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Real-life social interactions in schizophrenia☆

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Problems with social functioning have been studied for a long time in schizophrenia. However, over the years, social dysfunction has gradually moved to the heart of schizophrenia research. This is mainly due to the fact that people with psychotic disorder consider social dysfunctioning as one of the most disabling problems. At the same time, it is one of the problems that is hardest to treat, potentially due to a lack of understanding of the true nature of these social problems.

In their review, Mote and Fulford (2019) discussed the use of experience sampling methodology (ESM) as a way to deepen our understanding of social problems in schizophrenia. Whereas they did not find consistent results with regard to the amount of time people with schizophrenia spend with others, they did report that people with schizophrenia consistently experience more positive affect when they are with others compared to when they are alone. Yet, they also experience more social stress and they report a larger preference of being alone when with others. This discrepancy points to the relevance of investigating the quality of the social interaction over and above the quantity. Schneider et al. (2017) demonstrated that most questionnaires and

interviews examining social functioning are restricted to quantitative aspects, whereas ESM allows the investigation of both the quantitative and qualitative aspects of the social interaction (Schneider et al., 2017). Mote & Fulford focused in their review mainly on positive and negative affect in relation to social situations as a measure of this qualitative aspect. However, it would be relevant to also investigate other qualitative aspects of these social experiences. For example, Brown et al. (2007) showed that a preference of being with others while alone may indicate social anhedonia, whereas increased negative affect while with people you do not know so well, may indicate social anxiety. In more recent studies, we have extended the ESM questionnaire with questions on feeling safe in the social environment, having a sense of belonging when with others, and feeling valued by the people you are with, which may further elucidate this issue. However, qualitative studies including interviews and focus groups with people who have lived experience of psychosis are essential to further refine ESM questionnaires to capture the true nature of problems and ambiguity in social experiences in psychosis.

A closer study of actual social interactions as they occur in real-life may also question some of the current theoretical psychological models of social functioning in psychosis. These so called Social Cognition First theories argue that social cognition drives social interaction. The cognitive capacity for interpreting other minds in terms of beliefs, desires and emotions is considered a necessary prerequisite for successful social interaction (Schönherr, 2017). Indeed, people with a diagnosis of schizophrenia have consistently been shown to have more problems in social cognitive capacities such as theory of mind and emotion recognition compared to healthy volunteers. However, a review paper on the relation between social cognition and social functioning, showed that only 23,3% of the variance in social functioning could be explained by variation in social cognition (Fett et al., 2011). In a series of studies, we used ESM to examine this further and we investigated the relationship between different social cognitive capacities and both the quantitative and qualitative aspects of real-life social interactions. In a first study, we found that the ability to recognize emotions, using the Degraded Faces Affect Recognition Task, is not associated with real-life social interactions, nor with the qualitative aspect of these social experiences (Janssens et al., 2012). This was equally true for people diagnosed with a psychotic disorder and healthy volunteers. In a second paper, we ran two different studies to examine the association between theory of mind, as assessed with the hinting task as well as with the picture sequencing task, and real-life social functioning as assessed with ESM (Schneider et al., 2019). Similar to the finding

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with emotion recognition, we found that performances on the theory of mind tasks were not associated with the quantitative, nor the qualitative aspects of social interaction in real life, and this was again equally true for people with a psychotic disorder and healthy volunteers.

The consistent finding that performance on different social cognition tasks is not related to both quantitative and qualitative aspects of social functioning in real life questions the hypothesis that social cognition is indeed a prerequisite for real-life social interaction (Schneider et al., 2019). Several authors have argued that taking part in a social interaction is a matter of participating from an engaged perspective within the interaction, rather than of theorizing, from an observer's perspective, outside of the interaction (Reddy and Morris, 2004; Schilbach et al., 2013). Based on our findings, we defended the alternative Social Interaction First hypothesis, which argues that real-life social functioning is driven by basic social interactive capacities and that inference-based social cognitive skills may develop as a consequence of successful social interactive practices rather than as a prerequisite for these (Schneider et al., 2019). Adopting this view may have significant consequences, both with regard to the research and the treatment of social problems in schizophrenia. In terms of research, we would need to get a better understanding of basic, dynamic and adaptive social processes as they happen in real-time social interactions. Although ESM seems an optimal tool to gain access to these processes as they unfold, most ESM questions on social interaction still assess the agent's reflection on the social situation rather than the dynamic social interactive experience itself. Next to improving the ESM questionnaire to address this concern, it would also be interesting to investigate how for example mobile sensing may be used to assess real-life social processes such as attunement and synchronization. Similarly, in treatment, it may be necessary to shift gears from targeting social cognition, which according to this theory, is the end-product, to trying to improve real-time social practices. Recent developments, including app-based Ecological Momentary Interventions (Myin-Germeys et al., 2016) as well as interventions based on virtual reality (Adery et al., 2018), seem to hold a lot of promise in this respect.

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Declaration of competing interest

The author declares that she has no conflict of interest.

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