



Autism, Psychopathy and Empathy

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ICD 10 Childhood Autism

1. Qualitative impairments reciprocal social interaction
2. Qualitative impairments in communication
3. Restricted/stereotyped patterns of behaviour, interests and activities

Developmental Psychopathy

- Psychopaths:
 - ‘high levels of aggression and antisocial behaviour, performed without guilt or empathy for their victims’ (Dolan 1999)
 - Not synonymous with CD or ASPD
 - In both childhood and adulthood, defined by high scores on clinically-based rating scales:
 - Children: Psychopathy Screening Device
 - Adults: Revised Psychopathy Checklist

BOX 1 The 20 items of the Psychopathy Checklist – Revised (PCL-R)

Factor 1

Interpersonal

- Glibness – superficial charm
- Grandiose sense of self-worth
- Pathological lying
- Conning – manipulative

Affective

- Lack of remorse or guilt
- Shallow affect
- Callous – lack of empathy
- Failure to accept responsibility

Factor 2

Lifestyle

- Need for stimulation
- Parasitic lifestyle

- Lack of realistic, long-term goals
- Impulsivity
- Irresponsibility

Antisocial

- Poor behavioural control
- Early behavioural problems
- Juvenile delinquency
- Revocation of conditional release
- Criminal versatility

Additional items 'Promiscuous sexual behaviour' and 'Many short-term marital relationships' do not load onto these two factors but contribute to an individual's score on this instrument.

(Hare 2003)

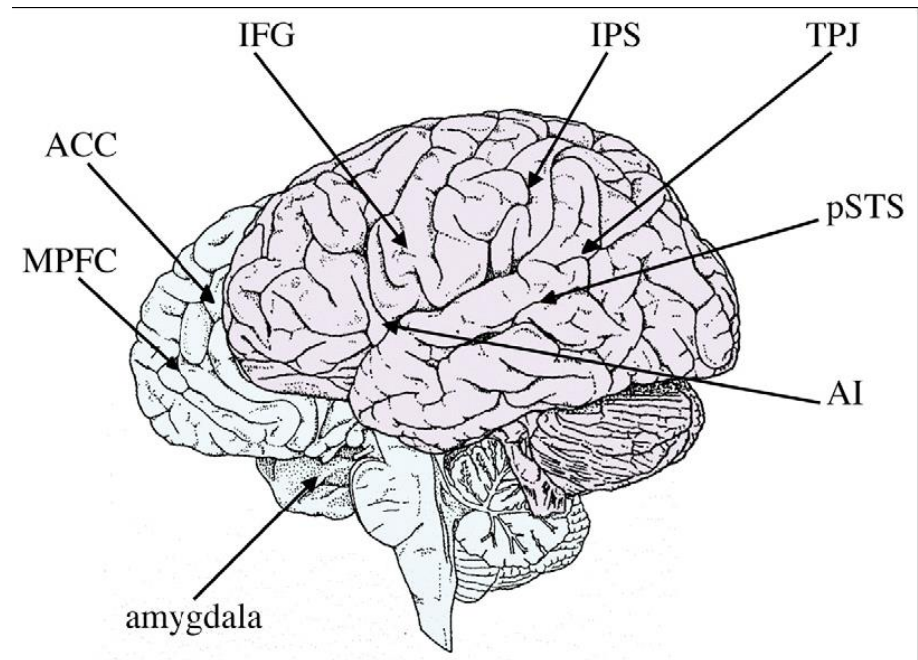
Empathy

(Blair 2005)

- Empathy ‘an affective response more appropriate to someone else’ s situation than one’ s own’ (Hoffman, 1987)
- Theory of Mind (Cognitive Empathy)
- Emotional Empathy
 - Affective response to social-emotional signals of others
- Motor Empathy
 - Tendency to automatically mimic and synchronise social-emotional signals and movements with those of another person

The Social Brain: functions, regions and networks

- Mentalising
 - Dorsal MPFC – I, you, it relations
 - pSTS – detecting goal-directed actions
 - TPJ – perspective taking
- Emotional Empathy and Learning
 - ACC/ rAI – feeling pain/ disgust of self and others
 - Amygdala – distress cues
 - Ventral MPFC
- Mirroring/ action observation and execution
 - IFG
 - IPS



Autistic Spectrum Disorders – potential influences on empathy

- Representing mental states of self and others
- Alexithymia
- Literal interpretation of speech
- Pragmatic speech problems
- Processing social-emotional cues
- Problems with prior social learning and schema formation – lack of practice, faulty inference
- Restricted/ intense interests
- Sensory processing
- Attentional allocation/ impulse control

Personality Disorders – potential influences on empathy

- Representing mental states of self and others
- Processing social-emotional cues – fear and sadness
- Problems with prior social learning and schema formation – trauma/ attachment/ informs judgment of intentions and motives of others
- Self-experience as a model for attributions about intentions , motives, of others – what they ‘ought’ to do
- Alexithymia
- impulse control

Some conclusions

- ‘perspective taking’ and ‘emotional empathy’ complex cognitive activities supported by overlapping brain regions
- Overall, perspective taking impaired in ASD and emotional empathy in people with psychopathy – but many exceptions to the rule, and degrees of impairment may be present in both populations
- perspective taking which depends on representation of emotional states may be impaired in people with psychopathy – e.g. behaviour motivated by altruism, guilt, remorse, forgiveness
- Many cognitive bottlenecks affect spontaneous emotional empathy in people with ASD
- ASD and personality disorders, and/or traits of each disorder, can co-exist
- Importance of individual assessment and formulation