Saffron Walden County High Psychology Summer Homework

This pack contains reading about the different approaches in psychology and some of the key studies that you will learn about during the course. There is a timeline to create and some questions to answer on the key studies.

DUE: BE READY TO HAND THIS TO YOUR TEACHER DURING YOUR FIRST PSYCHOLOGY LESSON IN SEPTEMBER.

Good luck and we look forward to seeing you in September!

Task 1: READING AND RESEARCH TASK ON APPROACHES IN PSYCHOLOGY

Psychology is constantly evolving and different approaches have emerged over time. These approaches have different ways of explaining and studying human behaviour.

Tick when completed
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Student tasks:

1. ***Read the info posters*** on the following 2 pages to get a basic understanding of the different psychological approaches.
2. As part of the psychology course, we require students to complete extensive wider reading to better understand concepts and theories. ***Read the two articles*** and see how the approaches link to changes in the field of psychology and how practical applications can be made to 'boredom'.
3. ***Undertake some research of your own*** and use this link Perspectives in Modern Psychology (Theoretical Approaches) (simplypsychology.org)
4. ***Construct a timeline*** to show how psychology has evolved. Use the timeline template below to help you.

For each approach you need information about:

- A one sentence summary of what the approach is.
- The key researcher— birth and death dates, photo and how they have contributed to psychology.
- A summary of the research using the key terms given.
- The research method that the approach uses

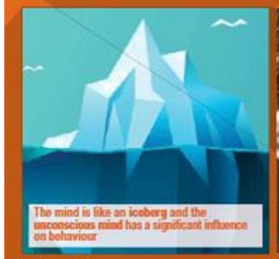
Have a look at the examples that are pinned to our Instagram for inspiration! @swchsumsci

Approaches in Psychology Timeline

Psychology originated from philosophy but over time has become more scientific.
Psychodynamic approach (1900s) *Researcher:* Sigmund Freud *Key term:* Tripartite personality (Id/ Ego/ Superego)
Behaviourist approach (1913-) *Researcher:* John Watson *Key study:* Little Albert
Humanistic approach (1950s) *Researcher:* Abraham Maslow *Key term:* Hierarchy of needs
Cognitive approach (1960s) *Researcher:* No key researcher *Key term:* Role of the schema
Social learning theory (1970s) *Researcher:* Albert Bandura *Key study:* Bobo doll study
Biological approach (1980s) *Researcher:* No key researcher *Key term:* Twin studies using MZ and DZ twins Push yourself: more recently cognitive neuroscience has emerged which combines the biological and cognitive approach.

THIS TASK SHOULD TAKE YOU 1 HOUR AND 30 MINUTES (MAX) TO COMPLETE

THE PSYCHODYNAMIC APPROACH



The mind is like an iceberg and the unconscious mind has a significant influence on behaviour

Early childhood experiences have an impact on later adult behaviour

Personality consists of three components: id, ego and superego which determine our behaviour

Children progress through a series of psychosexual stages. If a child becomes fixated at any stage it can affect their later behaviour

THE BEHAVIOURAL APPROACH

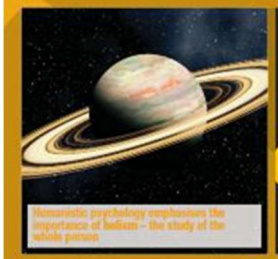
Behaviour can be explained in terms of learning, known as conditioning, including classical and operant

Basic processes that govern learning are the same in all species, therefore research on animals can be applied to humans

Behaviour should only be studied if it can be directly observed and objectively measured

Humans are born a blank slate (tabula rasa), so there is no genetic influence on behaviour

THE HUMANISTIC APPROACH



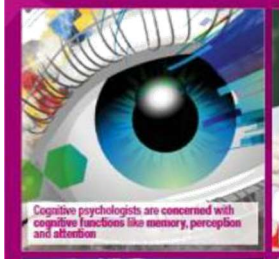
Humanistic psychology emphasises the importance of holism – the study of the whole person

Every human is unique and has free-will to change

Humans have an innate capacity for self-actualisation, which is a desire to achieve our highest potential

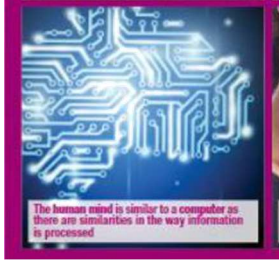
Humanists reject scientific methods as a way of studying human behaviour

THE COGNITIVE APPROACH

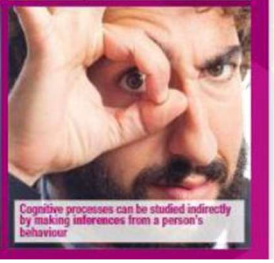


Cognitive psychologists are concerned with cognitive functions like memory, perception and attention

Internal mental processes can and should be studied scientifically

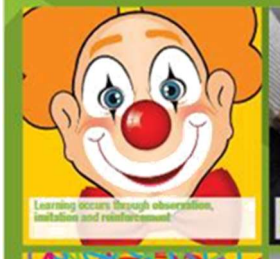


The human mind is similar to a computer as there are similarities in the way information is processed



Cognitive processes can be studied indirectly by making inferences from a person's behaviour

SOCIAL LEARNING THEORY



Learning occurs through observation, imitation and reinforcement

Behaviour is learnt indirectly through observing the consequences of other peoples' actions (vicarious reinforcement)

SLT also focuses on how cognitive factors affect learning – known as mediational processes

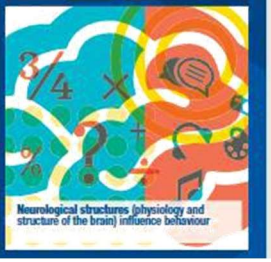
Behaviour is more likely to occur when observing a role model who we identify with

THE BIOLOGICAL APPROACH

All thoughts, feelings and behaviours have a physical basis

Behaviours are influenced by the genes we inherit

Biological evolution allows us to understand the adaptive significance of behaviours, such as aggression, through natural selection



Neurological structures (physiology and structure of the brain) influence behaviour

Emergence of cognitive neuroscience

The aim of **cognitive neuroscience** is to relate mental processes (cognition) to brain structures (neuro).

The **emergence** (or development) of cognitive neuroscience has depended on the various techniques available. You can read about these techniques in PSYCHOLOGY REVIEW Vol. 25, No. 1, where we provided a centrespread timeline on 'Ways of studying the brain'.

