

YET MORE
APPLICATIONS AND
EXAMPLES OF
RESEARCH METHODS IN
PSYCHOLOGY

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1. THE MEDICAL MODEL, DIAGNOSTIC CATEGORIES OF MENTAL DISORDERS, AND THE PROBLEMS IN ASSESSMENT

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1.1. MEDICAL MODEL

The medical model in psychiatry is a "scientific process involving observation, description and differentiation, which moves from recognising and treating symptoms to identifying disease aetiologies and developing specific treatments" (Clare 1980 quoted in Shah and Mountain 2007 p375).

The medical model with its biological emphasis has been accused of being reductionist. The experience of "mental illness" is reduced to biological processes malfunctioning that can be treated by psychotropic drugs.

Shah and Mountain (2007) defended this approach by proposing a new definition of the medical model as "a process whereby, informed by the best available evidence, doctors advise on, coordinate or deliver interventions for health improvement. It can be summarily stated as 'does it work?'" (p375). They emphasised that the gathering of evidence to establish which interventions work is crucial.

An assumption of the medical model, which is less easy to assess with the maxim "does it work", is that outward symptoms are evidence of underlying diseases. The symptoms are clustered together and given names, like schizophrenia, in the classification systems of mental disorders used by psychiatrists and doctors.

Diagnostic categories are the basis of physical medicine, so it is not surprising that they are used in psychiatry as mental illness is just disease of the brain. Table 1.1 summarises some of the main arguments for and against the use of diagnostic categories (Furnham 2001).

ARGUMENTS FOR	ARGUMENTS AGAINST
<ol style="list-style-type: none"> 1. Gives psychiatrists a common language. 2. Allows for controlled research. 3. Can guide the treatment offered. 4. Helps to discriminate normal from abnormal. 5. Brings order to the "chaos" of mental illness. 6. More objective than the alternatives. 7. Helps psychiatrists maintain a professional distance from their patients. 8. Aids doctors to give documentation for time off work etc. 	<ol style="list-style-type: none"> 1. The labels used dehumanise. 2. Limited scientific evidence for the categories. 3. The labels given influence how the person is perceived. 4. The individuals with labels can be stigmatised. 5. Individuals can be forced to fit into the category. 6. Labels can produce self-fulfilling prophecies. 7. The diagnostic categories become the textbook by which reality is checked. 8. Individuals are perceived as patients unable to help themselves.

Table 1.1 - Arguments for and against the use of diagnostic categories for mental illness.

1.2. DIAGNOSTIC CATEGORIES

Rather than looking at the many problems with using diagnostic categories, I want to concentrate here on the idea of "does it work" as proposed by Shah and Mountain as the new definition of the medical model. In particular, to look at examples of categories of mental disorder that are far from clear.

Now it could be said that includes most categories, but certain mental disorders are clearer (or better defined in terms of evidence) than others. Among the many categories of mental disorder in DSM-IV-TR (APA 2000), there are some that immediately lead to concerns (1).

DSM-IV-TR includes a chapter called "other conditions that may be a focus of clinical attention" and it contains categories of behaviour that are not found

elsewhere. These categories may exist where there is no mental disorder, where there is an unrelated mental disorder, or related to a mental disorder but "sufficiently severe to warrant independent clinical attention" (APA 2000 p731).

Here are some examples of problems listed in this chapter in DSM-IV-TR:

- Relational problems - "patterns of interaction between or among members of a relational unit that are associated with clinically significant impairment in functioning, or symptoms among one or more members of the relational unit, or impairment in the functioning of the relational unit itself" (p736).

This category includes parent-child relational problems (eg overprotection), partner relational problems (eg unrealistic expectations), sibling relational problems, and relational problems not otherwise specified (eg difficulties with co-workers).

- Adult antisocial behaviour - including "the behaviour of some professional thieves, racketeers, or dealers in illegal substances" (p740). There are no details of how antisocial behaviours are defined.
- Academic problems - "a pattern of failing grades or of significant underachievement in a person with adequate intellectual capacity (p741).
- Occupational problems - eg "job dissatisfaction and uncertainty about career choices" (p741).
- Religious or spiritual problems - eg "distressing experiences that involve loss or questioning of faith, problems associated with conversion to a new faith, or questioning of spiritual values that may not necessarily be related to an organized church or religious institution" (p741).
- Phase of life problems - problems associated with changes in life like entering school, starting a new career, or marriage and divorce.

It is not that these things are not problems, but should they be in a classification system for mental disorders. It is too much like every problem in life is now a mental disorder of some kind - "pathologizing" of everyday behaviour (Kutchins and Kirk 1997).

For them, DSM has become:

[A] guidebook that tells us how we should think about manifestations of sadness and anxiety, sexual activities,

alcohol and substance abuse, and many other behaviours
(Kutchins and Kirk 1997 p11).

But if the medical model is scientific, there needs to be clear objective definitions of these categories, and there is not. Thus they should not be included, or is the classification system not scientific? Or, being cynical, psychiatrists just know what is a problem because of their expertise and do not need precise definitions. This is too much like the ideas with no evidence base that Shah and Mountain criticised.

It is also worrying that certain types of behaviour of thieves and drug-dealers are included here. These behaviours are defined as criminal which is a separate set of categories, or are we now saying that all criminal behaviour is mental illness? Where does that put the idea of personal responsibility?

The diagnostic categories of classification systems are based upon real diseases, it is claimed, but what about categories that change. A prime example is Passive-Aggressive Personality Disorder (PAPD)(Negativistic Personality Disorder). Originally included in DSM-III-R (APA 1987), but then moved to "criteria sets and axes provided for further study" in DSM-IV (APA 1994) because (Frances et al 2005):

- It described a behaviour reaction to an oppressive environment;
- It is more of a coping style than a personality disorder;
- It was rarely diagnosed in the absence of other personality disorders.

Is it a "real" category or not?

PAPD is "a pervasive pattern of negativistic attitudes and passive resistance to demands for adequate performance in social and occupational situations that begins by early adulthood and that occurs in a variety of contexts" (APA 2000 p789). Diagnosis is based upon four or more of these symptoms:

- Passively resists fulfilling routine social and occupational tasks;
- Complains of being misunderstood and unappreciated by others;
- Is sullen and argumentative;
- Unreasonably criticizes and scorns authority;
- Expresses envy and resentment toward those apparently more fortunate;
- Voices exaggerated and persistent complaints of personal misfortune;

- Alternates between hostile defiance and contrition (APA 2000 p791).

By Shah and Mountain's maxim of "does it work", this category of personality disorder does not as it was removed from the main body of DSM-IV, but why is it kept in the appendices? Again this is not to say that such behaviours do not exist, but I am questioning the scientific basis of the category.

1.3. CLASSIFICATION SYSTEMS

Whether the diagnostic categories of mental illness have a scientific basis is one thing, but it has to be remembered that DSM is not the only classification system used. The other system in common use is ICD-10 (WHO 1992).

