Individual Differences Psychology

Rosenhan

Thigpen and Cleckley

Griffiths

CAN ABNORMALITY BE DEFINED?

DEFINITIONS OF ABNORMALITY ARE NOT UNIVERSAL

BACKGROUND TO THE ROSENHAN STUDY

DEFINITIONS OF ABNORMALITY ARE NOT STABLE

HOW IS PSYCHIATRIC DIAGNOSIS MADE?

SUMMARY SHEET FOR ROSENHAN'S 'ON BEING SANE IN INSANE PLACES'

STUDY 1
AIM:
METHOD:
PARTICIPANTS:
WAS THIS SAMPLE REPRESENTATIVE?
PROCEDURE: .
RESULTS:
WHAT TYPE OF DATA WAS COLLECTED? .
ADDITIONAL INFORMATION:

WAS THE STUDY ETHICAL?

STUDY 2

AIM:

PARTICIPANTS:

PROCEDURE:

RESULTS:

OVERALL CONCLUSION;

USEFULNESS:

ROSENHAN (1973) ON BEING SANE IN INSANE PLACES

Thinking like a Psychologist - Evaluating the Core Study

What are the strengths and weaknesses of the method used in this study?

This study can be considered a field experiment with data being gathered through participant observation. A major advantage of this method is that as the study is conducted in a real environment (here 12 psychiatric hospitals in 5 states across the USA) the research has high ecological validity. However it is not possible to have as many controls in place as would be possible in a laboratory experiment. Participant observation allows the collection of highly detailed data without the problem of demand characteristics especially, as here the hospitals did not know of the existence of the pseudopatients, there was no possibility that the staff could have changed their behaviour because they knew they were being observed. However this does raise serious ethical issues (e.g. lack of informed consent, deception, invasion of privacy etc)
and there is also the possibility that the presence of the pseudopatient would change the environment in which they are observing.

Was the sample representative?

Strictly speaking, the sample was the staff (doctors, nurses etc) in the welve hospitals that were studied. Rosenhan ensured that this included a range of old and new institutions, well-staffed and poorly staffed, as well as those with different sources of funding. As the results revealed little differences between the hospitals one can suggest that it is reasonable to generalise from this sample and suggest that the same results would be found in other hospitals.

What type of data was collected in this study?

There is a huge variety of data reported in this study, including both quantitative data (e.g. detailing how many days each pseudopatient spent in the hospital, how many tablets were administered, how many times pseudopatients requests were ignored by staff) and qualitative data (e.g. descriptions of the experiences of the pseudopatients such as their feelings of depersonalisation and worthlessness). One of the
strengths of this study could be seen as the wealth of data that is reported and the conclusions reached by Rosenhan are well supported by the qualitative data that he included.

Was the study ethical?

There are many instances in which this study broke acknowledged ethical guidelines. The hospital staff were deceived as they did not know that they were being observed and had not agreed to take part in the first study. How might have they have felt when they discovered the research had taken place? They were also deceived by the pseudopatients reporting fake symptoms to get admitted to the hospitals. Staff in the second study were also deceived because, although they had been warned that pseudopatients would present themselves over the next three months, none actually sought admission. Although the pseudopatients had agreed to take part in the study, they suffered increasing levels of stress as a result of the way they were treated whilst in the hospitals. Furthermore, one could argue that both staff and genuine patients experienced invasion of privacy. Was the study therefore justified? This is a difficult question to answer. However as there is no other way that the study could have been conducted to ensure valid results, perhaps the value of the results justified breaking ethical guidelines.

What does the study tell us about individual / situational explanations of behaviour?

The study suggests that once the patients were labelled (7 in this case as schizophrenic), the label stuck. Everything they did or said was interpreted as typical of a schizophrenic (or manic depressive) behaviour (e.g. pseudopatients lining up early for lunch because they were hungry was interpreted as 'oral-acquisitive syndrome'- a feature of their illness).This means that the situation that the pseudopatients were in had a powerful impact on the way their behaviour was interpreted. The hospital staff were not able to perceive the pseudopatients in isolation from their label and the fact that they were in a psychiatric hospital suggests a situational explanation of behaviour rather than an individual explanation. This therefore raises serious doubts about the reliability and validity of psychiatric diagnosis.