2000s Mirror neurons

Giacomo Rizzolatti and colleagues accidentally discovered that neurons in a macaque monkey's motor cortex were activated when watching a researcher reach for his food, i.e. the neurons responded as if the monkey itself was performing the action. These so-called 'mirror neurons' may provide the explanation for social cognition – how we come to understand the intention and emotions of others through experiencing their actions and thoughts as if they are our own.

2000s Spatial memory

Eleanor Maguire assessed the size of the hippocampus in experienced taxi drivers and compared this to people who did not use their spatial memories more than average. MRI scans showed that use of spatial memory was associated with larger hippocampi.

2010s Delay of gratification

In the 1970s, Walter Mischel introduced the **marshmallow effect**, demonstrating that some young children were better able to resist temptation (to eat a marshmallow) than others. Later research showed that the 'resisters' did better at school. Forty years later Billy Jo Casey, working with Walter Mischel, used fMRI and a go/no go task to show that the ability to delay gratification was related to higher activity in the right inferior frontal cortex.

1960s Lateralisation of the brain

Roger Sperry showed that the right and left brain had different functions and could not communicate if the corpus callosum (and other associated structures) are cut. The split-brain operation was performed on patients with severe epilepsy to reduce their symptoms.

1960s Vision

David Hubel and Torten Wiesel demonstrated how individual cells in the visual cortex respond to the orientation of lines, mapping the process of perception in the brain. They measured the electrical activity of individual neurons.

1950s Specific memories

Wilder Penfield showed that specific memories could be triggered by applying a mild electrical current to areas of the temporal lobe. When other areas of the temporal lobe were stimulated patients reported emotions related to past events.

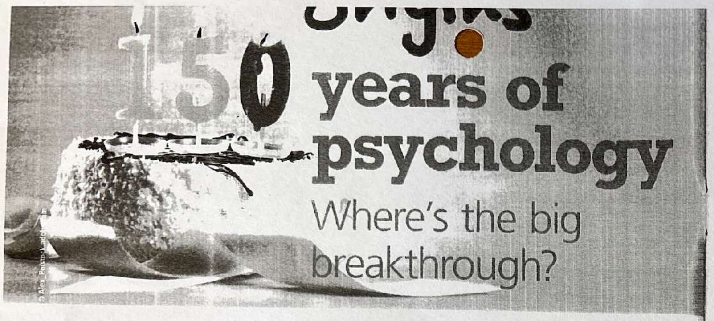
1880s Understanding the nervous system

Santiago Ramon y Cajal, using Camillo Golgi's staining technique, identified discontinuity in the nervous system, i.e. that neurons were individual cells interconnected through synapses. This laid the foundations for understanding the function of various components of the nervous system.

1860s Localisation of language

Paul Broca and later Carl Wernicke both studied living people with certain language difficulties and later, using post-mortem examination, showed that there were lesions in identifiable, localised areas of the brain. Broca's area is responsible for speech comprehension and Wernicke's area for language comprehension.

PsychologyReviewExtras



150 years of psychology

Where's the big breakthrough?

Phil Banyard explores what psychology has and hasn't achieved since it first developed as an independent field of study 150 years ago

SPECIFICATION LINKS

- origins of psychology
- Wundt
- theory construction

When we take a look at the planned and accidental achievements of the other sciences, the question on everybody's lips is: 'What has psychology achieved?'.

The beginnings of psychology

In 1867, the American philosopher William James announced:

> Perhaps the time has come for psychology to begin to be a science. Some measurements have already been made in the region lying between the physical changes in the nerves and the appearance of consciousness, and more may come of it…Helmholtz and a man named Wundt at Heidelberg are working on it. (James 1890)

The 'man named Wundt' decided to take up James' provocative call-to-arms and opened the first psychology laboratory at the University of Leipzig in 1879. That event is commonly seen as the start of psychology as an independent discipline, and Wilhelm Wundt is acknowledged as the founder of experimental psychology.

Wundt didn't want to start a new science — his aim was to revitalise philosophy using physiological methods to produce data about the capabilities of the human mind. He worked with thousands of students and wrote over 500 scientific papers. However, despite his legendary productivity, he did not leave a legacy of either scientific discoveries or theoretical principles. Wundt's first American student, G. Stanley Hall, wrote:

> It does not seem to me that he made any epoch-making contributions to psychology, although he will always fill a large place as the first to establish this science on an experimental basis. ('In memory' 1921)

And here is the challenge. If Wundt did not leave any great 'epoch-making contribution' to psychology, what has happened since? What has psychology achieved in the nearly 150 years since the first laboratory was opened?

Psychology's achievements

Here's a fun thing for you to do. Find a psychology professor and ask them what they think are the top five achievements of psychology. When I've sprung this on colleagues they tend to start by spluttering a bit and then come up with suggestions like attachment theory or the multi-store model of memory or even cognitive behaviour therapy (CBT). To me, this is not an impressive list and it suggests a horrible truth that for all the bluster about science, for all the fancy equipment and multi-million-pound research grants, we psychologists haven't discovered any great new understandings or technologies about our core subject: ourselves.

Yes, we have produced studies and papers that cite and excite our colleagues and, when spun in the right way, can also light up the sofa of *The One Show* or the *Today* studio or social media, but does any of it amount to anything more than a hill of beans? The British Psychological Society (BPS) states on the front page of its website: 'Psychology is the scientific study of people, the mind and behaviour.' So what are the headline discoveries about people, mind and behaviour? And do these findings match up to the discoveries of the other sciences?

Before you read on, look at Box 1.

Find a psychology professor and ask them what they think are the top five achievements of psychology

Box 1 Some[thi]ng to do

Try to list the greatest scientific discoveries that have changed our world. It'll probably be quite a long list and contain theories and findings and products that have changed the way we think about the world and how we live in it. Some of them will have even changed the way we think about ourselves.

The discoveries of other sciences

Let's take physics, for example. It has split the atom, it has the Big Bang Theory, it has quantum theory, and it has the Hadron Collider and the Higgs boson. All of these developments have come since Wundt opened his laboratory. Chemistry has the periodic table, a classification of all substances in the universe, and biology has evolution, a robust theory of how we came to be here. I could go on. What has psychology got? (Look at Box 2 on the next page for some further suggestions.)

'Psychology is a young science' we say by way of explanation for the lack of great findings. But 150 years is not that young, and there are even younger sciences that have more to show. Electronics has the microchip, genetics has mapped out the human genome, and geology has tectonic plates.