But do the diagnostic categories have agreement for particular disorders? Andrews et al (1990) suggested that it depended upon the disorder. For substance abuse, only 33% of individuals were diagnosed by both DSM and ICD, while it was 87% for dysthymia.

Slade and Andrews (2001) looked at the diagnosis of generalised anxiety disorder (GAD) by both classification systems. The classification systems agreed on the existence of worry about everyday events over at least six months, but disagreed about the extent - excessive (DSM) or difficult to control (ICD) (table 1.2) (2).

<u>DSM-IV</u>	<u>ICD-10</u>
3 or more of following 6 symptoms: - restlessness - easily fatigued - difficulty concentrating - irritability - muscle tension - sleep disturbance	4 or more from 22 symptoms, but must be one of first four: - palpitations - sweating - trembling - dry mouth - symptoms involving chest or abdomen (4 symptoms) - symptoms involving mental state (4) - general symptoms (2) - symptoms of tension (4) - other non-specific symptoms (4)

Table 1.2 - Key features of GAD in DSM-IV and ICD-10.

Using data from the Australian National Survey of Mental Health and Well-Being (NSMHWB) of over 10 000 adults, Slade and Andrews found only a 41% agreement for diagnosis of GAD by both DSM-IV and ICD-10 (123 people). While 151 people were diagnosed with GAD using DSM-IV but not with ICD-10, and 201 people for the opposite.

There was reasonable agreement on the overall prevalence of GAD in the general population (2.6% DSM-IV, 3.0% ICD-10), but the "classification systems are diagnosing different groups of people" (p45).

1.4. BIAS IN ASSESSMENT

If we accept the diagnostic categories, there are issues related to their actual use.

The basis of science is objectivity , and being free from subjectivity or bias. But bias appears in relation to psychopathology in a number of ways (Haslam 2006).

1.4.1. Assessment bias

This refers to distortions in the assessment and diagnosis process, and manifests itself in different ways.

i) Response biases by the person being assessed.

Individuals may not respond "honestly" when being assessed. In this context, "honestly" does not necessarily mean directly lying (though this does occur), it refers to failure to tell the whole truth. This could occur due to memory failings or lack of understanding of the questions - both problems with questionnaires.

For example, Kruijshaar et al (2005) found underestimated recall of lifetime episodes of major depression among Dutch and Australian populations using indirect estimation modelling.

In terms of tests, like reaction time, response bias could include a lack of motivation to do the test or to try "properly".

ii) Bias by the assessor.

For example, the attitudes of the assessor towards the measuring device being used can influence the results.

Soderberg et al (2005) found differences in reliability scores of the Global Assessment of Functioning (GAF) device depending on the attitudes of

Swedish psychiatric staff users towards or against it. Negative attitudes towards this device produced more distorted assessments by the staff.

iii) Bias by a third party informant.

De Los Reyes and Kazdin (2005) looked at how parents reported their child's problems to child psychiatrists using their Attribution Bias Context Model. There was evidence of the fundamental attribution error by the parents (and teachers). This is the overemphasis of dispositional (individual) factors as the cause of the problem rather than situational (or context) factors (which the children used to explain their own problems).

Also observers (parents, teachers) are more likely to access information about negative aspects of the children's behaviour from memory.

iv) Bias in the assessment instrument.

For example, the General Health Questionnaire (GHQ) (3) could produce false positives in relation to anxiety and depression (Bell et al 2005). This means that respondents are gaining scores which reach the threshold of problems, when they do not have anxiety or depression according to other means of assessment, because of the nature of the assessment device.

They found a higher estimate of prevalence among the financially better off and those with better social support compared to the Revised Clinical Interview Schedule among nearly 7500 patients of GPs in the Bristol and South Wales areas.

Other bias here includes unreliability of unstructured interviews, over-diagnosis from self-reports, and gender bias in diagnosis of certain disorders based on answers given.

v) Bias due to underlying assumptions of assessment instrument.

Assessment instruments are often based on the assumption of separate categories of behaviour or disorder as opposed to dimensions. For example, assessing personality disorders as separate categories can produce bias if they are better viewed as dimensions or vice versa.

DSM-IV sets out criteria for the diagnosis of personality disorders as "an idealised typical case" which is not found in real life (Farmer et al 2002).

These are based on the idea of types or traits, which compares with the predominate view of personality as dimensions.

But the use of dimensions would assume that the characteristics are present in all individuals, but exaggerated in those with personality disorders (Marlowe 1996).

The use of types or prototypes means that there has to be a cut-off point. Who decides the cut-off point for inclusion or exclusion within the category? Often a panel of experts (Widiger 1993).

If the cut-off point is the presence of five characteristics from a list, how to view the individual with four of those characteristics, and how do they compare to an individual with one (Widiger and Corbitt 1994)?

1.4.2. Demographic bias

This category of biases relates to distortions in psychiatric practice around demographic characteristics, like gender or ethnicity.

i) Over-diagnosis of particular disorders in one group relative to other groups.

For example, Shaw et al (1999) recorded the one-month prevalence of anxiety and depression, using ICD-10 categories, in central Manchester. There were differences in the rates of the two disorders based on ethnicity, but also gender (table 1.3).

Disorder	A-C	A-C	A-C	White	White	White
Depression	4	19	13	7	11	9
Anxiety	0	5	3	7	10	9

(A-C = Afro-Caribbean)
(After Shaw et al 1999)

Table 1.3 - Percentages of sample showing anxiety and depression based on ethnicity and gender.

ii) Over-emphasis of certain fact for one group over another.

Flanagan and Blashfield (2005) presented to 99 US psychologists and psychiatrists case vignettes (table 1.4) for diagnosis of histrionic or antisocial personality disorder. The gender was varied in the

vignettes. Histrionic personality disorder diagnoses were made more often if the case was female and antisocial personality disorder for males. In the diagnosis process, greater weight was given to gender stereotype consistent characteristics: eg concern for physical appearance linked to women.

Antisocial Personality Disorder

A woman who had been working as part of the sports staff for a small city newspaper was referred for a psychiatric evaluation after three arrests for drunken and reckless driving. The woman had been an energetic member of the newspaper staff, and her peers were surprised to learn of her arrests. She had been an English major at a small, liberal college from the mid-Atlantic states.

The woman had become very interested in local sports, especially in the athletic training programs of two colleges in the surrounding areas. One had an excellent fencing team; the other was known for its programs in soccer and cross-country running.

She frequently travelled with the teams from these schools and was liked by the coaches. Being bright and having a gift for pithy humour, she proved a valuable resource on the sports section staff. It was at the urging of her editor that the woman decided to see a therapist.

In her history, the woman reported that she had frequently run away from home as a teenager and had been arrested for a number of minor thefts. Lying became a standard means of coping.

As an adult, she had trouble holding down a job because of her frequent absences. She admitted to continuing her adolescent behaviour of shoplifting into the present, though she had never been detected.

At one point, she tried working as a middle-person in a group selling prescription drugs. She had no misgivings or sorrows about her behaviour.