Does this study indicate anything about reinforcement and social control?

Findings from the study suggest that patients in psychiatric hospitals are 'conditioned' to behave in certain ways by the environments they find themselves in. Their behaviour is shaped by the environment (e.g. nurses assume that writing notes in a diary is a form of 'writing behaviour' which can be considered a feature of mental illness). This in turn implies that if the environment does not allow them to display 'normal' behaviour it will be difficult for them to be seen as normal. Labelling is therefore a powerful form of social control. Once a label has been applied to an individual, everything they do or say will be interpreted in the light of this label.

Was the study useful?

The study was certainly useful in highlighting the ways in which hospital staff interact with patients. There are many suggestions for improved hospital care / staff training that could be made after reading this study. However, it is possible to question some of Rosenhan's conclusions. If an individual went to the doctor and falsely complained of severe pains in the appendix region,and the doctor admitted them to hospital with appendicitis, the individual could hardly blame the doctor for making a faulty diagnosis. Morally and ethically, it is generally considered better for psychiatrists to err on the side of caution and admit someone who is not really mentally ill than to send away someone who might be genuinely suffering and who may be a risk to themselves and/or others. Although this does not fully excuse the length of time that some of the pseudopatients spent in hospital acting perfectly normally, it does go some way to supporting and explaining the actions of those making the initial diagnosis.

Test Yourself On ROSENHAN

1 In the study, most of the pseudopatients were admitted to hospital with the incorrect diagnosis of 'schizophrenia'. Give **two** possible explanations why the hospitals made this mistake. [4]

2 From the study, describe **two** ways in which hospital staff were deceived. [4]

3 The study involved eight pseudopatients.

(a) Identify **two** other characteristics of the pseudopatients. [2]

(b) Suggest **one** limitation of this sample. [2]

4 Describe **two** features of life on the ward that were recorded by pseudopatients. [4]

5(a) Give **one** example of how staff interpreted the behaviour of the pseudopatients. [2]

(b) Describe how the real patients interpreted the behaviour of the pseudopatients. [2]

6 (a) From the study, what does Rosenhan mean when he refers to 'the stickiness of psychodiagnostic labels? [2]

(b) Outline **one** way the label 'schizophrenia' affected how hospital staff interpreted the pseudopatients' behaviour. [2]

7(a) Describe **one** way the pseudopatients' requests for information were dealt with by the staff. [2]

(b) Outline the affect this had on the pseudopatients. [2]

8 Describe **two** ethical considerations that were upheld in the second study. [4]

9(a) Outline **one** finding from study 1. [2]

(b) Outline **one** finding from study 2. [2]

10(a) Outline **one** conclusion that could be drawn from these studies. [2]

(b) Suggest **one** way the findings of these studies could be useful. [2]

Total marks available: 40

FIND THE HIDDEN WORDS

(BASED ON THE ROSENHAN CORE STUDY)

Answer the questions by writing the answers in the spaces provided.

1. One of the words the pseudopatients claimed to be hearing.

2. Some of the patients were not genuine, they were .....

3. The number of people that gained admission to the hospitals.

4. A mental state characterised by profound disturbances in reality testing.

5. A type of observation in which the researcher joins in the social process being observed.

6. The doctors made this in their diagnosis.

7. All patients in these hospitals were classed as this.

8. All but one pseudopatient was diagnosed with this disorder.

9. The average number of days the pseudopatients were in hospital.

10. The staff probably judged the patients according to these.

11. Pseudopatients were discharged with a diagnosis of schizophrenia …… …….. [2,9]

12. The toilets did not have these.

13. A dissociative disorder where the individual feels cut off or unsure of their identity.

14. The number of tablets swallowed by the pseudopatients.

15. Queuing early for lunch was seen as evidence of this syndrome. [4,11]

16. The number of psychiatrists that stopped to talk to a pseudopatient.

17. How many pseudopatients reported to the hospital in the second experiment?

18. The approximate percentage of patients suspected in the second experiment.

19. The country in which the study took place.

20. Writing in diaries was classified as this.

Write all the letters from the coloured spaces in the table below and then rearrange them to spell the type of research method used in this study.