Psychological knowledge

Perhaps there is a problem with how we develop knowledge in psychology. To start with, other sciences have testable theories, whereas psychology has testable hypotheses. What's the difference? Einstein's theory of general relativity was first presented in 1915 and from this it was possible to derive a testable hypothesis concerning the effect of gravity on light. This hypothesis was spectacularly tested in 1919 when light was shown to bend round the sun during a solar eclipse to the amount predicted by the theory. And if we look at the Higgs boson, then this is a particle whose existence was predicted by theory. It is an important part of the Standard Model of particle physics and provided a crucial test of that theory. First proposed in the 1960s, it was finally confirmed to exist in 2013.

What psychological theory produces predictions that can be tested in this way? Or to be even more challenging, what collection of ideas in psychology have we got that we can call a testable theory? What is psychology's Big Bang?

Uncovering or inventing knowledge?

When it comes to knowledge in psychology, we are not so much uncovering it as inventing it. We appear to use the basic methods of science by observing and categorising behaviour in much the same way as biologists or medics. But there's a difference, and this difference is nowhere more obvious than in diagnosis. If you compare a medical disorder like chicken pox with a psychological disorder like PTSD then you'll see the contrast.

To diagnose chicken pox we look for three symptoms: fever, itchy spots and loss of appetite. That's it. But if we want to diagnose PTSD we look for any of 19 symptoms arranged in four categories. To make the diagnosis of PTSD you have to judge the patient to have at least eight of these symptoms across the four categories. In other words, two people might have not a single symptom in common but still be said to have the same condition. There are, in fact, 646,120 ways to get a diagnosis of PTSD (Galatzer-Levy and Bryant 2013).

We are not *discovering* disorders, we are *inventing* them. This process of invention has resulted in a list of conduct disorders outlined in the DSM such as 'phase of life problem' and 'sibling relational problem' and many others. We are slowly but surely putting all human behaviour on a spectrum.

In all the lists I browsed, I didn't find one invention that you could claim as psychological

Scientific products

So, if we haven't got theories then maybe we have transformational products instead: things that we have invented that have changed lives. Inventions such as the microchip figure highly in any list of inventions that have a major impact on us. Imagine our world without microchips and all the products they inhabit. Then there is the contraceptive pill which revolutionised women's control of their own fertility and fuelled a massive social change of women's position in society.

If you search the internet for the greatest scientific inventions, you get a lot of suggestions, such as antiseptics, penicillin, telephones, electric batteries, frozen peas, lasers, pianos, radar, the internet and, my favourite, the non-stick frying pan. In all the lists I browsed, I didn't find one invention that you could claim as psychological.

The non-stick frying is a great example of an invention that changes lives. It is not revolutionary, or even essential, but it makes the life of anyone who does any cooking a lot easier. It is commonly believed to have been a bi-product of the space race in the 1960s, but the reverse is true and, in fact, the non-stick pan was a

Physics has the Hadron Collider. What has psychology got?

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Box 2 Scientific theories and inventions since the opening of Wundt's laboratory

Anaesthetics	Human organ transplantation	Penicillin
Contraceptive pill	Internal combustion engine	Refrigeration
Covid-19 vaccine	Magnetic Resonance Imaging (MRI)	Relativity
DNA/RNA	Mechanical flight	Satellites
Electricity	Microchip	Tectonic plates
Evolution	Mobile phone	Television
Heisenberg Uncertainty Principle	Neurotransmitters	The internet
Human genome	Non-stick frying pan	X-rays

facilitator of space travel. Not the frying pan of course but the polymer that coats the frying pan, which had been invented in the 1930s and used in the Manhattan project to develop the atomic bomb.

I'm not asking for an invention with the impact of antibiotics or contraceptives or the aeroplane or the combustion engine, but where oh where is psychology's non-stick frying pan? Surely, we have something to match that?

Giving psychology away

This article reads like a treatise of despair, but I think there is some cause for optimism. Psychology does, in fact, contribute to our everyday life but not in the manner of the other sciences. In his challenging talk to the American Psychological Association (APA) in 1969, George Miller seemed to come to the same conclusion. He argued that psychology has the potential to be one of the most revolutionary activities ever developed by people. Miller wrote:

> If we were ever to achieve substantial progress toward our stated aim — toward the understanding, prediction and control of mental and behavioural phenomena — the implications for every aspect of society would make brave men tremble. (Miller 1969)

Perhaps it is, therefore, a good thing that psychology doesn't have great inventions and insights that allow us to understand and change human behaviour. If it did, then who would use these discoveries and what would they use them for? You need look no further than governments and powerful companies who already use small-scale interventions to manipulate our behaviour by controlling algorithms that present us with images and messages to influence what we think and what we do.

Psychology does, in fact, contribute to our everyday life but not in the manner of the other sciences

Humanly possible and humanly desirable

Despite the negativity towards psychological knowledge in this article, I think there is a massive silver lining. Miller argued that we are looking in the wrong direction if we are waiting for the great discoveries and applications to appear. He suggested that the revolution will come in how we think of ourselves:

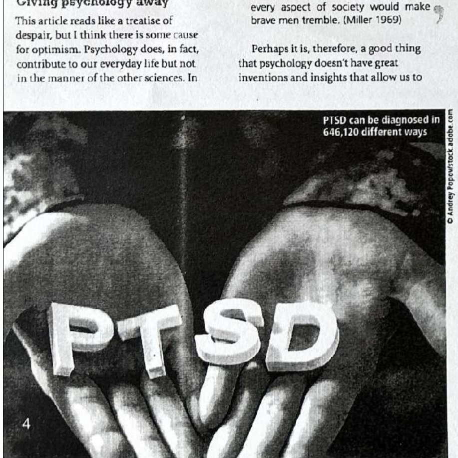
> I believe that the real impact of psychology will be felt, not through the technological products it places in the hands of powerful men, but through its effects on the public at large, through a new and different public conception of what is humanly possible and humanly desirable. (Miller 1969)

The brilliance of psychology is that it provides a secular explanation for our existence, our feelings, thoughts and behaviour. In my view, it can help us roll back the fog of superstition, mysticism and religion to provide understandings about ourselves that do not rely on supernatural beings and events. And as the country becomes more and more psychologically literate, these understandings have become part of the way we explain the world.

When there is an atrocity or a hate crime then it is psychologists who are commonly asked to comment on it rather than religious leaders. It might well be that psychologists have very little to say or do but at least we are looking to ourselves for answers rather than supernatural beings.

So, on my balance sheet, I think that psychology comes out as making useful contributions to our world, especially in helping us reflect on who we are and what we can become — what is humanly possible and humanly desirable. Though, while we do this, it would be really good if we also found our non-stick frying pan, don't you think?

