Topic 1: Social psychology

Topic overview

Students must show understanding that social psychology is about aspects of human behaviour that involve the individual's relationship to other persons, groups and society, including cultural influences on behaviour.

Individual differences and developmental psychology must be considered when learning about obedience, prejudice, personality and cultural influences on social behaviour.

Subject content	What students need to learn:
1.1 Content	Obedience 1.1.1 Theories of obedience, including agency theory and social impact theory. 1.1.2 Research into obedience, including Milgram's research into obedience and three of his variation studies: Rundown Office Block (Experiment 10), Telephonic instructions (Experiment 7), Ordinary man gives orders (Experiment 13) as they demonstrate situational factors that encourage dissent. 1.1.3 Factors affecting obedience and dissent/resistance to obedience, including individual differences (personality and gender), situation and culture.
	Prejudice 1.1.4 Explanations and research into prejudice, including social identity theory (Tajfel and Turner, 1979, 1986) and realistic conflict theory (Sherif, 1966). 1.1.5 Factors affecting prejudice (and discrimination), including individual differences (personality), situation and culture.
	1.1.6 Individual differences in obedience/prejudice • Obedience is affected by personality. • Prejudice can have an explanation linked to personality. 1.1.7 Developmental psychology in obedience/prejudice • Obedience can be affected by gender and culture, which come from environmental effects. • Prejudice can be affected by culture, which comes from environmental effects.

Subject content	What students need to learn:
1.2 Methods	Self-reporting data 1.2.1 Designing and conducting questionnaires and interviews, considering researcher effects. 1.2.2 Unstructured, semi-structured and structured interviews, open, closed (including ranked scale) questions. 1.2.3 Alternate hypotheses.
	Sample selection and techniques 1.2.4 Random, stratified, volunteer and opportunity techniques.
	Qualitative and quantitative data 1.2.5 Analysis of quantitative data: calculating measures of central tendency, frequency tables, graphical presentation using a bar chart, measures of dispersion (range and standard deviation). 1.2.6 Analysis of qualitative data using thematic analysis.
	Ethical guidelines 1.2.7 British Psychological Society (BPS) code of ethics and conduct (2009) including risk management when carrying out research in psychology.
1.3 Studies	Classic study 1.3.1 Sherif et al. (1954/1961) Intergroup conflict and cooperation: The Robbers Cave Experiment.
	One contemporary study from the following: 1.3.2 Burger (2009) Replicating Milgram: Would people still obey today? 1.3.3 Reicher and Haslam (2006) Rethinking the psychology of tyranny. 1.3.4 Cohrs et al. (2012) Individual differences in ideological attitudes and prejudice: evidence from peer report data.
1.4 Key questions	1.4.1 One key question of relevance to today's society, discussed as a contemporary issue for society rather than an academic argument.
	1.4.2 Concepts, theories and/or research (as appropriate to the chosen key question) drawn from social psychology as used in this qualification.
	Suitable examples • How can knowledge of social psychology be used to reduce prejudice in situations such as crowd behaviour or rioting? • How can social psychology be used to explain heroism?

Subject content	What students need to learn:
1.5 Practical investigation	1.5.1 One practical research exercise to gather data relevant to topics covered in social psychology. This practical research exercise must adhere to ethical principles in both content and intention.
	In conducting the practical research exercise, students must: • design and conduct a questionnaire to gather both qualitative and quantitative data to look for a difference in the data • consider questionnaire construction, sampling decisions and ethical issues • collect and present an analysis of quantitative data using measures of central tendency, measures of dispersion, (including range and standard deviation as appropriate), bar graph and frequency table • collect and present an analysis of qualitative data using thematic analysis • consider strengths and weaknesses of the questionnaire • write up the procedure, results and discussion section of a report.
	Suitable examples • A questionnaire to see if males or females perceive themselves to be more obedient. • An investigation into in-group favouritism.

