Our recent research suggests that the triad of impairments that defines autism (social, communication and rigid/repetitive behaviour) may be “fractionable”. That is, the phenotypic and genetic correlation between traits in these three areas is modest, and many individuals can be found with difficulties in only one of the three triad domains. At the cognitive level, too, there appears to be no single theory able to account for all aspects of the triad, and instead different theories may be needed to explain the social and communicative deficits and the non-social impairments and strengths.

This presentation will review recent research on “cognitive style” in autism spectrum disorders (ASD), and the “weak central coherence” account which postulates superior processing of details at the cost of processing global and contextual information.

While this theory aims primarily to explain why people with ASD are so good at some (non-social) tasks, it may also interact in relevant ways with the core social deficits in mentalising. While autism may be fractionable, representing the (non chance) co-occurrence of abnormalities in several cognitive mechanisms (including theory of mind and central coherence), autism is also more than the sum of its parts: problems in reading minds will look different in a person who has weak coherence, and vice versa. This presentation will review the latest research on weak coherence in autism, and discuss its implications for understanding social and non-social aspects of ASD.