Reviewer's report

Title: Tridimensional Personality Questionnaire data on alcoholic violent offenders: specific connections to severe B-cluster personality disorders and violent criminality

Version: 1 Date: 6 December 2006

Reviewer: Simone Ullrich

Reviewer's report:

General

In the above mentioned paper, the authors report findings on the association of temperament traits, Antisocial Personality Disorder (ASPD), and violent criminal behaviour. They conclude that their study contributes to the discussion on dimensional or categorical assessment of personality disorders, and demonstrates some support for the concept of broad dimensional temperament deviation rather than categorically diagnosed ASPD. Although of some interest to the readers of the journal, there are several objections towards rationale of the study, methodology and interpretation of the results, which are detailed below.

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

7. Major Compulsory Revision: Methods, Instruments and Procedure, Page 5, Paragraph 2
According to Table 1, page 19, no information is available on Axis I and Axis II psychopathology of the control group. It is essential for the interpretation of the results to discuss how the lack of this relevant information could influence the findings of the study.

8. Major Compulsory Revision: Methods, Instruments and Procedure, Page 5, Paragraph 2
The authors explain in the fourth paragraph on this page that they divided the sample into “low” and “high harm avoidance” measured with TPQ. However, the rationale for this subsequent comparison is unclear and cannot be derived from the background of the study and the postulated hypotheses. Furthermore, it is incomprehensible why the authors use a categorical approach (high and low scorer on harm avoidance) in temperament trait assessment although the original aim of the study is to demonstrate the superiority of a dimensional assessment. Furthermore, the description lacks justification of the cut-off scores. Categories are truncated dimensions with an inherent loss of information. This holds true for both ASPD and HA categories.

9. Major Compulsory Revision: Methods, Statistics, Page 5 and 6
The authors properly addressed the non-normality of the TPQ data. A log-linear transformation of the data, though, is usually helpful to overcome this problem. According to the authors’ description of the statistics, the only variable controlled for was the age of the participants. However, inspection of Table 1 suggests a considerable co-morbidity of PDs as well as PDs and Axis 1 mental disorders which cannot be controlled for in Chi-Square tests. Logistic regression analyses could help to deal with that problem. The confounding effects of potential demographic differences could be controlled for as well.

10. Minor Essential Revision: Results, Mean Age and Violent offences, Page 6, Paragraph 3
The authors do not explain in which group arson was committed more frequently.

11. Minor Essential Revision: Results, TPQ Scores and Pairwise Comparisons, Page 7, Paragraph 2, 3 and 4
The presentation of all the p-values resulting from pairwise comparisons is hard to read. These should either be incorporated in Additional File 1 or only the significant differences should be reported in the text.

12. Major Compulsory Revision: Discussion
The revision of the discussion is primarily guided by the above mentioned objections. The results may change due to the controlling for potential confounders.

On page 10, the authors refer to a possible correlation of low harm avoidance and the interpersonal factor of psychopathy. However, no data on psychopathy were collected in this sample, therefore, postulation and
examination of this hypothesis would be relevant for a different paper.

The lack of demographic data and information on psychopathology in the control sample should be critically discussed in the limitation section.

Provision of data of the 20% of offenders who refused to complete the TPQ would be helpful to identify a potential bias in the findings.

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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)
1. Minor Essential Revision: Page 1, Title
In the title of the paper, the authors refer to severe cluster B personality disorders (which is a more common term than “B-cluster personality disorders”). However, the two forensic samples were drawn on the basis of as to whether they fulfil the criteria for ASPD or not. This should be clarified.

2. Minor Essential Revision: Background, Page 3, Paragraph 1
The first sentence is unclear and misleading. Apparently the authors aim to introduce the discussion on dimensional and categorical assessment of personality disorders (PDs) within this paragraph. However, ASPD is not the exclusive diagnosis in clinical forensic psychiatry for assessment of psychopathology and legal prognosis even though it is the most common in forensic samples. The introduction should focus more generally on personality disorders, then to refer to the specific diagnosis of ASPD.

3. Minor Essential Revision: Background, Page 4, Paragraph 2
Before stating their hypotheses, the authors should briefly describe the temperament traits assessed in this study since it cannot be assumed that all the readers of the journals are familiar with these traits. The rationale for comparing samples with and without diagnosis of ASPD should be clarified. It should be specified in the hypothesis, which specific associations between ASPD and the temperament traits were expected and why. The same holds true for the postulated correlation of ASPD and the type of violence.

4. Minor Essential Revision: Methods, Participants, Page 4, Paragraph 1
The authors should avoid the politically incorrect term “subjects”.

5. Minor Essential Revision: Methods, Participants, Page 4 and 5
It would be very helpful to provide some basic demographic data on the two (three) samples. The authors write that the controls were “age and gender matched”. As the forensic sample comprised “198 male violent offenders” (page 4), the question arises why women should have been included in the study.

It would be relevant to comment on the reliability of the diagnosis. Has a reliability analysis of the SCID (particularly SCID II) been undertaken?

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Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No