(Flanagan and Blashfield 2005 p1497)

Table 1.4 - Examples of vignette of Antisocial Personality Disorder.

Kaplan (1983) argued that the DSM-III criteria for Dependent Personality Disorder (DPD) were quite similar to the traditional female sex-role, and "singles out for scrutiny and therefore diagnosis the ways in which women express dependency but not the ways in which men express dependency" (p789).

For example, the financial dependence of the non-working wife on the working husband is symptomatic of DPD, but not the dependency of the husband on the wife to maintain the household and perform the child-rearing tasks (Bornstein 1993).

iii) Underlying assumptions about one group as distinct to others.

The history of psychiatry (and psychology) includes ethnocentric assumptions about non-Western cultures, and today about ethnic minorities within Western society (Raimundo Oda et al 2005).

iv) Discriminatory practices in treatment.

The use of particular treatments more often with one group than another. Takei et al (1998) followed up 81 patients first admitted to a psychiatric hospital in 1973-4 with a diagnosis of "functional psychosis". The research found differences in the mean length of admission, and mean number of admissions to hospital based on ethnicity (table 1.5).

Brewer (2004) explored three possible reasons for ethnic differences in rates of mental disorder:

- Biological differences in the levels of incidence between ethnic groups;
- Social causes for the different rates;
- Distortions in the figures.

	Schizophrenia/Non	Schizophrenia/Non
Mean length of admission to psychiatric hospital	124.4 / 72.9	272.8 / 67.7
Mean number of admissions to	3.4 / 2.8	5.3 / 3.1

(After Takei et al 1998)

Table 1.5 - Comparison of admission to psychiatric hospital based on ethnicity.

1.4.3. Institutional bias

Haslam (2006) described these biases as "influences on psychiatric practice that derive from financial or political pressures" (p625).

i) Bias from financial pressures.

The best example here is financial conflict of interest as produced by pharmaceutical industry sponsorship of clinical trials. In an extensive review,

Perlis et al (2005) found that such sponsored studies were nearly five times as likely to find the medicine superior to the placebo for psychotropic drugs.

ii) Bias from legal and political pressures.

One way this can produce bias is through the institutions or individuals that take part in studies. For example, hospitals that cannot gain funding to join a study, or individuals concerned about involvement in clinical trials because of privacy rules could both distort the sample studied and consequently the generalisability of findings.

1.4.4. Methodological bias

There are errors in study design that can lead to biased results.

i) Sampling bias.

Whether the study participants are selected randomly or referred by doctors, for example. Furthermore, who is referred.

Brewer (2003) noted the problems of using outpatients or inpatients for rates of Dependent Personality Disorder:

- Outpatients - underestimates as some individuals do not seek treatment;
- Inpatients - overestimates as "institutionalisation" can produce symptoms of dependency (Booth 1996).

Widiger and Spitzer (1991) noted that the characteristics of the setting can influence the findings: eg Veterans Administration hospital compared to State psychiatric hospital or private facility in the USA.

ii) Non-response bias.

The sample chosen for the study may be representative, but distorted by the numbers who non-respond (or drop-out during the study). Non-responders in survey research are often suffering more from the disorder being studied (Haslam 2006).

Hofler et al (2005) were more optimistic: "a non-response rate of, say, 10% will probably not induce a strong bias unless non-participation is strongly

associated with the parameters of interest" (p292).

iii) Bias in control groups.

In clinical trials, control groups are the "normals" who do not have the disorder in the experimental group, but they may have other problems. Bunce et al (2005) found that 44.4% of 341 healthy volunteer controls, for biological research at a US medical college had personality disorders.

Most common were Obsessive-Compulsive Personality Disorder (7.0%) and Narcissistic Personality Disorder (6.2%) among those diagnosed, while 24.9% had Personality Disorder Not Otherwise Specified.

iv) Publication bias (or the file-drawer effect).

The tendency to publish studies with the strongest findings and ignore those with non-significant results. There is a debate as to whether to include unpublished ("grey") studies in meta-analysis (4)(Haslam 2006).

Smith and Egger (1998) reported a study by Nakielny (1993) which used unpublished data on the efficacy of selective serotonin reuptake inhibitors (SSRI) over tricyclic anti-depressants (TCA). It showed a much greater success rate for the SSRIs than other similar studies using only published data. Nakielny was sponsored by Lilly Industries, who make a type of SSRI.

1.5. FOOTNOTES

1. DSM-IV had 297 categories (Shorter 1997) or 330 including the appendices (Stone 1998).

2. Interestingly, many of these behaviours were placed under the category "psychoneurotic disorder" in DSM-I (APA 1952), "anxiety neurosis" and "phobic neurosis" in DSM-II (APA 1968), and "Anxiety Disorders" in DSM-III (APA 1980) (Kutchins and Kirk 1997).

3. General Health Questionnaire (Goldberg 1972) contains 60 self-administered questions with a four-point scale.

4. Meta-analysis is a technique of statistical analysis of the results from a large number of individual research studies, so as to integrate the findings (Wood 1995).

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2. FIVE WAYS OF USING THE CASE STUDY METHOD IN PSYCHOLOGY WITH EXAMPLES: LEARNING FROM POLITICAL SCIENCE

- 2.1. Introduction
- 2.2. Representative Case Study
- 2.3. Prototypical Case Study
- 2.4. Deviant Case Study
- 2.5. Crucial Case Study
- 2.6. Archetypal Case Study
- 2.7. References

2.1. INTRODUCTION

There is a tendency in academia towards being insular, not only within a discipline, but within a sub-group of the discipline. So psychologists are only interested in what other psychologists say, or just within their own sub-group, like social psychology. Yet much can be learnt from other disciplines that can be applied to psychology for the benefit of psychology. One example discussed here is the case study method.

The case study is used in a number of different disciplines, and in varying ways to that of psychology.

The case study method allows researchers to investigate a topic in detail through concentration upon an individual or a small group (table 2.1). The length can vary from two interviews to years.

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<ol style="list-style-type: none">1. Detailed information about an individual or a small group.2. Provides insight into outstanding or unusual cases.3. Possible to follow the sequence of development of behaviour.	<ol style="list-style-type: none">1. Not possible to generalise findings.2. Cannot establish cause and effect relationships.3. Researcher can become involved and lose objectivity.

Table 2.1 - Key strengths and weaknesses of the case study method generally.

Hague et al (1998), in their introductory textbook on comparative government and politics, outlined five

types of case study:

- Representative - "This is the workhorse of case study designs, as useful as it is undramatic" (Hague et al 1998 p277). It is used to study an individual or group typical of the category/topic being studied.
- Prototypical - Studying an individual or group who are expected to be typical in the future. But "innovators are by nature unrepresentative; they often possess unusual enthusiasm and experience additional difficulties to those confronting their imitators" (Hague et al 1998 pp277-8).
- Deviant - Study of an exception to the norm. This type of case study is useful if we are arguing that X leads to Y, then it must be shown that not-X leads to not-Y (Hague et al 1998).
- Crucial - Using the case study method to test a theory in least favourable conditions. The value of a theory can be established in unfavourable conditions (a "least favourable" design) or disproved by showing its failings in favourable conditions (a "most favourable" design) (Hague et al 1998).
- Archetypal - A case study that creates a new theory or idea.

