

DSE212 Exploring Psychology

2015 Revision Notes

Exam brief

Although the course texts themselves aren't overly massive, there are a number of other resources that take the workload up a fair bit (e.g. the workbook and SPSS) so I made an early start on revision for the course with a view to producing a version of my ED209 style of notes as I go along.

The three hour exam is in three parts:

Part 1 counts for 25% of the total marks and asks you for definitions of five from eight concepts from book 1 which are listed as key topics throughout the course guide and I've **highlighted** those in the notes. There are fairly complete notes of all chapters here so the concepts in the TMA chapters are in context. You have around 45 minutes to do this section i.e. about seven or eight minutes to do each one in a paragraph which must both explain it and say why it is important in psychology.

Part 2 is 50% and asks you to write two essays taken from chapters 3 (learning), 5 (individual differences), 6 (attention and perception) and 9 (psychoanalysis and humanism) from book 1. The other chapters are addressed in the various assignments. You have about forty minutes for each answer.

Part 3 is the final 25% and asks you to write one essay from a choice of three from the chapters of book 2. TMA5 is based on attachment from the first of these chapters. You have about forty minutes for the answer.

I hope to beef up the coverage of the exam chapters as the exam approaches and should finish at two or perhaps three pages on each of them vs the page and a half or so that they will be initially.

These notes are designed to be printed double sided so that each chapter will be covered entirely within a double page spread. Although these are my notes for the exam, I generally add lots of hand written stuff in the run-up to exams i.e. don't think of these as sufficient.

Other useful study references include:

- www.foreignperspectives.com is where you'll find both the up to date version of this and additional notes on both this course and others;
- www.tenpencepiece.net has notes on some chapters from an earlier version of DSE212 and notes on several of the other psychology courses;
- <http://psycho.yellowbell.net/dse212/> has notes on the entire course but as they run to around 250 pages, I found them to be a bit much;
- the OU Psychological Society (which I really must join!) run a revision class before the exam; and
- last, but far from least, Erica Cox (who passed away a year or two back) used to produce a really excellent set of notes. I believe that one of her colleagues has since taken up the reigns with this.

The chapters

Chapter 1, *Identities and diversities*, runs to 44 pages and is partly an introduction to psychology and the social sciences and partly a proper start on the course itself following the introductory chapter which is essentially a whistle-stop tour of 21st century psychology and how the subject got to this point. The essay in TMA1 is based around this area of the field, in particular asking how social identity theory and social constructionism describe identity and consequently these notes will probably be a bit better for those two topics.

Chapter 2, on *Evolutionary Psychology*, runs to 46 pages and is quite a change in content from the identity chapter. It's split into four basic sections with two essentially biological and two more psychological in nature. The first option in the second TMA is based around the final section on altruism so the notes on that will probably be better than those on the other sections.

Chapter 3, on *Three approaches to learning*, runs to 46 pages is back to proper psychology. This is the first of the part 2 *exam chapters* so isn't tested in any TMA which means that my notes will initially be less fleshed out on this but will improve as the exam approaches.

This chapter looks at three basic approaches to learning starting with conditioning which is essentially the basis for rote learning, moving on to category learning and finally looking at social and cultural aspects to learning. Quite a fundamental thing and a topic that is covered in some depth in the *Child Development* module as you would expect.

Chapter 4, on *Biological processes and psychological explanation*, runs to 60 pages and takes us into the depths of biology so for non-biologists there's a lot of new terminology introduced very quickly with relatively little depth. As the second option in TMA2 is based on this chapter, the notes on the appropriate sections will probably be more detailed.

This chapter is very much a whistle-stop tour of how psychology depends on the underlying biology and was formerly covered in somewhat more detail in SD226 *Biological Psychology*. It's broken into four basic sections: a brief introduction as to how biology supports psychology, some basic biology, how the nervous system and brain work, and how everything fits together.

Chapter 5, on *The individual differences approach to personality* runs to about 50 pages and finishes the first volume of the first book. This is the second of the part 2 *exam chapters* so isn't tested in any TMA which means that my notes will initially be less fleshed out on this but will improve as the exam approaches.

This chapter is largely based around a range of trait theories moves on to a bit of the genetic underpinning of those and finishes by considering the effect of environment.

Chapter 6, on *Perception and attention* runs to about 50 pages and starts the second volume of the first book. This is the third of the part 2 *exam chapters* but TMA3 also uses the background theory provided here.

This chapter starts starts by considering how the **bottom-up information** coming from our

senses (i.e. **sensations**) direct our **attention** and then follows on to look at how these are **perceived** as **top-down information** in our brain. Thus the pattern of light and dark remained the same yet our perception of it changed this into the cow that we perceived later when the additional cues were added. How we perceive a journey is both in general terms (**semantic memory**) and the instance of a particular journey (**episodic memory**) hence we may know what usually happens on the way to work yet may not recall the specific details of the journey today.

Chapter 7, on **Perceiving and understanding the social world** runs to about 50 pages and starts the second volume of the first book. The first option of TMA4 is based on this.

There's a change in emphasis in this chapter from considering the individual in isolation to looking at their interactions within society. It starts off with looking at how our knowledge shapes our view of the world, moving on to consider common-sense explanations of behaviour, then considering how accurately we use information in forming judgements, finishing off with a look at how different groups judge the risk of HIV/AIDS.

Chapter 8, on **Memory: structures, processes and skills** runs to about 50 pages. The second option of TMA4 is based on this.

As well as being of interest to psychology, this chapter has a lot of information that is quite useful for studying in general covering everything from how memory works, the processes by which we remember information and how we go about retrieving that information before finishing up with some illustrations on the effect on people with unusual memory abilities.

Chapter 9 is on **Person psychology: psychoanalytic and humanistic perspectives**. It runs to just under 50 pages and is the fourth exam chapter.

This is quite a complex chapter which looks first at psychoanalysis then at humanistic approaches before finally comparing the two.

Book 2, chapter 1 on **Lifespan development**, runs to about 60 pages and covers what is sometimes known as developmental psychology; it's covered in somewhat more detail in ED209. This is the first of the three **exam chapters** from part C and one of the chapters you can choose from in TMA6.

This is a whole-person look at psychology starting with early relationships as they develop with peers and siblings, the major topic of attachment and how that develops, how things change with ageing in later life and finishes off with a look at the application of evolutionary psychology to lifespan development. The chapter starts off with a consideration of what perspectives we can bring to bear on development (e.g. **internal vs external influences**), moves on to consider how relationships affect our development and how we continue to develop in adulthood.

Book 2, chapter 2 on **Language and meaning**, runs to about 40 pages; it's covered in somewhat more detail in ED209. This is the second of the three **exam chapters** from part C and one of the chapters you can choose from in TMA6.

This looks at three main aspects of language: how it originated, how we understand it and how we go about using it.

Book 2, chapter 3 on *The psychology of sex and gender*, runs to about 50 pages. This is the third of the three exam chapters from part C and one of the chapters you can choose from in TMA6.

This is probably the meatiest of the chapters in book 2. It starts off with definitions of sex and gender, moving on to biological aspects, then evolution, the social construction of gender, how psychoanalytics looks at it, finally considering the differences between the various views.

One word of warning, before you get stuck into reading the rest of this text: these notes condense hundreds of pages from three textbooks, therefore the information density on each page is much higher than in the books themselves i.e. they take ages to read.

Chapter 1, *Identities and diversities*, runs to 44 pages and is partly an introduction to psychology and the social sciences and partly a proper start on the course itself following the introductory chapter which is essentially a whistle-stop tour of 21st century psychology and how the subject got to this point. The essay in TMA1 is based around this area of the field, in particular asking how social identity theory and social constructionism describe identity and consequently these notes will probably be a bit better for those two topics.

