Reviewer’s report

Title: Broad autism phenotype features of Chinese parents with autistic children and their associations with severity of social impairment in probands

Version: 3
Date: 8 April 2015
Reviewer: Dorothy Bishop

Reviewer’s report:

Overall comment
The authors have been responsive to reviewer comments and the paper is stronger as a result. I have two points that I regard as essential and a few minor discretionary revisions:

Minor essential revisions
1. I continue to have reservations about the separate analyses for ASD and TDC samples reported in Table 4. I do not see a rationale for expecting different patterns of association between parent BAPQ and child SRS in the two groups, and I suspect that the significant findings are spurious, given the large number of statistical comparisons conducted in this paper. However, given that the other reviewers thought the findings were of interest, I am not going to insist on changing this.

Nevertheless, if the authors do want to emphasise the regression results, I think they need to report how they checked whether outliers were exerting influence on the findings, e.g. leverage statistics. There is a good explanation of how to do this in SPSS here: http://www.ats.ucla.edu/stat/spss/webbooks/reg/chapter2/spssreg2.htm. My apologies for overlooking this in my earlier report.

2. Table 3. Title; This should read ‘Percentages of parents’. (Frequencies are the whole numbers on which percentages are based). Please also give the Ns for each group to facilitate readability.

Minor discretionary revisions.

3. p 2. Line 14. Suggest ‘various BAP features’ - it is otherwise a bit unclear why a range of values is given

4. p 8. The paragraph reporting results on BAPQ scores is very hard to read because of the statistics interspersed in the text. I think these could be omitted, since they are given in Table 2. All that is then needed is to give the degrees of freedom for the F-ratios in Table 2.

I also suggest subdividing this paragraph to make it more readable into sections with subheadings for Mothers and Fathers.

5. p 9, last para: here again, I think readability would be enhanced if statistics
were omitted, provided they are available in the Table.

6. p 11 - again, I would avoid including so many numbers in the text, as it makes it very hard to read. If the figures are available in tables, just refer to the table.

7. p 12. I felt the comments on possible genomic imprinting were very speculative, but do not insist this is removed.

8. Table 4. The title should be more informative, e.g. Results from regression analysis predicting children’s SRS total scores from parental BAPQ. Please also give the Ns for each group in the Table- this is especially important as it is a smaller group than in the previous analyses.

9. Table 5; The title should say something like "Mean SRS total scores in BAP absent and BAP present parents: autism and typically-developing children". If t-values were added to this table, they could be omitted from the text, improving readability.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests