Reviewer’s report

Title: Effects of muscle dysmorphia, social comparisons and body schema priming on desire for social interaction: An experimental approach

Version: 1 Date: 26 Dec 2016

Reviewer: Francesco Dentale

Reviewer's report:

The authors presented an experimental study aimed at investigating (in men subjects) the effect of the tendency to Muscle Dysmorphia on desire for social interaction, and also the possible moderating effects of both the activation of body schema and social comparison tendencies. The abstract, introduction and method section are well written, but I noted a series of minor revisions which may improve them.

Abstract:

1. Background: It is not immediately clear the aim of the study and what is the outcome variable (desire for social interaction). You may be more direct to introduce it. Other not clear expressions: (lines 29-30)"...the potential effects of individual social comparison tendencies and body schema priming". Potential effects on which outcomes? What is body schema priming?

2. Methods: some expression are not clear (lines 33-34). What is priming condition? And stimulus person?

Paper:

Background:

1. General comment: The description of the theoretical framework and the rationale of the study appear to follow logic reasons. However, considering the high number of hypotheses you introduced, you may describe them as a function of the importance you give to them. For instance, is it the priming of body schema the primary hypothesis of the study?
Methods:

1. You wrote (lines 144-146) that "The sample contained predominantly students (71), 23 participants were working, two were unemployed, three were in school, and one reported to be a professional athlete." Seventy-one participants were university students, and three were school students?

2. You wrote (lines 159-160) that " Items 6 and 11 of the Muscle Dysmorphia Inventory (MDI) [35] as well as items 17 and 18 from the Muscle Dysmorphic Disorder Inventory (MDDI) [36] were translated into German and rated on a six-point scale from 1 (never) to 6 (always)." Since you used only four items of two different inventories, you should clarify the reasons for the exclusion of all other items.

3. The criterion to chose the cutoff point may be considered as arbitrary (lines 165-166). This is a crucial point considering that your results may be substantially changed if another cutoff is selected. You should highlight this problem both in this section and in the discussion.

4. Social comparisons (SC) items are surely consistent with the theoretical framework you described, but only one item was used for upward SC and downward SC, as well as for the importance ascribed to them (lines 167-171). You may highlight this weakness in the discussion section, with a particular reference to the impossibility to estimate reliability coefficients for these factors.

5. You wrote that "Every second applicant for the study was assigned to the priming condition (lines 183-184)." It is not clear for me if participants are randomly assigned to priming vs. not-priming conditions or not. You should clarify this point also in this section.

6. You wrote (lines 190-192) that "The experiment builds on prior research [20] and was based on a 2 (group of participant) × 2 (priming condition) × 2 (sex of stimulus person) × 2 (attractiveness of stimulus person) between-subject design with independent measures." Independent measures? I do not understand what do you want to say. You should declare explicitly the dependent variable, and also what is the role of the other factors you included (independent variables? Moderating variables?).

7. I would include the description of dependent variable (desire for social interaction) in the same section that describe the other measures (you named it materials), and not only in the section devoted to illustrate the experimental design.

8. I suspect that instructing at risk MD subjects to assess their actual and desired body shape does not induce only priming effects, but also effects on their body image esteem. It may be interesting to discuss this point in the discussion section (see paragraph named "priming")
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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