Reviewer's report

Title: Are women better than men at multitasking?

Version: 4 Date: 28 June 2013

Reviewer: Anna Law

Reviewer's report:

There have been some useful additions to the manuscript, and I think that the authors have done as much as they can to address my original comments (with the data that they have).

As the authors have noted in the Discussion, there is now a very small number of studies looking at gender differences in multitasking, all pointing to a different conclusion! Therefore, despite my previously stated reservations about Experiment 2, I think that on balance this paper should be published. The authors are appropriately cautious in the way they frame their conclusions, have given a frank discussion of the limitations, and will likely stimulate further research and debate on this issue.

Discretionary Revisions

I found the text of your reply to T. Chen helpful in understanding why you think the Key Search task in particular might be expected to be vulnerable to disruption within a multitasking situation – disruption that is greater for men. I realise it is speculative, but could you perhaps incorporate something similar towards the end of the first paragraph of the Discussion? Here you state ‘We found that women performed considerably better in one of the tasks measuring high level cognitive control, in particular planning, monitoring and inhibition’. I did not quite understand how the Key Search involves inhibition, so perhaps you could just expand here and say briefly why you think they Key Search is the sub-task where the gender difference shows up?

Also, the statement at the end of the Introduction ‘using standardised tests of executive functions’ implies that all the sub-tasks were standardised, when you later state that arithmetic was not. This also does not sit well with your response to T. Chen about the other tasks relying on ‘low-level cognitive and even automatic knowledge-based approaches’. You could just change ‘using’ to ‘that included’?

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests: 
I declare that I have no competing interests