Author's response to reviews

Title: Neuropsychological and cerebral morphometric aspects of negative symptoms in schizophrenia. Negative symptomatology is associated with specific mnestic deficits in schizophrenic patients

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Author's response to reviews: see over
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To  
Alice Murray  
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BioMed Central  
236 Gray's Inn Road  
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27.08.2014  

RE: MS:  5301544271187028  
Neuropsychological and cerebral morphometric aspects of negative symptoms in schizophrenia. Negative symptomatology is associated with specific mnemonic deficits in schizophrenic patients.  
Tobias Hornig, Gabi Valerius, Bernd Feige, Emanuel Bubl, Hans M Olbrich and Ludger T van Elst  

Dear Mr. Murray,  
Thank you very much for your encouraging remarks and your constructive criticism of our paper. We found your suggestions and those of the reviewers very helpful. We would also like to thank you for the opportunity to resubmit a revised version of our article to BMC Psychiatry. Please find it attached. In what follows, we would like to respond to the reviewers’ suggestions in more detail.  
If you have further questions or queries, please do not hesitate to contact us.  

Sincerely yours,  

Tobias Hornig & Ludger Tebartz van Elst
Revisions Reviewer 1:
The greatest limitation of the study is the dichotomous division of the patients’ sample based on SANS median value. You addressed the issue in the last chapter of your publication. I suggest few ways to overcome this limitation (you don’t have to answer to all of them but I would consider one of this options):

We considered your suggestions in our manuscript and reduced the paragraphs that underlie the clinical relevance of negative symptoms and support the median split adding the BPRS that differs significantly the two groups (P. 5, 11, 13 and Tab1 of revised manuscript).

Revisions Reviewer 2:
1) Abstract: The conclusion should be more cautious in its wording.

We accept this criticism and have reworded our introduction.

We now write: “Negative symptoms in schizophrenia could specifically associated with verbal memory deficits.” (P. 2 of revised manuscript)

2) The results of the “confounding variables” e.g. family history, chlorpromazine-equivalents are not presented in the manuscript.

We add chlorpromazine-equivalents and the family history in Tab. 1

3) The statistical analysis included UNIANOVAS when comparing the results of the subgroups with high and low SANS scores. In general, this statistical procedure is only used for greater sample sizes.

We agree with the Reviewer and use multivariate analyses of covariance (MANCOVA) for comparing the results.

4) The structural data of 5 patients are not included in any further analysis. The information about how many patients from each subgroup are affected is lacking.
We’re very thankful for this hint. This was a reading error of the author. No patients are affected but 10 healthy controls. We corrected it in the text.

5) **Table 5 does not seem to be included in the manuscript.**

Table 5 was a typo. The information is shown in Tab. 4.

6) **Overall, the results of many different statistical tests are presented in the manuscript. However, the sample size is comparatively small. The authors should comment on the problem of multiple statistical testing.**

We accept this criticism and have now reorganized our statistical procedure doing MANCOVA rather than factorial ANOVA. In implementing this, a correction for all dependent variables in MANCOVA testing has been introduced (See also point 3).

7) **Table 3: Post-hoc analysis: 1 vs. 2 etc. : these abbreviations are not clear:**

*Which group is 1, 2 and 3?*

We renamed the groups (1=S1, 2=S2, 3=C) and define it additionally in the tables heading.

8) **Typo: graph 1: .. anterior cingulated cortices …**

We corrected it in .. anterior cingulate cortices …