

Baron - Cohen et al. (2001)

KEY NOTES

→ Autism Spectrum Disorder (ASD): A neurodevelopmental disorder impairing a child's ability to communicate and interact.

SYMPTOMS: repetitive behaviour, little or no eye contact and can't recognise facial expressions. High Functioning is HFA.

→ Aspergers Syndrome (AS): Autism spectrum disorder that affects language and communication skills.

SYMPTOMS: restricted & repetitive behaviours and trouble identifying facial expressions.

→ Autism Spectrum Quotient Test (AQ): self-report questionnaire with scores ranging from 0 to 50. A high score suggests that the person has more autistic traits.

→ Theory of Mind (ToM): the ability to understand the view of another.

The original study (1994)

The original study has numerous issues. Participants were presented with 25 photos showing different eyes expressions and they chose the mental state shown between 2 options.

issues with the original study:

1. It had more female faces than male faces.

SOLUTION: equal no. of male and female faces in the RET question.

RET = Rational Emotive Therapy

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2. Test had both basic and complex mental states. The basic ones were too easy.

SOLUTION: Only complex mental states were used.

AIMS

1. ~~The test is to~~ **revised** To test if a group of adults with AS or HFA on the reversed version of eye test. This was in order to check if the deficits of the original test could be replicated.

2. To test if in a sample of normal ~~adult~~ adults, an inverse correlation would be found between performance on the eyes test and the AQ.

3. To test whether females scored better on the eyes test rather than males.

HYPOTHESIS

1. Participants with autism will score significantly lower in the RET than the control group.

2. Participants with autism will score significantly higher on the AQ test.

3. Females in the 'normal' group (grp 2 & 3) will score higher on the RET than males in those groups.

4. Males in the 'normal' group will score higher on the AQ measure than females.

5. Scores on the AQ and RET will be negatively correlated.

BACKGROUND

Baron-Cohen suggested that people with autism have an underdeveloped 'ToM'. To measure the 'ToM' of individuals, Baron-Cohen came up with the 'Reading the Mind in the Eyes' task where participants would be evaluated on their ability to label other's emotions by observing their eye expressions on photos.

PSYCHOLOGY BEING INVESTIGATED

→ Theory of mind: The ability to determine the mental state of another person or ourselves, otherwise known as 'mentalising'.

→ SOCIAL SENSITIVITY: The effectiveness of an individual can identify, understand and respect the feelings and views of another person during social interactions.

SAMPLE SIZE

Group 1: 15 males with AS/HFA. Volunteering. Sampling from the UK National Autistic Society through a magazine advert.

Avg 10 of 115; from a mix of socio-economic and educational backgrounds.

Group 2: Comparative control group of adults: 122 adults from the adult community & educational classes from EXETER and public library users in Cambridge.

55 males & 67 females.

→ Feature

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Group 3 - Comparative control group of students: 103 undergraduate students from Cambridge. 53 males and 50 females. Assumed to have IQ higher than other participants.

Group 4 - 10 matched controls: 14 randomly selected adults whose IQ matched with that of group 1.
Avg. IQ of 116.

Research Method, Design & Variables

Quasi-experiment

Independent Variables: whether they had AS/HFA or were normal, and gender.

Dependant Variables: RET score, AQ score, and gender identification for Group 1.

→ INDEPENDENT GROUPS DESIGN

PROCEDURE

A. Developing the Revised Eye Test (RET): Baron - Cohen and Wheelwright originated target words and foils for 36 photos. It was piloted on 8 judges (4 MALES & 4 FEMALES). At least 5 judges had to agree on the target word and only foil would be repiloted until the criteria were met for each.

In pilot tests, groups 2 and 3 achieved 100% on judging gender. The control group were tested with 40 photos but 4 were eliminated, resulting in 36 items. When results were being calculated, only the data for the 36

eyes sets were taken.

B. Implementing the Tests: Each test was individually administered in a quiet room at either Cambridge or Exeter. There was no limit. Each participants was given a practice test and then presented with 36 sets of eyes and 4 possible target words. Group 1 judged the gender of each the glossary of terms and were asked to ask questions as needed; they could use the glossary during the test.

ETHICS

Participants consent was taken and they knew the nature of the study. Group 1 participants had been diagnosed in specialist centres using APA criteria. The data collected was anonymised.

RESULTS

- Scores ranged from 17-35, with a mode of 24.
- Adults with AS/HFA performed significantly higher than a control groups (H2 supported)
- Females scored higher on the RET (H3 supported)
- There was a significant negative correlation (-0.53) between AQ and RET (H5 supported).

CONCLUSIONS

→ Current study replicated findings that AS/HFA adults are significantly impaired identifying the emotions of others.

→ Current study replicated findings that AS/HFA adults score significantly higher on the AQ test than the general population.

→ There were gender differences found on the RET as females performed better than men. However, it would have been more significant with a greater sample.

→ The revised Eye test was a more sensitive measure of adult social intelligence.

STRENGTHS & WEAKNESSES

- S1 - It was a lab experiment, so confounding variables could be controlled. Thus, there is internal validity and it is easily replicable. Everyone saw same set of eyes.
- S2 - Improvements on the eyes test improved validity.
- W1 - The study lacks ecological validity as eye expressions in real life are quick, and not static.
- W2 - The experimental group 1 is so small, so generalising to those with AS/HFA is not possible.
- W3 - Only the eyes were used, but normally we study the whole face therefore lacks ecological validity.

Application to Everyday Life.

Programmes could be conducted to help with AS/HFA in developing their skills of interpreting emotions. The eyes test could be improved to help diagnose individuals who may have underlying autistic disorders.

Individual vs. Situational

The AS/HFA group performed significantly worse on RET than the 'normal' group. This suggests that the ability to identify mental states is an individual skill that is developed. The environment has been standardised. (supports individual explanation)

Children as participants

Sophisticated words would not be appropriate for children. So, the 'Anne and Sally' test was developed to understand the theory of mind of children.