
Peer Perception in Autism

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Peer Perception and Autism

- What is autism?
 - A review of specific deficits that likely impact on peer interactions
 - A review of peer interactions
 - Conclusion
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What is autism?

- Deficits in language and communication
 - Verbal
 - Non-verbal
 - Deficits in socialization
 - Presence of stereotypies/need for sameness
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What is autism?

- A practical translation
 - Often interpret language literally
 - May be pedantic
 - Fail to notice body language/social cues
 - Trouble with adaptation
 - Prefer routines
 - Impaired executive function
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Problems reading faces

- Problems reading faces
 - Studied 26 adults with social developmental disorders and compared them to 15 healthy individuals

Hefter et al, 2005

Problems reading faces

- ❑ Shown 20 famous and 20 other pictures and told to separate the two groups
- ❑ Asked to identify emotions in a woman's voice
- ❑ Shown videos of woman (shoulders to legs) and asked to interpret emotion from voice
- ❑ Shown computerized faces and asked to identify emotion expressed
- ❑ Shown photos of eyes only

Hefter et al, 2005

Problems reading faces

■ Results

- 10/26 were able to identify famous faces
- 16/26 poor recognition of famous faces
- There was NO difference between those who could and could not recognize faces with regard to their ability to recognize emotion

Hefter et al, 2005

Theory of Mind (ToM) in children with autism

- 67 Total children
 - 25 high functioning autism
 - Controls
 - Age matched
 - Pre-school

Peterson, 2005



Theory of Mind (ToM) in children with autism

■ Autistic children

□ Correct understandings of functions

- Brain 84%
- Mind 64%

Explanations mentalistic

□ Incorrect understanding of functions

- False belief 60%
- ToM performance unrelated to their understanding of human biology

Peterson, 2005

Language, Social and Executive Functions in High Functioning Autism

- Language and executive function
- Relationship between executive, language and social function
 - Groups compared
 - High functioning autistic children
 - Typically developing children

Landa and Goldberg, 2005

Language, Social and Executive Functions in High Functioning Autism

- 19 children with autism
- 19 typically developing children
- Matched for
 - Age
 - Gender
 - Full scale IQ

Landa and Goldberg, 2005

Language, Social and Executive Functions in High Functioning Autism

- Language assessment
 - Expressive language
 - Ability to explain figures of speech
- Assessment of executive function
 - Spatial working memory
 - Planning
 - Flexibility
 - Set-shifting

Landa and Goldberg, 2005

Language, Social and Executive Functions in High Functioning Autism

- Significant differences were found between high functioning autistic and typically developing children
 - Language
 - Formulated sentences, $p=0.01$
 - Figurative language, $p=0.001$
 - Executive Function
 - Spatial working memory, $p=0.001$
 - Flexibility
 - 3/5 subtests, $p=<0.05$

Landa and Goldberg, 2005

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Peer interactions in children with autism

- Cognitive abilities and peer engagement are correlated in children with autism

Stone and Caro-Martinez, 1990

- Peer interactions were related to:
 - Adaptive skills
 - Vocabulary
 - Functional use of language
 - Affect matching
 - Emotional understanding

Hauck et al, 1995

Circles of friends

- 6 circles
- Support of children in school years 3 to 10
- Mainstreaming schools with one school for mild learning disability
 - 7 children ranging between high functioning autism and Asperger's
 - Other children chosen by teacher
 - Mixed gender
 - Diverse

Whitaker et al, 1998

Circles of friends

- Initial circle lead by autism outreach team
- Next 6 meetings lead jointly with school
- Subsequent circles lead by the school
- At the time of evaluation circles met between 3 and 17 times

Whitaker et al, 1998

Circle of friends

- Interviews with:
 - School staff
 - Focus student with autism
 - Focus student's parents
 - Other children in circle

Whitaker et al, 1998

Circle of friends

- Observations of the school staff circle leader
 - Improved quantity and quality of contacts between focus child and wider peer group
 - Thought to be because of ↑ desire and ↓ anxiety to make contact
 - ↓ in need and demand for adult support

These are subjective observations

Whitaker et al, 1998

Circle of friends

- Impact on circle members
 - ↑ levels of empathy
 - Helped children understand the focus child
 - Able to find intrinsic value in focus child
 - ↓ the impact of behavior on the other children
 - Behavior of focus child not taken personally
 - Ability to express negative feelings about focus child

Whitaker et al, 1998

Circle of friends

- Parents of focus children:
 - All parents expressed enthusiasm
 - Autistic children observed by parents to seek out same age peers instead of younger children
 - Concern about their child “always being the one with the problem”
 - Acknowledgement of likely limits to changes in their children

Whitaker et al, 1998

Peer interaction and loneliness in high-functioning children with autism

- Examined
 - Social interaction with peers
 - Understanding of loneliness
 - Feeling of loneliness

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- 18 children with high-functioning autism
- 17 typically developing children
 - Matched for
 - Age
 - Gender
 - Maternal education

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- Social interaction Understanding-Picture recognition
 - Two children together with a third looking on
 - Three questions asked:
 1. What does the child in the picture want?
 2. How does he feel?
 3. What can he do to join the two talking children?

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- Loneliness understanding interview
 - Asked two questions:
 1. Can a child feel lonely when s/he is in the company of other children?
 2. Can a child feel lonely when he/she is with his/her close friend?
 - Asked to justify their answers

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- Loneliness self-report-The experience of loneliness
 - Standardized self-report of loneliness in children
 - Additional five questions:
 - 5 addressed emotional aspect
 - 1 addressed social aspect

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- Social interaction understanding-picture recognition
 - Not different with regard to
 - Recognition of social desire
 - Emotional recognition
 - Group difference with regard to
 - Ability to provide relevant social alternatives for peer entry $p < 0.01$

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- Loneliness understanding interview
 - NO difference between autistic and typically developing children

Bauminger et al, 2003

Peer interaction and loneliness in high-functioning children with autism

- Loneliness self-report-The experience of loneliness
 - Higher feelings of loneliness in autistic children:
 - Emotional $p < 0.001$
 - Social $p < 0.001$
 - Global $p < 0.001$

Bauminger et al, 2003

Education and inclusion

- Excerpt from the National Autistic Society position statement:
 - “This wide spectrum of needs requires a wide spectrum of educational provision including
 - Mainstream schools
 - Special schools
 - Specialist units in mainstream schools
 - Residential provision”
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Conclusions

- Autism impairs language and communication, social understanding and flexibility
 - Peer interactions are impacted negatively
 - Peer interactions involve components:
 - Emotional
 - Social
 - Children with autism are able to learn from typically developing children
 - Typically developing children learn from children with autism
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Conclusions

- Children with autism need to be able to fulfill their fullest potential
 - Care must be taken not to place them into unsupported environments as they are able to feel lonely and may suffer if inadequately supported
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