PTSD can be diagnosed in 646,120 different ways



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DISCUSSION POINTS

This article argues that psychology doesn't give us theories or discoveries like other sciences, but instead gives us new ways of exploring what is humanly possible and humanly desirable.

Do you agree? If you do, then are the scientific underpinnings important?

If you disagree, then what do you think the point of psychology is? Or even life itself?

It is already possible to manipulate human behaviour. What would happen if we truly understood how our minds work?

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REFERENCES

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Phil Banyard is an emeritus professor at Nottingham Trent University. He has published over 20 books, the most recent of which is *Controversy and Psychology*.

ANOTHER VOICE

Psychology's biggest breakthrough

It is good to be challenged, but do I agree with Phil Banyard's argument in the previous article? Is the non-stick frying pan analogy misleading? This is because it invites us to look for something concrete and universal. Psychology's 'inventions' tend to be in the form of theories that help us understand and respond to a situation — sometimes a very particular situation that most of us don't encounter every day. They nonetheless have a profound impact on how at least some people carry out a range of tasks that impact on many others. So, what are my personal frying pans?

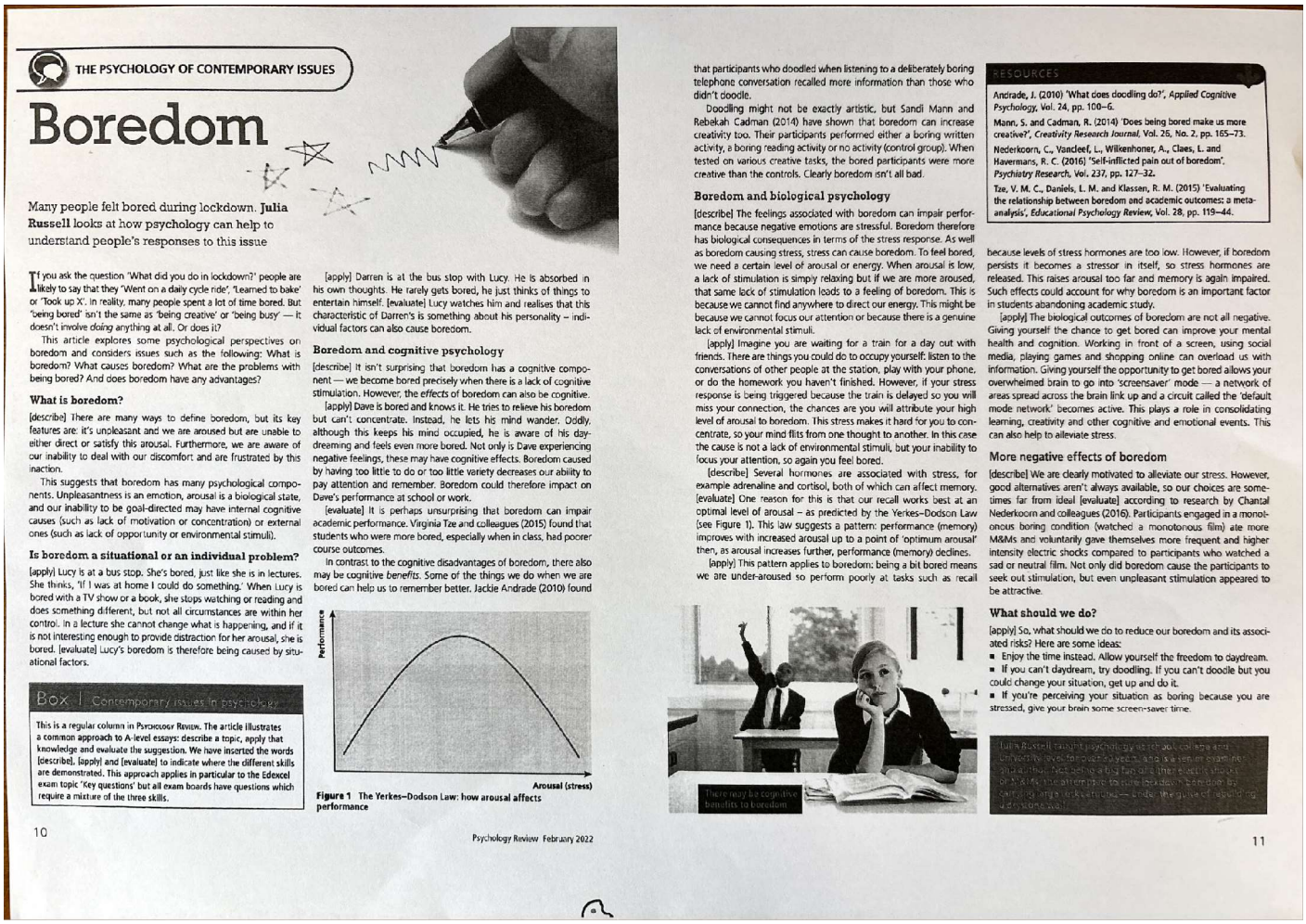
I'm a psychologist and learning technologist/instructional designer. This means that I develop and launch interactive learning tools and train teachers how to use these as well as more conventional software in ways that promote effective learning. I constantly think in terms of a range of psychological theories, but one in particular qualifies as a non-stick frying pan. Cognitive load theory (CLT) (discussed in detail by John Sweller in Psychology Review, Vol. 27, No. 2) helps me think about how efficiently I'm putting across information.

CLT proposes that we think in terms of three types of information that make up the load on our working memory at any moment:

- Intrinsic load is essentially how complex and difficult an idea is. The greater the intrinsic load, the more carefully I have to think about how much information to put on a slide or page, whether to present it in parts rather than as a whole, and how and whether it will be easiest to grasp in the form of text, imagery, video, etc.
- Extraneous load is any information that uses up working memory capacity without adding to learning. To reduce extraneous load, I tend to produce fairly plain pages and slides and minimise the use of unnecessary animation, decorative images and sound effects.
- Germane cognitive load is any additional information that takes up working memory capacity but promotes learning. I aim to ensure that my learning resources maximise germane load by including test questions, worked examples and self-assessment.

Of course, I could do these things without thinking about CLT. But then you could cook without a non-stick frying pan. If I had to live without one or the other, the frying pan would have to go!