The chapter starts off with how one might find out what someone considers their own identity to be and introduces the **Twenty Statements Test** in which participants are given 12 minutes to write 20 statements about themselves. The categories which people provide to this fall into a range of categories including characteristics (e.g. gender), social roles, personality, interests and tastes, attitudes and current state (e.g. "I am tired"). Although it's very popular it has the downsides that only answers that come to mind and there are many things that only get mentioned when they go wrong (e.g. disabilities).

Moving on to **embodiment** it considers the changes that can be made in our identity in terms of clothing, body building, plastic surgery, and brain damage and the changes that this can make to our identity. In terms of clothing it mentions group identities formed by similar clothing. Disability receives its first mention in the context of the social model of disability which states that the consequences of disability aren't purely down to the biology but rather due to social limitations e.g. buildings requiring legs to access rather than being wheelchair accessible.

Understanding personal identity introduces several theories notably the **psychosocial** theory of Erikson which links the aspects of psychological identity social identity and in particular our **core identity** which is literally what is at our core, what makes us "us" and runs throughout the other identities that we may have in different contexts i.e. our core values and beliefs. Erikson, working with WW2 veterans saw identity being created by way of resolving conflicts that arise throughout our lives. Notably, these conflicts arose in adolescence when typically we are involved in negotiations with others with a **psychosocial moratorium** period where we are trying our various social roles which eventually gets us through our **identity crisis** but, if we do not establish a solid identity at that point can lead to a drifting identity involving **role diffusion**. During this period we can become identified as part of various groups which can give rise to conflict with those outside our group. Marcia went on to develop the Identity Status Interview which is a **semi-structured interview** that explores the commitments and crises that people have at various stages of their lives, identifying **identity diffusion** (low commitment, low exploration), **identity foreclosure** (high commitment, low exploration), **moratorium** (low commitment, high exploration) and **identity achievement** (high commitment, high exploration).

Moving on, we come to **Social Identity Theory** which considers how people come to be identified with some groups and not others. This addresses the limitations of the Erikson/Marcia approach in that 1) they considered the personal & social identities linked yet their theories treated them separately and 2) they didn't consider the large-scale groupings such as race/gender/etc. Yet again, this arose out of WW2 but looking at the Holocaust rather than veterans. This considers personal (e.g. parent/child) and social identity (e.g. man/woman, black/white) to be separate with a social group being made up of people who shared a common identification. This led to the concept that you needed to both know who you *are* and also who you *are not*. His approach used experimentally established groups generating concepts such as the **in group**, **out-group** and **minimal**

group (the minimum conditions required for the group to form which, perhaps surprisingly, created conflict even in groups decided by the toss of a coin). Notably, there was discrimination in favour of the in-group even when there was no benefit in doing so. Elliott (1968) used the blue eye/brown eye categorisation in a class setting as a segregation demonstration.

The third identify theory is **social construction** does not have a single originator and considers that our identities are artificial constructions between ourselves and others that we meet in social situations. It recognises that a single individual can have conflicting identities e.g. one person's *freedom fighter* is another person's *terrorist* and, of course, these identifies can change with time. Moreover, how we describe ourselves in our life stories changes over time and different cultures will reflect different identity constructs (e.g. collectivism vs individualism). These identities can even change for different audiences that we are telling our stories to i.e. we can have multiple, potentially conflicting, identities at the same time (e.g. Judge Thomas was black, a man and conservative).

So how do these theories cope with explanations of disabilities? There's the issue of calling people *disabled* vs calling them *people with a disability* for a start. Erikson/Marcia with their core identity would highlight the profound change in identity that can happen with someone who becomes disabled i.e. they have suddenly changed identity to a disabled person thud provoking an identify crisis. SIT and social construction allow more for changing identities as one goes through life e.g. in a special school, autism isn't a particular identity if many of the children are autistic.

For the exam, the key topics for this chapter are **highlighted** above and are:

- Social identity theory (SIT)
- Social constructionism
- Minimal group
- Embodiment
- Core identity

Chapter 2, on *Evolutionary Psychology*, runs to 46 pages and is quite a change in content from the identity chapter. It's split into four basic sections with two essentially biological and two more psychological in nature. The first option in the second TMA is based around the final section on altruism so the notes on that will probably be better than those on the other sections initially.

I've **highlighted** the key exam topics.

The chapter begins by looking at the different types of evidence which evolutionary psychologists use. Archaeological evidence includes the relative sizes of males and females, pelvis size, tools, cave paintings and evidence of social groupings from excavations. Genetic evidence looks over a longer time-scale considering the evolutionary split between apes and our human ancestors and any breeding that may have taken place between the various human species in the past. Studies on present day non-human primates and hunter-gathers looks at the social structures but recognising that these populations are not the same as our distant ancestors and that the presence of modern humans may distort the findings. Studies looking at the universality of behaviours and what modern humans actually do consider that if a behaviour is universal these days then it has derived from a common behaviour amongst our ancestors e.g. the male preference for features that indicate fertility in females.

The chapter moves on to consider the various evolutionary processes which generated all the differences that we see in the present day in what feels very much a whistle-stop tour of evolutionary biology. The **genes** which collectively form the **DNA** are at the core of this with the mixing of the chromosomes during sex forming a unique individual from the contribution of the genetic content of the egg and sperm. Selection is at the core of this with **natural selection** relying on 1) variation in individuals 2) part of this variation being due to genetics and 3) there being some competition in terms of resources. This selection process leads to adaptations with the fittest for the particular circumstances out-breeding the less fit. **Sexual selection** is the process though which reproductive success is improved by passing on physical and behavioural characteristics to one's descendants; males by having a lower investment in their offspring would generally tend towards having more of them whereas females tend to invest more in each so look for long term mates. This section finishes with a brief overview of the **hominine** family touching on the super-family of apes from 30 million years ago, to **hominoids** (apes and humans) 22 million years ago and our human ancestors around 5 to 7 million years ago, noting that up to around 30,000 years ago there were multiple human species around at the same time.

From the biology, we have a bit of a lurch into psychology with the **theory of mind**, which is the ability to think from the perspective of another and to thereby predict what someone else is likely to do. That it is not fully present in chimpanzees indicates that it evolved after the split some 5-7 million years ago. The **Maxi (Sally-Anne)** [Wimmer and Perner, 1983] test indicates that we develop a theory of mind by around 6 years old although the **false-belief** that it tests is not all that encompasses theory of mind and alternatives (e.g. Chandler's 1989 hide and seek test) have indicated that it is present from around 2 years of age. Although children generally follow the same developmental trajectory, the age at which it arises differs across cultures. As one might expect, it is much less developed in those with autism. Apes exhibit the deception aspect of this. It is illustrated in archaeology in terms of art from 30,000-40,000 years ago but the lack of human evolution for some 200,000 years indicates that it has been around for quite a while despite the lack of concrete evidence for it earlier than the cave paintings.

Finally, the related issues of altruism and reciprocity are covered. Since natural selection is all about reproductive success, you might think that altruism would play no part in the selection process. However, the reproductive success is not about the success of a particular individual but rather about the reproductive success of the genes involved. Therefore, through the process of **kin selection** one can see that it is advantageous to help individuals with whom we have a lot of genes in common i.e. our relatives and that we would tend to help those with whom we had a greater number of genes in common i.e. the closer the relative, the more the help that would be offered. Outside our relatives we also help complete strangers which is generally on the basis that a helpful act will be repaid later (**reciprocal altruism**) which brings into play a certain amount of game theory. This is illustrated in psychology by the **prisoner's dilemma** where the best strategy is usually to defect (i.e. not to make the initial altruistic act) although in an ongoing relationship, it's better to be altruistic first then do whatever the other guy did on you; it also has cultural biases and the students that it's generally tried out on would be expected to be somewhat more clued in than actual criminals. **Indirect reciprocity** covers the situation where others benefit but there is no direct benefit to the altruist, the assumption here being that the altruist will gain brownie points as their benefit which in turn helps them. Evidence for altruism in animals is mixed with initial studies looking at food sharing indicating that it didn't happen (but they tend not to share food at all) whereas later studies looking at general helpfulness showed that they were altruistic; there are issues with all of these studies as they were using animals raised in captivity.

