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Revision

Magic, deception and free will

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This quiz relates to the PSYCHOLOGY REVIEW Vol. 30, No. 4 article on free will and determinism. If you keep both the article and your answers to the questions, you will have a useful revision guide for relevant exam questions.

Part 1

True or false

1 According to the article, the philosopher John Searle kept raising his hand during a lecture in an attempt to demonstrate that his actions were controlled by external forces.

False. Searle kept raising his hand during a lecture in an attempt to demonstrate that his actions were controlled by free will, i.e. under his own voluntary control. The idea that behaviour is controlled by external forces relates better to environmental determinism.

2 Olson argues that the subjective 'feeling' of free will is not enough to reject the idea of determinism.

True. Olson's article describes two studies that he used to demonstrate a double dissociation between feeling in control when we are not ('pick a card, any card' study) and feeling that we are not in control when we are (the 'sham brain scanner' study). Together these studies show that feelings of free will and actual free will are not the same.

3 In the 'pick a card any card' trick, people feel that they were influenced by the magician when they were not.

False. In the 'pick a card, any card' trick people felt that they had free choice to choose any card but in reality their card choice was influenced by the way the magician flipped through the deck, showing one card for slightly longer than the others.

4 'Layered trickery' or the 'Swiss cheese model of deception' reduces the internal validity of Olson's experiments.

False. Layered trickery helps to maintain the deception and therefore increases (preserves) the integrity or validity of the findings.

Part 2

Multiple choice

1 When a magician uses, 'forcing',

- a) they change their behaviour in response to audience members
- b) audience members recognise that their choice was determined by the magician

- c) audience members feel as though they have free will when they don't
- d) ~~audience members choose a different card to the magician~~
- 2 In the sham brain scanner study, the participants
- a) **felt a greater sense of agency (free will) in the mind reading task than the mind influencing task**
- b) ~~felt a greater sense of agency (free will) in the mind influencing task than the mind reading task~~
- c) ~~felt no difference in sense of agency (free will) between the mind reading and mind influencing task~~
- d) ~~felt that they had less agency (free will) in the mind reading task than the mind influencing task~~
- 3 Olson states that feeling of free will result from
- a) ~~brain regions linked to voluntary actions~~
- b) ~~external forces or past experiences~~
- c) ~~internal factors such as genetic inheritance~~
- d) **expectations and context**

Part 3

Know your terms

What do each of the following terms mean? For each term, try to create a sentence that uses the term correctly.

- **Forcing**

A technique used by magicians, particularly during card tricks. The probability of an audience member choosing a certain playing card is intentionally increased using sleight of hand when flipping through the deck. This ensures that one card is shown for slightly longer than the others. The audience member is unaware that the magician has influenced them and believes they had a completely free choice over which cards they chose.

'The trainee magicians practiced 'forcing' by attempting to show one card longer than the others without it being obvious which card they had chosen.'

- **Free will**

The idea that people are able to make choices about how to behave and that behaviour is not entirely dictated by past experiences or genetic inheritance.

'Robin scrolled through images on her social media, she felt that her decision to click on a certain image was due to free will, but her friend said it was determined by the person who posted the image.'

- **Determinism**

The idea that behaviour is dictated by internal or external forces, e.g. genetic inheritance (biological determinism) or past experiences (environmental determinism).

'A restaurant manager placed her most expensive dish at the end of the menu knowing that more customers would choose it as it came last; the customers might think they had a free choice over which dish to select but really it was an example of determinism and Shona's careful sequencing of the menu.'

- **Double dissociation**

The use of two pieces of evidence in neuroscience to demonstrate localisation of function; if patient 1 has damage to brain structure A and has impairment to skill A but not skill B, and patient 2 has damage to brain structure B and has impairment to skill B but not skill A, this suggests that the two skills are localised to different brain structures.

'Grace's stroke meant she was able to follow a conversation but not speak. Bert's stroke left him unable to follow a conversation, but he could speak. Their doctor said they were the perfect example of a double dissociation; two people with opposite skills and impairments.'

- **Layered trickery**

The use of multiple examples of deception within a magical trick or psychological study. In a magical trick, this stops audience members from seeing how the trick is done. In a psychological study, it stops participants from working out the true aim (and/or hypothesis) of the study. As humans are naturally inquisitive, they may be able to 'see through' a single act of deception but with multiple layers this becomes less likely.

'Milgram used layered trickery in his study of obedience to ensure that participants did not guess that the shocks were not real. Layers of trickery included the rigged lottery regarding who would be the teacher and who would be the learner, the real electric shock given to the teacher (participant) at the start of the study and the tape-recorded yelling of the learners when he was supposedly shocked.'

- **Sham**

A pretend or fake version of something.

'In a study to look at the effects of castration in mice, a control group were given a sham surgery in which the mice received anaesthetic and had an incision made but the testes were left intact.'

- **Placebo**

A substance or treatment that does not contain any active ingredients.

'In a study to investigate the effectiveness of antidepressants, one group was given a real antidepressant drug, and another was given a placebo.'

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