

## Psychology summer work

1) What 'approaches' is psychology split up into? Write each of these out with one sentence summarising what their main assumptions (beliefs) are.

*e.g. biological psychology – assumes all behaviours are caused by Biochemistry, Infection, Neurotransmitter, genetics or brain structure.*

2) What do we mean by 'features of science'? Explain how psychological research ensures it meets these?

3) Read the examples of research below. One of them is fake. Decide which one and write a scientific explanation for why you think this and why you think the others are real. DO NOT USE THE INTERNET! Use only your understanding of what makes something scientific and your research for answer (2) to help.

### Find the fake

#### Nim Chimpsy

There has been some debate concerning whether, as humans, we develop language because our brains are hardwired to do so or whether the use of language, with grammatical structure, is learned. In order to try to resolve this debate Psychologist Herbert Terrace carried out a study to find out whether a chimpanzee exposed to a human environment, could acquire language like a human. The chimp who was selected for the investigation was removed from his mother at 2 weeks of age and raised by a surrogate mother (a researcher) in a home environment.

The chimp was treated like a human and brought up alongside seven human siblings. He was taught sign language in order to communicate by rewarding him every time he used signs correctly to communicate. By the age of 4 years it was documented that the chimp had acquired a vocabulary of over 100 signs which had been used in 20,000 combinations in communication with the humans around him.

#### Project pigeon

American Psychologist B.F Skinner, is well known for his research into the effects of rewards and punishments on behaviour. He also attempted to develop a pigeon-guided missile during World War II.

At the front of the missile, a lens projected an image of the target to a screen inside. The pigeons had been trained to peck the target image and were placed inside the missile. As long as the pigeon kept pecking the centre of the screen, the missile would fly straight, but pecks off-centre would cause the screen to tilt, which would then, via a connection to the missile's flight controls, cause the missile to change course.

The National Defense Research Committee contributed \$25,000 to the research. The program was cancelled on October 8, 1944, because the military did not feel it was a high priority.

Project Pigeon was revived by the Navy in 1948 as “Project Orcon”; it was later cancelled in 1953 when electronic guidance systems’ took over.

## **Obedient nurses**

Hofling (1966) carried out a field experiment in a hospital setting. The study aimed to find out whether a group of nurses would obey an order from an authority figure (a doctor) even if this action was against the rules and meant they could lose their job. In the study, 22 nurses received a telephone call from a man who identified himself as “Dr Smith” (an investigator, pretending to be a doctor). Dr Smith asked each nurse (individually) to administer a dose of “10mg” of “Astroten” to a patient. This was not a real drug but a bottle had been made and labelled and placed in the drugs cupboard.

In the phone call the “Dr” said he would write up the paperwork to authorise the treatment later on but that the nurse should administer the drug straight away. The dosage was twice the recommended dose printed on the bottle, and the rules stated that an order over the telephone – and from a doctor who was not familiar to them – was not allowed. Despite numerous reasons to refuse, only 1 out of the 22 refused to carry out the order.

## **Gendered numbers**

Wilkie and Bodenhausen did an experiment where they showed participants photos of babies and asked them to determine for each photo the likelihood that the baby was male. They found that when a baby photo was paired with the number 1, people were much more likely to think the baby was male.

In a separate study, the researchers had participants rate the masculinity and femininity of the numbers themselves. People readily rated the number 1, as well as other odd numbers, as being more masculine. They also rated the number 2, and other even numbers, as appearing more feminine. This last finding was replicated with a sample from India which suggests that this is consistent across different cultures.

## **Attachments**

Hazan and Shaver (1987) published a questionnaire in a newspaper asking people to write in and describe their experiences in romantic relationships and their relationship with their parents during early childhood. They did this by choosing statements that they felt best described these experiences. The researchers analysed the responses that were sent in to them.

Those responders who described their childhood relationships as positive and secure also expressed healthy views of adult romantic relationships. For example, they said they believed in true love, found it easy to trust others and were confident that they were a lovable person. People who described their early parental relationships negatively, however, were more sceptical of the existence of “true love” and tended to be mistrusting of others.

## **Facebook psychopaths**

Radley (2006) carried out a study into the impact of the use of social networking sites on psychopathic tendencies. The researchers wanted to test whether communicating with people

via Facebook, rather than face to face, might be decreasing our ability to empathise with others (feel other people's emotions) as there are less cues available (e.g. tone of voice, facial expression) to detect the emotional state of others online.

Psychopaths are unable to feel empathy, so spending lots of time using social networking sites might lead to an increase in psychopaths and potentially more serial killers in society as a result. A group of teenage volunteers, who regularly use Facebook, underwent brain scans whilst using Facebook for 30 minutes. The activity of the empathy centres of the brain were compared with a control group of teenagers who never, or rarely, use social networks whilst using Facebook for the same period of time. The researchers found that those who used Facebook regularly showed less activity in their empathy brain centres than the control group. Radley concluded that Facebook might create a generation of Psychopaths and that further research was needed in this area to determine whether warnings should be placed on the site in the future.

## **The man who can remember every day of his life in detail**

A blind 20-year-old man referred to by researchers as HK has every day of his life since the age of about eleven recorded in his memory in detail. HK has a rare condition known as hyperthymesia and his is only the second case ever documented in the scientific literature. He has normal tests for Short term and long term recall and has normal verbal skills.

Ally and colleagues assessed HK's autobiographical memory by choosing four dates from each year of his life since his first memory (that was from 1993 when he was aged three and half), making 80 dates in total. For each of these dates, they gathered at least three facts from HK's family, medical records and the historical records for his neighbourhood. HK was then interviewed about each of these 80 dates - for example, he was asked "Can you tell me what happened during your day on January 2nd, 2001". His answers, often detailed, were transcribed and fact-checked.

HK's recollection of days from his life between the ages of 9 and 12 grew dramatically more accurate and detailed, reaching nearly 90 per cent accuracy for memories at age 11, rising to near perfect accuracy thereafter. For some dates, HK was quizzed again at a second session - the consistency of his answers was 100 per cent.

He says that his memories are rich in detail and most days he wakes up thinking about what he's done on that day in previous years.

## **Not very helpful**

Darley and Latané set up an experiment telling university students that they would be talking to other students in separate rooms about personal problems. They couldn't see the other participants and didn't realise that the voices they heard were actually all pre-recorded. The number of 'people' in the discussion changed. There were five conditions: solo, one-on-one conversation and the last, a group of six participants (1 subject and 5 pre-recorded voices). One of the pre-recorded voices was that of an epileptic student who is having seizures. The voice first confessed to the group that he is prone to seizures and it could be life-threatening and then he had the seizure.

*"I'm... I'm having a fit... I... I think I'm... help me... I... I can't... Oh my God... err... if someone can just help me out here... I... I... can't breathe p-p-properly... I'm feeling... I'm going to d-d-die if..."*

Only 31% of the subjects tried to seek for help. This means that most of the subjects didn't bother to look for the experimenters to help the suffering participant. Most of them were obviously anxious but the reaction was not there. In the one to one conversation, 85% asked for help.