

Charman, T., Swettenham, J., Baron-Cohen, S., Cox, A., Baird, G., & Drew, A. (1997). Infants with autism: An investigation of empathy, pretend play, joint attention, and imitation. *Developmental Psychology*, 33(5), 781–789. doi:10.1037/0012-1649.33.5.781

A. Introduction-

- Children with Autistic Spectrum Disorder (ASD) experience difficulty with social functioning, in particular empathy, pretend play, joint attention and imitation.
- Deviances in development occur in four areas:
 - 1) Empathy- the way they respond to the emotions of other people
 - 2) Pretend play- participation in role play and other imaginative styles of play
 - 3) Joint attention- the ability to share attention with another individual toward the same target or object
 - 4) Imitation- sharing the intention to repeat a stimuli
- The experiment examined infants, aged 20 months old, for interest and empathetic response to displays of distress of other individuals. The study also assessed joint attention, imitation and the spontaneous and elicited play of infants with ASD.

B. Method-

- Hypothesis- it was predicted that the ability to sustain joint attention, imitation and play (both spontaneous and elicited) would be impaired in children with ASD.
- Sample- 12 children in the ASD 'risk group', 44 children in developmental delay 'risk group', 15,944 typically developing children in the 'no risk' group.
- Children were tested on:
 - 1) Empathy responses- in this set the experimenter's finger was hit with a hammer. It was tested whether the child could look the individual in the face. The facial expression of the participant was also documented.
 - 2) Spontaneous play tasks- the play styles of each of the children were coded into a number of categories which included sensory-motor, ordering, functional play and pretend play.
 - 3) Structured play- the play styles of the children were scored to a set of criteria.
 - 4) Joint attention tasks- participants were tested on their ability to share attention toward a particular object or individual.

C. Results and Discussion-

- Empathy- children with ASD were more likely to continue playing with a preferred item when a person was hit with a hammer. This group of children were also less likely to express emotional facial expression than the other two samples examined. Both children with developmental delays and typically developing children looked the experimenter in the face when they appeared to be hurt.