Matt Jarvis



THE PSYCHOLOGY OF CONTEMPORARY ISSUES

Boredom

Many people felt bored during lockdown. **Julia Russell** looks at how psychology can help to understand people's responses to this issue

If you ask the question 'What did you do in lockdown?' people are likely to say that they 'Went on a daily cycle ride', 'Learned to bake' or 'Took up X'. In reality, many people spent a lot of time bored. But 'being bored' isn't the same as 'being creative' or 'being busy' — it doesn't involve *doing* anything at all. Or does it?

This article explores some psychological perspectives on boredom and considers issues such as the following: What is boredom? What causes boredom? What are the problems with being bored? And does boredom have any advantages?

What is boredom?

[describe] There are many ways to define boredom, but its key features are: it's unpleasant and we are aroused but are unable to either direct or satisfy this arousal. Furthermore, we are aware of our inability to deal with our discomfort and are frustrated by this inaction.

This suggests that boredom has many psychological components. Unpleasantness is an emotion, arousal is a biological state, and our inability to be goal-directed may have internal cognitive causes (such as lack of motivation or concentration) or external ones (such as lack of opportunity or environmental stimuli).

Is boredom a situational or an individual problem?

[apply] Lucy is at a bus stop. She's bored, just like she is in lectures. She thinks, 'If I was at home I could do something.' When Lucy is bored with a TV show or a book, she stops watching or reading and does something different, but not all circumstances are within her control. In a lecture she cannot change what is happening, and if it is not interesting enough to provide distraction for her arousal, she is bored. [evaluate] Lucy's boredom is therefore being caused by situational factors.

Box | Contemporary issues in psychology

This is a regular column in Psychology Review. The article illustrates a common approach to A-level essays: describe a topic, apply that knowledge and evaluate the suggestion. We have inserted the words [describe], [apply] and [evaluate] to indicate where the different skills are demonstrated. This approach applies in particular to the Edexcel exam topic 'Key questions' but all exam boards have questions which require a mixture of the three skills.

[apply] Darren is at the bus stop with Lucy. He is absorbed in his own thoughts. He rarely gets bored, he just thinks of things to entertain himself. [evaluate] Lucy watches him and realises that this characteristic of Darren's is something about his personality – individual factors can also cause boredom.

Boredom and cognitive psychology

[describe] It isn't surprising that boredom has a cognitive component — we become bored precisely when there is a lack of cognitive stimulation. However, the *effects* of boredom can also be cognitive.

[apply] Dave is bored and knows it. He tries to relieve his boredom but can't concentrate. Instead, he lets his mind wander. Oddly, although this keeps his mind occupied, he is aware of his daydreaming and feels even more bored. Not only is Dave experiencing negative feelings, these may have cognitive effects. Boredom caused by having too little to do or too little variety decreases our ability to pay attention and remember. Boredom could therefore impact on Dave's performance at school or work.

[evaluate] It is perhaps unsurprising that boredom can impair academic performance. Virginia Tze and colleagues (2015) found that students who were more bored, especially when in class, had poorer course outcomes.

In contrast to the cognitive disadvantages of boredom, there also may be cognitive *benefits*. Some of the things we do when we are bored can help us to remember better. Jackie Andrade (2010) found that participants who doodled when listening to a deliberately boring telephone conversation recalled more information than those who didn't doodle.

Doodling might not be exactly artistic, but Sandi Mann and Rebekah Cadman (2014) have shown that boredom can increase creativity too. Their participants performed either a boring written activity, a boring reading activity or no activity (control group). When tested on various creative tasks, the bored participants were more creative than the controls. Clearly boredom isn't all bad.

Figure 1 The Yerkes–Dodson Law: how arousal affects performance

Boredom and biological psychology

[describe] The feelings associated with boredom can impair performance because negative emotions are stressful. Boredom therefore has biological consequences in terms of the stress response. As well as boredom causing stress, stress can cause boredom. To feel bored, we need a certain level of arousal or energy. When arousal is low, a lack of stimulation is simply relaxing but if we are more aroused, that same lack of stimulation leads to a feeling of boredom. This is because we cannot find anywhere to direct our energy. This might be because we cannot focus our attention or because there is a genuine lack of environmental stimuli.

[apply] Imagine you are waiting for a train for a day out with friends. There are things you could do to occupy yourself: listen to the conversations of other people at the station, play with your phone, or do the homework you haven't finished. However, if your stress response is being triggered because the train is delayed so you will miss your connection, the chances are you will attribute your high level of arousal to boredom. This stress makes it hard for you to concentrate, so your mind flits from one thought to another. In this case the cause is not a lack of environmental stimuli, but your inability to focus your attention, so again you feel bored.

[describe] Several hormones are associated with stress, for example adrenaline and cortisol, both of which can affect memory. [evaluate] One reason for this is that our recall works best at an optimal level of arousal – as predicted by the Yerkes–Dodson Law (see Figure 1). This law suggests a pattern: performance (memory) improves with increased arousal up to a point of 'optimum arousal' then, as arousal increases further, performance (memory) declines.

[apply] This pattern applies to boredom: being a bit bored means we are under-aroused so perform poorly at tasks such as recall because levels of stress hormones are too low. However, if boredom persists it becomes a stressor in itself, so stress hormones are released. This raises arousal too far and memory is again impaired. Such effects could account for why boredom is an important factor in students abandoning academic study.

[apply] The biological outcomes of boredom are not all negative. Giving yourself the chance to get bored can improve your mental health and cognition. Working in front of a screen, using social media, playing games and shopping online can overload us with information. Giving yourself the opportunity to get bored allows your overwhelmed brain to go into 'screensaver' mode — a network of areas spread across the brain link up and a circuit called the 'default mode network' becomes active. This plays a role in consolidating learning, creativity and other cognitive and emotional events. This can also help to alleviate stress.

RESOURCES

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There may be cognitive benefits to boredom

More negative effects of boredom

[describe] We are clearly motivated to alleviate our stress. However, good alternatives aren't always available, so our choices are sometimes far from ideal [evaluate] according to research by Chantal Nederkoorn and colleagues (2016). Participants engaged in a monotonous boring condition (watched a monotonous film) ate more M&Ms and voluntarily gave themselves more frequent and higher intensity electric shocks compared to participants who watched a sad or neutral film. Not only did boredom cause the participants to seek out stimulation, but even unpleasant stimulation appeared to be attractive.

What should we do?

[apply] So, what should we do to reduce our boredom and its associated risks? Here are some ideas:

- Enjoy the time instead. Allow yourself the freedom to daydream.
- If you can't daydream, try doodling. If you can't doodle but you could change your situation, get up and do it.
- If you're perceiving your situation as boring because you are stressed, give your brain some screen-saver time.