FIND THE HIDDEN WORDS (ANSWERS)

(BASED ON THE ROSENHAN CORE STUDY)

Answer the questions by writing the answers in the spaces provided.

1. One of the words the pseudopatients claimed to be hearing.

E	M	P	T	Y

2. Some of the patients were not genuine, they were .....

P	S	E	U	D	O

3. The number of people that gained admission to the hospitals.

E	I	G	H	T

4. A mental state characterised by profound disturbances in reality testing.

P	S	Y	C	H	O	S	I	S

5. A type of observation in which the researcher joins in the social process being observed.

P	A	R	T	I	C	I	P	A	N	T

6. The doctors made this in their diagnosis.

E	R	R	O	R

7. All patients in these hospitals were classed as this.

I	N	S	A	N	E

8. All but one pseudopatient was diagnosed with this disorder.

S	C	H	I	Z	O	P	H	R	E	N	I	A

9. The average number of days the pseudopatients were in hospital.

N	I	N	E	T	E	E	N

10. The staff probably judged the patients according to these.

E	X	P	E	C	T	A	T	I	O	N	S

11. Pseudopatients were discharged with a diagnosis of schizophrenia …… …….. [2, 9]

I	N	R	E	M	I	S	S	I	O	N

12. The toilets did not have these.

D	O	O	R	S

13. A dissociative disorder where the individual feels cut off or unsure of their identity.

D	E	P	E	R	S	O	N	A	L	I	S	A	T	I	O	N

14. The number of tablets swallowed by the pseudopatients.

T	W	O

15. Queuing early for lunch was seen as evidence of this syndrome. [4, 11]

O	R	A	L	A	C	Q	U	I	S	I	T	I	V	E

16. The number of psychiatrists that stopped to talk to a pseudopatient.

F	O	U	R

17. How many pseudopatients reported to the hospital in the second experiment?

N	O	N	E

18. The approximate percentage of patients suspected in the second experiment.

T	E	N

19. The country in which the study took place.

A	M	E	R	I	C	A

20. Writing in diaries was classified as this.

W	R	I	T	I	N	G	B	E	H	A	V	I	O	U	R

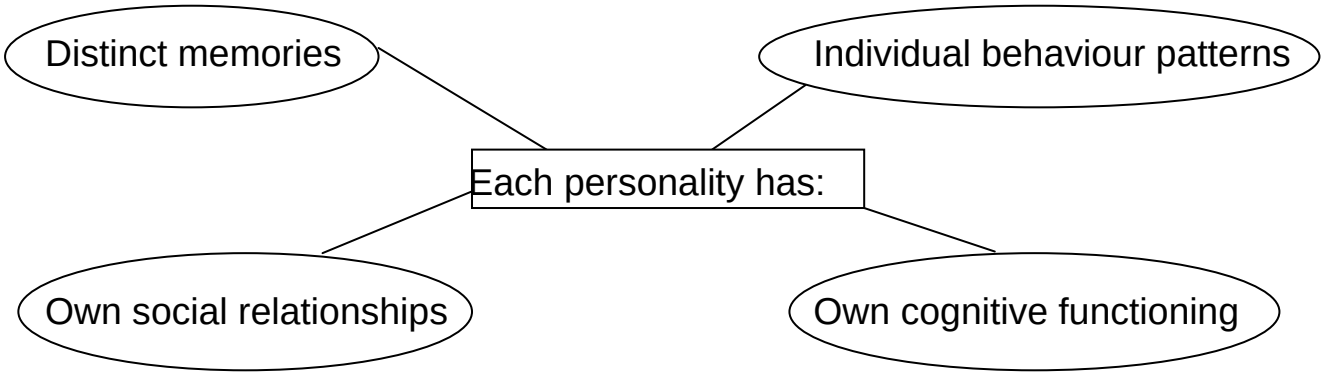
Write all the letters from the coloured spaces in the table below and then rearrange them to spell the type of research method used in this study.