Subject content	What students need to learn:
1.6 Issues and debates	Examples of issues and debates in social psychology: • **Ethics** (e.g. when researching obedience and prejudice, and also implications of findings in both areas). • **Practical issues in the design and implementation of research** (issues around informed consent and deception for Milgram e.g. designing questionnaires and interviews and social desirability). • **Reductionism** (e.g. the risk of reductionism when drawing conclusions from social data). • **Comparisons between ways of explaining behaviour using different themes** (e.g. the two theories of prejudice: social identity and realistic conflict). • **Psychology as a science** (e.g. social desirability in questionnaires; issues of validity in questionnaires). • **Culture and gender** (e.g. whether prejudice and obedience are influenced by cultural factors or according to gender). • **Nature-nurture** (e.g. the role of personality in obedience compared with the role of the situation). • **An understanding of how psychological understanding has developed over time** (e.g. if using Burger's work replicating Milgram and comparing with Milgram's work; or looking at Tajfel's ideas and a contemporary study). • **Issues of social control** (e.g. reducing prejudice; or how people obey someone in authority/uniform). • **The use of psychological knowledge in society** (e.g. reducing conflict in society) • **Issues related to socially-sensitive research** (e.g. racism or cultural differences in social psychology).

Topic 2: Cognitive psychology

Topic overview

Students must show understanding that cognitive psychology is about the role of cognition/cognitive processes in human behaviour. Processes include perception, memory, selective attention, language and problem solving. The cognitive topic area draws on the likeness of cognitive processing to computer processing.

Individual differences and developmental psychology must be considered when learning about memory differences, memory deficits and how this develops as the brain ages.

Subject content	What students need to learn:
2.1 Content	Memory 2.1.1 The working memory model (Baddeley and Hitch, 1974). 2.1.2 The multi-store model of memory (Atkinson and Shiffrin, 1968), including short- and long-term memory, and ideas about information processing, encoding, storage and retrieval, capacity and duration. 2.1.3 Explanation of long-term memory – episodic and semantic memory (Tulving, 1972). 2.1.4 Reconstructive memory (Bartlett, 1932) including schema theory.
	2.1.5 Individual differences in memory • Memory can be affected by individual differences in processing speed or by schemas that guide the reconstructive nature of memory. • Autobiographical memory is by nature individual. 2.1.6 Developmental psychology in memory, including at least one of these: • Sebastián and Hernández-Gil (2012) discuss developmental issues in memory span development, which is low at 5-years old, then develops as memory develops, up to 17-years old. • Dyslexia affects children's memory, span and working memory which can affect their learning. • The impact of Alzheimer's on older people and the effects on their memory.

Subject content	What students need to learn:
2.2 Methods	Experiments 2.2.1 Designing and conducting experiments, including field and laboratory experiments. 2.2.2 Independent and dependent variables. 2.2.3 Experimental and null hypotheses. 2.2.4 Directional (one-tailed) and non-directional (two-tailed) tests and hypotheses. 2.2.5 Experimental and research designs: repeated measures, independent groups and matched pairs. 2.2.6 Operationalisation of variables, extraneous variables and confounding variables. 2.2.7 Counterbalancing, randomisation and order effects. 2.2.8 Situational and participant variables. 2.2.9 Objectivity, reliability and validity (internal, predictive and ecological). 2.2.10 Experimenter effects, demand characteristics and control issues.
	2.2.11 Quantitative data analysis • Analysis of quantitative data: calculate measures of central tendency, frequency tables, measures of dispersion (range and standard deviation), percentages. • Graphical presentation of data (bar graph, histogram).
	2.2.12 Decision making and interpretation of inferential statistics • Non-parametric test of difference: Mann-Whitney U and Wilcoxon. • Probability and levels of significance ($p \leq .10$ $p \leq .05$ $p \leq .01$). • Observed and critical values, **use of critical value tables** and sense checking of data. • One- or two-tailed regarding inferential testing. • Type I and type II errors. • Normal and skewed distribution.
	2.2.13 Case study of brain-damaged patients, including Henry Molaison (HM) and the use of qualitative data, including strengths and weaknesses of the case study.

Subject content	What students need to learn:
2.3 Studies	Classic study 2.3.1 Baddeley (1966b) Working memory model: The influence of acoustic and semantic similarity on long-term memory for word sequences.
	One contemporary study from the following: 2.3.2 Schmolck et al. (2002) Semantic knowledge in patient HM and other patients with bilateral medial and lateral temporal lobe lesions. 2.3.3 Steyvers and Hemmer (2012) Reconstruction from memory in naturalistic environments. 2.3.4 Sebastián and Hernández-Gil (2012) Developmental pattern of digit span in Spanish population.
2.4 Key questions	2.4.1 One key question of relevance to today's society, discussed as a contemporary issue for society rather than an as academic argument.
	2.4.2 Concepts, theories and/or research (as appropriate to the chosen key question) drawn from cognitive psychology as used in this specification.
	Suitable examples • How can psychologists' understanding of memory help patients with dementia? • How can knowledge of working memory be used to inform the treatment of dyslexia?

Subject content	What students need to learn:
2.5 Practical investigation	2.5.1 One practical research exercise to gather data relevant to topics covered in cognitive psychology. This practical research exercise must adhere to ethical principles in both content and intention.
	In conducting the practical research exercise, students must: • design and conduct a laboratory experiment to gather quantitative data and include descriptive statistics as analysis and a non-parametric test of difference • make design decisions when planning and conducting your experiment, including experimental design, sampling decisions, operationalisation, control, ethical considerations, hypothesis construction, experimenter effects and demand characteristics • collect, present and comment on data gathered, including using measures of central tendency (mean, median, mode as appropriate); measures of dispersion (including range and standard deviation as appropriate); bar graph, histogram, frequency graph as relevant; normal distribution if appropriate and draw conclusions • use a Mann-Whitney U or Wilcoxon non-parametric test of difference to test significance (as appropriate), including level of significance and critical/observed values • consider strengths and weaknesses of the experiment, and possible improvements • write up the procedure, results and discussion section of a report.
	Suitable examples • Dual task experiment to investigate components of working memory. • An experiment to look at acoustic similarity of words and the effect on short-term memory.

Subject content	What students need to learn:
2.6 Issues and debates	Examples of issues and debates in cognitive psychology: • **Ethics** (e.g. Henry Molaison (HM) and confidentiality). • **Practical issues in the design and implementation of research** (e.g. how to measure memory and the validity of experimental design). • **Reductionism** (e.g. under-emphasis on the interconnections between parts of the brain in favour of individual parts responsible for memory; artificially breaking memory up into parts like Short-term Memory and Long-term Memory for the purposes of study). • **Comparisons of ways of explaining behaviour using different themes** (e.g. the different memory models). • **Psychology as a science** (e.g. laboratory experiments and controls). • **Culture and gender** (not specifically looked at in this topic area). • **Nature-nurture** (e.g. Henry Molaison (HM) and brain function = nature, reconstructive memory emphasises experiences = nurture). • **An understanding of how psychological understanding has developed over time** (e.g. if studying the development of the working memory model over time; or how the multi-store model informed later memory models). • **Issues of social control** (e.g. perhaps using understanding of memory in court situations). • **The use of psychological knowledge within society** (e.g. using understanding of memory to help with memory 'loss', for example a memory bus). • **Issues related to socially sensitive research** (e.g. memory loss related to dementia is socially sensitive for the individual).

Topic 3: Biological psychology

Topic overview

Students must show an understanding that biological psychology is about the mechanisms within our body and understand how they affect our behaviour, focusing on aggression.

Individual differences and developmental psychology must be considered when learning about issues such as aggression caused by an accident and how the function of structures of the brain can be affected by the environment.

Subject content	What students need to learn:
3.1 Content	3.1.1 The central nervous system (CNS) and neurotransmitters in human behaviour, including the structure and role of the neuron, the function of neurotransmitters and synaptic transmission. 3.1.2 The effect of recreational drugs on the transmission process in the central nervous system. 3.1.3 The structure of the brain, different brain areas (e.g. pre-frontal cortex) and brain functioning as an explanation of aggression as a human behaviour. 3.1.4 The role of evolution and natural selection to explain human behaviour, including aggression. 3.1.5 Biological explanation of aggression as an alternative to Freud's psychodynamic explanation, referring to the different parts of the personality (id, ego, superego), the importance of the unconscious, and catharsis. 3.1.6 The role of hormones (e.g. testosterone) to explain human behaviour such as aggression.
	3.1.7 Individual differences • Damage to the brain may be affected by individual differences in case studies of brain-damaged patients when it is assumed there are no individual differences. • Freud's view of the personality shows it develops individual differences. 3.1.8 Developmental psychology • The role of evolution in human development. • The role of hormones in human development.

