

Ethics in Research – H1

Spring 2025

Total Marks: 45

General Instructions:

- If your answer involves assumptions, be sure to clarify them for a complete understanding of your answer.
- If you perceive a question as confusing or open to interpretation, you're allowed to make reasonable assumptions; please specify these in your answer.

Answer All Questions – (3x15 = 45 marks)

- I. Debey et al. (2015) conducted a study to investigate deception across different age groups, ranging from children (6 years old) to older adults (77 years old). The study aimed to understand how lying proficiency and frequency change over the lifespan and whether executive control plays a role in deception.

To measure lying proficiency, participants completed a reaction-time based deception task known as the Sheffield Lie Test. In this task, participants were presented with yes/no questions (e.g., "Are you in Africa?") while being instructed by color cues on whether to respond truthfully or to lie. Their reaction times (RTs) and error rates were recorded, as lying is typically slower and more error-prone than truth-telling. To measure lying frequency, participants completed a self-report questionnaire, indicating how many lies they had told in the past 24 hours across different social contexts (e.g., to family members, friends, strangers, work-related contacts). Additionally, the study included a stop-signal task, which tested inhibitory control—a cognitive function that allows individuals to suppress automatic responses. This task was included because prior research suggests that successful lying may require strong executive control, particularly the ability to inhibit truthful responses. At the end of the task, participants received feedback, classifying them as good, mediocre, or bad liars.

The study was conducted in the NEMO science museum, where a large and diverse sample of 1,005 visitors aged between 6 and 77 years voluntarily participated. The research was part of a program called Science Live, conducted by the museum where NEMO visitors were used as volunteers.

- a. Discuss the ethical issues that arise from this study, particularly regarding the principles of beneficence, respect for individuals, and justice as outlined in ethical research guidelines.
- b. Examine how ethical issues in the study can be evaluated from the perspectives of utilitarianism and deontology. Do the potential benefits of this research outweigh the risks? Why or why not? Does the study violate any fundamental moral duties?

- c. If you were part of the ethics review board evaluating this study, what modifications or safeguards would you recommend to ensure the research remains ethical while still achieving its goals?
2. Ethical issues can arise in all stages of research. For each stage of research, that is, anticipating, doing and disseminating, describe two ethical issues that can arise with an example for each issue.
3. In a famous twin study, Peter Neuber and Colleagues were interested in investigating the role of genetics (nature) *versus* environment (nurture) in shaping one's behaviour and personality. They recruited monozygotic twins *via* an adoption agency that had separated the identical twins and placed them in different families at age of 6 months. Both families were unaware of their child's twin sibling(s). The researchers carefully followed and repeatedly tested these children for cognitive and social skills, motor performance, socio-political choices. Peter Neuber and Colleagues trained research assistants to conduct a series of tests and record films to observe the children's behaviour.

While the research assistants were aware of the twins' existence, they did not reveal this information to the families or the children, even though the twins were tested at interval of two days. The study continued until 1980, running for 10 years before it was stopped. However, even after the study concluded, the participants were not informed about their twin sibling or the true nature of the study. Some of the twins learned about each other by accident. While the participants initially rejoiced at connecting with their newfound sibling, they soon expressed feelings of bitterness and violation. As their bond with their twin grew, they also felt a deep sense of loss and regret over having been separate at the will of the adoption agency.

Additionally, after the study was published, two families reported early signs of distress in their children after adoption, and death of three children due to suicide. In the hindsight, the separation was considered a potential contributing factors to these outcomes. Most importantly, the twins resented never being told about the existence of their identical sibling, despite the researchers being aware of it.

- a. Discuss the ethical issues arise from this study, particularly regarding beneficence, respect for individuals, and justice.
- b. How might the researchers mitigate potential risks, discomfort, or harm to participants after the study?
- c. What alternative methods for studying this problem (role of nature/nurture in shaping one's personality) might you suggest?