our physiology. In order to help untangle the effects of culture from biology this research is designed to investigate how attractive the modern Western young person sees celebrated, lust inducing, beauties of the Renaissance. If biological structure is the main determiner of attractiveness these Renaissance courtesans should be regarded as very attractive; if historical sociocultural factors are of major importance they may be regarded as less attractive. Attractiveness as a multi-dimensional characteristic is represented in this study by using a set of dependent variables.

Overview of the Current Study

This report, based on data from a larger investigation of interpersonal judgments, compares trait ratings of the faces of beauties of the Renaissance, represented by photos chosen from Lynn Lawner's (1987) book *Lives of the Courtesans* to ratings of the faces from photos of modern day women selected from cosmetics ads and articles in a woman's magazine on before-and-after makeovers. The rationale for choosing these particular stimuli is that these women's representations are prima facie more or less beautiful to the society that recognizes them in this way. Such Renaissance masters as Raphael, Vecchio, Titian, Holbein, Bordone, Lotto, and Clouet painted the portraits of the courtesans. Their charge was to depict accurately both the

subject and the ideal of beauty at that time (Tinagli, 1997). Many of the courtesans pictured were operating in Venice, Italy. It has been described as "...15th Century Venice was one of the world's richest cities, awash with the profits of trading with both East and West Europe." (British Broadcasting Company, 2003) which explains why successful courtesans such as those pictured were among the most desirable and prosperous women of that time (Griffin, 2001). Similarly, the modern day stimulus women have been chosen by editors and advertising directors to represent an ideal of beauty for contemporary society.

A more obvious choice of comparable stimuli would be media stars, such as Margot Robbie, Kate Upton, or Lea Michele. However, this choice would bias the results in favor of contemporary women, since these famous people might be judged not only on their intrinsic beauty but also on their success in promoting themselves in the mass media as attractive people. Similarly, ratings of their personality traits could be influenced by the roles they have played in movies or on TV or by aspects of their personal lives publicized in the mass media.

Study 1

The only representations of women of the Renaissance are painted portraits and the representations of modern women used in this study are photographs. I designed Study 1 to determine whether any systematic relationship existed between these modes of representation and the ratings of the stimulus pictures. This was necessary before any difference in attractiveness ratings could be interpreted as caused by anything other than different representations. Different participants rated the same women represented by a photo and by a painting.

Method

Participants.

Sixty-three student (22 males and 41 females, $M_{age} = 18.22$ years, $SD = .85$) subjects were all European Americans enrolled in three sections, 18 to 27 students each, of an introductory psychology class at a small, private, Southern university. Four participants were excluded as not meeting the ethnic or age (18- 22) restrictions of the study. All participants received extra credit for their participation in this study.

Procedure and Materials.

With a five-day interval between ratings, the Ss were instructed to rate two Powerpoint slides, each with a set of 16 color photographs of women's faces (nominally 9 cm. by 13 cm.) arranged in a 4 x 4 matrix. Each slide had six distracter stimuli, five painted portraits, and five color photo portraits, with the paintings and photos counterbalanced across the two slides. All of the images were drawn from the web sites of businesses that sell paintings based on photos, and were all of young women, comparable to the stimulus targets used in Study 2. Participants rated the slides on the attractiveness scale and sociability scale drawn from Cunningham's 1986 study; two of the scales on classiness and elegance drawn from Bower and Landreth's 2001 study, and the sexiness scale described in Study 2.

Results and Discussion

As the overall attractiveness rating difference between photo and painted representations of the same woman is of primary interest, I combined the ten painting ratings into an overall variable. The mean of that variable was compared to the mean of the ten combined photo ratings. Overall, there was no significant difference between painting and photo ratings, $t(62) = 1.44$, $p = .16$ (two-tailed). This was a stringent test to detect any differences, since the ratings were of the same model and highly correlated ($r = .81$); consequently the matched pairs t -test error term was relatively small. Also. the standard deviation for three of the ten portraits was smaller than for

the ten photos (McNemar's $p = .34$), a non-significant difference important in the interpretation of Study 2 results. This Study 1 showed the hypothesis that Renaissance women were rated as less attractive than modern women because of a simple difference between mode of presentation (i.e., paintings vs. photos) is not tenable.