This article applies these five types of case study from political science to psychology with examples.

2.2. REPRESENTATIVE CASE STUDY

This use of the case study method concentrates upon participants who are typical of the area of study (table 2.2). It could be used in developmental psychology to look at the typical pattern of child development, for example.

EXAMPLE 1: "Marilyn" (Eatough and Smith 2006)

This study of "Marilyn", a thirty year-old woman living with her partner and son in a council house in the inner city area of an English Midlands city, was interested in how she made sense of her anger.

Using interpretative phenomenological analysis (IPA) of two wide-ranging semi-structured interviews, the "aim was to capture the richness and complexity of Marilyn's meaning making..".

STRENGTHS	WEAKNESSES
<p>1. Allows detailed study of typical examples of behaviour.</p> <p>2. Can build upon typical patterns established by quantitative research.</p>	<p>1. Even if participants are typical, it is still not advisable to generalise the findings. The individual(s) studied may not prove to be so typical after all.</p> <p>2. Researching the individual(s) can lead to changes and thus they are no longer typical.</p>

Table 2.2 - Key strengths and weaknesses of the representative case study.

She used certain discourses to account for her anger, self-harm, and physical aggression including:

- "...I mean that's all hormones as well which explains away a lot of my moods and aggression and that" (p121);
- "It was the alcohol.." (p122);
- "...I think I was in you know like an emotional pain you know, like when your heart aches.." (123).

The researchers concluded that they had been able to present "a richly detailed and nuanced analysis of personal meaning making".

EXAMPLE 2: Early relationships (Brazelton and Cramer 1991)

This book contains details of case studies of newborn infants and their earliest relationships, particularly with the mother. A number of cases are described including "Robert" and "Chris":

"As he [Robert] was placed on his mother's belly for her to inspect him, he quieted down.. His face softened as she spoke softly to him..". Robert was described as a "well-organised baby" which set the basis for a healthy relationship with the mother, while Chris, "a very different newborn who may well set the stage for failure in early interaction unless the parents are given guidance and support".

Chris was described thus: "He almost sounded as if he had a cold, and he breathed more rapidly and deeply whenever he was handled, talked to, or stimulated in any way. One had the impression that he wanted to be left

alone".

EXAMPLE 3: "Peter Tripp" (Luce and Segall 1966)

Opportunist studies have been made of individuals voluntarily staying awake for very long periods, as in world record attempts like Peter Tripp.

In 1959, in New York City, WMGM radio DJ, Peter Tripp attempted to stay awake for 200 hours (8 days 8 hours) ("wakethon") to benefit a charity. During this time, he was broadcasting his daily show from a glass-walled booth in Times Square.

Because of the concern for his health, Tripp was well studied throughout the 200 hours by doctors and psychiatrists. There was considerable interest from sleep researchers as the knowledge about sleep (and sleep deprivation) was limited at that time.

After two days, Tripp stated hallucinating. Some of the hallucinations were linked to paranoia, like a hotel desk was on fire (after 120 hours).

Memory and concentration problems increased with time - by 170 hours, he could not say the whole alphabet. By 150 hours awake, he was disoriented. Yet he still managed each day to do his three-hour radio show (5-8pm) effectively. In fact, some listeners had no idea he was not sleeping.

At the end of the 200 hours, he slept for thirteen hours, and awoke apparently refreshed, though he did have mild depression for three months.

2.3. PROTOTYPICAL CASE STUDY

This method can be seen as the first reporting of a particular behaviour. It is the study of behaviour that is expected to be typical (or more common) in the future (table 2.3).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
1. Alerts researchers to a new area or aspect of behaviour.	1. Cannot be sure that this behaviour will become more common in the future.
2. Allows the study of very rare cases.	2. Initially it is very rare, so generalisation is not going to be possible.

Table 2.3 - Key strengths and weaknesses of the prototypical case study.

EXAMPLE 4: "Eve" (Thigpen and Cleckley 1954)

This report contains details of 100 hours of interviews over fourteen months with a 25 year old married woman who was suffering from "severe and blinding headaches". She is called "Eve White" in order to keep her identity secret. Over a series of interviews, she starts to show other personalities, including "Eve Black", who is the complete opposite to the "main personality".

A number of tests are used on the personalities: Weschler-Bellevue Intelligence Scale, Weschler Memory Scale, Drawing of Human Figure, and Rorschach Ink-Blot Test. EEG readings of the brainwave patterns are also recorded.

A third personality called "Jane" later appears. The personalities gained different scores on the tests: "Eve White" obtained an IQ score of 110, and "Eve Black" 104.

EXAMPLE 5: Munchausen syndrome by proxy (Meadow 1977)

This is the first detailed report and naming of munchausen syndrome by proxy.

It included two case studies, of which "Kay" was described in more detail. She was a six-year-old who presented with her mother at a hospital with "foul-smelling, bloody urine". The medical facts did not make sense: "everyone was mystified by the intermittent nature of her compliant and the way in which purulent, bloody urine specimens were followed by completely clear ones a few hours later" (p343).

Over a seven-day period, Meadow recorded fifty-seven samples of urine, of which forty-five were normal (taken by nurses), and twelve abnormal (presented by the mother).

All the cases of illness were reported by the mother, and Kay's health was fine when her mother was away in a psychiatric outpatient consultation.

The other case study reported by Meadow was "Charles" (less than one-year-old) who was suffering from the effects of salt poisoning. This was a case of a child actually being made ill whereas Kay was more the fabrication of illness. Both occur with munchausen syndrome by proxy.

EXAMPLE 6: Music and the brain (Sacks 2007)

Sacks' book summarises a number of case studies of brain-injured patients and what research with modern

techniques like neuroimaging tells us about music and the brain.

One example is "Tony Cicoria", a forty-two year-old surgeon in New York, who was hit by lightning. After a two week recovery, "suddenly, over two or three days, there was this insatiable desire to listen to piano music", he reported. From having little interest in music, he started to write the tunes he could hear in his head.

While "Salimah M" (a woman in her early 40s) developed a sudden passion for music after removal of a tumour from her right temporal lobe. For both individuals, they also became more emotional, but showed few other personality changes.

2.4. DEVIANT CASE STUDY

The use of the case study method here concentrates upon exceptions to the norm (table 2.4).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Gives detailed information about deviant behaviour. There is value in studying such individuals for their own sake as well.</p> <p>2. May be able to help understand typical behaviour.</p>	<p>1. The individual(s) studied here are clearly different to the norm, so caution is required as to the applicability of findings to the norm.</p> <p>2. This method cannot establish cause of the deviant behaviour.</p>

Table 2.4 - Key strengths and weaknesses of the deviant case study.

