Rationale behind the project: Psychotic-like experiences (PLEs) are highly prevalent symptoms that resemble hallucinations and delusions; however, due to their low severity and impact on general functioning they cannot be the basis to diagnose mental disorders. Research shows that PLEs might indicate the emergence of mental disorders, not only those representing psychotic disorders. Although PLEs are mild symptoms, they might be distressing, contribute to help-seeking, and might be related to suicide risk, regardless of co-occurring symptoms. Several studies have underscored the role of social determinants in the occurrence of PLEs. Among them, social disconnection is perceived as an important factor. Social disconnection includes two overlapping constructs known as loneliness and social isolation. Loneliness is a subjective self-perception that individual social bonds are insufficient. It differs considerably from social isolation, an objective measure, defined as the number of social bonds that is lower than average. Loneliness is now perceived as the global public health concern with a negative impact on every aspect of health, development, and wellbeing. There are various psychological models that explain potential mechanisms and consequences of social disconnection. Among them, several studies have focused on the cognitive-evolutionary model. It posits that loneliness is an adaptive experience signalling the need to reconnect with others. However, some individuals, especially those who experience prolonged periods of loneliness, focus on potential social threats associated with a lack of companionship. These individuals show a number of the so-called cognitive biases (defined as unconscious and systematic errors in thinking that occur while processing and interpreting information and impact individual decisions and judgments) that reduce the likelihood of reconnection with others. The examples of these cognitive biases are increased attention for threat, negative intent attributions, and hypervigilance to rejection. Importantly, cognitive biases associated with loneliness have also been observed among individuals with PLEs. However, the relevance of the cognitive-evolutionary model in understanding the association of social disconnection with PLEs has not been investigated so far and thus it serves as the starting point for the current project.

Aims and hypotheses: The project will address the following objectives: 1) to clarify the temporal ordering of social disconnection, cognitive biases, and PLEs; 2) to disentangle differences in temporal associations of persistent and transient social disconnection with PLEs; 3) to indicate the most important cognitive biases that bridge social disconnection and PLEs. The hypotheses are as follows: 1) social disconnection and PLEs might be bidirectionally associated; 2) cognitive biases mediate these associations; 3) persistent social disconnection shows stronger associations with PLEs compared to its transient temporal pattern, and 4) loneliness shows stronger associations with PLEs compared to social isolation.

Methods: The project will include two studies. The first one will be the longitudinal, population-based study of 1,800 participants (aged 18 – 35 years) spanning 30 months with 6 waves of data collection. Social disconnection, PLEs and other psychopathological symptoms as well as cognitive biases (will be assessed using self-reports and remote experiments. The second study will include 120 individuals oversampled for PLEs (aged 18 – 35 years) who will be involved in the experience sampling method (ESM) protocol. The ESM is the approach that collects information about participants using questionnaires and experimental tasks in their daily environment, e.g., using their personal smartphones. In this study, real-life dynamics of social disconnection, cognitive biases, and PLEs will be explored. A variety of analytical approaches will be applied including those based on network analysis models that allow to address dynamic interactions between a number of variables over time.

Expected outcomes: The project might resolve the dilemma of temporal ordering across social disconnection, related cognitive biases, and PLEs. By approaching the cognitive-evolutionary model of loneliness, it might explain potential differences in the associations of transient and persistent social disconnection with PLEs. Finally, it might be foreseen that the project will provide clinical implications by indicating the most important cognitive biases that should be targeted during therapeutic interventions among individuals with PLEs and social disconnection.