

Please note that this is a draft of my revision plan which means that it may well be updated in the days leading up to the exam. That said, it's darned close to what I'll be revising from myself.

As those who've done this course will know, there is a LOT of course needing to be revised. So much in fact that, unless you've nothing else to do, there's no way to do it all to the required level.

However, there is the advantage that the usual rule for courses is that a given topic is only examined once. Therefore anything covered on assignments can be dropped which takes out a surprising amount for this course since all the essay questions had two options.

Moreover, each question on the exam paper is confined to a single chapter.

Take those together and what remains are the following chapters:

Book 1: Psychological development and early childhood

1. *ch3 Sensation to perception* (not covered as it's way too complicated)
2. **ch4 Early cognitive development**
3. **ch5 Temperament and development**
4. **[ch6 Origins of development]** (not, yet, covered here)
5. **ch7 First relationships**

Book 2: Children's personal and social development

1. ch3 Children's interactions: siblings and peers (not, yet, covered here)
2. **ch5 Gender identity and the development of gender roles**
3. **ch6 National identities in children and young people**
4. **ch7 Young consumers**

Book 3: Cognitive and language development in children

1. ch1 Early category representation and concepts
2. ch2 First words
3. ch4 The development of children's understanding of grammar
4. **ch5 Executive functions in childhood development and disorder**
5. **ch6 Understanding minds**

Thanks to Martin, our tutor, for doing the hard work on the above. The ones in **bold** are those also selected by [Tim](#) who has a brilliant set of [notes](#) should you want to reduce the revision time even more. Personally, I'm using the [Erica Cox notes](#) which equate to something like a half dozen pages per chapter so around 70 pages to do all the above chapters.

To reduce revision time even more don't forget that you only need to answer TWO questions from the above (plus the seen question!). Thus you only need to revise two of the books ie around 50 pages of the Erica Cox notes. Is it worth cutting it down that much? If it's a choice of revising two books well or three not so well then I'd go for two; the third book is basically there as insurance against two questions that you really don't like from one of the books.

So what's *early cognitive development* all about? Essentially it comes in three sections: understanding objects, interacting with people and understanding representations in descending order of importance going by the page count of each.

Understanding objects kicks off with Piaget's **object permanence** (the toy hidden under the cloth) which they fail before around 9 months according to him. **Bower** tried testing using a train but this

one falls down as young children can't stop tracking a moving object. Finally, **Baillargeon's** drawbridge and car experiments using the habituation method indicated that they could understand permanence from around 5 or 6 months of age and down to 3 1/2 in a replication. He went on to show that children before around 3 months thought that any size of object could hide any other size of object. Bringing up the rear were **Hood and Willats** with their light off experiment which also came out around 5 months for object permanence.

On a separate tack, Piaget came up with the **A-not-B** (a variant of the toy hidden under the cloth). **Harris** felt that this was down to *fragile memory* but **Butterworth** came up with the same result even with a transparent cloth (sounds like a weird result, eh?). This suggests that the confusion could be down to a mismatch between updating their *egocentric* memory vs their *allocentric* memory. Diamond went on to try variations of the delay between hiding the toy and asking the child to retrieve it: as you would expect this delay could be lengthened as the child got older.

The second theme is around **people and interacting with them**. This one's all about **imitation** which ranges from no imitation in the first month, some up to 4 months, direct imitation from 8-12 months and after that they can imitate new and deferred behaviours. As ever, everyone else found that kids could do all this stuff much earlier than Piaget found with **Meltzoff & Moore** getting imitation down to 12-21 days of age (albeit with a small sample and no "nothing happened" option). Aside from those qualifications they went on to show that the ability to imitate improved with age as one would expect: 2 or 3 months old kids clearly could do more than those 6 weeks old.

Finally, in this chapter there's a rundown of the **understanding of models**. **DeLoache** used a model room and found that children from around 3 years of age could correctly identify in the real room where stuff had been hid in the model room. Most common was the A-not-B error which suggested that the problem was an inhibitory one. However, that would suggest that they'd do better on the first trial but in practice some 77% failed first time around.

Overall, the problem of experimenting on really young children is that it's not possible to ask them to explain their reasoning and that they may have difficulty in co-ordinating what they know with what they'd like to do.

Whilst *early cognitive development* seemed like a fairly well structured chapter, **temperament and development** seems all over the place at first glance and really only seems to get going in the second half which doesn't suit my (relatively) organised mind.

There's a **long history** of looking at temperament dating back to ancient Greece which started looking at types of personality (Theophrastus and Hippocrates) but these days things are generally looked at in terms of character traits. That said, Thomas and Chess do suggest some mappings of combinations of traits onto particular personality types ie the two approaches aren't entirely separate. The three main trait theories are Eysenck's, the Big-5 and Cattell's 16PF in increasing level of complexity. Overall the issue here is looking at "what makes people develop in similar ways?" vs "what makes people different from each other?". Since we're looking at developmental psychology in this course, there's the additional problem that the above systems rely on self-completed questionnaires which obviously won't work too well on a 2 year old. Related to that clearly many of the traits aren't applicable to infants. However, Bates identified three **broad categories** that are applicable to pre-schoolers: emotional responses, attentional orientation patterns and motor activity.

