

## ARE YOU “HOT OR NOT”?

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Research has established that physical attractiveness is the biggest determinant of success in the online dating market. What traits make one more or less attractive? *HotOrNot* (<http://www.hotornot.com>) provides a unique forum for an experiment on this question. The site displays pictures of people who viewers rate on a scale of 0 (“not”) to 10 (“hot”). Once the viewer rates the picture, the page refreshes with a new picture to rate, as well as data (average rating and the number of votes cast) on the previous model. The user sees how others rated a model only *after* the user rates the model. *HotOrNot* boasts ratings on over 31 million pictures submitted, based on over 13 billion votes cast.

The website does not provide demographic information on who is voting, or on the models, although a model may attach a short statement to their photo. Anecdotal evidence from using the site suggests that curvy, thin females with revealing clothing tend to receive higher ratings, while handsome, physically fit men seem to receive higher than average ratings.

We developed an experiment to test whether subtle changes in one’s look could have a significant effect on one’s attractiveness rating on *HotOrNot*. We used three male and three female college-aged models, and took a variety of photos of the models, holding constant the background, lighting, pose, and clothing. The first picture is a “control” photo. For each subsequent photo we changed one characteristic of the model.

The tested variables, some of which were used for only one sex, fall into three categories. The variables are listed below by category with the prop or cue in parentheses. All of the treatments (italicized below) are easily noticeable, however, the information viewers infer is subjective.

Lifestyle: drinker (holding *beer*); religious (holding *cross* keychain); smoker (holding *cigarette*); musician (holding *guitar*); *tattoo* (front/side of neck). Fashion: *no makeup* (no cosmetics); *cleavage* (wearing revealing shirt); *hat* (wearing cap); success (wearing *necktie*); intelligence (wearing *eyeglasses*). Social competition: *girl* (female seated next to model); *guy* (male seated next to model); married (wearing wedding *ring*).

All 66 photos were put on *HotOrNot* for several weeks, during which the photos accumulated more than three hundred votes on each female photo, and between one and two hundred votes on each male photo. The website shows pictures randomly, so it is extremely unlikely that any viewer would see more than one of our pictures.

We estimated separate OLS equations to explain female and male ratings (0-10), with a dummy variable to account for each treatment and model. Our preliminary model statistically significant coefficients (at the 10 percent level or better) are indicated in boldface type:

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$$\text{Female rating} = 9.22 - 4.84\text{female2} - 1.03\text{female3} - 5.33\text{beer} + 0.13\text{cross} - 0.27\text{girl} \\ - 1.1\text{no-makeup} - 0.33\text{guy} - 0.53\text{guitar} - 0.47\text{ring} + 0.13\text{cleavage} - 0.73\text{cigarette} \\ - 0.77\text{eyeglasses} - 0.60\text{tattoo} + \varepsilon. (R^2=0.95)$$

$$\text{Male rating} = 6.17 + 1.45\text{male2} + 0.02\text{male3} - 0.87\text{beer} + 0.40\text{cross} + 0.50\text{girl} + 1.03\text{hat} \\ + 1.17\text{guitar} + 0.37\text{ring} + 0.47\text{cigarette} - 0.47\text{necktie} + 1.83\text{tattoo} + \varepsilon. (R^2=0.52)$$

Holding a glass of beer has a negative effect for both sexes. Smoking, having a tattoo, and holding a guitar are all positive for males, but negative for females. Most surprising is that the revealing shirt for females was not significant, and that our “success” signal for males (wearing a necktie) had a negative effect.

These results are based on *HotOrNot* website users, and may not be the effects that would be found from the general public. But still, the experiment provides interesting information and topics for future study. Results from an expanded study (being planned) could provide practical information for individuals who might be hoping to increase their attractiveness, at least on online dating websites.