EXAMPLE 7: "Phineas Gage" (Harlow 1868)

In 1848, a railway worker called Phineas Gage suffered a tampering iron to pass through his brain after an explosion. He survived, but with damage to the left frontal lobe, which produced severe changes in his behaviour. He went from an "upright citizen" before the accident to an anti-social individual: eg irreverent, "impatient of restraint", and "indulging at times in the grossest profanity".

EXAMPLE 8: "KF" (Warrington and Shallice 1972)

Cognitive neuropsychology tends to study brain-injured patients in order to understand cognitive processes, like memory. "KF", with left inferior parietal lobe damage as a result of a motorcycle accident, is one such example.

Research over a number of years has shown that short-term memory is affected by the type of presentation of information, and the type of information itself.

- Type of presentation of information: auditory or visual. "KF" had few problems will recall of three items presented visually (approximately 70% correct), but struggled when auditory information presentation was used (approximately 20% correct).
- Type of information to remember: numbers or letters. "KF" found difficulty recalling three letters given by auditory presentation (26 of 60 recalled correctly), and numbers to some degree (37 correct). When presented visually, few problems for both types of information (48 correct in both cases).

EXAMPLE 9: Eccentrics (Weeks and James 1995)

This book details studies of eccentrics today and throughout history. The aim is to show that individuals who show the unusual behaviour of eccentrics are not mentally ill.

One hundred eccentrics were tested for symptoms of schizophrenia, and it was found that only 8% of them showed mild to moderate symptoms.

From history comes the example of Joshua Abraham Norton who proclaimed himself "Emperor of the United States of America" in 1859. He spent his life in San Francisco wandering around dressed in a military uniform and a beaver-skin hat. He even issued his own money that the local shopkeepers accepted. San Francisco was full of unusual individuals at that time.

Alive today, among many are the case of a man who never throws things away, but builds new "contraptions" from the rubbish (eg a moon buggy made from an old bed, hair dryers, and vacuum cleaners among other items). There is the case of a Chippewa Indian who lives life backwards, and a woman who is building a perpetual-motion machine.

2.5. CRUCIAL CASE STUDY

This method is based upon case studies to test a theory in least favourable conditions (table 2.5). It is using the cases to test something that is not possible with the experimental method usually, for whatever reason (eg ethics).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
1. Allows the testing of a theory that is not possible with other methods, for example, because of ethical issues. 2. Information collected can be used in future hypotheses with other methods.	1. The testing of the theory can only be approximate, it cannot produce the cause-effect relationship of the experimental method. 2. It is not typical of the normal situation because the emphasise is upon the least favourable conditions.

Table 2.5 - Key strengths and weaknesses of the crucial case study.

EXAMPLE 10: "David Reimer" (Money and Ehrhardt 1972)

This case study is sometimes called "The circumcision that went wrong" or "John/Joan". It is particularly interesting to psychology because two identical male twins are involved, and one was raised as a boy (Brian), the other as a girl (Bruce/Brenda Reimer) for most of their childhood.

At seven months old, Janet Reimer (mother) noticed the boys' foreskins seemed to be sealing up at the tip making it difficult for them to urinate. The doctor diagnosed this as phimosis, and operations for circumcision were arranged.

Bruce was chosen for the operation first, and was given a general anaesthetic because of being eight months old. The operation was relatively simple and involved cutting away the foreskin. The doctor preferred to remove the foreskin by burning it away with a "Bovie cautery machine". Electricity is used to heat a small needle (similar to a soldering iron).

Initially, the machine did not seem to work on a low temperature, so the temperature was increased. Because the temperature was now so high, the machine burnt away more than the foreskin, and left the penis severely

damaged. A subsequent emergency operation was needed to attached a catheter to the bladder.

Bruce was to be called Brenda and treated as a girl. On 3rd July 1967, at 22 months old, Bruce was given full surgical castration (bilateral orchidectomy - removal of both testicles), and a "rudimentary exterior vagina". Ideally a further operation would have been needed to develop the vagina nearer puberty, but Brenda resisted and it never happened.

After years of problems, on 14th March 1980, Brenda (aged 14 years) was told the truth by her father. Very soon after finding out, Brenda changed her name to David, and started to dress like a boy. He received injections of testosterone, and began surgery to revert back to the biological sex of male.

John Money had developed the theory of gender development which emphasised the role of upbringing. He had studied a number of intersex individuals, where the biological sex is ambiguous, and depending how they were raised mattered most. In other words, gender identity was not biological, but based on the environment and learning.

EXAMPLE 11: Alzheimer's disease sufferer (Ashworth and Ashworth 2003)

Ashworth and Ashworth wanted to discover the experience of a woman suffering from Alzheimer's disease, even when such individuals are treated as beyond understanding. A desire to "thoroughly humanise the way elderly people with dementia are envisioned" (p180).

The sufferer continues to be a person with a unique lifeworld, and is a self "in the sense of being the centre - the point of view - on her physical and psychological world" (p191) despite how bad the illness becomes.

Understanding another to be a "person" requires three features of sociality, which are challenged by dementia:

- To know that another person is "a minded being like myself". The assumption of the other as an "alter ego";
- The world is shared by all - it is intersubjective;
- Taking the position of another person ("reciprocity of perspectives").

EXAMPLE 12: "HM" (Scoville and Milner 1957)

H.M suffered from minor epileptic fits from age 10, and these became more severe from age sixteen. This led to the experimental surgery on the medial temporal lobe (MTL), which included the hippocampus and amygdala.

The surgery reduced the number of major seizures to approximately two per year, but produced severe anterograde amnesia. In simple terms, he had no long-term memory after the operation.

The authors concluded that the hippocampus was important for normal memory function because the removal of other areas of the temporal lobe (eg amygdala) does not cause memory impairment. The size of the amount of brain removed was also important.

2.6. ARCHETYPAL CASE STUDY

This is a case study that creates a new idea or theory (table 2.6).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
1. Concentrates upon individual(s) that allows new ideas to develop.	1. Care in generalising any ideas from studying an individual or small group.
2. The new idea or theory can be tested further with other methods.	2. The individual(s) may not be typical and so any ideas are limited in their applicability to the general population.

Table 2.6 - Key strengths and weaknesses of the archetypal case study.

EXAMPLE 13: "Vince" (Hollway and Jefferson 2005)

This case study is the basis of the development of a new approach in psychology known as Social Psychoanalytic which combines the ideas of psychodynamics and social constructionism.

Vince was a married man in his 40s with three children, who lived on a council housing estate in the North of England. He had been a lorry driver for twelve years, but, at the time of the interview, had been off work for five months with depression. Though the interviews were originally to be conducted as part of a

project on anxiety and fear of crime, the focus became why Vince was sick.

One Monday morning, Vince got up and felt "absolutely shocking like". When his wife called the doctor, despite the protests, Vince started to panic.

Very quickly in the first interview, without prompting from the interviewer, Vince moved from describing his illness to talking about "that court case".