For the exam, the key topics for this chapter are **highlighted** above and are:

- Theory of mind
- Natural selection
- Sexual selection
- Reciprocal altruism

Chapter 3, on **Three approaches to learning**, runs to 46 pages is back to proper psychology. This is the first of the part 2 **exam chapters** so isn't tested in any TMA which means that my notes will initially be less fleshed out on this but will improve as the exam approaches.

A typical exam question would be along the lines of asking you to compare and contrast a couple of the perspectives on learning described in this chapter.

I've **highlighted** the key exam topics.

This chapter looks at three basic approaches to learning starting with conditioning which is essentially the basis for rote learning, moving on to category learning and finally looking at social and cultural aspects to learning. Quite a fundamental thing and a topic that is covered in some depth in the *Child Development* module as you would expect.

The **comparative approach** looks at how different species and generally does this through the methods of **behaviourism** which look at actual behaviours and ignore the possibility of any internal mental states that may exist.

Classical conditioning introduces a whole raft of terminology, taking up around 1/3rd of the chapter along the way i.e. it's a pretty important topic. It all started with the physiologist **Pavlov** who was interested in reflexes. He began by creating a **contingency** by pairing a **neutral stimulus** (e.g. a bell) with a natural one (e.g. salivating when food is in the mouth) and found that after a number of repetitions, the neutral stimulus was sufficient to create the salivation (the **conditional response**) i.e. it had become a **conditioned stimulus** (or conditioned stimulus), this process being called **classical conditioning** with the reflex linking the bell to the salivation being the **conditional reflex**; the food itself is the **unconditional stimulus** and its salivation is the **unconditional response**. Watson went on to screw up little Albert by banging a lump of metal behind him whenever he saw a rat which he initially wasn't scared of.

Instrumental conditioning is where the subject taking a particular action is either rewarded for doing this (**positive reinforcement**) or something undesirable for them is stopped by their action (**negative reinforcement**). If the subject is required to do something specific to obtain their reward this is **operant conditioning** e.g. rats pressing a lever to gain food pellets. **Punishment** is the initiation of something as a consequence of their actions that would cause negative reinforcement. These techniques have been used in **behaviour modification**. Experiments based on instrumental conditioning include Tolman with the fan of maze routes showing that there they develop a mental model rather than just having their behaviour modified and variations on this based on room layout.

Category learning arises when we realise that things are generally not unique but rather fall into specific categories which can aid application of knowledge acquired in one context in an entirely different one e.g. we can identify a creature with scales as a "fish" which in turn means that we know it can swim even if we don't know the specific species. However, that begs the question: how do we build these categories in the first place and a plethora of experiments have looked at that e.g. Bruner and his stimulus cards revealed a number of different strategies used to identify categories (eliminating categories by focusing on one property rather than just randomly scanning works best). Criticisms include that these are **artificial categories** and that **natural categories** are quite different e.g. birds need wings to fly and aren't just things with wings. There's the issue of whether we can learn

new categories and how we do so: is it by hypothesis testing as Bruner would argue, or are the categories innate as Chomsky and Fodor would say? Quite a complex area and these notes don't really cover it properly yet (see p196-200 of the book).

The **sociocultural perspective** considers the use of tools and how it depends on interpersonal relationships and is embedded in the society and culture in which it takes place. For example, you could learn to do calculations on paper, on a calculator or perhaps with an abacus. This moves on to the issue of the use of language in problem solving and the differences between cumulative talk (that merely sums up what has gone before) and exploratory talk (that moves the conversation onwards). Finally there is the business of **enculturation** or indoctrination into the school system: making sense of how school works or learning how to learn in a school context.

For the exam, the key topics for this chapter are **highlighted** above and are:

- Behaviourism
- Sociocultural perspective
- Operant conditioning
- Classical conditioning
- Category learning

Chapter 4, on *Biological processes and psychological explanation*, runs to 60 pages and takes us into the depths of biology so for non-biologists there's a lot of new terminology introduced very quickly with relatively little depth. As the second option in TMA2 is based on this chapter, the notes on the appropriate sections will probably be more detailed.

I've **highlighted** the key exam topics.

This chapter is very much a whistle-stop tour of how psychology depends on the underlying biology and was formerly covered in somewhat more detail in SD226 *Biological Psychology*. It's broken into four basic sections: a brief introduction as to how biology supports psychology, some basic biology, how the nervous system and brain work, and how everything fits together.

We start off with Crick's (1994) concept of **reductionism** i.e. that all psychology can ultimately be explained by processes going on within the biology of the brain which the chapter then goes on to knock down. For example, the effects of amphetamine on behaviour can only be understood by considering the position in the social hierarchy of the individual injected (Cacioppo and Berntson, 1992). Similarly, to treat depression one can go down the psychological therapy route or the medicinal route or a combination of the two. Likewise there is the split between the signal that the senses receive and how the brain perceives it: was it just a pattern of dots or was it an *exit* sign? Finally, the concept of the **dualism**, the idea that the mind can have an existence independent of the brain.

From here, we dive into some basic biology with quite a lot of terminology introduced along the way. The body is made up of billions of **cells** which themselves consist of a membrane enclosing a number of organelles e.g. the nucleus, the mitochondria, vesicles, etc. Collectively the cells in the body aim to maintain the levels of a number of key parameters such as temperature and sugar level within acceptable levels (**homeostasis**) through the **regulation** of various **controls** e.g. using sweating to cool down. Cells come in a number of different types but for the purposes of psychology it is the **neuron** that is the most important as that is the type of cell that transmits information around the body and collectively these form the **nervous system**. Neurons consist of a **cell body** which has a number of dendrites and a long tail (**process**). The brain and spinal cord form the **central nervous system** with the neurons outside that core forming the **peripheral nervous system**. **Detectors** in, for example, the skin relay sensations via the peripheral nervous system to the central nervous system where they are interpreted by the brain whilst **motor neurons** work in the other direction and cause muscles to move. In addition to neurons, **hormones** also transmit information and commands around the body by way of the blood and can also affect behaviour. Cells reproduced by replicating the **chromosomes** within the **nucleus**, the process of sexual reproduction occurring by the mixing of the chromosomes within the egg and those within the sperm (referred to as the **gametes**) with the fertilised ovum subsequently reproducing and differentiating billions of times, ultimately forming a new individual. The collection of genes within the original fertilized egg are the **genotype** with the expression of that genotype within the environment called the **phenotype**. This is where the nature vs nurture argument originates: even with an identical starting point (e.g. in identical twins), you wouldn't necessarily get two identical individuals as they would be very unlikely to experience the same environment.