Subject content	What students need to learn:
3.2 Methods	3.2.1 Correlational research • The use of the correlational research method in psychology, including co-variables. • Types of correlation: positive, negative and including the use of scatter diagrams. • Issues surrounding the use of correlations in psychology; issues with cause and effect, other variables.
	3.2.2 Analysis of correlational data • Analysis of, use of, and drawing conclusions from correlational studies, including scatter diagrams, using inferential statistical testing (use of Spearman's rho) and issues of statistical significance; **levels of measurement**; critical and observed values. • The use of alternate, experimental and null hypotheses. The use of IV and DV in experiments and co-variables in correlations. The use of control groups, randomising to groups, sampling, **levels of measurement (ordinal, interval, nominal), reasons for using Spearman's rho**.
	3.2.3 Other biological research methods • Brain-scanning techniques (CAT, PET, and fMRI). • The use of brain-scanning techniques to investigate human behaviour, e.g. aggression. • One twin study and one adoption study, e.g. Gottesman and Shields (1966); Ludeke et al. (2013).
3.3 Studies	Classic study 3.3.1 Raine et al. (1997) Brain abnormalities in murderers indicated by positron emission tomography.
	One contemporary study from the following: 3.3.2 Li et al. (2013) Abnormal function of the posterior cingulate cortex in heroin addicted users during resting-state and drug-cue stimulation task. 3.3.3 Brendgen et al. (2005) Examining genetic and environmental effects on social aggression: A study of 6-year-old twins. 3.3.4 Van den Oever et al. (2008) Prefrontal cortex AMPA receptor plasticity is crucial for cue-induced relapse for heroin-seeking.

Subject content	What students need to learn:
3.4 Key questions	3.4.1 One key question of relevance to today's society, discussed as a contemporary issue for society rather than as an academic argument.
	3.4.2 Concepts, theories and/or research (as appropriate to the chosen key question) drawn from biological psychology as used in this specification.
	Suitable examples • How effective is drug therapy for treating addictions? For example, methadone to treat heroin addiction. • What are the implications for society if aggression is found to be caused by nature not nurture?
3.5 Practical investigation	3.5.1 One practical research exercise to gather data relevant to topics covered in biological psychology. This practical research exercise must adhere to ethical principles in both content and intention.
	In conducting the practical research exercise, students must: • design and conduct a correlational study • link their research to aggression or attitudes to drug use • include inferential statistical testing (Spearman's rho) and explain the significance of the result and the use of levels of significance. Students must also be able to use descriptive statistics (strength/direction) to explain the relationship • produce an abstract of the research method and a discussion section that includes conclusions • include research question/hypothesis; research method, sampling, ethical considerations, data-collection tools, data analysis, results; discussion.
	Suitable examples • A correlation into age and attitudes to drug use. • A correlation to see if there is a relationship between height and a self-rating of aggressive tendencies.

Subject content	What students need to learn:
3.6 Issues and debates	Examples of issues and debates in biological psychology: • **Ethics** (e.g. studying aggression and how findings are used; in the research itself such as issues of confidentiality and informed consent). • **Practical issues in the design and implementation of research** (e.g. issues in scanning and measuring the complexity of the brain). • **Reductionism** (e.g. focusing on aggression when studying the brain). • **Comparisons of ways of explaining behaviour using different themes** (e.g. causes of aggression comparing Freud's ideas and biological explanations). • **Psychology as a science** (e.g. synaptic transmission; brain-scanning techniques). • **Culture and gender** not covered in this Topic. • **Nature-nurture** (e.g. brain localisation in aggression and environmental influences in aggression). • **An understanding of how psychological understanding has developed over time** (e.g. development of scanning techniques up to fMRI and development of knowledge accordingly). • **Issues of social control** (e.g. using knowledge of brain function to control individuals). • **The use of psychological knowledge within society** (e.g. understanding causes of aggression, in order to perhaps deal with them). • **Issues related to socially sensitive research** (e.g. confidentiality).

Topic 4: Learning theories

Topic overview

Students must show an understanding that learning theories are about learning from the environment and of the effects of conditioning, reinforcement, punishment, the role of reward and social learning on the organism.

Individual differences and developmental psychology must be considered when learning about the effect of rewards and punishment on individuals and how children develop through the different ways of learning, including social learning.

Subject content	What students need to learn:
4.1 Content	Classical conditioning 4.1.1 The main features of classical conditioning, including: unconditioned stimulus (UCS); unconditioned response (UCR); conditioned stimulus (CS); neutral stimulus (NS); conditioned response (CR); extinction, spontaneous recovery and stimulus generalisation. 4.1.2 Pavlov (1927) experiment with salivation in dogs.
	Operant conditioning 4.1.3 The main features of operant conditioning, including: types of reinforcement and punishment (positive and negative). 4.1.4 Properties of reinforcement, including primary and secondary reinforcement and schedules of reinforcement. 4.1.5 Behaviour modification, including 'shaping' behaviour.
	4.1.6 The main features of social learning theory, including: observation, imitation, modelling and vicarious reinforcement. 4.1.7 Social learning 'stages' of attention, retention, reproduction and motivation (reinforcement). 4.1.8 Bandura (1961, 1963) original Bobo doll experiments. 4.1.9 Bandura (1965) Bobo doll experiment with vicarious reinforcement.
	4.1.10 How learning theories explain the acquisition and maintenance of phobias. 4.1.11 Treatments for phobias based on theories of learning, including systematic desensitisation and one other.

