

such as reasoning. These neuropsychological processes may aid an individual's ability to utilise protective factors to their benefit during a period of adversity or risk. These results are preliminary, and future research should look to replicate and extend this research to form a multi-modal model of resilience. A deeper understanding of the mechanisms underlying this process can then inform future intervention strategies.

### S85. THE EFFECT OF LONG-TERM SOCIAL DEPRIVATION ON EFFORT ALLOCATION PATTERN IN PATIENTS WITH SCHIZOPHRENIA

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**Background:** Motivational deficit is a common feature of negative symptoms in patients with schizophrenia. Patients with schizophrenia are impaired in goal-directed behaviour and effort allocation decision-making to pursue a potential reward. On the other hand, limited work has suggested that schizophrenia patients who experienced long-term social deprivation showed more severe negative symptoms. However, it is not yet fully clear the long-lasting impact of long-term social deprivation on motivation in these patients. The current study aimed to investigate the effect of long-term social deprivation on effort allocation pattern in patients with schizophrenia.

**Methods:** We recruited 21 patients with schizophrenia institutionalized for more than 15 years and 20 patients with schizophrenia dwelling in the community and 24 healthy controls for this study. We administered the Effort-Expenditure for Rewards Task (EEfRT) to capture reward-based motivational salience, which requires participants make decision to choose a hard or easy task based on reward probability and magnitude. Moreover, a set of self-reported checklists including the Chapman Psychosis Proneness Scales, the Temporal Experience of Pleasure Scale, the Anticipatory and Consummatory Interpersonal Pleasure Scale and the Emotional Expressivity Scale were also administered to all the participants. For patients with schizophrenia, they also received rating score on the Positive and Negative Syndrome Scale (PANSS) and the Scale for the Assessment of Negative Symptoms (SANS).

**Results:** Institutionalized patients had exhibited significantly more prominent negative symptoms, especially in alogia subscale, attention subscale, and a trend of statistical significance in anhedonia subscale of SANSS. The two clinical groups did not differ in positive symptoms subscale and general psychopathology symptoms subscale of PANSS. Findings from one-way ANOVA analysis showed that both institutionalized patients and community-dwelling patients with schizophrenia did not differ from healthy controls in experiential pleasure and emotion expression. For performance in the EEfRT, amotivation was only observed in institutionalized patients with schizophrenia, they were significantly less likely to expend effort to pursue a potential reward than healthy controls in both medium (50%) probability and high (80%) probability level. Hence, as the reward probability increased, unlike healthy controls, institutionalized patients could not increase their hard task choices.

**Discussion:** Institutionalized patients with schizophrenia exhibited significantly more motivational deficits than healthy controls, and such impairment was not observed in community-dwelling patients. However, both institutionalized patients and community-dwelling patients with schizophrenia showed no deficits in self-reported scales measuring pleasure experience and expression. These findings further revealed that long-term social deprivation may be a vital contributor to severe motivation deficits of patients with schizophrenia.

### S86. EXAMINING REASONING BIASES IN SCHIZOPHRENIA USING A MODIFIED "JUMPING TO CONCLUSIONS" TASK

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**Background:** The Jumping To Conclusion (JTC) bias has been extensively studied in relation to schizophrenia and persecutory delusions. It is suggested that performance on the traditional JTC task relates to a pervasive bias to make decisions quickly, contributing to delusion formation. However, the mechanisms underlying performance on this task, as well as the relationship between the JTC bias and other reasoning biases implicated in delusional ideation, is not fully understood. We examined the relationship between several biases believed to be involved in delusion formation and maintenance to further clarify potential co-occurrences of these biases and their relation to delusional ideation.

**Methods:** In order to assess the co-occurrence of reasoning biases in decision making, we modified the traditional JTC task in order to assess a number of previously identified biases that may be implicated in delusion formation and maintenance. 46 participants with schizophrenia and 46 healthy controls completed two versions of the modified task utilizing neutral (blue and red beads in a jar) and salient (negative and positive comments in a list) stimuli, both with 60:40 ratios.

**Results:** 2 x 2 mixed ANOVAs were performed on each of the modified variables using group [patients vs. controls] as a between subjects variable and task type [neutral vs. salient] as a within subject variable. We replicated previous findings of main effects of a JTC bias for group,  $F(1, 90) = 4.149$ ,  $p = .045$ ,  $\eta^2p = .044$ , and task type,  $F(1, 90) = 4.724$ ,  $p = .032$ ,  $\eta^2p = .050$  such that patients showed a greater JTC bias, and in both groups, the JTC bias was more pronounced for the salient task. However, a main effect of group was also evident for number of illogical judgments,  $F(1, 90) = 11.596$ ,  $p = .001$ ,  $\eta^2p = .114$ , indicating that patients showed greater difficulty in probabilistic reasoning. When controlling for probabilistic reasoning ability, the group main effect for the JTC bias disappeared,  $F(1,89) = 0.169$ ,  $p = 0.682$ ,  $\eta^2p = 0.002$ . None of our modified variables significantly correlated with symptom severity within our patient population.

**Discussion:** While we were not able to correlate our modified variables with symptoms of schizophrenia, we were able to observe a pattern of group differences that may help further understand decision-making processes in individuals with schizophrenia. Our findings that faulty probability assessment accounts for the JTC bias indicates that the traditional JTC bias task may not represent an inherent hasty decision making bias, but rather an inability to fully understand and execute the stated goals of the task. These results call into question the current understanding of the JTC bias and the independence of this bias apart from the cognitive demands of the task.

### S87. THE INITIAL CHANGE IN THE SERUM LEVEL OF C-REACTIVE PROTEIN IN ACUTE PSYCHOSIS IS ASSOCIATED WITH COGNITIVE PERFORMANCE IN LATER PHASES

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**Background:** Inflammatory processes have been implicated in the pathophysiology of schizophrenia and related psychosis and could be particularly relevant to the associated cognitive deficits. The C-reactive protein (CRP) serves as a general marker of inflammation, and inverse relationships between CRP levels and cognitive performance in acute psychosis