So, how does the nervous system actually work? If you stick a pin in your finger, one or more of the **sensory neurons** will generate an **action potential** (i.e. a change in its electrical activity). This electrical activity is transmitted along the neuron (a higher

frequency of pulses represents a higher intensity of stimulation) until it reaches the end of the neuron where **neurotransmitters** in the neuron are passed out of the neuron into the **synaptic gap** and taken up by receptors in the next neuron in the chain to be passed along by it in turn (the two adjacent neurons are called the **synapse**, hence the synaptic gap between them). Once sufficient neurotransmitters are taken up by the next neuron in the sequence, this causes **excitation**; note that **inhibition** can also occur, depending on the nature of the stimulus. Defects in this transmission process can lead to a range of mental illnesses such as schizophrenia (caused by some sections of the brain being abnormally active). The eye consists of a network of **receptor cells** called **cones** (colour sensitive) and **rods** (sensitive to the light level) which are collectively called the **optic nerve** (SD329 covers this in lots more detail). A whole range of things can interfere with this information transmission process such as diseases (e.g. Parkinson's results from a loss of dopamine), prescription medication (e.g. Prozac) and various drugs (e.g. alcohol, heroine, etc.) and these processes can be deliberately modified by reducing the **re-uptake** of the neurotransmitters (e.g. Prozac) but can cause problems (e.g. cocaine by rapidly blocking re-uptake means that the production of dopamine can't keep up which in turn leads to the down).

Moving up from the extreme detail of cells, we look next at how the brain is built and how it functions. It consists of two **hemispheres** joined by the **corpus callosum**. The outer creased layer is the **cerebral cortex** and overall it's considered to consist of a number of lobes which perform specific activities. Thus, the eyes are wired through the brain to the **lateral geniculate nucleus** at the back. We know this courtesy of a range of accidents that have happened over the years and, more recently, some techniques that have been developed. Thus, epilepsy which arises from one hemisphere tended to roll over to the other one so Sperry (1969) looked at cutting the connection which in turn permitted a range of quite interesting experiments to be done addressing a single hemisphere. Damage caused by accidents or strokes (**brain lesions**) also revealed what some sections of the brain got up to (e.g. Phineas Gage lost the sections related to emotional control). Animals have controversially had bits of their brain cut out but these days brain imaging techniques are, of course, preferred. In terms of imaging, there is a wide range of options including **positron emission tomography (PET)** which looks at the blood flow indicated by the amount of a radioactive tracer injected.

This is all controlled by the **somatic nervous system** which acts on the **skeletal muscles** that operate our **voluntary behaviour** all under control of the **motor cortex**. The **autonomic nervous system** runs the involuntary systems (e.g. control of the **cardiac muscle** in the heart and **smooth muscle** in the throat etc.). Finally, a couple of areas are largely glossed over including language development and depression.

For the exam, the key topics for this chapter are **highlighted** above and are:

- Neurotransmitter
- Phenotype
- Genotype
- Action potential
- Brain lesions

Chapter 5, on **The individual differences approach to personality** runs to about 50 pages and finishes the first volume of the first book. This is the second of the part 2 **exam chapters** so isn't tested in any TMA which means that my notes will initially be less fleshed out on this but will improve as the exam approaches.

A typical exam question for this topic would be based around methods or might ask you to explain how personality differences are explained.

I've **highlighted** the key exam topics.

This chapter is largely based around a range of trait theories moves on to a bit of the genetic underpinning of those and finishes by considering the effect of environment.

Despite the title, this chapter starts from the premise that everyone is pretty much the same and can be described in terms of variations from the norm in a range of dimensions, the **nomothetic approach** as opposed to looking at everyone in detail, the **idiographic approach**. All these theories have as their basis **psychometrics** i.e. the measurement of individual differences through testing. The common-sense approach to this (e.g. "Joe is neurotic") are referred to as **implicit personality theories**, but more scientifically we look at the **traits** which are high level descriptions of various aspects of our personality though **trait theories of personality**. These traits are themselves made up of a range of surface traits which in turn are each made up of a range of outward behaviours, beliefs, preferences, habits and acts. Thus, an outward act of running for a train might be represented by a surface trait of punctuality which in turn is part of a trait of conscientiousness. The trait theories all start from a **lexical hypothesis** i.e. a list of traits that seem likely to make sense (generally beginning in our culture but there are some cross-cultural versions). The various versions of trait theories using different numbers of dimensions (**factors**) along which they measure the traits e.g. the happiness factor might run from ecstatic to sad which are determined from the **factor analysis** of the questionnaires that started off the particular trait theory being examined.

These factors are **hypothetical constructs** of the trait theories derived by an **inductive approach** to examining the original data. Thus Cattell (1977) arrived at 16 factors in 16PF, Costa and McCrae (1998) ended up with five in OCEAN (an **etic** approach which translated the five into other languages) and Goldberg (1981) had his Big Five (an **emic** approach to other cultures i.e. one trying for universality). Why different numbers? Well, the 16PF factors are not independent and the 16 **primary factors** could have been grouped into a smaller number of **secondary factors** which aren't much different from the five factor models. Eysenck ended up with just three factors i.e. different groupings are possible. The overarching problem with all of them is that they describe personality but don't explain it.

Eysenck (1967) was the first to attempt linking the traits to the physical brain. In doing so, rather than call it a trait theory he felt that it should be called a **type theory** as the biology of the brain underlies the personality traits of his theory and came up with introversion/**extroversion** and stability/neuroticism as his first two factors, later adding in psychoticism/superego strength, hence the ENP questionnaire. To get from biology to traits he explained that introverts are over-aroused at birth and act to avoid over-stimulation whilst neuroticism came from the **limbic system** which deals with emotional responses. There is some evidence for this e.g. alcohol, a depressant, makes introverts more like extroverts whilst stimulants make extroverts more introverted. He also believed that there

was a strong genetic component for these type i.e. they couldn't be changed.

The **heritability** of traits is studied in three basic ways. Molecular genetics is in its early stages but has already indicated that neuroticism is associated with serotonin. Temperament studies are usually **longitudinal studies** (Kagan, 1994, identifying cautiousness and boldness) or diary studies. Finally, there's **behavioural genetics** which generally consider **monozygotic twins** and **dizygotic twins** to estimate the heritability of the traits being examined, looking at those raised together vs those raised apart which means that for monozygotic twins the genes are the same but the environment differs. Similarly there are **family studies** and **adoption studies** which vary other factors. There are difficulties with all of these studies but it would appear that heritability of traits is around 20-30% (there's a lot of detailed info on pages 322-325).

You might think that the *environment* of twins would be identical as after all the key components such as the socio-economic and education level of the parents are the same. However, even these shared environments tend to be **non-standard environments** as each child experiences the environment differently, they can change their environment (e.g. their temperament will tend to encourage them to seek out different aspects), their environment will change over time due to changes in the family situation and parents tend to treat their children differently creating a **social learning** experience. Even twins experience this as their differences can be emphasised (e.g. extroversion of twins is more similar when they are brought up in different families). Some families tend to encourage sameness whilst others encourage individuality. That the expression of our personality is influenced by the environment (e.g. a low conscientiousness person may always be early for a holiday flight) is called **situationism** i.e. there are a lot of situational factors controlling the personality traits displayed in given circumstances and these are also influenced by **social norms**. Zimbardo's prison experiment is notable here.

Do we have fixed personalities or is it that we have **modular personalities** with appropriate sections being expressed within the current context? Is there an **identification** with some other person in some situations e.g. the prison consultant identifying with his own parole board chair?

For the exam, the key topics for this chapter are **highlighted** above and are:

- Trait theories of personality
- Psychometrics
- Heritability
- Extraversion
- Implicit personality theories

Chapter 6, on **Perception and attention** runs to about 50 pages and starts the second volume of the first book. This is the third of the part 2 **exam chapters** but TMA3 also uses the background theory provided here.

I've **highlighted** the key exam topics.