Moving on (in the usual confused way of this chapter) there's the issue of how one actually **defines temperament**. Do you look at abstract tendencies, or visible behaviours? What about a genetic basis? Stability is clearly important and the Colorado Adoption Project showed how stable

temperament is. And, of course, temperament needs to run across all settings.

Finally, we're on to what seems to be the meat of the chapter: **measuring temperament**. The four major theories are **Thomas and Chess** (nine-dimensional framework), Buss & Polmin's **EAS [Emotionality, Activity and Sociality]**, Kagan's categorical approach and Dunn & Kendrick's embedding of temperament in social relationship (ie reactions depend on the situation). Problems with these include the difficulty of identifying truly separate traits eg the Thomas & Chess "attention span" and "distractibility" dimensions don't seem entirely independent.

What **influences does temperament have on development**? There's the direct one (eg in school situations), the direct effect on the parents, indirect via "goodness of fit" (eg between child and parents), indirect via susceptibility to psychological adversity, indirect on range of experiences (eg a shy child will tend to avoid social situations) and, as always, the effect on attachment.

Overall, this chapter seems all over the place. Good for a waffly answer but I don't think that it would be my first choice in the exam.

Next up is *first relationships*.

First relationships uses up around a third of the chapter in scene setting before moving into quite a structured format.

In most cultures there is a small number (usually one) of people caring for a baby which explains the emphasis on dyadic relationships in this field. The other cultures are touched on in later sections of this chapter but it's worth noting here that in some cultures a baby doesn't count as a person at all (I'll be picking this up on the notes on children's acquisition of grammar). There's a brief mention of the tension between Freud's psychoanalytical theory and developmental psychology but not really enough to properly understand why this is.

Moving on we get into the more structured part of the chapter with a series of sections dedicated to different aspects of early relationships. First of those is **meshing** which is an important part of teaching the infant the importance of turn-taking through pseudo conversations both explicitly by way of "baby talk" and indirectly through feeding patterns. The only theorists mentioned in detail in this section are **Kaye & Fogel** who looked at the development of greetings which ranged from random at 6 weeks through to an equally balanced interaction at 26 weeks.

Next up is **imitation** which is quite a short section. Both **Moran and Pawlby** found that mothers were more likely to immitate their baby up to a year old than vice versa. This immitation helps to start the development of a theory of mind ie the idea that others think too.

Scaffolding is basically the junior version of the same notion from Vygotsky. Bruner looked at the reading style used with infants and picked up on the four types of utterance used: "look", "what's that?", "it's an X" and "that's right". **Wood** et al generalised this to modelling (showing what can be done), cueing (indicating what needs to be done next) and raising the ante (encouraging the child to achieve more complex goals).

Containing is the longest of the sections and in contrast to the earlier sections looks at the negative aspects. First up of these is that Bradley found that young babies generally spend between 25% and 50% of their waking hours in a fretting/crying state which may help to put some of our adult "off-days" into perspective! This in turn means that soothing one's baby becomes a major task so it's

probably no surprise that Oakley found that 70% of mothers felt angry/violent towards their baby. Klein's object-relations theory seems important here: it suggests that in the first 2 to 3 months of life babies perceive attributes of objects as being entirely separate objects. Thus, for example, the nipple giving milk isn't the same object as the same nipple that later doesn't give milk. Only later does she see the infant constructing the representation of a single object from the multiple objects represented by the various attributes: cf Piaget's object permanence. With this integration comes depression in that one finds there are no objects that are exclusively good (isn't psychoanalysis depressing?).

The section on transacting seems to be there merely to point out that the infant is an active participant in constructing their social world. Worth noting is that this chapter is very culture-specific and that, for example, the Kalulis in Papua New Guinea who don't get into the dyadic conversations that sometimes seem the only way to go in western cultures. Other multi-cultural studies have picked up on this too.

Not a bad chapter to revise. The early sections (meshing and imitation) could be related to the language learning in the third book whilst scaffolding clearly relates back to Vygotsky's ideas from earlier on in book 1. The psychoanalytical theory whilst confined to the introduction and the section on containing would probably need to be mentioned in the answers to most potential questions.

That's my series on book 1 completed so next up is *gender identity* from book 2. Why not *siblings & peers* which was on my original list? That's definitely on my notes from the tutorial but as has been pointed out to me we covered that in TMA3. In that it was highlighted in the tutorial I'll be covering it but towards the end of this series.

Gender identity and the development of gender roles is a very structured chapter which has a number of quite distinct sections each with their own crop of researchers.

