I commend the authors for looking at cognitive impairment alongside BOLD activation, and for considering the role of cognitive load as a factor explaining cognitive heterogeneity in bipolar disorder. It is a refreshing approach and it goes beyond the typical categorical approach of BD I vs BD II for instance. I have a few methodological comments that I would like the authors to address in their revisions.

1. background. Please talk about the concept of neural efficiency and capacity (Rypma, Neubauer). It applies to your paper and would help you gain critical insight into your findings.
2. Backorund: Overall I would like to see a more thorough interpretation of what fMRI patters mean in terms of woring memory. For instance, what does behavioral performance mean, ratio between accuracy/latencies, differences in behavioral performance on a WM across mood states.
3. Cognitive task. Describe typical network of activation in healthy controls and other psychiatric populations so that reader can compare your findings to a “normative reference”.
4. Fmri analyses. Why was p value uncorrected ,why didn’t you use an FDR or permutation based test to correct for multiple comparisons. Why didn’t you provide the following comparisons: 0n vs 2n-back, and the same comparisons within HC, low performers and high WM performers
5. Did you check for accuracy among your participants? What are the ranges of accuracy among those with and without WM deficits
6. How did you analyse your behavioral data? Spss? Please provide additional information.
7. Discussion. I struggle to see the link between your findings and BD as you almost only talk about cognitive/brain networks. Try to link the two. For instance when you talk about “sensitivity to sadness” I wonder if you used depression scores in your analyses? Or do you refer to a network processing negative/sad stimuli? Also have you More precision is needed.
8. Table 1. Please provide current mood state. Table 3. Please provide size of cluster of activation, and p values. For fMRI tables please change labels to make them a bit more understandable. For instance what is Postcentral\_R aal? And in table 2 explain all acronyms (cpz, wais, hama, ymrs etc. ). Keep in mind that some readers may not be familiar with these questionnaires. Figure 1. Provide a complete caption, keep in mind that some readers may read a black and white version of your paper. Highlight areas of significance.

Minor comment

1. Please rephrase last sentence on page 9 “maybe a psychotic..exacerbation process”. Maybe is probably may be and words such as psychotic diathetis, BP (did you mean BD) and exacerbation process are a bit vague/general. Try to explain in 2 sentences what you mean.
2. Page 10 interstingly is interestingly. You may use notably instead.
3. Conclusion paragraph. Split sentence into two and please rephrase it as it is not grammatically correct. E.g. you could say “cannot complete? WM tasks possibly due to alterations in prefrontal activation. Etc. etc. “