T	E	R	I	P	E	X	N	D	L	I	F	E	M	E
F	I	E	L	D	E	X	P	E	R	I	M	E	N	T

BACKGROUND TO THE THIGPEN AND CLECKLEY KEY STUDY

Multiple personality Disorder (MPD) is now known as Dissociative Identity Disorder (DID).

DID should not be confused with schizophrenia as sufferers of DID do not experience the emotional and cognitive disturbances typical of schizophrenia. In DID, individually each of the personalities has distinct memories, its own social relationships, individual behaviour patterns and its own cognitive functioning:



Dissociation is described as a mental process which produces a lack of connection in a person's thoughts, memories, feelings, actions or sense of identity. Althou8gh there are distinct 'entities' within a person, they are all manifestations of the same person.

Some very mild forms of dissociation are familiar to everyone – getting 'lost' in a book, daydreaming, driving on 'autopilot'. All of these involve a lack of conscious awareness of one's immediate surroundings. DID is at the extreme end of dissociative disorders and can result in profound problems.

THE THREE ALTERS OF CHRISTINE SIZEMORE

	EVE WHITE	EVE BLACK	JANE
PERSONAL CHARACTERISTICS			
IQ TEST			
MEMORY TEST			
EEG			
PERSONALITY DYNAMICS			
HYPNOSIS			
OTHER RELEVANT INFORMATION			

THE THREE ALTERS OF CHRISTINE SIZEMORE

	EVE WHITE	EVE BLACK	JANE
PERSONAL CHARACTERISTICS	• Neat • Colourless • Demure • Conservative • Honest • Very conscientious • Very anxious over husband + child • Serious Baptist	• Opposite to Eve White • Mischievous • Childish • Little concern for husband + child (they weren't hers).	• Mature • Sincere • Capable • Interesting
IQ TEST	110	104	Not done
MEMORY TEST	Superior	Inferior	Not done
EEG	11 cycles/sec (normal)	12.5 cycles/sec (slightly fast, often associated with psychotic personality	11 cycles/sec (normal)
PERSONALITY DYNAMICS	Repressive	Regressive	Not done
HYPNOSIS	Easily hypnotised	Not easily hypnotised	Not done
OTHER RELEVANT INFORMATION	• A miscarriage had precipitated the onset of serious headaches • No awareness of the other alters	• No desire to help Eve White	• She was aware of both Eve White and Eve Black • She could only emerge through Eve White and take over from her. • She could not displace Eve Black

THIGPEN AND CLECKLEY (1954) A CASE OF MULTIPLE PERSONALITY

Thinking like a Psychologist - Evaluating the Core Study

What are the strengths and weaknesses of the method used in this study?

Thigpen and Cleckley used the case study method. A case study is a detailed study and analysis of either one individual or a small group of individuals. A case study is often longitudinal (here the period covered by the actual study is 14 months with Eve being interviewed for more than 100 hours), though they can be snapshot. Strengths of case studies include the depth of analysis and the richness of the data gathered. In this study Thigpen and Cleckley spent an enormous amount of time researching into Eve's problems and produced a tremendous amount of detailed data (inclusion IQ tests, EEG tests, memory tests etc). A weakness of case studies is that because they often only involve one person or a very small group of people any findings cannot be generalised beyond those studied. They tend to be time consuming and expensive to conduct, which can be considered another limitation, though if findings lead to suggestions on how to help the individual(s) involved, this may be seen as an advantage.