Julia Russell taught psychology at sixth form college and university level for over 20 years, and is a senium examiner and author. Not being a big fan of other people's shoes or M&Ms, she attempts to cure boredom by [illegible]

Task 2: READING TASK ON KEY STUDIES

In Psychology, you will learn about different key studies. It is important for us to understand how these studies were conducted so that we evaluate them.

Three of these key studies are **Loftus & Palmer, Ainsworth and Milgram.** Read through the information about these studies and then answer the questions that follow.

Top tip – read through the questions first and then highlight as you go any key elements that link to the questions.

There are also links to documentaries to give you more information about the studies.

THIS TASK SHOULD TAKE YOU 1 HOUR AND 30 MINUTES (MAX) TO COMPLETE

Loftus & Palmer (1974) – Leading Questions

CLASSIC RESEARCH

Reconstruction of automobile destruction: an example of the interaction between language and memory – Elizabeth Loftus & John Palmer (1974)

Elizabeth Loftus would go on to forge a career based around research into EWT and the formation of false memories. In this early study she found that participants' memories of important details of an event witnessed on video could be influenced by the use of misleading questions.

Aim

To assess the extent to which participants' estimates of the speed of cars involved in accidents witnessed on video could be influenced by misleading questions.

Procedure

1 **Experiment one:** 45 university students were each shown 7 video clips of car crashes. After each accident participants wrote an account of what they could recall and answered specific questions, the key question being to estimate the speed of the vehicles. There were 5 conditions (with 9 participants in each condition), with the conditions varying through which verb was used in asking the key question.

Key question: About how fast were the cars going when they ..... each other?

The blank space was filled with either 'contacted', 'hit', 'bumped', 'collided' or 'smashed'.

Participants' estimations of speed were then recorded.

2 **Experiment two:** 150 student participants viewed a video of a car crash. 50 were asked the key question with the word 'smashed' in it, 50 with the word 'hit' and a control group of 50 weren't asked at all. One week later they were questioned about their memory of the event, with the key question being 'Did you see any broken glass?' (There wasn't any.)

The number of participants who recalled broken glass was then recorded.

Findings

Experiment One:

Verb	Mean estimate of speed in miles per hour
Contacted	31.8
Hit	34.0
Bumped	38.1
Collided	39.3
Smashed	40.8

As the intensity of the verb used in the key question increased, so did the estimation of the speed of the cars.

Experiment Two:

Answer	Smashed	Hit	Control
Yes	16	7	6
No	34	43	44

Participants were twice as likely in the 'smashed' condition to recall the false memory of broken glass.

Conclusions

Experiment one showed that misleading information in the form of leading questions can affect memory recall of eyewitnesses.

Experiment two showed that misleading information in the form of post-event information can also affect memory recall of eyewitnesses.

Both studies suggest that at recall misleading information is reconstructed with material from the original memory.

Evaluation

The study is a laboratory experiment centred on an artificial task (watching videos) and as such lacks relevance to real-life scenarios. Witnessing real car crashes would have much more of an emotional impact and thus would affect recall differently.

The results may be due to demand characteristics, rather than genuine changes in memory; participants may have just given the answer they thought the researchers wanted, as suggested by which verb they heard in the key question.

RESEARCH IN FOCUS

1 A limitation of Loftus & Palmer's 1974 study is that demand characteristics may have caused the results. What are demand characteristics and how may they have occurred here?

2 How might including 'filler' questions as well as the 'key question' help reduce demand characteristics?

For information on research methods, see Chapter 7.

Questions about Loftus & Palmer

Tick when completed
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1. In this study, participants watched video clips of car crashes rather than seeing a car crash in real life. **How might this have affected them differently?**
2. **Draw 2 bar charts:** one to represent the findings from Experiment 1 and one to represent the findings from Experiment 2.
3. How could these research conclusions be used **to improve eyewitness testimony** for real life witnesses?

[How reliable is your memory? | Elizabeth Loftus - YouTube]

Ainsworth (1978) The Strange Situation

CLASSIC RESEARCH

The Strange Situation – Mary Ainsworth *et al.* (1978)

The Strange Situation testing procedure was created to make sense of the data Ainsworth had collected and to create a valid method of measuring attachments.

Aims

- To assess how infants between 9 and 18 months of age behave under conditions of mild stress and novelty, in order to test stranger anxiety, **separation anxiety** and the secure base concept.
- To assess individual differences between mother–infant pairs in terms of the quality of their attachments.

Procedure

1 The Strange Situation comprised eight episodes. Each of these lasted for about 3 minutes, except episode one which lasted for 30 seconds.

2 Every aspect of participants' behaviour was observed and videotaped, with most attention given to reunion behaviours, the infants' responses to their mothers' return. Data were combined from several studies. In total 106 infants were observed.

3 The testing room was an unfamiliar environment (hence the name 'Strange Situation') comprising an 81 square foot (approx 7.5 square metres) area divided into 16 squares to help record movements.

4 Five categories were recorded:
- (i) proximity- and contact-seeking behaviours
- (ii) contact-maintaining behaviours
- (iii) proximity- and interaction-avoiding behaviours
- (iv) contact- and interaction-resisting behaviours
- (v) search behaviours.

5 Every 15 seconds, the category of behaviour displayed was recorded and scored on an intensity scale of 1 to 7.

Episode	Persons present	Brief description
1	Mother, infant, observer	Observer introduces mother and infant to experimental room, then leaves.
2	Mother, infant	Mother is passive while the infant explores.
3	Stranger, mother, infant	Stranger enters. First minute: stranger silent. Second minute: stranger converses with mother. Third minute: stranger approaches infant. After three minutes, mother quietly leaves.
4	Stranger, infant	First separation episode. Stranger's behaviour is geared towards that of the infant.
5	Mother, infant	First reunion episode. Stranger leaves. Mother greets and/or comforts infant, then tries to engage infant again in play. Mother then leaves, saying 'bye-bye'.
6	Infant	Second separation episode. Infant is alone.
7	Stranger, infant	Continuation of second separation. Stranger enters and gears her behaviour to that of the infant.
8	Mother, infant	Second reunion episode. Mother enters, greets and then picks up infant. Meanwhile, stranger quietly leaves.

