Reviewer’s report

Title: Explaining delusions of control: a comparison of motor related neuronal activation during and after acute psychosis.

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Reviewer: Gilles Lafargue

Reviewer’s report:

Thank you for giving me the opportunity to review this very interesting paper intituled « Explaining delusions of control: a comparison of motor related neuronal activation during and after acute psychosis ».

It reports a longitudinal study where 11 schizophrenic patients had to perform a motor task (two conditions: spontaneous vs cued task) at two time points 6 to 8 weeks apart. Each time, brain activation was studded using fMRI. A control group of 9 healthy subjects was observed once (no retest). The study follows a line of studies suggesting that the inferior parietal cortex is involved in the emergence of positive psychotic symptoms of schizophrenia. The authors’ hypothesis was « that patients would show increased IPL activation relative to healthy controls at baseline and that this activation would show an inverse relationship with their positive symptom levels over time”.

The study seems well conducted. The key finding is that when positive symptoms were maximal, the patients « showed hyperactivation of the LEFT inferior parietal lobule (BA 40) during the spontaneous condition compared to both the cued task and the other participant groups, this normalised with the patients’ decrease in symptoms over time. »

From a review of the literature, it is not clear if positive symptoms are more associated with hyperactivation of left, right or both IPL. Depending of the study, it is indeed possible to support these three possibilities. The authors address this problem in the discussion and, on the basis of their data, contribute to solving it.

In my opinion, the paper constitutes a useful contribution to the field and is acceptable for publication.

I have only two suggestions for revision:

Minor Essential Revision

I didn’t see any information about subjects’ handedness. This information should be provided.

Discretionary Revision

If the participants had held the joystick in the left hand, what would have happen? It could be interesting to address quickly this point in the discussion.
**Level of interest:** An article of importance in its field

**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