This study uses a range of psychometric and projective tests in addition to self reports methods such as interviews and hypnosis. Psychometric tests e.g. IQ tests, memory tests) are easy to conduct and allow broad comparisons to be made between individuals / groups. It is certainly interesting here to note some of the distinct differences identified by such tests between Eve White and Eve Black (e.g. Eve White: IQ 110, Eve Black: IQ 104).Projective tests (e.g. Rorschach Inkblot Test) are more subjective as they rely on the therapist's interpretation of the responses given by the patient and are therefore much more prone to bias and the effect of expectations. With both of these measures, it should be remembered that personality is not stable and any individual might achieve a different score if tested on several different occasions when in different moods. Findings cannot therefore be considered reliable unless tests are repeated and produce consistent findings. Here tests were only done once. Interviews are a useful way of gathering data as they allow the researcher to question the participant in detail. However they are open to interviewer bias, response bias, demand characteristics and social desirability. Findings from interviews may not therefore be reliable or valid. The use of hypnosis immediately raises the issue of ethics!

Is the sample representative?

A case study is never representative of anyone other than the individual(s) being studied. The results of this case study can only be applied to helping the individual concerned - Eve White (Christine Sizemore). However, clinical case studies such as this one are very useful for other therapists, particularly when cases are highly unusual (e.g. MPD).

What type of data was collected in the study?

In this study both qualitative and quantitative data was collected. Both types of data complement each other because if only scores from such tests as intelligence and memory tests had been gathered, the case the authors made for a diagnosis of multiple personality disorder would not have been as convincing. Likewise, if the report had simply contained the descriptions of the differences in personalities (e.g. Eve White: demure, retiring, steadfast; Eve Black: party girl, mischevious, egocentric; Jane: compassionate, mature, sensible), people might have been more sceptical about the diagnosis. Taken together, it can be argued that the authors presented a strong case for the existence of more than personality in Eve White.

What does the study tell us about the nature-nurture debate?

The study suggests that environmental factors, particularly traumatic events, can profoundly affect our mental health. Whilst there may be convincing evidence that there is a genetic predisposition to certain mental health disorders, there is no doubt that they can be triggered by events in people's lives (here possibly the occasion when, aged six, Eve White's aunt forced her to kiss her dead grandmother).

There is little doubt that such an event could have an effect on the mental health of a child even if not the diagnosis of MPD

Are there any ethical implications raised by this study?

Few, if any, ethical issues can actually be raised against this study though may be suggested. It may be possible to raise the issue of stress in relation to this study: Eve White *may* have become distressed by the large amount of time spent interviewing her; by the subsequent appearance of Eve Black and then Jane; and by the information discovered about her personalities – though there is no real evidence in the study to support this suggestion. The issue of invasion of privacy could possibly be raised with the use of hypnosis but this could be discounted because Eve gave her permission to be hypnotised.

Does a therapist have the right to judge which personality is more deserving of survival than others? It must be remembered that although Thigpen and Cleckley suggested that Jane might be the most appropriate personality to 'take over' from the others, during the period covered by this study, this did not actually occur. Therapists have a great deal of power over their patients and a responsibility to use this power wisely. Some of the comments made by Thigpen and Cleckley about Eve Black could be considered extremely judgemental and sexist.

Was this study useful?

Case Studies are primarily useful in a clinical sense and are usually used to help an individual / small group to overcome or manage a particular problem (here the problem of having MPD). This case study was the first fully documented case of multiple personality and it led not only to the disorder being more easily recognised but also to the development of therapies and strategies to help those afflicted. However, this is a highly controversial diagnosis and there remains concern that patients are being labelled incorrectly as suffering from this disorder.