Table 3.4 The eight episodes of the Strange Situation

Episodes (about 3 minutes' duration)		Behaviour assessed
1	Parent and infant play.	–
2	Parent sits while infant plays.	Use of parent as secure base
3	Stranger enters and talks to parent.	Stranger anxiety
4	Parent leaves, infant plays, stranger offers comfort if needed.	Separation anxiety
5	Parent returns, greets infant, offers comfort if needed; stranger leaves.	Reunion behaviour
6	Parent leaves, infant alone.	Separation anxiety
7	Stranger enters and offers comfort.	Stranger anxiety
8	Parent returns, greets infant, offers comfort.	Reunion behaviour

Findings

1 Generally infants explored the playroom and toys more enthusiastically when just the mother was present than either a) after the stranger entered or b) when the mother was absent.

2 Reunion behaviours reflected three types of attachment:

Type A: Insecure-avoidant – 15 per cent of infants ignored their mother and were indifferent to her presence. Level of play wasn't affected whether by the mother's presence or absence. Infants displayed little stress when she left and ignored or avoided her when she returned. Infants reacted to the mother and stranger in similar ways, showing most distress when left on their own.

Type B: Securely attached – 70 per cent of infants played contentedly when their mother was present, whether or not a stranger was present, but were distressed when she left. On her return they sought comfort from her, calmed down and re-started to play. Mother and stranger were treated very differently

Type C: Insecure-resistant – 15 per cent of infants were fussy and wary, even with their mother present. They were distressed by her leaving and sought contact with her on her return, but simultaneously showed anger and resisted contact (for example, putting out their arms to be picked up, then fighting to get away once they had been picked up).

Conclusions

Sensitive responsiveness is the major factor determining the quality of attachments, as sensitive mothers correctly interpret infants' signals and respond appropriately to their needs. Sensitive mothers tend to have securely-attached babies, whereas insensitive mothers tend to have insecurely-attached babies.

Evaluation

The identification by Ainsworth of the importance of parental sensitivity in creating secure attachments is backed up by similar findings from studies using larger samples.

The Strange Situation testing procedure has become a paradigm, the accepted method of assessing attachments.

The Strange Situation assumes that attachment types are fixed characteristics of children, but classification can change if family circumstances, like mothers' stress levels, alter. Therefore attachment type is not a permanent characteristic.

The Strange Situation is an artificial way of assessing attachment, as it is laboratory based with mother and stranger acting to a 'script'. This is far removed from everyday situations and thus lacks ecological validity. Brofenbrenner (1979) found that infants' attachment behaviour is much stronger in a laboratory than when at home (because of the strangeness of the environment).

The Strange Situation focuses too much upon the behaviour of infants, and not enough on that of mothers, which could distort results.

The Strange Situation has been labelled unethical, as it deliberately stresses infants to see their reactions. However, it can be seen as justifiable, as the stress caused is no greater than that of everyday experiences like being left with an unfamiliar babysitter or childminder.

Main & Weston (1981) found that children acted differently in the Strange Situation depending on which parent they were with. Children might be insecurely attached to their mothers, but securely attached to their fathers, illustrating that attachment types are linked to individual relationships with carers and are not set characteristics of children.

Questions about Ainsworth Strange Situation

Tick when completed
☐
☐
☐

1. You must know all the episodes that make up the Strange Situation Study **so create a storyboard** with pictures to help you remember. Use the template on the next page. **Have a look at the examples that are pinned to our Instagram for inspiration! @swchsumsci**

2. This study deliberately stressed young infants. **Do you think this is unethical?** Explain your answer.

3. Do you think attachment type is **innate (nature) or learned (nurture)?** Explain your answer.

Ainsworth Strange Situation - YouTube

Stage 1 – caregiver / mother and baby enter the room and play 			
	Behaviour assessed:	**Behaviour assessed:**	**Behaviour assessed:**
			Stage 8 – the caregiver returns and is reunited with the baby. Stanger leaves.
Behaviour assessed:	**Behaviour assessed:**	**Behaviour assessed:**	**Behaviour assessed:**

Milgram (1963) Obedience

CLASSIC RESEARCH

Behavioural study of obedience – Stanley Milgram (1963)

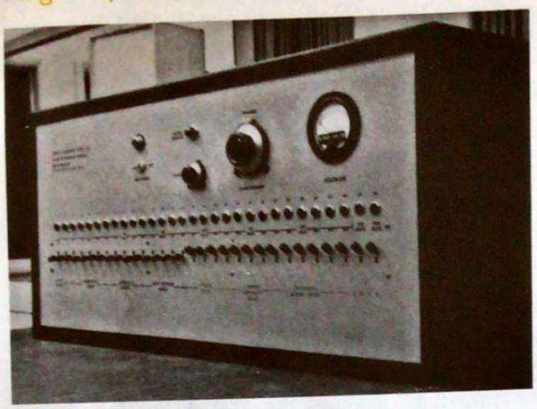


Figure 1.20 Stanley Milgram's shock generator

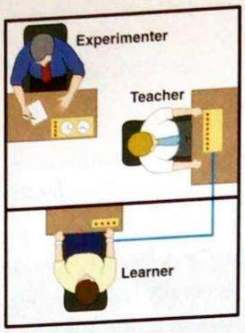
Aims

- To test the 'Germans are different' hypothesis, which claimed that Germans are highly obedient and that Adolf Hitler could not have exterminated the Jewish people and other minority groups in the 1930s and 1940s without the unquestioning co-operation of the German population.
- To see if individuals would obey the orders of an authority figure that incurred negative consequences and went against one's moral code.

Procedure

1 40 American males aged 20–50 years responded to a newspaper advertisement to volunteer for a study of memory and learning at Yale University Psychology Department. They were met by a confederate experimenter wearing a grey lab coat (to give him the appearance of authority), who was actually a biology teacher. He introduced them to Mr Wallace, a confederate participant, a gentle, harmless looking man in his late 50s. The participants were told that the experiment concerned the effects of punishment on learning and that they would be either a 'teacher' or a 'learner', with the roles determined randomly. In fact this was rigged; Mr Wallace was always the learner and the real participant was always the teacher.

2 The experimenter explained that punishments would involve increasingly severe electric shocks. All three went into an adjoining room, where the experimenter strapped a consenting Mr Wallace into a chair with his arms attached to electrodes. The teacher was told to give shocks through a shock generator in the next room. This generator had a row of switches each marked with a voltage level. The first switch was labelled '15 volts' and the verbal description 'slight shock'. Each switch gave a shock 15 volts higher than the one before, up to a maximum 450 volts, marked 'XXX'. The real participant received a real shock of 45 volts to convince him that everything was authentic.



'I observed a mature and initially poised businessman enter the laboratory smiling and confident. Within 20 minutes he was reduced to a twitching, stuttering wreck, who was rapidly approaching nervous collapse. He constantly pulled on his ear lobe, and twisted his hands. At one point he pushed his fist into his forehead and muttered "Oh God, let's stop it". And yet he continued to respond to every word of the experimenter, and obeyed to the end.'