Subject content	What students need to learn:
4.1 Content (*continued*)	4.1.12 Individual differences • How people differ because of different environmental influences and experiences, for example in the form of rewards and punishments and models observed. 4.1.13 Developmental psychology • The idea that development is through patterns of rewards and punishments. • Social learning theory's idea that development is through observation of others.
4.2 Methods	4.2.1 Human research • The use of the observational research method in psychology, including the gathering of both qualitative and quantitative data (including tallying, event and time sampling). • Types of observation: participant, non-participant, structured, naturalistic overt and covert. • Use of content analysis as a research method.
	4.2.2 Animal research • The use of animals in laboratory experiments where results can be related to humans. • Ethical issues regarding the use of animals in laboratory experiments, including Scientific Procedures Act (1986) and Home Office Regulations.
	4.2.3 Analysis of data • With regard to inferential statistics: **levels of measurement; reasons for choosing a chi-squared test; comparing observed and critical values to judge significance**; the chi-squared test. • Analysis of qualitative data using thematic analysis.
	4.2.4 Scientific status of psychology, including: • Replicability, reliability, validity (internal, predictive and ecological), reductionism, falsification, empiricism, hypothesis testing, and use of controls.

Subject content	What students need to learn:
4.3 Studies	Classic study 4.3.1 Watson and Rayner (1920) Little Albert: Conditioned emotional reactions.
	One contemporary study from the following: 4.3.2 Becker et al. (2002) Eating behaviours and attitudes following prolonged exposure to television among ethnic Fijian adolescent girls. 4.3.3 Bastian et al. (2011) Cyber-dehumanization: Violent video game play diminishes our humanity. 4.3.4 Capafóns et al. (1998) Systematic desensitisation in the treatment of the fear of flying.
4.4 Key questions	4.4.1 One key question of relevance to today's society, discussed as a contemporary issue for society rather than as an academic argument.
	4.4.2 Concepts, theories and/or research (as appropriate to the chosen key question) drawn from learning theories as used in this specification.
	Suitable examples • Is the influence of role models and celebrities something that causes anorexia? • Would it be a good idea for airline companies to offer treatment programmes for fear of flying?

Subject content	What students need to learn:
4.5 Practical investigation	4.5.1 Two observations (one observation can be carried out if both qualitative and quantitative data are gathered in the same observation).
	In conducting the practical research exercise, students must: • ensure that observations relate to an aspect of learned behaviour, such as behaviour of different sexes, driving characteristics, age-related behaviour, politeness and helping behaviour • ensure that observations enable the gathering of both qualitative and quantitative data (including the use of note taking, tallying and thematic analysis) • analyse the findings to produce results, including using a chi-squared test • evaluate the studies in terms of validity, reliability, generalisability and credibility • write up the results of the quantitative data, including appropriate graphs and tables • write up the results of the qualitative analysis (thematic analysis).
	Suitable examples • How age and sex affect driving speed. • Investigating the differences in helpful or polite behaviour in men and women.

Subject content	What students need to learn:
4.6 Issues and debates	Examples of issues and debates in learning theories: • **Ethics** (e.g. the ethical issues involved in using animals in studies). • **Practical issues in the design and implementation of research** (e.g. generalising from animal-study findings to humans). • **Reductionism** (in the way behaviourism reduces behaviour into parts to be studied). • **Comparisons between ways of explaining behaviour using different themes** (e.g. different learning theories). • **Psychology as a science** (e.g. in the methodology; in the explicit focus of behaviourism on the measurable). • **Culture** (e.g. relates to reinforcement patterns in learning theory as well as social learning theory and what is modelled) and **gender** (e.g. if used in the practical research exercise, and in observational learning issues). • **Nature-nurture** (e.g. in the observations if looking at gender or age or characteristics as these can be learned or biologically given). • **An understanding of how psychological understanding has developed over time** (e.g. can come through choice of study, such as if looking at video game violence or through current therapy practice). • **Issues of social control** (e.g. use of learning theories in therapy can be social control, including issues of power of the therapist). • **The use of psychological knowledge within society** (e.g. using patterns of reward to shape behaviour in schools or prisons). • **Issues related to socially sensitive research** (e.g. issues of the power of the therapist).