This chapter starts by considering how the **bottom-up information** coming from our senses (i.e. **sensations**) direct our **attention** and then follows on to look at how these are **perceived** as **top-down information** in our brain. Thus the pattern of light and dark remained the same yet our perception of it changed this into the cow that we perceived later when the additional cues were added. How we perceive a journey is both in general terms (**semantic memory**) and the instance of a particular journey (**episodic memory**) hence we may know what usually happens on the way to work yet may not recall the specific details of the journey today.

Attention is the process by which we allocate cognitive processing resources. We tend not to notice everything (e.g. the change in the person asking directions) and Kahneman (1973) suggests that we have a **limited-capacity central processor** i.e. that we have a **limited capacity attention**. However, there appear to be more specialised processing units around as Navon and Gopher (1979) found in their **multiple-resources theory of attention**. Whatever their number, Posner (1980) recognised that there is still a limited capacity and therefore our attention is directed in the manner of an **attentional spotlight** which acts to reduce the amount of processing undertaken (albeit this **selective attention** means that we ignore things outside the spotlight). This spotlight acts in the form of **attentional tunnelling** when there's too much to consider and we are forced to ignore things or **stimulus-induced shifts of attention** (e.g. a loud bang). Broadbent (1954) suggested a **bottleneck theory of attention** that reduced the amount of information early on thus allowing for the limited processing power, the snag with this being that it doesn't allow for contextual processing at higher levels of perception and in practice it appears that where the filtering is applied varies depending on the processing load. This all presupposes that everything is conscious i.e. that they are **controlled processes** but there are also **automatic processes** which avoid the issues around the limited processing capacity but at the expense of losing the detail. The Stroop test is one example of this and hence people find it difficult to read the colour when the word printed is at odds with the colour that it is printed in.

As with attention, there are a number of different theories of perception. The chapter first looks at Gregory's (1966) **constructivist theory of perception** which considers that as we don't use all of the sensory information to begin with, we are therefore assembling our perception from incomplete information and in doing so we construct hypotheses that are subsequently proven or disproven as more information arrives. This explains a number of optical illusions and the way that those in different cultures perceive these but it is not a complete explanation. Gibson's (1950) idea of **direct perception** considers that everything is already there in the sensory information and that we perceive the world as a whole and moreover that we perceive it dynamically rather than as a series of static images (e.g. most visual illusions only work as static images); no hypotheses are required. **Phenomenological experience** considers the whole area of perception to be a fusion of our prior experience, our current understanding and the context and tries to understand not only how we perceive things but what the experience of perception is like (e.g. a cube is a building block to a child but a dice to a gambler). Images are considered as consisting of a **figure** and **ground** (the background). **Gestalt psychology** considers the identification

of whole objects and challenges the idea of an attentional spotlight.

In the real world there's a lot of research in, for example, traffic collisions considering such things as the **sensory conspicuity** (will it flash out at you) and **attention conspicuity** (will you actually notice it).

For the exam, the key topics for this chapter are **highlighted** above and are:

- Attentional spotlight
- Bottleneck theories of attention
- Topdown processing
- Limited capacity attention

Chapter 7, on *Perceiving and understanding the social world* runs to about 50 pages and starts the second volume of the first book. The first option of TMA4 is based on this.

I've **highlighted** the key exam topics.

There's a change in emphasis in this chapter from considering the individual in isolation to looking at their interactions within society. It starts off with looking at how our knowledge shapes our view of the world, moving on to consider common-sense explanations of behaviour, then considering how accurately we use information in forming judgements, finishing off with a look at how different groups judge the risk of HIV/AIDS.

This area looks at the **attitudes** that people hold and the **attributions** that they assign even to abstract objects like the box and circle animations that Heider and Simmel (1944) used which goes to show how greatly simplified **experimental social psychology** experiments can be yet still retain ecological validity.

Our knowledge of the world is viewed in light of the **schemas** which we use to organise that knowledge and simplify our processing of it. Thus we see someone dressed in a particular manner and attribute them with all kinds of properties by way of **schematic processing** that may not apply to that individual (i.e. we generalise from our **person schema**). Similarly we also have **event schemas (scripts)** which we use to interpret sequences of events. This reduces the workload through simplification and reduces the issues of bottlenecks discussed in the previous chapter but can distort our view of reality and creates **stereotypes** e.g. rich children are judged as more bright and poor ones are judged as less bright yet there is a significant overlap in ability between the two groups (Darley and Gross 1983). Moreover, we tend to act as a **cognitive miser** i.e. using the minimum amount of information to come to a conclusion i.e. we use stereotypes but this depends on our motivation to be accurate e.g. Ruscher (2000) found that we seek out more information about someone when our success is dependent on them. Whilst we can be a **motivated tactician**, there is a degree of **automaticity** normally.

Attribution theories consider that when we attribute a cause to behaviour this is made up of **internal/dispositional causes** (i.e. within the person) and **external/situational causes** (i.e. in the environment). In general, internal causes are more useful as they apply to that person generally whereas external causes only apply in that situation. Kelley (1967) considered that we look at consistency (of that behaviour by that person), distinctiveness and consensus (does everyone else do that). So low consensus with low distinctiveness is attributed to an internal cause but high consensus with high distinctiveness is attributed to an external cause. Tests of this can be done using **vignettes**. We tend to favour internal attributions for others (the **fundamental attribution error**) but external causes to our own behaviour. However, we also have a **self-serving bias** in that we attribute our successes to internal causes but our failures to external ones. Why this should be so may be due to **cognitive bias** i.e. that we've worked hard so expect to succeed so failure is due to an external cause but there may be a **motivational bias** due to self-esteem and desire to present ourselves in the best possible light (people with high self-esteem tend to make more self-serving attributions than those with low self-esteem [Shrauger 1975]) but... someone with high self-esteem would be more likely to expect to succeed.

In making judgements, we tend to make the judgement in light of the distribution of information which we have (**availability heuristic**) i.e. we assume that the new case is in proportion to the information which we have heard about in that area before or about a

type of person before (**representativeness heuristic**). The level of **calibration** varies i.e. some people can judge what they don't know better than others. In terms of risk, people in general feel that bad things won't happen to them i.e. there is an **optimistic bias** (everyone thinks that they drive better than average).

HIV/AIDS studies illustrate most of the above. Thus people consider that they are less likely than average to catch it even if they are in a high risk group, they attribute the causes to things outside their group (e.g. Africans blame western behaviours, westerners blame the Africans).

For the exam, the key topics for this chapter are **highlighted** above and are:

Attribution theory

Schema

Stereotype

Self-serving bias

Chapter 8, on *Memory: structures, processes and skills* runs to about 50 pages. The second option of TMA4 is based on this.

As well as being of interest to psychology, this chapter has a lot of information that is quite useful for studying in general covering everything from how memory works, the processes by which we remember information and how we go about retrieving that information before finishing up with some illustrations on the effect on people with unusual memory abilities.

Memory is quite difficult to study as we cannot do so directly but rather assume that we have something called “memory” because we don't need to be constantly told the same information. Conceptually, we break it down into **encoding processes**, **storage processes** and **retrieval processes**. Retrieval processes are further subdivided into **recognition** (searching for a match to something external) and **recall** (searching for something stored). Good **retrieval cues** can help in the recall of poorly encoded or stored information i.e. the three processes are not entirely independent. There are different levels of memory ranging from sensory memory, through short term (**working memory** few seconds) to long term memory. In remembering sequences, the **primacy effect** means that you recall the first few whilst the **recency effect** means that you recall the last few with the ones in the middle being lost if the list is too long. As with all brain operations the study of memory is aided by examples of brain damage and scanning techniques.

