Baron-Cohen

**Aim:** To develop a higher level Theory of Mind test (eyes task) to see if autistic spectrum disorder (ASD) adults do really have theory of mind.

**Participants:** Group 1: 16 participants with autism/AS, normal intelligence 13 men 3 women. Group 2: 50 normal adults, age matched with group 1 collected from “national autistic society magazine”. Group 3: 10 participants with Tourette syndrome 8 men 2 women, mirroring the same sex ratio in group 1. Groups 2&3 act as controls to see if ‘normal’ adults could cope with the test and to see if people with other developmental disorders could cope.

**Method:** Quasi experiment, IV naturally occurring. Independent measures design.

**Procedure:** Task A: eyes task, 25 forced choice questions about emotion expressed in a person’s eyes. Test both basic and complex emotions. Task B: Strange stories task, was used to validate the results of the eyes task. Task C: Gender recognition of eyes, face perception but not mind reading. Task D: Basic emotion recognition task, control, basic emotions shown in whole faces to demonstrate group 1 could recognise emotional states in a simple test. Group 1 = all tasks. Group 2 = A only. Group 3 = A and B.

**Results:** mean score, autism/Asperger syndrome (16.3) range 13-23, normal (20.3) range 16-25, Tourette syndrome (20.4) range 16-25. Normal – (21.8 women, 18.8 men) out of 25. Strange stories TS = 0 mistakes, a/AS = impaired. Control tasks a/AS performed normally.

**Evaluation:**
- **Quasi experiment** = reduces validity due to not being able to control extraneous variable but allows research to be carried out where a control iv cannot be done due to ethical or practical reasons.
- **Independent measures design** = individual differences may be the cause of differences in results but avoids order effects.
- **Sample** = People with autism were gathered by magazines which means they volunteered this decreases ethical problems but may decrease the validity as volunteers tend to behave in a certain way. Sample is age-matched and sex is a mirrored ratio.
- **Ethics** = With a lack of theory of mind it would be hard to tell what kind of response they may have to the experiment e.g. may get frustrated if they don’t know an answer so may be risk of psychological harm. They may not also be aware of what they’re consenting to/ having the right to withdraw. The normal adults would be lower in ethical problems due to being able to understand fully.
- **Reliability** = Only two options to pick from so measurements are consistent, can easily gather a score out of 25.
- **Validity** = normally people would move their eyes to show emotion so decreases validity, as well as this we would see in colour rather than the black and white of the pictures.
- **Ecological validity** = this is lowered due to the demands of reading emotion being simpler in to ToM test than in real life.
- **Quantitative data** = descriptive stats and easy for comparison, however, they lack detail.
- **Usefulness** = these results may lead psychologists on to developing a better ToM test and also helps people in everyday life as they’re aware of the how much they fully understand about another person.
- **Improvements** = a video of eye movement in colour as this would be closer to everyday life.
- **Controlled observation** = controlled when participants woke up, focused on particular behaviour (strength), environment feels unreal.
- **Self-report** = allows thoughts to be gathered, answers may not be truthful.
- **Sample** = Ethnocentric, all American. Small sample decreases generalisability.
- **Ethics** = psychological harm by waking participants up (could be during a nightmare/scared), effecting sleeping pattern.
- **Reliability** = EEG and EOG are reliable methods of recording. All participants were attached to electrodes, consistent measuring.
- **Ecological validity** = laboratory sleep, not a natural setting therefore sleep may be unnatural and the results will not be valid/less generalisable.
- **Qualitative and quantitative** = Qualitative, content of dreams allows rich data to be collected harder to analyse. Quantitative, % recall of dreams allows descriptive stats to be carried out thus valid conclusions can be made.
- **Usefulness** = discovered the 5 cycles of sleep and the importance of deep sleep. REM is the part of the sleep cycle responsible for dreaming.
- **Improvements** = larger sample to improve generalisability and equal gender split.

Freud

**Aim:** 1) To seek evidence for the Oedipus complex and infantile sexuality. 2) To find out what causes the phobia of horses for Little Hans. 3) To test out psychoanalysis as a treatment for phobias.

