

**We thank all reviewers for their thorough job which helped us a lot to enhance the quality of our paper.**

### **Reviewer 2**

Dear author, I have a few comments on your manuscript: - Your manuscript is evidence-based and very interesting from the theoretical point of view. I only doubt the practical applicability of your suggestions, especially in the routine clinical outpatient psychiatric care. How many outpatient psychiatric offices have any "laboratory" able to record ERPs? In Conclusions, you write about "clinical utility" of ERP components in the management of psychiatric disorders. So would you kindly suggest any regime, how to apply the suggested EEG and cognitive procedures in a routine clinical practice (e.g. which patients should be examined, with which diagnoses, how frequently)? Are these methods applicable if the number of patients visiting the outpatient psychiatric office in one day is e.g. 30? You write, that "EEG is a cheap method". Maybe if you consider the cost of the EEG apparatus. But you should add the cost of human labour, some staff should be present with the examined patient all the time, and the labour cost is not negligible. You live in Belgium, which is a highly developed country. How many per cent of outpatient psychiatric offices in Belgium would be able to manage the suggested examinations? And what about other countries in the world, e.g. India? In my opinion, the topic of your manuscript is suitable for further research, but not yet for a routine clinical practice. You should address my doubt in your manuscript. Otherwise, the scientific level of your manuscript is very good. Best regards The reviewer

*Here again we totally agree with the comment. A short paragraph was also added at page 20.*

I am also fully aware that there is still a long way to go before such a proposition could be widely implemented in clinical care units: **if such a procedure could be quite easy to install at a technical level for inpatients in psychiatric clinics in highly developed countries, the situation could be more problematic for lower-income countries, and even more for outpatients visiting on a punctual daily basis a psychiatric office. If such a procedure would reveal high efficiency in the future, economical discussions will have to be undertaken to furnish full access of such a material to all countries in order to (1) manage, monitor and orient treatment for inpatients; and (2) allow straight collaborations between research centers and outpatients' psychiatric office in order to deliver information to clinicians that could be of help in orienting treatment. In such a view,** lack of normative data, technical artefacts linked to the recordings with patients, adoption of clear multisite guidelines, as well as a constructive dialogue between researchers and clinicians *in the assessment of a suitable cognitive-ERP battery* are still some of the main issues that warrant our full attention.

### **Reviewer 3**

I believe that many psychiatrists do not target cognitive symptoms in first-episode psychosis patients rather they try to contain psychosis; next they focus on to make a perfect combination of psychotropic drugs to minimize side effects; this means that cognition is not a primary target, so that these could be the reason why ERPs haven't been utilized extensively for treating cognitive deficits in psychotic patients.

*We totally agree. A short comment was added at pages 10-11.*

In other words, ERP deficits are a common feature of several psychiatric afflictions, but they will not assist clinicians in deciding whether a given patient is depressed, paranoid, or an alcoholic (high sensitivity but low specificity). Moreover, cognition is not considered as a primary treatment target, being still envisaged as a particular category of symptoms (among others), and not as a core phenomenon triggering the onset and/or the persistence of the disease. Many psychiatrists still then focused on finding the best suited drugs combination in order to contain symptoms et minimize side effects. Therefore, the approach using ERPs to classify patients according to DSM categories was entirely inappropriate, and, in the next section, I will specify how I think ERPs may be genuinely useful in clinical settings, mainly as predictive biomarkers, i.e., as measured indices that may be used to predict clinical responses to treatment.