So how do these processes work, and what can be done to help them along? Improving the encoding is the first step and this can be done by engaging more **levels of processing** thus rather than just copy text, you should deepen the processing by considering the meaning of the text (semantic processing) which involves **elaborative rehearsal** through linking to other pieces of information. Just repeating the information without this interpretation is **maintenance rehearsal** and doesn't work nearly as well e.g. test yourself rather than just read the notes. Experiments can be based around **incidental learning** (where people aren't told that they'll be tested) or **intentional learning** (where they know they'll be tested) and the **generation effect** where they're asked to generate words that rhyme with those on a list which engages deep processing. Repetition of learning helps as Mayer (1983) suggests that the structure of the learning changes with repetition and there's a **spacing effect** i.e. don't revise in one big chunk because elaborative rehearsal is quite tiring. Ebbinghaus found that you forget most early on but after a period the rate of memory loss drops dramatically. Restructuring notes helps by deepening the processing and we tend to **cluster** recall rather than using **free recall**. Methods of enhancing retrieval include **context reinstatement** (imagine you're in the situation right now), **recalling everything** (one memory can trigger another), **recalling in different temporal orders** and **changing perspective**. These are based on the **encoding specificity principle**. There's **indirect access** e.g. where you can remember something about a word but not the word itself and **direct access** where the information is immediately available.

Our ability to construct new memories and retrieve old ones is affected by the knowledge that we already have as illustrated by Bartlett's (1932) experiments on remembering the facts of a story outside our own culture. This leads on to the experiments on leading questions by Loftus and Palmer in 1974 and the **misinformation effect**. Bahrick (1975) went on to examine enduring memories showing that some memories can last a very long time indeed through the mechanisms of repeated exposure over a long period as described above. **Autobiographical memories** are those from our own past and Conway (1996) showed that these included both location and temporal information but are our

interpretations of the events rather than being strictly accurate. Linton (1982) looked at diary studies and found that memories of real-life events fade at around 5% per year; oddly the importance of the event did not dictate whether or not it was remembered. **Flashbulb memories** are autobiographical memories around striking events e.g. the death of Kennedy for those for whom this was particularly relevant i.e. Americans. **Collective memories** can be created within families recalling the events early in the life of one of the children for example and which can later be adopted by that child as things which they believe that they remember.

Everyone doesn't remember in the same way and impairments recognise that there is a **localisation of function**. This can also help identify **episodic memory** which can be affected by damage to the hippocampus showing that there is **episodic** and **semantic** memory. There's also a separate **procedural** memory function which usually isn't consciously available. At the other extreme, there are **mnemonists** who can remember lots of things and **synaesthesia** where someone can, for example, hear colours or see sounds.

For the exam, the key topics for this chapter are **highlighted** above and are:

- Autobiographical memory
- Flashbulb memory
- Encoding
- Specificity principle
- Episodic memory
- Levels of processing
- Collective memories

Chapter 9 is on **Person psychology: psychoanalytic and humanistic perspectives**. It runs to just under 50 pages and is the fourth **exam chapter**. The topics here are covered in somewhat more depth in *D171 Introduction to Counselling*.

This is quite a complex chapter which looks first at psychoanalysis then at humanistic approaches before finally comparing the two.

This harks back to the identity chapter in some ways, looking at who we are and how we got to be that way, focusing on **subjectivity** and our inner selves in general which is somewhat against the grain of present day psychology's attempts to become more scientific and objective.

Psychoanalysis is very much dependent on the ideas and techniques of Freud which developed out of the deep self-analysis that he conducted towards the end of the 1800s. From this three broad themes emerge: 1) the importance of unconscious feelings and emotions, 2) their origin in early childhood experiences and 3) the importance of unconscious anxiety and inner conflict (psychodynamics). To explore the unconscious he initially used hypnosis but moved on to **free association** and dream analysis (which tries to map the symbolism within dreams onto real-life objects [see *The interpretation of Dreams, 1900*]; there are all kinds of issues with this.). In terms of early childhood experiences, he sees us as moving through various levels of pleasure starting with the **oral stage** (pleasure from sucking 0 to 2 years), moving on to the **anal stage** (pleasure from pooing at 2-4) before we reach the **phallic stage** (from 4 to adolescence) with subsequent relationships incorporating, for example, the oral stage through kissing. Oedipal **conflict** arises during the phallic stage when boys unconsciously find their fathers to be a source of competition for their mother's affections but it's been suggested that this really came from his Jewish background where his father would have been aloof. His account of female development as a consequence of **penis envy** seems more than a touch flaky. Moving into adulthood the earlier relationships can exhibit **transference** to adult ones. Allied to that is the idea of **fixation** on an earlier stage of development e.g. an over-reliance on oral gratification through being fixated on the oral stage leading to chewing sweets, drinking or talking. **Psychodynamics** moves us on to the consideration of three levels of self and the conflicts that can arise between the **id** (the basic desire to satisfy biological needs), the **ego** (the reality testing perceptual level) to the **superego** (the moralist highest level) e.g. the id may want sexual gratification, the ego rails that back from a fear of punishment whilst the superego throws guilt into the mix. This conflict leads to **angst**, is managed through **repression** and **displacement** or **projection** onto another person. These **defence mechanisms** to avoid internal conflict are largely unconscious e.g. forgetting to pay an annoying bill, or projection of anger onto a doll for young children. There are variations of psychoanalytic theory 1) varying in the driving force e.g. **object relations** rather than sexuality, 2) variations in how early childhood develops and 3) the role which society plays.

Humanistic psychology considers more of an **existential** approach i.e. we exist, are conscious and have choice (**autonomy**) and allows for **personal growth**. This is centred on our conscious experience of the events going on around us but is an experience which we generally are unaware of, something that makes it difficult to study. Maslow (1973) picked up on the idea of a **peak experience**: a feeling of delight, meaningfulness and wholeness. Csikszentmihalyi (1992) picked up on **flow experiences**, the total involvement in something. Kelly (1955) described **personal constructs** as the way in which we look at the world, consisting of a range of bipolar aspects (e.g. friendly-cold, stimulating-dull)

which he displayed on a **repertory grid** for an individual that enabled him to model the way that person looked on the world e.g. if they used happy-sad in a similar way to lively-reserved it might indicate how they related to others. Very rigid constructs would indicate that the individual may have difficulties in relationships. He considered that our experiences are open to reinterpretation: **constructive alternativism**. Existentialists consider that we have **situated freedom** i.e. we have a great deal of freedom to choose who we wish to be, albeit situated within a range of constraints; they refer to acknowledgement of this situation as **authentic**. We all have Frankl's **will to meaning**, the feeling of importance in finding a purpose and direction for our lives, through actions, experience, love or fortitude. Moving along, Maslow (1954) introduced his model of needs ranging from physical at the bottom of his pyramid to **self-actualisation** at the top although there are issues with his selection of people e.g. those making full use of their talents would be likely to devote themselves to this work. Rogers looked more at how we might reach self-actualisation through **personal growth**. He considered that our **sense of self** rests on our own experience and our evaluations by others and developed **person-centred counselling** to get around the problems of conditional evaluations by others and operates by way of **unconditional regard**. Humanistic psychology takes a holistic approach which encompasses methods such as encounter groups, gestalt therapy (lots of role-playing) and psychosynthesis with current developments such as **positive psychology**.

How do psychoanalysis and humanistic psychology compare? In looking at subjective experience, psychoanalysis considers the unconscious and uses a lot interpretation whereas humanists considers the conscious and analyses the information e.g. through repertory grids. In terms of autonomy, psychoanalysis considers that we are a result of our childhood experiences whereas humanists consider that we have a lot of opportunity for personal growth and change. To change, psychoanalysis reveals how we got to be at this point whereas humanists consider that we are our own agents in getting here (psychoanalysis would say that without the deep understanding, changes will be superficial). Criticism of psychoanalysis is mainly in terms of it being subjective and non-scientific.

