Reviewer's report

Title: Incentive Motivation Processing in First-Episode Psychosis

Version: 1 Date: 21 October 2007

Reviewer: William Horan

Reviewer's report:

This paper addresses a clinically important issue, reward processing in people who experience psychosis, using an interesting reaction time task. The paper is generally clear and the results are fairly straightforward. As the authors note, the main limitation of the study is the very small sample size - this precludes examining whether there are any diagnostic group differences within the heterogeneous, and unusually cognitively intact, sample of patients. A few comments and suggestions for the authors to consider:

1. It would be useful to provide more descriptive information about the participants. Were the patients tested near the time of entry into the CAMEO program or at some later time point? Was the medication-free group neuroleptic naïve, or off medications for a certain time period prior to study entry – were they off all medications or just antipsychotics? Were any patients in an episode of depression at the time of assessment? Were patients and controls matched on characteristics other than age and sex? How were controls screened?

2. There is a discrepancy in the number of patients reported – were there 18 or 19?

3. More information should be provided about the CRRT – there is no description of the number of trials or the parameters of the task (e.g., where equal number of 10, 50, and 90% trials administered; responses made with dominant hand?)

4. The Methods section would flow better if the Data analysis section was moved after the description of the neuropsych tests

5. It is not clear exactly how subjects were classified as showing a reaction time effect on the CRRT – does this simply mean RT’s on 90% trials were lower than on 10% trials by any amount, or was a specific cut-off score used to infer that there was a meaningful effect?

6. The authors indicate that spatial working memory scores did not relate to CRRT performance and conclude that these tests measure independent constructs. Although the correlation was non-significant within the small patient sample, it was in the medium range (.35) – this non-trivial relationship does not support an interpretation of independence. This association appears broadly consistent with the recent study by Heery & Gold (2007).

7. It would be interesting to know whether CCRT performance correlates with different types of clinical symptoms within the patient group.

8. The patient sample includes a mix of schizophrenia/schizoaffective patients
and patients with other psychotic disorders (bipolar, delusional, NOS). The conceptual link between the incentive motivational process captured by the CRRT and certain negative symptoms of schizophrenia is clear. Do the authors believe this paradigm can also shed light on other clinical phenomena – e.g., psychotic symptoms that patients with bipolar or delusional disorder (who often do not have negative symptoms) may experience? If so, some discussion would be helpful.

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

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