Author's response to reviews

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

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Author's response to reviews: see over
Dear Dr. Jo Appleford,

Please find below our responses to the reviewers concerning manuscript 1377682646115859.

We thank
Robert C. Cloninger, MD and
Simone Ullrich, PhD
for their constructive comments.

We find Dr. Cloninger’s report encouraging since we use his Tridimensional Personality Questionnaire in our study-design. Dr. Cloninger clarified the distinction between ASPD on its own vs. comorbid ASPD and BPD diagnoses in relation to his harm avoidance hypothesis.

We addressed this central issue by a) including ASPD and BPD comorbidity figures in the results section (p. 7), and b) underlining this distinction in the 2nd paragraph of the discussion section.

Simone Ullrich PhD, brought up several concerns:

1. (7.) Ullrich asked about the controls Axis I and Axis II data. Our controls were healthy measured by SCID criteria that were double checked by NIAAA researchers (professor David Goldman MD’s research team, with whom professor Matti Virkkunen MD, has collaborated in alcohol research from early 90’s). We decided not to burden Table 1 with a separate column for controls.

2. (8.) Ullrich asked about the dichotomization of trait harm avoidance into high/low ends. This was a secondary procedure springing from the observed polarisation of the data. A division of temperament into high/low ends is in line with Cloninger’s hypothesis of personality disorders even though no cut-off values have previously been proposed. Our cut-off was chosen a) on the basis of our control mean value and b) genetic research that found allele variation on the basis of this same cut-off point (in the paper: Belfer 2006; Enoch 2006). A thorough psychometric assessment of the best cut-off value to differentiate between personality disorders was beyond the scope of this study. Moreover, we are unable to see a conflict in exploring a dichotomisation of the HA axis since our aim was not to “demonstrate the superiority of a dimensional assessment” but to neutrally explore the utility of both approaches in this alcoholic violent offender population. We reformulated the 3rd paragraph under “Instruments and procedure” to clarify the dichotomisation of trait harm avoidance.

3. (9.) Ullrich asked about the statistical methods. It is true that a log-linear transformation of the data would have been possible. However, in a curve estimation procedure analysis (SPSS 14.0) our data failed to fit 11 different regression models (linear, logarithmic, inverse, quadratic, cubic, s-curve, logistic, exponential etc.). The curve normality was also estimated with Kolmogorov-Smirnov, skewness and kurtosis analyses. We chose the conservative non-parametrical tests (Kruskal-Wallis and Dunn’s test) due to a) marked non-normality of the data, b) the unequal group sizes, and c) the explorative nature of our study. In contrast to epidemiological studies, our sample is robustly homogeneous, a reason why we gave less weight to demographic data. We clarified these matters in the limitation-section of the discussion.
4. (12.) Ullrich paid attention to the discussion section. It is true that the low HA correlation to PCL-R is a hypothesis that requires testing in the future.

We reorganized the discussion section according to these major compulsory revision points.

As to the minor revisions requested by Simone Ullrich PhD, we made the following changes:

- (1.) We substituted the term “B-cluster” with “cluster B”.
- (2.) We clarified the rationale of focusing on ASPD in the background section (p. 3).
- (3.) We introduced Cloninger’s hypothesis in the background section and specified our own hypothesis (p. 4).
- (4.) We substituted “subjects” with “participants” or “offenders”.
- (5.) The demographic issue was discussed in the “major compulsory revisions” section above.
- (6.) SCID interviews were performed by experienced psychiatrists and were double-checked (see point 1.).
- (10.) In the “Age and violent offenses” section’s second paragraph we clarified that arson was more common in the non-ASPD group.
- (11.) Under the “TPQ scores and pairwise comparisons” section we presented only the significant p-values.

Altogether, we believe that the reviewers’ critique helped us to present a second version of the paper that is more comprehensible to the readers of the journal.