For the exam, the key topics for this chapter are **highlighted** above and are:

- Self-actualization
- Defence mechanism(s)
- Personal constructs
- Psychodynamics
- Oedipal conflict

Book 2, chapter 1 on *Lifespan development*, runs to about 60 pages and covers what is sometimes known as developmental psychology; it's covered in somewhat more detail in ED209. This is the first of the three **exam chapters** from part C and one of the chapters you can choose from in TMA6.

This is a whole-person look at psychology starting with early relationships as they develop with peers and siblings, the major topic of attachment and how that develops, how things change with ageing in later life and finishes off with a look at the application of evolutionary psychology to lifespan development. The chapter starts off with a consideration of what perspectives we can bring to bear on development (e.g. **internal vs external influences**), moves on to consider how relationships affect out development and how we continue to develop in adulthood.

Sibling and peer relationships are examples of **horizontal relationships** and are typically characterised by equality and **reciprocity**. These are quite different from the **vertical relationships** exemplified by those with parents, teachers, etc. but there is some overlap with, for example, older siblings. Siblings clearly have a significant influence on development (Schaffer, 1996) and adult concepts such as justice and fairness are developed through these interactions (Dunn, 1988) indicating that play is quite a complex social activity (Göncü, 1999). Notably, Vygotsky (1978) points out that in play, children normally act above their age which allows them to try out the rules of adult social interaction which in turn helps them develop skills in **symbolic interaction**. Mead (1934) identified the self as being separated into the "me", the external things that can be known and the "I", the internal viewpoint. Working together helps development through **socio-cognitive conflict** i.e. being made aware of conflicting ideas through working with peers (which does not happen when working with parents due to the different status) e.g. Piaget (1932) and Doise & Mugny much later (1984). Moderating factors include the age, difficulty of the task, personality and level of acquaintance. All this is highly culture-dependent as the interaction with peers and elders varies across cultures.

Attachment theory looks specifically at the relationships that develop between parent and child, particularly in the early years and considers how significant these early relationships are in later life, in particular the **continuities** between early experiences and later behaviour. Is it a **deterministic** relationship, or is it a **probabilistic** one? **Attachment** is a strong, continuing emotional bond between two people i.e. one that would be expected to continue for some time. Bartholomew (1990) suggests that adult attachment styles can be characterised along the dimensions of approach-avoidance and autonomy-dependence. Main (1985) developed the **adult attachment interview** which divided attachment styles into insecure: dismissing, secure: autonomous and insecure: pre-occupied with a later earned security introduced by Rutter (1990) for those who had difficult childhoods but were able to move on from that in later life. Bowlby in the 1940s developed the idea of an **internal working model** from the viewpoint that children have a basic biological urge to establish a **primary attachment relationship** with a mother-figure which consists of the self, the mother and the relationship between them. He believed that the formation of a health model was essential for later social development. Ainsworth (1978) went on to develop the **strange situation** to identify infants as insecure: anxious avoidant, secure and insecure: anxious-ambivalent. These categories generally read across into the outcome of the adult attachment interview if the environment has remained stable (Hamilton, 1994) but not if it has been upset through family developments. Mothers attachment styles are often passed on to their children, does to some extent determine how they react to their children and to a lesser extent determines their children's

attachment style but there is a lot of variation in this.

Development in later life considers first the definition of age as being a combination of chronological age, biological age, social age and psychological age which combine to produce your functional age. Erikson identified a number of stages: 1) Hope: Trust vs Mistrust 0-1 , 2) Will: Autonomy vs Doubt 1-3 years, 3) Purpose: Initiative vs Guilt 3-6 years Purpose, 4) Competence: Industry vs Inferiority 6-11 years, 5) Fidelity: Identity vs Role Confusion Teenage years, 6) Love: Intimacy vs Isolation 20's & 30's, 7) Care: Generative vs Self absorption 40-65, 8) Wisdom: Integrity vs Despair 65+. Peck (1968) changed the later stages to consider valuing physical powers over wisdom, Socialising vs Sexualising and Cathetic flexibility vs impoverishment and Mental flexibility vs Mental rigidity in middle age and differentiation vs work-role preoccupation, Body transcendence vs body preoccupation and Ego transcendence vs ego preoccupation in old age. There's lots of cultural biases in both of these and Baltes (1999) attempted to get over these by looking at how older people perform functionally through selection, optimisation and compensation (e.g. the piano player). Tests on memory of older people tends to indicate that they remember past events better but that's significantly moderated when they're active e.g. living in a residential home vs living in the community (Holland, 1991). There are difficulties in measuring the "declining intelligence" with age as it depends on how it's measured; longitudinal studies do not show a decline (Shaie, 1988) which indicates that the decline is down to **cohort differences** (i.e. differences in education, healthcare, etc.).

Approaches to studying lifespan development include **functionalism** which is based on evolution i.e. that behaviours serve some adaptive purpose. He suggested that some capabilities were innate whilst others were learned and that we are each a mix of these. The organismic approach is a **stage theory** that considers us to go through various stages in a fixed order e.g. we start walking when our muscles can support us. This assumes that environmental factors can only affect the speed of development, not its course. Examples of this include Freud's work and that of Piaget with his stages: 0-2 sensory motor, 2-6 pre-operational, 6-12 concrete operations and 12+ formal operations. Developmental contextualism considers that everything happens in a context i.e. our development is a combination of genetics and environment. Bronfenbrenner (1993) considered **microsystems** (our immediate environment, social relations and physical resources) combining into **mesosystems** and interacting with the **exosystem** outside with the **macrosystem** being the overall pattern of these. These approaches largely consider development to stop at the start of adulthood.

Book 2, chapter 2 on *Language and meaning*, runs to about 40 pages; it's covered in somewhat more detail in ED209. This is the second of the three **exam chapter**s from part C and one of the chapters you can choose from in TMA6.

This looks at three main aspects of language: how it originated, how we understand it and how we go about using it.

Why can't your dog talk? Is there something fundamentally different about human languages? And what is a language anyway? A set of **language design features** has been suggested of which four are considered unique to humans: **semanticity**: each word has a specific meaning rather than being a conditioned response; **displacement**: the ability to talk about things regardless of when or where they are; **structure dependence**: language has symbols that are not like the things they represent (although, as a linguist, I would suggest that this was not always so!); and **creativity**: the ability to say things that have never been said before. Teaching language to non-humans is not so simple: even apes don't have the vocal cords so sign language has been used with them. Some experiments have had successes but it's still possible that we're just seeing the results of conditioned responses. Although levels of language equivalent to a 2 ½ year old have been produced, there has, so far, been no evidence of them being able to speak about events at different times (although, to be fair, 2 ½ year old children can't really do that either). But how come we can speak and apes can't? In evolutionary terms, it must have conveyed an advantage on our ancestors to be able to do so e.g. the improved ability to speak about food sources, communication about shared goals, etc. or perhaps it just came about once our mental capabilities reached the point of being able to do it. What seems clear is that it helped in the development of the theory of mind and Sperber's (2000) **meta-representations** in general and perhaps it is this ability that led to the development of language rather than the other way around. The jury is still out on this one as our ancestors didn't leave any record of when they moved from "ug" to "hello".

