duck bunny

Melinda Jensen <jensenm.illinois@gmail.com> Fri, Sep 18, 2015 at 2:40 PM
To: Kyle Mathewson <kylemath@gmail.com>
Cc: dsimons <dsimons@illinois.edu>

Hi Kyle-
Our N for the study was 61 participants. Traditionally, in APA style reporting of Chi square you report the df first and then the N as we did here (although I think you are supposed to list it as N=61 and I'm not sure why we didn't do that — although now that I think about it and am looking at how the written stats are more confusing than they should be, I am thinking it was because we were trying to get under the word limit).

As for the math, our expected number of noticers was set by the number of individuals that could see both when asked to "try hard" for each ambiguous figure in Question 5. So when trying hard for DB, 38/61 = 62%; WK, 40/61 = 66%; OY, 25/61 = 41% see both (as reported in the paragraph under fig 1).

After getting the cue for DB 57/61 total could see the cue, WK - 49/61, and OY 34/ 61. So for DB then O-E is 19 participants, for WK & OY it was a difference of 9 participants. I think you'll find the reported X^2 values all work out that way.

However, one thing that is really confusing about the paper is that the values in parentheses are listed like a fraction but they are really separate counts — for DB, 38 noticed in question five (expected) and 57 in question 6 (observed). I don't know why we wrote it that way - its confusing. Moreover, it clearly confused us too in final editing because at some point we calculated out 38/57 and reported that percentage even though it doesn't make sense to report. I don't see those percentages anywhere in our datafiles so I think we must have added it in to be helpful at some point during paper editing but it was a change made in error. I looked back at some of our paper drafts and it was all more clear earlier but at some point in the end the stats must have been abbreviated poorly.

I don't know if its worth trying to correct the error somehow now. I think the worst part of the mistake is that it would lead people to underestimate the effect or become confused by the reported statistics.

In any case, i'm glad you were able to replicate the finding. Hope this email was helpful despite the error in the data reporting.

Best,
-m

Mindy,
Hope all is well with you,
I replicated the duck rabbit study on 1900 undergrads in our intro psych classes
62% can see one as a duck and one as a bunny, then 78% of those that could not end up seeing it once you show the phrase

I am trying to replicate the stats you did for our perception paper, I'm not sure exactly how you computed the chi2 test:

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