The court case related to a situation when Vince left the keys in his unlocked van parked outside the company offices (company policy). The van was stolen, but the insurance company would not pay the claim because the keys were left in the van. Initially Vince admitted to the insurance company his mistake, but when his employer took the insurers to court, Vince was under pressure to lie about the keys to save his job. It was three years between the event and the court case, and after that he became ill. The employer won the court case and Vince's job was assured. Also afterwards the employer gave Vince money for lying in court.

Vince explains his depression as the worry of the events finally catching up with him. But Hollway and Jefferson felt that his own explanation was "insufficient" because Vince did not feel better after the court case was resolved.

Hollway explored the background more. For a number of years, Vince had been working very long hours under pressure of "do it or leave it". His willingness to stay in such an unpleasant job was linked to his investment in the identity position of "family man", and, in particular, as the breadwinner.

EXAMPLE 14: Cognitive Dissonance (Festinger et al 1956)

Festinger et al (1956) first noted this phenomena of cognitive dissonance while studying a small group in USA who believed that the world would end, and they (the believers) would be saved and taken to the planet "Clarion".

The believers met at the appointed time (as set by "prophecies" given to the leader, Marion Keech), but no spaceships came to collect them. After this event, the individuals were told (by another "prophecy") that their "good works" had stopped the destruction of the world. The believers, then, became more enthusiastic to gain new members.

Logically if an event is proved to be untrue,

individuals should lose interest. But a lot of effort was involved leading up to the "end of the world", and this is hard to deny. Thus it is easier to believe that they were right, and seek others to bolster their endangered beliefs. If lots of people believe the same thing, individuals feel that they cannot be wrong.

EXAMPLE 15: "Washoe" (Gardner and Gardner 1969)

Behaviourists believe that language in humans is learnt through conditioning, and there is no innate mechanism that humans have that non-human animals don't have. If language is learnt, then it must be possible to teach it to non-human animals, like apes and monkeys.

This research involves a project to teach American Sign Language (ASL) (based on gestures and hand movements) to a female chimpanzee called "Washoe". The project began in June 1966 when "Washoe" was between 8-14 months old (her exact age not known).

ASL was taught through imitation, and operant conditioning. The latter involved the reinforcement of the use (and correct use) of signs, and not reinforcing the lack of signs. For example, stopping tickling (reinforcement) unless "Washoe" signed "more".

Twice a day researchers filled in a checklist of signs used, and "at least one appropriate and spontaneous occurrence each day over a period of fifteen consecutive days was taken as the criterion of acquisition".

After 22 months of the project, "Washoe" showed 30 signs that met the acquisition criterion. Some combination of signs spontaneously appeared (eg "go-sweet").

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3. POST-MORTEM STUDIES AND DIAGNOSIS OF MENTAL DISORDERS

- 3.1. Post-Mortem Studies of the Brain
- 3.2. Post-Mortem Diagnosis of Mental Disorders
 - 3.2.1. Comparison of Methods
 - 3.2.2. Evaluation
- 3.3. References

3.1. POST-MORTEM STUDIES OF THE BRAIN

The post-mortem study of the human brain "remains the gold standard" method because of the ability to study genetic, molecular, cellular, and neurochemical aspects (Deep-Soboslay et al 2005). This gives it advantages over the study of non-human animals, or of live humans in neuroimaging studies (table 3.1).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
1. Overcomes limitations of using animals to study human behaviour. 2. More detailed examination of genetic, molecular, cellular, and neurochemical aspects of the brain than neuroimaging of live participants. 3. Used to study brain structure as well as biochemistry. 4. Gains details that non-invasive studies cannot, like ability to study individual parts of the brain under a microscope.	1. Problems of psychiatric diagnosis after death. 2. Sample sizes usually very small, and/or take a long time to collect a sizeable number of brains. 3. Death may cause changes to the brain. 4. Confounding variables including: * Peri-mortem (ie before death) eg fever as cause of death; * Post-mortem eg method of storing body after death; * Miscellaneous eg age of individual, smoker, drug addict 4. Not possible to establish cause and effect relationships as in experiments with live participants.

Table 3.1 - Strengths and weaknesses of post-mortem studies of the brain.

An example of the post-mortem study of the brain structure is Highley et al (2001). The volume of white matter and cortical components of the frontal lobes were measured in the brains of 28 controls and 24 schizophrenic patients. The mean ages at death were 67-74 years for the former and 61-73 years for the latter group. Causes of death were reasonably similar. The three hospitals of origin were in England and Northern Ireland.

There was no evidence of alteration in the volume of the frontal lobe of the schizophrenic patients.

3.2. POST-MORTEM DIAGNOSIS OF MENTAL DISORDERS

The post-mortem method can be used to study the brain of individuals known to have a mental disorder while alive (prospective recruitment; Deep-Soboslay et al 2005). But, in some cases, post-mortem diagnosis is required. This can be achieved by interviewing family members of the deceased ("psychologic autopsy"; Deep-Soboslay et al 2005) as well as from the physical brain.

The "psychologic autopsy" requires time and resources to find the relatives, and diagnosis is dependent upon what they say. Retrospective information is always limited by memory, and/or the concerns of how to present the dead. Relatives may fail to give full details of "unusual" behaviours based on the maxim, "never speak ill of the dead" (table 3.2).

Alternatively, post-mortem diagnosis could be made from medical records, assuming that they are available and complete (table 3.3).

3.2.1. Comparison of Methods

Deep-Soboslay et al (2005) were interested in the comparison of methods of diagnosis. For 37 individuals with mental disorders, who died between December 2001 and December 2003 in the eastern USA, psychiatric records were obtained, and family members were interviewed.

Originally 119 cases were examined, but psychiatric records were missing for some and family interviews were not possible with others. Thus leaving thirty-seven cases.

The family interviews aimed to gather demographic, educational, social, occupational, and psychological information about the deceased as well as family history. The psychiatric records were examined using the Diagnostic Evaluation After Death (DEAD) (Zalcman and Endicott 1983). Independent judges were also asked to make diagnoses from the information.

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Relatives spent time with the deceased and can describe details of their behaviour.</p> <p>2. Close relatives can give details of the development of the disorder (eg when it started).</p> <p>3. Relatives may be able to highlight co-morbid disorders, like substance abuse, which psychiatrists might miss.</p> <p>4. Relatives can be grateful for the opportunity to talk about the deceased, and to try and make sense of their behaviour.</p> <p>5. Trained interviewers can sensitively gain a lot of information.</p>	<p>1. Recall of information is not always accurate.</p> <p>2. Impression management ie downplaying certain behaviours as not to speak ill of the dead.</p> <p>3. Time and resources needed to find and interview relatives.</p> <p>4. Relatives may not be contactable, for example, because dead.</p> <p>5. When there is information that conflicts with medical records, who to believe?</p> <p>6. Relatives may have problems identifying and describing some symptoms of mental disorders.</p> <p>7. Need to train interviewers.</p> <p>8. Not the same as interviewing the individual themselves.</p>

Table 3.2 - Strengths and weaknesses of family interviews for post-mortem diagnosis of mental disorders.