How do we actually understand language? This section starts with the building blocks i.e. words, moves up to sentences, then to stories, finally considering context, although context is quite important at all levels of language understanding. With words the immediate context helps understanding through **priming** i.e. that some words occur very frequently with others e.g. elbow *primes* grease. Warren (1970) showed that this even operated at the level of individual letters and syllables and Reicher (1969) showed the **word superiority effect** with missing letters in words eliciting the missing letter when the sequence formed a word or even a letter sequence that *could* have been a word. How this works is by way of a **connectionist model** or neural network whereby each successive letter eliminates numerous possibilities by reinforcing the group of likely next letters and inhibiting unlikely successors. So, we can read words, but how do we know what they mean? That uses a **lexicon** consisting of phonology (how to say it), orthography (how to spell it), semantics (what it means) and syntax (what roles it can play in a sentence). Pickering (1999) notes that there are three levels of understanding: 1) the recognition of individual words, 2) the use of sequence in starting understanding before a sentence is completed and 3) combining the meanings of the words and the syntax structure to work out the meaning. In studying this, **garden-path sentences** are used e.g. "the old man the boats". Moving up a level we have **discourses** or stories and put **effort into meaning** in the real-world context (e.g. the balloon picture p96/98). To help in our understanding we make use of **scripts** (i.e. schemas) to aid our understanding. Kintsch (1988) considered that we build sentences out of **propositions** which are the smallest unit making sense within a sentence, these being analysed in a like manner to the connectionist model

described above. These discourses are usually formed as part of conversations. In these **prosody** (the emphasis and intonation) is important as speech doesn't come with punctuation and there is a great deal of **pragmatics** to separate out the literal from the intended meaning.

Our use of language varies with the social context and we both construct and **contest** the meanings with those whom we are in conversation with. Garfinkel (1967) developed **ethnomethodology** (the study of how people function) which studied social groups from within e.g. Wieder's (1974) construction of the social rules of a half-way house. **Discursive psychology** considers how things are described e.g. terrorist vs freedom-fighter. This looks at how we create our identities by **subject positioning** (e.g. "I am a father") and how we interpret our identity through our **interpretative repertoire** and general use of metaphors, grammar, etc. The idea behind this is that the language used reflects the underlying cognitive processes.

Book 2, chapter 3 on *The psychology of sex and gender*, runs to about 50 pages. This is the third of the three **exam chapters** from part C and one of the chapters you can choose from in TMA6.

This is probably the meatiest of the chapters in book 2. It starts off with definitions of sex and gender, moving on to biological aspects, then evolution, the social construction of gender, how psychoanalytics looks at it, finally considering the differences between the various views.

How do you know what sex you are? In more than 98% of the time, looking down would tell you right away but it's not always so simple. Newborns have had nine months of exposure to loads of female hormones which affects how things appear and in about 0.2% of cases the external genitals don't match the internal ones so that some girls appear to change into boys at puberty. The hormones in circulation aren't a definitive proof either as both sexes have both types circulating and it's the relative balance that produces the outward physical characteristics and moreover male hormones can be converted into female ones which can affect, for example, the brain structures where this happens within the brain. Even genes aren't full-proof so although males are generally XY and females are XX, about 0.2% of "males" have XXY (**Klinefelter's syndrome**) and some of these who lack male hormone receptors have **androgen insensitivity syndrome** and may look and live like women but actually be male. The sex of brains has been shown to be determined by hormone levels at a critical part of early development, at least in rats, by Young (1964) which affects the sexually dimorphic nucleus of the pre-optic area (SDN-POA) which demonstrates **sexual dimorphism**. Although similar experiments aren't possible in humans, Allen (1990) demonstrated sexual dimorphism in a region adjacent to the equivalent to SDN-POA although not before around 6-10 years of age. Although various difference in male and female brains have been demonstrated, brain plasticity may mean that some/all of these are products of social development and there are some discrepancies e.g. the larger splenium region in females when that is used to carry visual information and *should* make them better at spacial reasoning yet behaviourally it is males who are better at it. Behavioural and cognitive differences are a minefield e.g. are boys better at maths because the examples are more male? are girls better at English because the books are more female-friendly? Although sex differences have been observed in animals, the jury is still out in the field of humans.

How does evolution look at sex and gender? Females have more **parental investment** in their children in that they clearly put more time and effort into producing each one usually (this isn't true of all animals). Evolutionary psychologists read this forward to the present day, noting that females are descendants of those who were more choosy whilst males are descended from those that were more competitive and hence body weight and size were selected for. More specifically for humans, the increased brain size meant that at birth babies are not fully developed and therefore there is a requirement for parental support to ensure their survival. The hidden oestrus means that ovulation is not obvious and mate guarding (i.e. pair bonding) is also selected for, these claims being tested by Buss (1992) in a study showing that in terms of infidelity, males were more concerned with sexual infidelity whereas females were more concerned with the emotional involvement i.e. commitment is valued by both males and females but for different reasons. Differences in sexual style make for fascinating studies. Clark (1989) conducted a study showing that 50% of males and 50% of females would agree to a date with a stranger, 69% of males but only 6% of females would go back to their apartment and 75% of males and no females would consent to sex. Similarly, studies indicate that prostitution is almost exclusively for

the benefit of males for both female and male prostitutes. Males almost always select for physical attractiveness whilst females go for height in all cultures. Buss (1989) found that females generally go for males with more access to resources (i.e. richer these days), even if they themselves are rich.

Gender is constructed socially right from the start: we congratulate the arrival of a girl or a boy, not just a baby. Bem (1981) proposed that individuals absorb cultural understandings of gender to interpret their own behaviours whereas social constructionists see gender identity as something that is constructed by the individual throughout life. How do achievement and learning become gendered though? As early as adolescence, many subjects are seen as male (e.g. maths, science, technology) whilst others are female (e.g. languages, humanities) and this is even more pronounced with vocational subjects such as cooking and woodwork (and, yes, psychologists were paid to find this out!). In learning, girls' increasing success (and boys' increasing lack of it) were found by Willis (1977) to be related to the feminisation of academic success and encouraging them towards academic success in a constructionist model would require de-feminisation of the activity. Information Technology is currently seen as one of the most masculine of subjects (this was not always so) for a variety of reasons e.g. boys tend to play computer games more, but also the way it is taught is more competitive compared to the more collaborative way that girls tend to use IT.

Psychoanalysis considers the processes of becoming and being gendered. It considers that we absorb or **introject** aspects of close object (mainly parental) over time into our own identity. Babies start off with the view that they are the universe and can have everything within it and over time the **reality principle** intrudes into this fantasy through **differentiating** others from themselves. At some point the realisation that they can't be both a boy and a girl kicks in (**sexual object choice**). Freud really got hung up on the penis-envy of little girls and the symbolism of this as representative of a whole lot of social things that they couldn't have either. Naturally, feminists were none too keen on lacking as defining them and moved to consider it more as symbolic of the father's power within the family and, of course, the other side as envy of motherhood and whatnot on the part of boys. Changing gender relations running alongside social changes since Freud's time have clearly impacted upon the psychoanalytic view of this whole area.

How do the four views compare? In terms of strength, biological clearly has a lot going for it in virtually all circumstances but very little in the social arena of genderisation. Evolution has a lot to be said in its favour (e.g. the female preference for strength and fidelity, the male preference for fertility) but has issues in explaining present-day social activities. Social constructionism by contrast is great for explaining the present, but weak on how we got to this point. Psychoanalysis is good at explaining individuals but can't validate its claims. Can some of these approaches complement one another? Could we consider how the social construction of menstruation squares with the biology and maybe throw in some psychoanalysis as well? Political conflict crops up particularly with biology as feminists are none too keen on using that to say that socially females must do the caring (and indeed are evolved to do it). How about co-existing methodologies then? Biology and evolution would seem to fit well together but linking genes to social consequences hasn't happened (yet). Similarly, there would seem to be the potential for common ground between social constructionism and psychoanalysis.