**Participants:** One young boy known as Little Hans was studied from 3-5 years. Freud knew the family and the father (Hans) was a friend and supporter of Freud’s work.

**Method:** Longitudinal case study.

**Procedure:** Hans’ father recorded events and conversations and sent them to Freud regularly. Freud and Hans’ father offered interpretations of Little Hans’ behaviour. One occasion Little Hans was taken to meet Freud.

**Results:**

*Widdler – Just before 3,* started showing interest in his widdler – knew that animals like horses have big ones and assumed both his parents must have big ones too. He got pleasure from touching his widdler and excretion. **Mother** found him playing with his widdler “If you do that I shall send for doctor A. to cut off your widdler” = fear of castration. He also had sexual desires for his mother, repressed and expressed as interest to kiss other girls.

*Death wish –* During summer holiday at Gmunden he spent a lot of alone time with his mum whilst his **dad** worked in Vienna, when his dad returned he expressed his conflicting relationship by hitting him and then kissing him in the same place.

*Baby sister –* 3 ½ years, Hannah was born. Further separation from mum and reminders of attention he had when he was a baby. Admitted he saw Hannah having a bath and wished his mum would let her go. This became a fear of his mother drowning him when he had a bath. Baths were womb-like and related to birth.

Hans’ real fear was of losing his mother but this was repressed and expressed as a phobia of horses:
Participants: 60 participants (30 RGs and 30 NRGs) collected from advertisement around local universities and college campuses and some RGs through personal contact through gambling friend of author. Gender imbalance in RGs (29 men and 1 woman) NRGs split 50/50. Mean age 23.4 years. RGs gambled at least once a week, NRGs once a month or less (but had used fruit machines at least once in their life).

Method: Quasi-experiment in a natural setting with observations

Procedure: each participant had £3 (30 free plays), all asked to play “fruitskill” but some refused because they were unfamiliar the game. Asked to try and stay on 60 plays, then they were told they could either keep the money or carry on. Behavioural data – total plays, total time, play rate, end stake, wins, win rate (time/plays). Thinking aloud – randomly allocated, only half did this in case it affected behaviour. They were told to keep talking as continuously as possible, do not censor anything said and not to justify thoughts. Interview – semi-structured, asked opinion on level of skill needed and asked to judge their skill.

Results:

Behavioural data: RGs had a significantly higher playing rate 8/6 gambles per minute. RGs in thinking aloud condition had a significantly lower win rate than NRGs.

Interview data: NRGs said mainly chance. RGs claimed skill was “above average” and NRGs “below average”. RGs identified skills such as ‘knowledge of when the machine is likely to pay out’.

Thinking aloud data: RGs produced significantly more irrational verbalisations (4.4% vs 2.5%). Overall both groups used more rational verbalisations. Personification of machine e.g. “the machine likes me” frequency RGs 7.54 NRGs 1.14. Swearing at machine - RGs 0.6 NRGs 0.08. Reference to number system RGs 9.49 NRGs 1.45.

Evaluation:

- Quasi-experiment = allows studies that manipulating IV may be unethical or impractical, but lacks control of extraneous variables.
- Observation = Lacks inter-rater reliability because 1 rater in the study didn’t have knowledge of gambling words and the other who listened to the recordings lacked the context of it so couldn’t analyse it. Information may not be recorded/incorrectly recorded but it does allow spontaneous behaviour to be recorded.
- Self-report = interview was semi-constructed, more data can be gathered as questions can relate specifically to them but can be more affected by interviewer bias (leading questions). As well as this thoughts and feelings can be gathered but participants could lie.
- Sample = only one female RG used which means sample is less generalisable however, gamblers tend to be men so it’s arguable that the sample is representative. Large sample used which increases validity of results however the study is ethnocentric so it lacks generalisability.
- Ethics = potentially could create more gamblers as it’s addicting; this could be seen as psychological harm.
- Reliability = there was a behavioural checklist which increases reliability but lacks inter-rater and the observer who recorded the data lacked knowledge of gambling.
- Ecological validity = took place in a casino so ecological validity is high. Participants didn’t use their own money which could reduce validity however, the possibility of winning more may counteract this.