Overall agreement between diagnosis from family interviews and psychiatric records was 0.67 (ie diagnostic agreement for 25 cases). The figures varied with the disorder, and was 0.94 for schizophrenia, but 0.68 for major depressive disorder and 0.58 for bipolar disorder.

The researchers were confident that post-mortem diagnosis of schizophrenia is accurate from psychiatric records, while "the use of data from a variety of sources.. can maximize a postmortem research team's ability to obtain a global perspective on an individual's symptoms, course of illness, and functioning, thus improving the likelihood of arriving at an accurate postmortem psychiatric diagnosis".

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Information from medical professionals.</p> <p>2. Does not depend upon party with vested interest (relatives) in the impression of the deceased.</p> <p>3. Data from the whole lifespan.</p> <p>4. Can be re-assessed by another doctor or psychiatrist.</p>	<p>1. May not be complete.</p> <p>2. May not be available (eg lost or mislaid).</p> <p>3. Next of kin may refuse access.</p> <p>4. Not the same as having an individual in front of you. Not possible to ask questions of them, for example.</p>

Table 3.3 - Strengths and weaknesses of using medical records in post-mortem diagnosis of mental disorders.

3.2.2. Evaluation

1. Length of time of relatives' interviews after death - Relatives for sixteen cases were interviewed within nine months, and the remainder within two years. The researchers argued that waiting 6-9 months was optimal as it allowed grieving time for the family.

2. Large number of cases that could not be used because of lack of complete information (n= 82). Psychiatric records were not available because, for example, individuals had never been hospitalised, or, more often, the records had been lost or destroyed.

Family interviews did not take place because of refusal (usually "passively declining" by not responding after initial contact rather than direct refusal) or inability to contact them. Three attempts were made to contact the family by telephone, and then a brief letter.

3. Opportunity sample based upon who is available, and thus not representative. For example, 23 of 37 cases were male, overall 18 were single and only seven married, and twelve of the sample died by suicide.

Having a representative sample is important if the researchers are intending to generalise the findings to other people.

4. Family interviews were conducted blindly to psychiatric records, partly because the retrieval of these records took months.

5. The number of cases with specific disorders were very

low. Only four cases with major depressive disorder and five with bipolar disorder, but only single cases of tic disorder, adjustment behaviour, and Alzheimer's disease, for example.

6. The family interviews were extensive, using the Structured Clinical Interview for DSM-IV - Clinician Version (SCID-CV)(First et al 1997), an adapted "psychologic autopsy" interview.

7. Diagnosis from the medical records was done independently by two psychiatrists, and if they did not agree, a third opinion was sort.

8. As well as medical records, police reports and medical examiners' reports in relation to the death were used in diagnosis.

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4. ASKING QUESTIONS: INDIVIDUAL VERSUS GROUP INTERVIEW

- 4.1. Introduction
- 4.2. Individual Interviews
- 4.3. Group Interviews
- 4.4. Variation on Group Interview
- 4.5. References

4.1. INTRODUCTION

Schuman and Kalton (1985) noted that "asking questions is a remarkably efficient way to obtain information from and about people".

The individual's replies may be interpreted or scored, but it is their feelings, thoughts and attitudes that matter. The attempt is to gain an "insider's view" of the disorder.

Interviews can be performed one-to-one or with a group (sometimes called focus groups). Either way has strengths and weaknesses (tables 4.1 and 4.2).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Gain information hard to observe ie individual's thoughts and feelings.</p> <p>2. Structured interviews allow comparison and statistical analysis of data.</p> <p>3. Unstructured interviews gain richer data than other methods, and personal information from one-to-one.</p> <p>4. Can collect both quantitative and qualitative data.</p> <p>5. Interviewer can build relationship and trust with interviewee.</p>	<p>1. One-to-one interviews can be intimidating or embarrassing for certain topics of study.</p> <p>2. Social desirability bias ie giving the appropriate answer rather than the truth.</p> <p>3. Only collects information that individuals report. Thus what they do not say honestly (lying) or do not know (unconscious) not collected.</p> <p>4. Limited by nature of the questions asked.</p> <p>5. Can be expansive and time-consuming with large samples.</p>

Table 4.1 - Strengths and weaknesses of individual interviews.

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<ol style="list-style-type: none"> 1. More people quicker. 2. Some topics need a group to elaborate each other's points rather than just the ideas of a single individual. 3. Less intimidating than one-to-one for some topics. 4. Possible to study group dynamics and processes as well (ie process as well as outcome). 5. No need to keep individuals separate for fear that they will influence each other's answers. 	<ol style="list-style-type: none"> 1. Not all group members have equal say. May miss important details of quieter members of the group. 2. Group psychology including conformity pressures, and social desirability bias towards group. 3. Harder to use for structured interviews. 4. Can't control interviews as well as with one interviewee. 5. Difficult to compare between groups.

Table 4.2 - Strengths and weaknesses of group interviews.

4.2. INDIVIDUAL INTERVIEWS

This is a single interviewee with the interviewer at any one time. Individuals may be more willing to talk, and be honest, about personal details than in front of a group.

Example 1: Robbins (1963)

The aim of this research was to examine the accuracy of parents' recall of how they reared their children. The parents were interviewed when the children were three years old, and were all part of a longitudinal study that had interviewed them regularly since the children's births. Thus there were objective measures by which to compare recall.

Each couple were interviewed separately, but simultaneously in two different rooms (table 4.3). There was evidence of misremembering of facts about child-rearing practices on four of thirteen items, like age of weaning.

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Individual interviews "eliminated the contamination which might ensue if parents were interviewed one after the other" (Robbins 1963) or together.</p> <p>2. Possible to study gender differences.</p> <p>3. Each parent may feel they can say things that they may not want the other parent to hear, or be embarrassed, like forgetting about details of the child-rearing.</p>	<p>1. Couples may have shared certain child-rearing practices and thus had joint memory.</p> <p>2. Deliberately putting each parent in a separate room could make them feel like police interviews.</p> <p>3. Some individuals may be more confident in lone interviews than others, and nervousness can reduce recall accuracy.</p>

Table 4.3 - Key strengths and weaknesses of the individual interviews used by Robbins (1963).

4.3. GROUP INTERVIEWS

Horton-Salway (2007) described two different traditions in the use of group interviews in social science research. The positivist tradition (often using focus groups) aims for the scientific study of behaviour, while the interpretivist approach is interested in the participants as "active in their construction of social reality".

Group interviews allow the study of the topic (outcome) and the process of reaching that outcome.

Millward (2000), describing focus groups, argued that group interviews "not only enhance the ability of psychologists to answer their research questions but more importantly generate questions from new angles and perspectives" (p305). Put simply, group interviews produce information that cannot be gained from individual interviews. So, for example, attitudes are constructed through communication with others rather than as individual cognitive processes.