Test Yourself On THIGPEN & CLECKLEY

1 Outline **two** features of Multiple Personality Disorder. [4]

2 Thigpen and Cleckley used a case study to investigate multiple personality disorder. Give one advantage and **one** disadvantage of the case study method as used in this study. [4]

3 From Thigpen and Cleckley ‘s study:

(a) Explain what is meant by a longitudinal study. [2]

(b) Outline one weakness of longitudinal research as used in this study. [2]

4 Explain why Eve White was used as the sample in this study. [4]

5(a) Identify **two** of the psychometric tests used in this study [2]

(b) Outline the findings of **one** of the psychometric tests used in this study. [2]

6 (a) From this study into multiple personality disorder, describe **one** of the projective tests that were administered to Eve White and Eve Black. [2]

(b) Outline **one** problem of projective tests as used in this study. [2]

7 Outline the results of the electroencephalogram (EEG) conducted on Eve White, Eve Black and Jane. [4]

8 Describe **two** pieces of evidence that led Thigpen and Cleckley to believe that Eve was suffering from multiple personality disorder. [4]

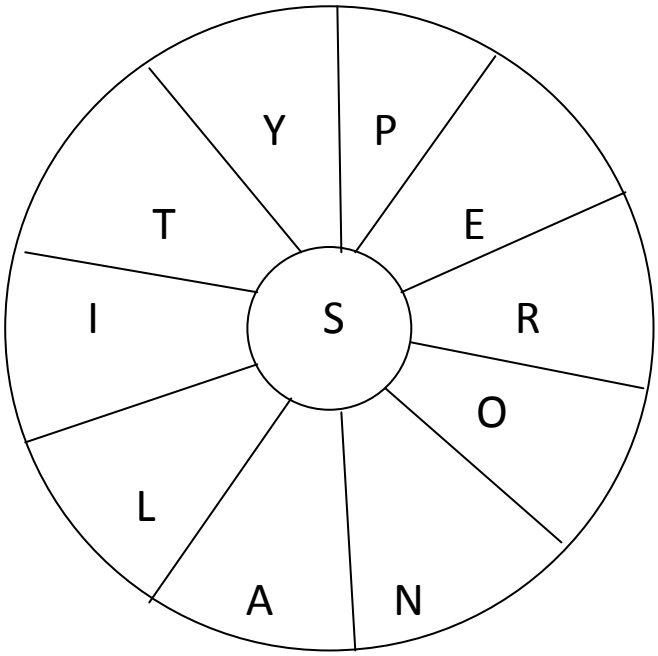
9 Describe **two** of the personalities in Thigpen and Cleckley’s study. [4]

10 Outline **two** ethical issues that could be raised from Thigpen and Cleckley’s study into multiple personality disorder. [4]

Total marks available: 40

WORD WHEEL BASED ON THE THIGPEN AND CLECKLEY CORE STUDY

You have 10 minutes to find as many words as possible, of 3 letters or more, using the letters in the wheel below. Each word must use the hub letter and letters can only be used once.



15 = FAIR

25 = GOOD

35 = EXCELLENT

COMPONENTS OF ADDICTIVE BEHAVIOUR (GRIFFITHS)

1. SALIENCE

This refers to how important the behaviour becomes to the individual. Addictive behaviours become the most important activity for a person so that even when they are not doing it, they are thinking about it.

2. EUPHORIA

This is the experience people report when carrying out their addictive behaviour. People with addictive behaviour patterns commonly report a ‘rush’, or a ‘buzz’ or a ’high’ when they are taking their drugs, or when they are gambling, for example.

3. TOLERANCE

This refers to the increasing amount of activity that is required to achieve the same effect. A drug addict might have to increase the intake of drugs and a gambler might have to increase the stakes.

4. WITHDRAWAL SYMPTOMS

These are the unpleasant feelings and physical effects which occur when the addictive behaviour is suddenly discontinued or reduced. This can include the ‘shakes’, moodiness and irritability. These symptoms are commonly believed to be a response to the removal of a chemical that the person has developed a tolerance to. However they can also be experienced by gamblers, so the effects might be due to the withdrawal from the behaviour as well as the substance.

5. CONFLICT

People with addictive behaviours develop conflicts with the people around them, often causing great social misery, and also develop conflicts within themselves.

