Author’s response to reviews

Title: Statistical heartburn: An attempt to digest four pizza publications from the Cornell Food and Brand Lab

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Author’s response to reviews:

Dear Dr. Mockridge,

Thank you for the opportunity to revise and resubmit our manuscript, “Statistical heartburn: An attempt to digest four pizza publications from the Cornell Food and Brand Lab” for consideration for publication in BMC Nutrition.

We have uploaded a revised manuscript file that addresses the points raised by you and the reviewers. We also report, below, each individual point and how we addressed it.

We thank you again for your consideration of our manuscript, and we look forward to the next steps in this process.

Kind regards,

Tim van der Zee
Jordan Anaya
Nicholas J. L. Brown (corresponding author, nick.brown@free.fr)

Detailed responses to points made by Editor

Layout of the paper: please do not format the title and abstract as it would appear in the published article. A separate title page (containing author names, affiliations and email addresses for all authors) and abstract page should be provided.

Response: See e-mail exchange between Nick Brown and James Mockridge from 23–24 April 2017.
'Trial registration: Not applicable' can be removed from the abstract.

Response: Done.

2) 'Introduction' should be changed to 'Background'

Response: Done.

3) A combined 'Results and Discussion' section is not permitted. Please provide separate 'Results' and 'Discussion' sections.

Response: Done.

4) Author contributions: in the first instance of 'All authors', please provide the initials of all of the authors instead.

Response: Done.

5) Appendix: please could you clarify whether it is your intention for the Appendix to be part of the main manuscript or if it would be better suited as Supplementary material (appearing alongside the manuscript).

Response: If space permits, we would like this to be part of the main manuscript.

6) Do any updates on the developments on the blog posts that are referenced within the text need to be made?

Response: Since we submitted our manuscript, there have been a couple of developments.

First, the blog post in question was removed (in fact, rather bizarrely, it was replaced by a copy of the content of the author’s subsequent blog post, from the next month; compare the entries for 11/21/2016 and 12/19/2016 at http://www.brianwansink.com/). We have changed our link so that it references a saved copy of the post at archive.org.

Second, the Food and Brand Lab has released the results of a reanalysis by a statistical consulting company of the data from the articles that we reference. We have been examining this reanalysis for a couple of weeks now, and overall we find that it raises more questions than it answers; to give just one example, we can see from the data set that eight out of 139 participants apparently consumed (exactly) 7.9 bowls of salad each during their lunch. We have not yet decided exactly how to respond to this reanalysis and its accompanying data release. However, we did discover that we had made an error in how we had recalculated a small number of the reported statistics, namely four possible ranges for participants’ BMI in Article 3. Because this was an error of reasoning on our part, we have removed these four items from our Appendix.

We stand by all of our other numerical results, as they indicate, at a minimum, that the original article did not correctly report at least one number (very often a sample size). We also stand by
all of the other comments that we make in our text regarding inconsistencies across studies; for example, it now appears that there were no analyses conducted of the “first, second, and third” slices of pizza eaten (versus “first, middle, and last”).

Detailed responses to points made by Reviewer 1

Pg. 17 The lower and upper limits on some of the possible ranges provided (e.g. line 30) are the same. Is this correct?

Response: We thank Reviewer 1 for this eagle-eyed observation. We have checked all of our ranges and found no errors. This situation (no difference between the upper and lower bounds of the test statistic, to two decimal places) typically arises when the measured variable (here, a person’s weight in pounds) is a relatively large number, so that the possible effects of rounding on this value are negligible. The widest bounds for the test statistic tend to occur with Likert-type data.