Example 2: Edley and Wetherell (2001)

The research uses discourse analysis of group discussions. Two sets of male groups were asked to talk about feminism. One set of participants were 17-18 year-

olds from a UK independent boys' school, and the others were adults on a Open University course. Each group comprised of three individuals.

The researchers identified a "Jekyll and Hyde" binary around feminism. On the one hand, it was seen as the acceptable desire for equality, but, on the other hand, as wanting more (which was less acceptable).

Group discussions are used a lot in studying discourses (table 4.4).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Individuals confident to be more forthright in group with other men, particularly as topic could be difficult to gain honest answers about.</p> <p>2. Also in groups with people they knew encourages talking.</p> <p>3. Discourses are constructed in social interactions.</p>	<p>1. Conformity pressure to agree.</p> <p>2. Not possible to establish objective measures of individual attitudes.</p> <p>3. Knowing people can be embarrassing for some people and stop them from expressing very personal beliefs, particularly the schoolboys who might be mocked then or later for what they say.</p>

Table 4.4 - Key strengths and weaknesses of group interviews as used by Edley and Wetherell (2001).

4.4. VARIATION ON GROUP INTERVIEW

Holt and Griffin (2005) used one-hour long group interviews in their research on young adults' experiences of "going out", but after they had visited bars and pubs with the researchers. Semi-structured group discussions took place the day after groups of 3-5 people had been out on a night to three central Birmingham bars and pubs chosen by the researchers. The study took place in 1999 and 2000.

"The nights out were used as a stimulus for discussion in interviews, encouraging interviewees to talk about their experiences of venues, to think about why they liked particular venues and not others, to explore how they related their identities to different leisure spaces, and how the night out compared to their own leisure activities" (p253).

The study was not ethnographic because the participants were not studied during the night out.

Rather it was used as a focus of discussion because Holt (2001 quoted in Holt and Griffin 2005) had found that "cold" interviews had limitations.

The researchers defended themselves against "contaminating the field" (Willig 2001) by saying that "there is no completely neutral way to do research, and that there interventions took the form of explicit attempts to investigate a specific topic" (p251).

The strength of this study was that all the interviewees were talking about shared experiences and knowledge, and it was hoped that this allowed everyone to participate (table 4.5).

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<p>1. Allowed researchers to explore a difficult issue - social class and social identity in leisure.</p> <p>2. All members of the group had shared experiences and knowledge to discuss, and meant that no individual was excluded.</p> <p>3. "Night out" together broke down barriers and encouraged more discussion.</p>	<p>1. Individuals may have felt unable to talk about experiences outside of the "night out", and thus the researchers had directed the discussions.</p> <p>2. It changed the nature of the relationship between interviewer and interviewee based on what happened during the "night out".</p> <p>3. How free did the participants feel to enjoy themselves on the "night out", and did they feel watched?</p>

Table 4.5 - Key strengths and weaknesses of the method used by Holt and Griffin (2005).

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5. STUDYING HAPPINESS SCIENTIFICALLY: THE IMPORTANCE OF OPERATIONALISATION

- 5.1. Introduction
- 5.2. Strengths of Operationalisation
- 5.3. Weaknesses of Operationalisation
- 5.4. References

5.1. INTRODUCTION

Ormerod (2007) noted that by the year 2000 over four thousand academic articles had been published on happiness (or life satisfaction or well-being). So there is a lot of interest in studying this topic, not only in psychology.

Myers (2000) referred to public opinion surveys which showed that many individuals are self-reporting as happy/very happy or satisfied with their lives. If the surveys are aggregated (916 studies with 1.1 million people in forty-five countries), the average rating is 6.75 (on a scale of 0-10 with 10 as "very happy and completely satisfied with life")(Myers and Diener 1996).

In research, happiness (or whatever term used eg subjective well-being) needs to be clearly defined. For example, Veenhoven (2003) defined happiness as "the overall appreciation of one's life as a whole". While the Sustainable Development Research Network defined well-being as "elements of life satisfaction which cannot be defined, explained or primarily influenced by economic growth" (quoted in Ormerod 2007).

These definitions are too vague for scientific purposes. Happiness is a hypothetical concept, and it must be made into a definition that can be measured. This is known as operationalisation. In other words, something that cannot be touched or seen is made into something quantifiable.

There are risks with operationalisation of any concept, particularly that the definition is inadequate or not valid, but the process is crucial in science.

5.2. STRENGTHS OF OPERATIONALISATION

1. Takes a vague idea or concept and makes it objectively measurable for research purposes.

Lyubomirsky et al (2005) used the operational definition, "chronic happiness level", which they defined as "retrospective summary judgments regarding his or her mood and satisfaction during some recent period (such as

the past 2, 6 or 12 months) or as the average of momentary judgments of mood and satisfaction made at several times during the selected period" (p116).

2. Common definitions allow comparison between studies.

3. Operationalisation is the basis of constructing psychometric instruments to measure behaviour.

Diener and Seligman (2002), in their study of happiness among students at the University of Illinois, used a psychometric instrument called the "Satisfaction With Life Scale" (Diener et al 1985). Total scores on this instrument range from 5 (extreme dissatisfaction), 20 (neutral) to 35 (extreme satisfaction).

4. Operational definitions are reliable ie consistency of measurement over time and place (eg number of times laughed per day).

5. Allows studies like experiments to establish the causes of happiness or the effects of it.

6. Can be the only way to study hypothetical constructs scientifically.

7. Allows the collection of quantitative data and statistical analysis which is crucial to science.

8. Operational definitions can be used by both individual themselves (self-reports) and by third parties (eg observers). This is convergent validity - two separate scores of the same behaviour.

5.3. WEAKNESSES OF OPERATIONALISATION

1. A complex phenomenon is reduced to a simple score. "It rarely covers the whole of what is usually understood by that construct" (Coolican 1990).

2. The operational definition may not be valid ie it does not measure what it claims to measure. For example, number of smiles per hour is not necessarily a valid measure of happiness because individuals may smile for other reasons like politeness.

3. A subjective experience is forcibly converted into a numerical score. Happiness involves subjective elements that are lost by any quantitative measure.

4. There can be many different ways to operationalise a concept (some of which may be contradictory).

5. Different terms are used which may not be interchangeable eg life satisfaction, quality of life, subjective well-being.

6. Happiness may be a multi-dimensional concept, and a single operational definition fails to capture its truth.

7. The language used in the definition can influence the answers given.

Andrews and Withey (1976) tried to overcome this problem by using seven simple faces from "most happy" (20% of participants chose) to "least happy" (0%).

8. How the operational definition is labelled and scored can influence the results. For example, each of the scales below will produce different results (table 5.1).

1	2	3	4	5
very unhappy	unhappy	neutral	happy	very unhappy
exceptionally		unsure		exceptionally
much more unhappy than happy	slightly more unhappy than happy	neither happy or unhappy	slightly more happy than unhappy	much more happy than unhappy

Table 5.1 - Three different wording of happiness measures.

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