

Supplementary analyses for:

**Cues to upper body strength account for most of the variance in ratings of men's bodily
attractiveness**

Aaron Sell¹, Aaron W. Lukazsweski² & Michael Townsley¹

¹School of Criminology and Criminal Justice, Griffith University, Mount Gravatt, QLD, 4121
Australia.

²Department of Psychology, California State University, Fullerton, CA, USA, 92834

*Correspondence to: a.sell@griffith.edu.au

Reanalysis of main results with Body Mass Index (BMI)

There is a debate in health sciences as to whether BMI or weight is a superior measure of obesity. BMI is mathematically defined as weight (kg) / height (m)². While the main manuscript reports weight as the primary measure of body size, the following section substitutes BMI for weight and reanalyzes Research Question #4.

Research Question #4: Are there aspects of men's bodies that differentiate attractiveness and physical strength?

In the main text, we present analyses showing that women rate stronger-looking men as more attractive. This is a very powerful effect, accounting for 70% of the variance in men's bodily attractiveness. A third of the remaining variance could be accounted for by two additional linear effects: women prefer taller and leaner (i.e. less heavy) men – controlling for cues of strength (see Table 5).

Table 5: Rated Strength, Height, and Weight predict Attractiveness

| | Attractiveness | | |
|--------------------------------------|----------------|--------------|---------------|
| | Set 1 – Front | Set 1 – Side | Set 2 – Front |
| Strength Ratings (<i>Std.Beta</i>) | .849*** | .776*** | .843*** |
| Height | .381*** | .574*** | .023 |
| Weight | -.345*** | -.495*** | -.315*** |
| Observations | 61 | 61 | 127 |
| Adj. R ² | .787 | .749 | .822 |

* $p < .01$; ** $p < .05$; *** $p < .01$

Some researchers prefer BMI as an index of body size, rather than weight. Below we reproduce the same analyses reported in Table 5 but substituting BMI for weight.

Table SI-1: Rated Strength, Height, and BMI predict Attractiveness

| | Attractiveness | | |
|--------------------------------------|----------------|--------------|---------------|
| | Set 1 – Front | Set 1 – Side | Set 2 – Front |
| Strength Ratings (<i>Std.Beta</i>) | .845*** | .767*** | .846*** |
| Height | .165*** | .266*** | -.140*** |
| BMI | -.223*** | -.327*** | -.345*** |
| Observations | 61 | 61 | 127 |
| Adj. R ² | .791 | .742 | .826 |

* $p < .01$; ** $p < .05$; *** $p < .01$

As can be seen in Table SI-1, we replicate the results of the main manuscript. Specifically:

1. Ratings of strength remain a robust predictor of attractiveness, larger than any other measure.
2. Height is – for Set 1 – an additional predictor of attractiveness such that taller men, even controlling for how strong they look, are rated as more attractive. This effect did not replicate in Set 2 (which has fewer cues of height in the photographs, see Figure 1 in main manuscript). This failure to replicate is likely due to the fact that height is a function of BMI, and thus having both predictors in a single regression analysis will destroy shared variance between the measures (note that BMI in Set 2 correlates with height at $r = -0.4$).

3. BMI – like weight – becomes a significant negative predictor of attractiveness once cues of physical strength are controlled. This likely reflects women's mate choice mechanisms avoiding men with large amounts of body fat.
4. These three predictors (cues of strength, height, and BMI) account for approximately 80% of the variance in male bodily attractiveness.