Study 2

In order to assure that the stimuli were rated only on their facial features any ornament that would identify the stimulus person as of high status was not included in the image. This was important because, particularly in the portraits of the Renaissance courtesans, various furs, jewelry, lavish clothing materials, and impressive settings were used as indicators of the high status of the pictured women. Since this study was designed following the standard research approach to test the singular appeal of the face, faces of young women were the only stimulus the Ss judged.

Method

Each of the class sections rated a slide with stimuli representing four conditions: contemporary women models after a makeover; different contemporary women before a makeover, cropped facial images of Renaissance courtesans' portraits from Lawner's book, and different Renaissance courtesans' portraits processed through the *Cosmopolitan* Virtual Makeover program (1998) to give them recent hairstyles. This last condition was included as a control for the possibility that the very partial view of their archaic hairstyles might depress the ratings of the Renaissance courtesans but the original Renaissance courtesans turned out to be regarded as more attractive. There were three versions of the slide with different stimuli in different places to control for possible positional effects and accommodate the different conditions, so each participant rated each version of each stimulus person once.

To provide an attractive anchor counterpoint several prescreened very attractive women were also included as targets. Ratings for these stimuli were not included in the analysis. Similarly, the pre-makeover targets were included to provide a control condition of lower attractiveness stimuli to mitigate any contrast effects (Wedell, Parducci, & Geiselman, 1987). I took the modern-day model stimuli from a variety of newsprint magazine ads, slick magazine ads, and magazine articles on makeup and makeovers. These stimuli provided an ecologically valid sample and different qualities of reproduction to minimize the effect of comparing portraits to photos and reduce the impact of variations in image quality on the participants' judgments, although research suggests participants' judgments are not influenced very much by variations in image quality (Bernieri, Dabbs, & Campo, 2000; Sadr, Fatke, Massay, & Sinha, 2002).

A variety of head orientations (tilted up or down, right or left) and facial angles (head on, more right side view, more left side view) were present for all conditions. There was no difference in the relative proportion of facial angles between contemporary women and the Renaissance courtesans (McNemar's $p = .49$). Some evidence suggests that attractiveness ratings of photos of identical stimuli even with extreme facial angle differences (e.g., profile view versus head on, both with a neutral expression) correlate highly with each other (Shafiee, Korn, Pearson, Boyd, & Baumrind, 2008). All of the Renaissance courtesan stimuli and most of the contemporary women had neutral, slightly positive facial expressions.

Participants.

One hundred eighty nine students (77 males and 112 females, $M_{age} = 19.02$ years, $SD=1.27$) volunteered to participate as a class activity. The Ss were all European Americans enrolled in six sections, 29 to 35 students each, of an introductory psychology class at a small, private, Southern university. They received extra credit for their participation in this study.

Procedure and Materials.

The students rated 16 color photographs (nominally 9 cm. by 13 cm.) of women's faces on the 8-item Personal Characteristic Scale developed by Cunningham (1986). Since this scale has some reverse scored items to control for response set, the higher numerical value of the traits is indicated by bold print. They recorded their judgments of the stimulus photos on seven 6-point scales with anchors of *Very Dull/Very Bright*, *Very Unsociable/Very Sociable*, *Very Submissive/Very Assertive*, *Very Vain/Very Modest*, *Have many Medical Problems/Have very few Medical Problems*, *Very Fertile/Very Sterile*, and *Very likely to have Extramarital Affair/Very unlikely to have Affair*. Attractiveness was measured on an 8-point scale anchored by *Extremely Attractive/Extremely Unattractive*. All of these scales (except for *Very Vain/Very Modest*) are reliable as established by Cunningham (1986). A 6-point scale with anchors of *Very Sexy/Very Unsexy* ($\alpha = .64$) was added to the eight see if the courtesans' profession, while unknown to the participants, influenced this trait rating which it did not. While the eight-item scale was designed to measure mate value, it captured the holistic view of attractiveness put forward here. All of the trait ratings of the Renaissance courtesans' showed a larger standard deviation, reverse scored or not (McNemar's $p = .008$). This supports the idea that individual preferences shown in choosing a particular woman as one's courtesan is more variable than the consensus judgments in choosing a contemporary model for a magazine feature or makeup ad.

