Reviewer’s report

Title: Autobiographical memory and hierarchical search strategies in depressed and non-depressed participants

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Reviewer: Jonathan Hill

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The study set out to examine whether truncated memory search explains overgeneral memories in depression. Two groups were compared, 13 depressed and 13 non-depressed adults.

The standard autobiographical memory test was administered. The transcribed memory descriptions were rated for lifetime period knowledge (LTP), general event knowledge (GE), event specific knowledge (ESK), thought (TH), mix information (MIX), and other knowledge (OTR).

The sample size is very small, so any parametric comparisons are likely to be affected by outliers. I think there should be an indication of the distributions of the scores and whether there are outliers.

On pages 12 onwards the differences in mean scores between the two groups are examined using independent groups t-tests where the degrees of freedom are given as 313 but with 26 participants this number should be 25. Also the values of p are highly significant which would only be achieved in this small sample with extremely large difference in means. I doubt that they will be at that level once the test is applied correctly. The chi square tests have the same problem. In addition they are reported as comparisons of numbers of memories of various kinds, but chi square can only compare numbers of individuals with particular types of memory. The authors will need to explain in their response how these calculations were performed, both how they generated much higher degrees of freedom than the sample size and what the results are with appropriate tests.

The examination of the LTP#GE#ESK sequence has the same problem. Either the number of those sequences per subject in each group should be compared, and as the distributions are likely to be skewed compared using non-parametric statistics with 25 degrees of freedom, or the numbers of subjects with for example 1 or 2 or more such sequences needs to be compared using chi square with appropriate degrees of freedom.

It looks from Table 1 as though the depressed participants provide fewer memories so examination of differences in completed LTP#GE#ESK analyses will need to control for total memories.

One might argue that evidence for truncated search is only relevant as one
possible explanation for elevated general memories in depressed subjects, but they are not elevated in this study. What do the authors make of that?

**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