6. RELAPSE

Although people sometimes manage to shake off their addictive behaviour, the chances of relapse are very high. Even when the person has been ‘dry’ for a considerable time, they can quickly develop the same high levels of addictive behaviour.

BACKGROUND RESEARCH FOR THE GRIFFITHS STUDY INTO FRUIT MACHINE GAMBLING

1. Use a dictionary to give a definition of the term ‘addiction’.

2. Use the handout to make short notes on the 6 components of addictive behaviour identified by Griffiths:

- Salience:
- Euphoria:
- Tolerance:
- Withdrawal symptoms:
- Conflict:
- relapse:

3. Use appropriate resources to make notes on:

- Why Griffiths decided to study fruit machine gambling:

PTO

- Why psychologists are interested in cognitive bias:

4. In pairs try the following activity :

Number 20 pieces of paper from 1 – 20 and put them in a bag. Pull out 5 pieces of paper and record their numbers. Repeat this 10 times and keep a tally of the numbers that you pull out.

Now repeat the procedure 10 more times but this time predict the numbers that will come out.

- *How successful were you?*
- *What heuristics did you use?*
- *Is there any point in trying to guess what numbers will come out next?*

NB if you are successful every time, why haven't you won the lottery????

LOTTO TOTTO

SELECT ANY 6 NUMBERS BETWEEN 1 AND 49 AND ENTER THEM IN THE SPACES ON THE FIRST LINE BELOW:

YOU MAY HAVE ANOTHER 5 ATTEMPS IN THE SPACES BELOW:

LOTTO TOTTO

SELECT ANY 6 NUMBERS BETWEEN 1 AND 49 AND ENTER THEM IN THE SPACES ON THE FIRST LINE BELOW:

YOU MAY HAVE ANOTHER 5 ATTEMPS IN THE SPACES BELOW:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	xxx

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	xxx

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	xxx

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	xxx

GRIFFITHS (1994): THE ROLE OF COGNITIVE BIAS AND SKILL IN FRUIT MACHINE GAMBLING

Thinking like a Psychologist - Evaluating the Core Study

What are the strengths and weaknesses of the method used in the study?

This study can be viewed as a quasi field experiment. Data was gathered and analysed using self reports, observations and content analysis. The term quasi (or natural) refers to the fact that Griffiths could not manipulate all the independent variables – participants were naturally either RGs or NRGs, so could not be randomly allocated to experimental groups. The study was an experiment because, although participants were naturally either RGs or NRGs, using random allocation, Griffiths was able to manipulate whether they experienced the 'thinking aloud' or the 'non-thinking aloud' condition. Several controls were used to ensure reliability e.g. all participants used the same *FRUITSKILL game* and were given standardised instructions. This meant the procedure could be replicated. The study was a field experiment because it took place in the natural environment of a real amusement arcade (not a casino!). Although this meant the study had high ecological validity in regards of the environment, the fact that all participants had to use the same game and some participants had to 'think aloud' whilst playing, lowered the overall ecological validity as these factors may not have reflected real life for those concerned.

Verbalisations were tape recorded and later transcribed. Griffiths then carried out a content analysis on all the scripts using a coding system developed and applied by him alone. When his analyses were checked by other raters there was low agreement.

Was the sample representative?

Some of the participants were volunteers who were recruited through poster advertisements placed around local university and college campuses in Exeter, Devon; whilst some of the RGs were recruited via a gambler known to Griffiths. They may therefore not have been representative of either the gambling or non-gambling population as a whole. Furthermore, although there was an equal number of male and female non-gamblers (15 of each), there were 29 male and 1 female regular gamblers. There was therefore a gender imbalance in the RG group; but, as Griffiths pointed out, fruit machine gambling is dominated by young males so the ratio of men to women could be considered representative of fruit machine gamblers in general. Even so, the one female gambler may not have been representative of all female gamblers. The mean age of participants was 23.4 years which could be considered unrepresentative as there are many individuals who play regularly on fruit machines who are aged well over 50!