These 16 photos were presented simultaneously, arranged in a 4 x 4 grid on a 35-mm. slide with the full projected image 80 cm. wide by 120 cm. tall. The projected image of each stimulus person target was 13 cm. by 18 cm. The only information on the slide was an identifying number by each of the photos. The data sheet instructed participants to "Please rate

each of the sixteen people on the following personality characteristics using the scales indicated.” The data sheet had the nine-items with scale anchors on it (see Table 1).

After makeover women models provided a range of prescreened, anonymous, attractive, yet not extremely attractive stimuli. To estimate the relative attractiveness of the contemporary stimuli used in this study, I used data from Bower and Landreth's (2001) study on the different levels of attractiveness of models featured in ads for different types of products. Using stimuli chosen from models in women's magazines they demonstrated a distinction between Highly Attractive Models ($M = 5.8$, 83% on their 7-point scale with the very attractive anchor = 7) and Normally Attractive models ($M = 4.42$, 63% on their 7-point scale). The current study's contemporary makeover models are in the Normally Attractive category ($M = 2.99$, 63% on the current study's 8 point scale with the very attractive anchor = 1).

This sample of moderately attractive contemporary women provides a more reasonable comparison to Renaissance beauties than highly attractive contemporary models. Current technology recruits models world-wide, from millions of young women. By contrast, Renaissance beauties represented a small number of women from a few city-states who were selected to pose for artists (M. R. Cunningham, personal communication, July 6, 2012). However, it is estimated that there were tens of thousands of prostitutes at that time (Lawnier, 1987) and one of the few ways open to an attractive woman for advancement at that time was to become a sex worker (Griffin, 2001). While the Renaissance courtesans were selected from a smaller pool of potential stimuli, the constraint of numbers is probably small given that means were the comparison statistic used (cf. Tversky & Kahneman, 1973) and the large number of potential women who could be chosen as portrait models at that time.

Results

Following representative design principles (Brunswik, 1955), I combined data from each class of stimulus pictures to minimize individual differences between the target pictures' ratings. Therefore, each participating subject had four mean ratings: one for before makeover contemporary women, one for after makeover contemporary women, one for Renaissance courtesans with their original hairstyle, and as a control, one for Renaissance courtesans with contemporary hairstyles.

Since the contemporary hairstyle courtesan stimuli were rated lower than the original courtesan photos, the hairstyle control condition was unnecessary. Theoretically, the mean ratings of the made-over contemporary women and the original hair Renaissance courtesans were the most relevant since they both represent ideals of beauty of the epoch. Therefore, I compared these two groups on the nine dependent variables using matched pairs t tests. Following Dunlop, Cortina, Vaslow, and Burke's (1996) recommendation to avoid inflating the effect size, I calculated Cohen's d from the means and standard deviations rather than the t value. As seen in Table 1, except for *Modesty* and *Likely to Have Affair*, participants rated the after makeover contemporary women significantly more positively than the Renaissance courtesans, yielding large effect sizes.

Discussion

Using the data from Study 2, converting Cohen's d to an r using Cohen's (1988, p. 23) formula #2.2.6, and squaring the r to get comparable effect size estimates, 55% of the variance in mean attractiveness ratings is accounted for comparing contemporary attractive women with makeup on to Renaissance courtesans. Therefore, the present study suggests that sociocultural factors are similar in importance to biological structural factors in understanding attractiveness ratings.

Methodological Limitations in Interpreting Beauty Research

Methodological differences have been invoked to explain a number of different and contradictory findings within the attractiveness literature. The current study used dependent variables from previous research to maintain a methodological consistency and produce interpretable findings. The modern Western subjects' judgments of the courtesan's attractiveness may have been influenced by the conventions of Renaissance portraiture style since their representation is different from contemporary style ideals – perhaps a sociocultural difference that influenced the results regardless of the facial features of the courtesans. However, the biological structure that drives attractiveness ratings according to reproductive fitness theory should override any stylistic issues as of minor relevance.