Figure 1.22 The Milgram experiment set up

3 Participants then read out a series of paired-associate word tasks, to which they received a pre-recorded series of verbal answers from the learner, with the real participant believing these to be genuine responses. The teacher was told by the experimenter to give a shock each time Mr Wallace got an answer wrong. His answers were given by him supposedly switching on one of four lights located above the shock generator. With each successive mistake, the teacher gave the next highest shock, 15 volts higher than the previous one.

4 At 150 volts the learner began to protest and demanded to be released; before this he had been quite willing to take part. These protests became more insistent and at 300 volts he refused to answer any more questions and said he has heart problems that are starting to bother him. At 315 volts he screamed loudly and from 330 volts was heard no more. Anytime the teacher seemed reluctant to continue, he was encouraged to go on through a series of verbal prods, such as 'the experiment requires you continue' and 'you have no choice, you must go on'. If the teacher questioned the procedure, he was told that the shocks will not cause any lasting tissue damage and was also instructed to keep shocking Mr Wallace if he stopped answering.

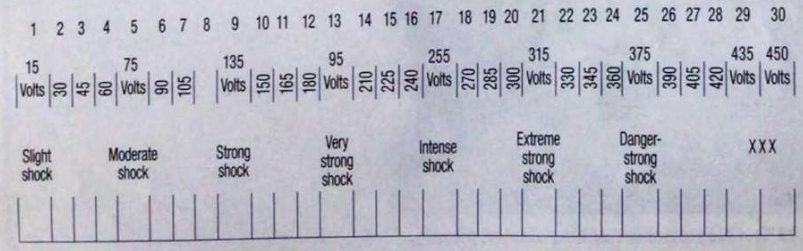


Figure 1.21 The levels of electric shock used in the Milgram experiments

Findings

1 Quantitative results – obedience was measured as the percentage of participants giving shocks up to the maximum 450 volts. In the main version of the experiment the obedience rate was 62.5 per cent (25 out of 40 participants). An earlier 'remote victim' version with no pre-recorded responses, but the victim pounding on the walls instead, gained an obedience rate of 65 per cent (26 out of 40 participants). 100 per cent of participants continued up to at least 300 volts.

2 Qualitative results – many participants showed distress, such as twitching, sweating or giggling nervously, digging their nails into their flesh and verbally attacking the experimenter. Three participants had uncontrollable seizures. Some participants showed little if any signs of discomfort, instead concentrating dutifully on what they were doing.

Conclusions

The 'Germans are different' hypothesis is clearly false – Milgram's participants were 40 'ordinary' Americans. Their high level of obedience showed that people obey those regarded as authority figures. If we had lived in Nazi Germany in the 1930s, we might have acted just as obediently. The results suggest that obeying those in authority is normal behaviour in a hierarchically organised society. We will obey orders that distress us and go against our moral code.

Evaluation

The **Milgram paradigm** – Milgram established the basic method, or paradigm, for studying obedience, which was adopted by many subsequent researchers.

It was intended as a pilot study – it is more useful to consider the research inspired by Milgram's study than the study itself. Milgram was so astounded by the results that he subsequently conducted 19 variations of the study, each time varying one aspect of the procedure, to try and identify the reasons why people were so obedient.

Practical application – it was hoped that Milgram's findings would help form strategies to reduce destructive blind obedience. Unfortunately, not much has changed since 1963; horrendous crimes are still committed by people operating under the excuse of 'simply following orders'.

Type of study – most people presume that Milgram's study is an experiment, indeed Milgram referred to it as such. However, there is no independent variable and in reality it is more of a controlled observation. It can, however, be considered an experiment if Milgram's variations of his study are considered. The independent variable (IV) then becomes which particular variation a participant performs, for example, having the experimenter not present in the room, as opposed to him being in the room.

INCREASE YOUR KNOWLEDGE

Milgram's work into obedience can help explain the abuse of Iraqi prisoners by US troops in the Abu Ghraib prison in Iraq in 2004. Several stages of abuse were involved. Firstly, *gradual commitment*, where initial abuses were minor, but paved the way for the acceptance of more serious abuse. This was similar to the initial shocks in Milgram's study only being minor ones and only increasing in small 15-volt increments. Secondly, *senior role*, where low-ranking troops, like the teacher in Milgram's study, were given important roles in controlling prisoners. Thirdly, *dehumanisation*, where the prisoners were degraded, making it easier to suspend morality and abuse them.

Figure 1.23 Lynndie England arrives at her trial for mistreatment of prisoners in Abu Ghraib

Questions about Milgram's Study

1. Milgram only studied American males. Do you think females would have behaved in the same way? Explain your answer.

2. Complete your own study and the maths activities using the guide on the next page.

3. Think about the sample you used, was it more varied than Milgram's original study? What would be the benefit of this when considering bias (age, gender, culture)?

The Milgram Experiment 1962 Full Documentary - YouTube

Introduction:

Imagine a psychological study where participants were told they were helping with an experiment on learning and memory. They were instructed to administer what they *believed* were electric shocks to another person (a 'learner') every time the learner made a mistake. With each wrong answer, the voltage of the shock was supposed to increase. An experimenter in a white lab coat was present, encouraging them to continue, even when the 'learner' showed signs of distress. The highest voltage available was **450 Volts**. There was an expectation that they had to ensure that the 'learners' answered as many questions as possible.

Your Task:

Ask **at least 5 different friends or family members** the following question. **DO NOT tell them the actual results of any famous psychology studies.** Just ask the question and record their answer.

Survey Question:

'If you were in a situation like the one described above, where you were asked to administer increasing electric shocks for wrong answers, and an experimenter kept telling you to continue, **what is the highest voltage you think you would be willing to go to before stopping?** (The maximum voltage was 450 Volts).'

Record Your Survey Responses Below:

Person Asked (e.g., 'Mom', 'Friend Alex')	**Relationship to You**	**Highest Voltage They Said They Would Go To (e.g., '50 volts', '150V', '450V,')**
1.		
2.		
3.		
4.		
5.		

Calculations (Complete after you've collected all your data):

1. **Mean (Average) Voltage from your survey is:** (show your workings)
    - Mean Voltage =
2. **Average Percentage of Max Voltage:**
    - For *each* person you surveyed, calculate their voltage as a percentage of the maximum (450V). *Example: If someone said 200V, their % would be (200 / 450) * 100 = 44.4%*