

## Synopsis for EU-GEI WP5 Publication

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| <b>Synopsis no.: S5.2</b>   |
| <b>Preliminary title:</b><br>Basic self disturbance and aberrant salience in the ultra high risk for psychosis population   |
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| <b>Publication category:</b> 3<br>Publications from a single work package involving only some parties (or in some cases only one party) in the Work Package   |
| <b>Working and writing group:</b> Barnaby Nelson, Prof Patrick McGorry, Prof G Paul Amminger,<br>And other members of WP5 as appropriate  |
| <b>Work Packages involved:</b> WP5  |
| <b>EU-GEI Partners involved from whom candidate co-authors (additional to working and writing group) should be nominated:</b> N/A   |
| <b>Objectives (scientific background, hypothesis, methods, and expected results):</b><br>Background<br><p>Phenomenological research indicates that disturbance of the basic sense of self may be a core phenotypic marker of schizophrenia spectrum disorders (see <sup>1</sup> for review). Basic self-disturbance refers to disruption of the sense of ownership of experience and agency of action and is associated with a variety of anomalous subjective experiences. In brief, measures of basic self-disturbance have been found to: characterise schizophrenia spectrum disorders independent of intensity or presence of frank psychotic symptoms (i.e., is present both in psychotic schizophrenia-spectrum disorders and schizotypal disorder)<sup>2-4</sup>; are dramatically more prominent in schizophrenia than in psychotic disorders outside the schizophrenia spectrum, such as bipolar disorder with psychosis<sup>4-6</sup>; strongly predict future onset of schizophrenia-spectrum disorders in non-psychotic clinical populations<sup>7</sup> and in those at high risk for psychosis<sup>8</sup>; increase in relation to symptomatic expression along the schizophrenia spectrum in a large genetic linkage sample<sup>9, 10</sup>; and correlate with suicidality (more strongly than do positive symptoms)<sup>11-13</sup>, lack of insight<sup>14, 15</sup>, and social dysfunction<sup>16</sup>.</p> <p>Little is known about the neurocognitive underpinnings of basic self-disturbance. We recently proposed a model that integrates phenomenological and neurocognitive research findings<sup>17, 18</sup>. Specifically, we proposed that subjective anomalies associated with basic self-disturbance may be associated with: 1. source monitoring deficits, which may contribute particularly to disturbances of “ownership” and “mineness” (the phenomenological notion of presence or self-affection) and 2. aberrant salience, and associated disturbances of memory, prediction and attention processes, which may contribute to hyper-reflexivity, disturbed “grip” or “hold” on perceptual and conceptual fields, and disturbances of intuitive social understanding (“common sense”).</p> <p>The EU-GEI WP5 dataset provides an opportunity to test aspects of this model. Although no direct measures of basic self-disturbance are included in the assessment package, a proxy measure of basic self-disturbance can be calculated using items from the SPI-A and the CAARMS. The SCID II</p> |

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Schizotypal section is also of interest due to the consistently high ratings of basic self-disturbance in schizotypal personality disorder samples<sup>19</sup>. The White Noise Task included in EU-GEI WP5 provides a measure of aberrant salience.

### Hypotheses

We hypothesise:

1. A strong correlation at baseline between the proxy measure of basic self-disturbance and aberrant salience, as measured using the White Noise task.
2. A strong correlation at baseline between the proxy measure of basic self-disturbance and schizotypal personality disorder.
3. The combination of high scores on the proxy measure of basic self-disturbance and high scores on the aberrant salience (White Noise) measure will predict transition to psychosis, particularly to schizophrenia spectrum conditions, over the follow up period.

### Methods

A set of items from the SPI-A and CAARMS will be used to devise a proxy measure of basic self-disturbance. This measure will be analysed in relation to the neuropsychological measure of aberrant salience (the White Noise task) and schizotypal personality disorder diagnosis. Cases with high scores on both measures will be identified and analysed in relation to transition to psychosis, particularly to schizophrenia spectrum conditions.

### Expected results

This project would provide the first empirical test of a recently proposed model that integrates phenomenological and neurocognitive findings around the construct of basic self-disturbance. While not a comprehensive test of the model it is a useful starting point, focusing on the aberrant salience aspect of the model. It may shed light on predictive factors and risk markers in the ultra high risk for psychosis population.

### **Data needed for the study: (please list the EU-GEI WP5 instruments)**

Demographics  
SPI-A (baseline)  
CAARMS (baseline and follow up)  
SCID (baseline and follow up)  
White Noise Task (baseline)

### **Plan for statistical analysis (overall strategy):**

Correlations between the baseline measures will be assessed using Pearson's  $r$ . Survival analysis (in particular, Cox regression) will be used to examine the relationship between baseline measures and rate of transition to psychosis.

### **Other analyses/methods: none**

### **Involvement of external Parties (non EU-GEI): none at present**

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| <b>IPR check (Intellectual property rights): N/A</b>   |
| <b>Timeframe:</b><br>Once data is received it is expected that data checking and cleaning will take approximately 1 month, analysis will take approximately 3 months and drafting of the paper will take 2 months. (6 months in total) |
| <b>Additional comments: N/A</b>  |

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