Javier de la Rosa and Juan Luis Suárez (2015) have shown the changes in female portraiture symmetry and averageness do not seem to follow the expected distribution between the 13th and 14th centuries in paintings. Previous research has shown a relationship between preference for attractiveness in politicians and voting for them (White, Kenrick, & Neuberg, 2013). One would expect if symmetry and averageness were signs of health and resistance to disease that the Black Plague of the 1350s would lead those characteristics to be more frequent in portraiture, but it did not. The latter distribution of these variables from the 15th through to the 18th centuries does support the idea that symmetry and averageness were important to the people of those generations. Once public health measures became more common from the latter part of the 19th century to currently, the representation of symmetry and averageness showed a decline. This, however, leaves uncertain whether healthiness leads to symmetry and averageness or vice-versa. In either case, this data pattern supports artistic representations of people as representative of the concerns of people of the time. Also it should be noted that Rhodes (2006) has in a meta-

analytically driven article shown that the link between symmetry, averageness, and attractiveness and health is weaker than the sociocultural effects shown in this research study

One generalization may integrate the evolutionary and sociocultural view on physical attractiveness judgments; beauty is more cultural as discussed above, ugly is more biological (Thornhill, 2003); perhaps partly because it impedes rearing healthy offspring. The latest research pitting the extreme features view of beauty versus the average composite view of beauty seems to suggest that for extreme beauty extreme features are attractive whereas for attractive (or pretty as the term has been used here) the average composite seems very positively regarded. On the other hand, characteristics of stimuli judged as ugly are either gender inappropriate (Dull & West, 1991) or signs of disability or disease (cf. Oaten, Stevenson, & Case, 2009).

Roye, Höfel and Jacobsen (2008) found that, for dichotomous judgments of faces, “not beautiful” judgments generated a more powerful brain response than “beautiful” judgments. This may be an example of the principle that bad is stronger than good over a wide range of psychological phenomena (Baumeister, Bratslavsky, Finehauer, & Vohs, 2001). Griffin and Langlois (2006) found that unattractiveness is a disadvantage rather than high attractiveness being an advantage. Maret (1983), in a cross-cultural cross-racial (black and white participants) study, found both Cruzans and Americans agreed on which of the black stimulus people were unattractive but not on which were most attractive. Similarly, Miller’s (1970) data showed a significant difference in the average standard deviation of attractiveness ratings of high, moderate and low physical attractiveness levels with the lowest attractive level having the smallest standard deviations.

The most important reproductive imperative is to avoid mates who are most likely to harbor bad genes. Grammer, Fink, Møller, and Manning (2005, p. 658) state, “...computer

simulations of decision making in attractiveness ratings reveal that an ‘avoiding the worst feature’ strategy fits best for men’s judgment of women’s physical attractiveness.” Also, several recent studies have concluded that avoiding the ugly is the biological motive most relevant to understanding mate choice (Brown, Cardella, & Houserman, 2004; Zebrowitz, Fellows, Mignault, & Andreoletti, 2003; Zebrowitz & Rhodes, 2004).

Renaissance courtesans, judging by the commentary about them by their contemporaries and by their having been represented by portraits by some of the most eminent artists of the time, were prima facie beautiful in that time. The significantly below average attractiveness ratings (31%) they receive from modern judges shows the important role of sociocultural factors in mediating physical attractiveness judgments. Those sociocultural factors may include the stylistic conventions characteristic of Renaissance portraiture, but that is part of the evidence for the importance of sociocultural factors in judgments of attractiveness. The only ratings in which Renaissance courtesans are higher than the contemporary women are for “Modesty” and “Unlikely to Have an Affair.” This replicates Cunningham’s (1986) and Osborn’s (1996) findings that these two variables correlate with ratings of unattractiveness.

This research adds to the evidence that personality trait factors and personal interaction need to be considered as factors in future investigations to provide a more comprehensive understanding of the dynamics of individuals’ physical attractiveness judgments. The first impressions approach, despite its popularity on such sites as Tinder, presents an unrepresentative situation as normative for interpersonal judgments of attractiveness and is, in that sense, deceptive in influencing the beliefs people have about interpersonal attractiveness. Widening the investigation of human beauty to include aesthetic judgment theories may also lead to a more complex and complete understanding of the dynamics of human beauty judgments. The

simplistic idea that attractiveness judgments are primarily genetically based or primarily socioculturally based is not supported by the totality of the literature on this subject.

