



Perception of Emotion in Autism

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Introduction to Autism

- Autism is a complicated neurobiological disorder that lasts throughout a person's life.
- Prevalence in the United States is one child in 1,000 children (Bowler, 2007).
- The central indicators of autism entail social behavior, language, and behaviors with regard to objects and habits ("Autism Overview: What," 2005).
- About 25% of people with autism do not have functional speech (Charman & Stone, 2006).

Introduction cont...

- Early warning signs include: problems with eye contact, not responding to one's name and underdeveloped skills in play and imitation (Bowler, 2007).
- Low functioning individual has characteristic such as: below average intelligence, little or no language and cannot live on their own. I.Q. below 70 (Stafford, 2000).
- A high-functioning individual typically has an average or above average intelligence, highly developed language skills and a lack of social skills. I.Q. scores for range from an average of 90 to a genius or savant level of 140 and above (Stafford, 2000).

Thesis

- Emotions serve two important functions: they influence social interactions and that they provide valuable information about how to interpret and cope with events (Charman & Stone, 2006).
- No single hypothesis can explain the deficits of perception in autism. However, examining
 - theory of mind,
 - empathy imbalance hypothesis,
 - fragmented perception
 - impaired top-down processing
- will create a clearer picture of how those with autism perceive social situations and others' emotions



Perception

- Perception is the ability to see, hear, or become aware of something through the senses.
- Initially there is the stimulus, then sensation, interpretation of the object and how it creates feeling and the final stage, comprehension (Bogdashina, 2003).

Jones, Zahl, & Huws (2001) study



- Four central themes were identified.
 - a sense of alienation
 - a sense of frustration
 - depression as a central emotion
 - a pervasive sense of fear or apprehension.

Findings suggest that the primary experienced emotions are unpleasant and that emotion is important and applicable to people with autism.

Theory of Mind

- The theory of mind means to have the ability to reflect on the contents of ones own and others minds (Tager-Flusberg, 2007).
- Individuals with autism lack a capacity to perceive other people as persons like themselves and a lack of understanding that people can think thoughts that are uniquely different from reality (Bowler, 2007).

Baron-Cohen et al. (1985) Study on Theory of Mind

- Found that every child in the experiment correctly answered the control questions.
- Appreciated that their own knowledge of where the marble actually was and the knowledge that could be attributed to the doll were different" (p. 42-43).
- Autistic children lack the ability to appreciate that other people's beliefs might differ from their own.



Empathy Imbalance Hypothesis

- Empathy means to identify or experience vicarious experiencing of another person's attitudes, thoughts, or feelings (Smith, 2008).
- The empathy imbalance hypothesis (EIH) is simply the relationship between cognitive empathy (CE) and emotional empathy (EE) and the variation of this relationship (Smith, 2008).
- CE deficit disorder is characterized by low CE ability combined with high EE sensitivity (Smith, 2008). This is where a person with autism is unsure of how to channel the concerns of others to form a suitable response towards them.
- People with autism can see how another is feeling, but do not know exactly how to respond to the cues (Smith, 2008).

Fragmented Perception



- Gestalt psychology
 - “People with autism are not able to ‘break’ the whole picture into meaningful units and to interpret objects, people and surroundings as constituents of a whole situation. Instead they process ‘bits’ that happen to get their attention” (Bogdashina, 2003 p.67).

Fragmentation complicates the interpretation of facial expressions and body language and consequently impedes or even blocks the development of non-verbal communication (Bogdashina, 2003).

Impairments in Top-down Processing

- Use of prior knowledge to adjust the current perception.
- Every apple we have ever encountered is slightly different from all other apples; no two are identical.
- When those with autism view an individual expressing an emotion such as embarrassment, it is likely that this interaction would not be stored in episodic memory and thus be new each subsequent time they see embarrassment (Bowler, 2007).

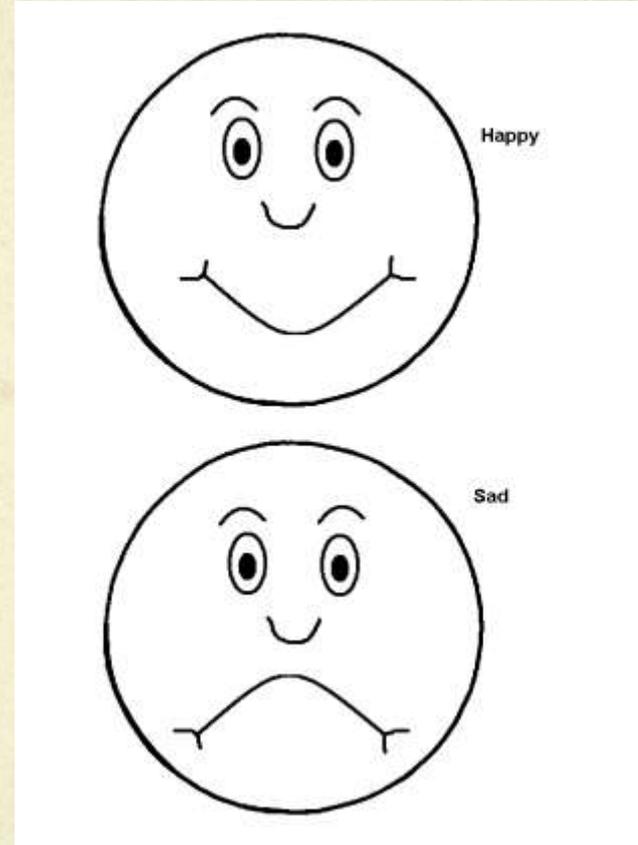


Mind Reading, a Method of Intervention

- An interactive guide to emotions and mental states that comprise 7,416 units of emotion information.
- Results showed that following 10–20 hr of using the software over a period of 10–15 weeks, users significantly improved in their ability to recognize complex emotions and mental states from both faces and voices (Golan, & Baron-Cohen, 2006).
- This allows people with autism to improve emotion recognition skills from both faces and voices (Golan, & Baron-Cohen, 2006).

Stafford (2000) Experiment

- Aim was to see whether the concept of emotion could be taught to a low-functioning non-verbal autistic child.
- Results revealed after the six-month testing phase, the participant was able to identify the correct emotional expressions of people whether they were happy, angry, sad or surprised shown in twenty-one photographs (Stafford, 2000).



Conclusion

- It is clear emotion is not absent in individuals with autism.
- When we intervene and diffuse the situation, individuals with autism can assess their environment and emotions much more efficiently.
- We have a direct impact on their perception and that we should try our best to be amiable when in the presence of someone with autism and not become frustrated.

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