What type of data was collected in the study?

Both quantitative and qualitative data was gathered. Quantitative data was gathered relating to such things as playing rates (the number of gambles per minute) and win rates (the number of gambles between each win) for both RGs and NRGs in both the 'thinking aloud' and the 'non-thinking aloud' conditions. This allowed comparisons and statistical analyses to be made. Qualitative data was gathered through observations and the tape-recorded verbalisations. This was then categorised and subsequently quantified by Griffiths to provide statistical comparisons between the 'thinking aloud' and 'non-thinking aloud' groups.

Was the study ethical?

Gambling is not overtly approved of by society in general as it has numerous negative implications e.g. addiction, financial ruin. Some participants may have become stressed when they did not win/lost money and the 4 in the ‘thinking aloud’ condition who chose to hear the replays of their verbalisations may have been embarrassed, especially as one was diagnosed as a pathological gambler.

Was the study useful?

As Griffiths says, ‘Knowledge of an irrational gambling bias may help in rehabilitating gamblers through cognitive behaviour modification.’ As he suggests, ‘it might be possible to inhibit irrational bias in gambling by playing back tape recordings of a pathological gambler thinking aloud to highlight their irrational verbalisations’. This, in fact, occurred with the one participant in this study who was diagnosed as a pathological gambler – he later reported his gambling behaviour had declined and subsequently ceased as a result of hearing the playback of his verbalisations.

Test Yourself on GRIFFITHS

1 Describe how participants were recruited for this study. [4]

2(a) Give **two** examples of irrational verbalisations from this study. [2]

(b) Give **two** examples of rational verbalisations from this study. [2]

3 Each participant was given £3 to gamble on a fruit machine. What was the task they were then asked to do? [4]

4(a) Suggest **one** way in which this study was high in ecological validity. [2]

(b) Suggest **one** way in which this study was low in ecological validity. [2]

5 Describe **two** differences in behaviour between participants in the 'thinking aloud' condition and participants in the 'non-thinking aloud' condition. [4]

6 Describe **two** differences in behaviour between the regular gamblers (RGs) and the non-regular gamblers (NRGs). [4]

7 Describe **two** of the instructions given to the 'thinking aloud' participants. [4]

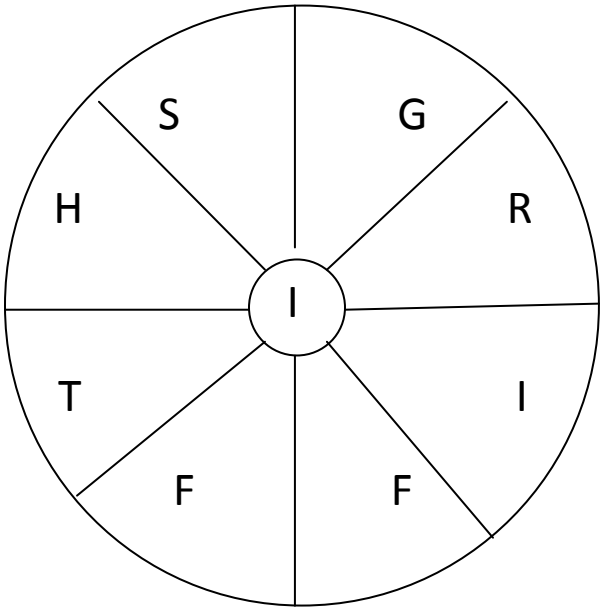
8 Describe the **two** phases involved in recording verbalisations in this study. [4]

9(a) Outline **one** example of quantitative data gathered in this study. [2]

(b) Explain why gathering quantitative data in this study was useful. [2]

10(a) Outline **one** control used in this study. [2]

(b) Explain **one** advantage of having controls in this study. [2]

WORD WHEEL BASED ON THE GRIFFITHS CORE STUDY

You have 10 minutes to find as many words as possible, of 3 letters or more, using the letters in the wheel below. Each word must use the hub letter and letters can only be used once.