Three levels of intersubjectivity: cognitive interrelations and disorders

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Developmental studies indicate that we can distinguish between three levels of intersubjectivity that are based upon (1) recognition of contingency pattern, (2) perceptual-attentive (such as visual) perspective taking, and (3) intellectual perspective taking (ToM). In my talk, I discuss whether and if so, how these levels are interrelated. Empirical evidences from research in psychopathology (Langdon et al 2001; Blakemore et al 2003; Hamilton et al 2009; David et al 2010) as well as a methodological distinction between a basic (pre-reflexive and automatic) and an advanced (reflexive and inferential) mode of social understanding reveal to be a fruitful means in order to address this question.

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Recognizing and generation of emotional expressions in Schizophrenia

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Schizophrenia is a group of disorders with different core features: (1) disorders of ‘‘willed action’’, (2) disorders of self-monitoring, and (3) disorders of monitoring other persons’ thoughts and intentions. Clinical findings strongly suggest that patients with schizophrenia are impaired in social interaction relating to their reduced capacity to effectively engage in communication (e.g., Trognon 1992; Sperber and Wilson 2002). This includes the recognition of emotion of others, feeling empathy for them and generating the emotional expressions by themselves. Moreover, schizophrenic patients have difficulties in imitating facial expressions (Schwartz 2006, Beck, 2008) and are less assessable to contagious yawning or laughing (Haker H, Rössler W. 2009). We will first give an overview over the basic literature. Afterwards, we will present recent findings that the generation of facial expressions, especially yawning and laughing, is related to feeling empathy in schizophrenia.

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Beyond mirror neurons: responding to and understanding others.

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Research on understanding other people's actions has largely focused on mirror neuron systems. I will present two quite different datasets arguing that understanding and responding appropriately to other people involves much more than just mirror responses. First, fMRI data show that typical and autistic brains differ in responsiveness when participants observe irrational actions, and that this difference is found in mPFC, not mirror neuron regions. Second, behavioural and neuroimaging data show that a basic social signal (eye contact) has a critical role in controlling when we imitate another person, and that mPFC is responsible for this effect. These data argue that high-level (mPFC) and low level (mirror) regions of the social brain must work together in online social information processing.

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