Perhaps most importantly, this research adds to the evidence that individual judgments of attractiveness, the basis for mating decisions, is not necessarily consensus based as the research on this in social psychology has led people to believe. The generalization that attractiveness is a characteristic the target possesses, like height, that is universally perceived is not relevant in judging an individual's singular attraction to another.

Perhaps Confucius suggested this in his statement "Everything has beauty but not everyone sees it." This research does not support this in that there may be people who are below the low baseline that separates the potentially attractive from the ugly. There may be people who are ugly to every judge but replicated research to support that does not exist yet. In the research on attractiveness, generally ugliness is defined by a low average score but this is not really relevant to individual mating decisions. Since so much of the research in attractiveness ignores individual mating judgments the current study shows a more comprehensive and mating interest relevant way of thinking about attractiveness.

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Table 1

Mean Ratings of Contemporary Women and Renaissance Courtesans on the Personal Characteristic Scale

Personal Characteristic Scale	Contemporary Women		Renaissance Courtesans		<i>t</i> **	<i>df</i>	Cohen's <i>D</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Bright	4.16	.64	2.88	1.02	14.18	188	1.51
Sociable	4.43	.62	2.53	.87	26.07	188	2.51
Assertive	4.38	.70	2.74	1.10	16.35	187	1.78
Modest	2.99	.90	3.56	1.05	5.02	188	.58
Few Medical Problems	4.39	.84	3.35	1.14	10.79	188	1.04
Sterile ^a	2.69	.81	3.19	1.15	4.93	188	.52

Unlikely to

2.95 .97 4.05 1.23 9.50 188 .99

Have Affair

Unattractive^a 2.99 .97 5.53 1.32 24.82 188 2.21

Unsexy^a 2.68 .84 4.63 1.04 22.43 187 2.06

^aThese items were reverse scored so the higher value was the undesirable end of the item.

** All *t*-tests are significant at $p < .01$.

Appendix A

While this list is of the specific portraits (facial image only) used as stimuli in this study, if you explore portraiture from the Renaissance it becomes clear that these also represent examples of feminine beauty of that era. This can be seen in the similarity of features that characterizes many more Renaissance portraits of courtesans than were used as stimuli.

<http://www.nationalgallery.org.uk/paintings/paris-bordone-portrait-of-a-young-woman> Bordone

http://www.museothyssen.org/en/thyssen/ficha_obra/245 La Bella by Palma Vecchio

<http://venice11.umwblogs.org/the-works-la-bella-1536-1538/> La Bella by Titian

<http://realmofvenus.renaissanceitaly.net/wardrobe/1530s4PalmaVecchio.jpg> Portrait of a Woman by Palma Vecchio

<http://www.wga.hu/frames-e.html?/html/c/clouet/francois/diane.html> A lady in her bath - Clouet

http://www.museothyssen.org/en/thyssen/ficha_obra/823 Woman in Red Velvet by Bordone

<http://www.nationalgallery.org.uk/paintings/lorenzo-lotto-portrait-of-a-woman-inspired-by-lucretia> by Lorenzo Lotto

<http://www.titian-tizianovecellio.org/Woman-in-a-Fur-Coat.html> Woman in a fur coat by Titian

http://en.wikipedia.org/wiki/La_fornarina Portrait of a Young Woman by Raphael

http://www.high.org/Art/Permanent-Collection/CollectionDetails.aspx?deptName=EuropeanArt&objNum=61.56&pageNumber=0#.UazzydDD_ct < enter this in browser for viewing Lady with a Red Lily by Bordone. A similar facial image is seen in Raphael's La Fornarina.

For a sampling of contemporary type makeup makeover photos study put "before after makeover photos" in Google images. However, the stimuli have a variety of positions and expressions not present in the stimuli for this study. All the photos used in the current study featured the same facial expression in the before after makeover photos.