Concepts include gender itself which is generally considered as pertaining to the social characteristics whilst sex is used for biological characteristics although both terms are used pretty much interchangeably by many researchers in the field. Moving on we have gender identity (the person's sense of being male or female), gender role, gender stereotype and gender typed (people conforming to their gender roles). As always, there are wide cultural variations with, as usual, Papua New Guinea turning up many peculiarities such as tribes where everyone is stereotypically female or male.

Research methods are complicated as, for example, Bem's Sex Role Inventory is mainly for adults whilst toy sorting methods are geared to younger children.

There are loads of different approaches to looking at the field:

- Psychoanalytical perspectives (Freud: Oedipus Complex, Gilligan: early childhood)
- Social Learning processes (Mischel: conditioning, Maccoby & Jacklin: nothing [but only looked at mothers], Lytton & Rommney and Langlois & Downs: it's the fathers that do it, Bandura: learned by observation & imitation)
- Cognitive processes
 - Social cognitive theory (Bandura: person, behaviour and environment *active role*, Bussey & Bandura: self-regulation develops with age: younger kids only disapproved of others breaking stereotype)

- Cognitive development theory (Kohlberg: gender labelling, gender stability, gender constancy cf Piaget's conservation). Overall not very strong evidence.
- Gender schema theory (Martin & Halverston: stereotyping simply used to simplify the information processing). Main difference from Kohlberg is that it happens from the labelling stage

An integration of gender development considers the relative emphasis between social factors and cognition. Whilst both are important there seems to be a reciprocal relationship between social experience and gender conceptions ie more social experience leads to lower gender stereotyping thus girls don't do it as much as boys due to their generally greater social experience (Banerjee & Linton).

Finally, putting **gender in context** there are the areas of play interaction & friendship (Benenson: boys have more but shorter play interactions than girls, Lansford & Parker: girls relationships are characterised by more intimacy and self-disclosure) and academic development (Stipek & Gralinski: boys attribute success to ability, failure to luck whilst girls attribute failure to low ability). Teacher feedback in boys concentrates on misbehaviour and lack of motivation whilst in girls concentrates on lack of ability (Dweck et al).

Aside from the sheer number of researchers mentioned, this isn't a bad chapter to revise and since identity generally comes up it's probably a worthwhile one to look at.

National identities in children and young people is quite a well structured chapter with relatively few theorists mentioned so, in principle, an easier one to revise than most.

The chapter starts off with basic definitions of ingroup (ie your own national grouping) and outgroup (everyone else) before moving on to cover some quite basic aspects such as categorisation (eg French people or British people), stereotypes (acquired by age 5), emblems and so on.

Piaget's open-ended interviews showed the **development of national self-categorisation** with children from age 5 knowing that they lived in Geneva, that they lived in Switzerland but not that they were Swiss. However, open-ended interviews are tough going when you're 5 so Barrett used labelled cards instead and found that most children knew they were Swiss by age 6. The factors Barrett found going into the **importance of national identity** were age (things rated important at 6 were still important at 15, things not so important at 6 tended to be more important at 15), geographic location (more important in national capitals), ethnicity (while London born adolescents rated being British/English more important than those from ethnic minorities and language (generally related to the parents' politics eg Catalan). This variability challenges Piaget's ideas.

We then move on to **children's views about members of other national groups**. Carrington & Short found that their criteria for labelling someone as a member of a given group included birthplace, English as a first language (British kids) and place of residence; notably ethnicity and race weren't included. Barrett & Short found that stereotypes began to emerge at age 5. They found that ingroup favouritism existed but that negative feelings were reserved for historic enemies; in general both attitudes were moderated by age. Barrett found that there was no relationship between strength of national identity and attitudes/feelings towards in or out groups. The sources of all these attitudes were the usual culprits ie TV, books, holidays, etc. Notably a lot of this research is quite dated (c1960s) and doesn't take account of foreign travel nor indeed changes in national boundaries.

The **explanations for the development of national identity** include *cognitive development theory* (Piaget). Aboud attributes the reduction of ingroup favouritism from 6 to 12 to underlying domain-general cognitive change (no way will I remember that phrase in an exam!) and in particular: the onset of conservation, multiple classifications, ability to judge deep similarities and the ability to attend to individual differences. This explains the reduction in ingroup favouritism but doesn't explain differences between countries, attitudes towards historical enemies nor why everyone isn't the same. Tajfel & Turner's **Social Identity Theory** considers membership of social groups as part of our self-concept. Sounds good but the research doesn't support it.

Overall, a reasonable chapter to revise with the potential for cross-linking to some issues in the *gender identity* chapter ie 'tis worthwhile doing the two as a pair.

Young consumers seems a rather short chapter in terms of actual content if you go by the Erika Cox notes. It's the third of the identity chapters that I plan to go over for the revision and links back to the other two extensively in parts.

The chapter kicks off with what seems basically waffle to the effect that younger children value objects that give comfort and security, older ones value things that can be used in activities and the adolescents valued things associated with identity such as music and jewellery [Kamptner]. Common themes across cultures were control, emotional attachment and utility. The possibility of generational and historical differences makes cross-sectional studies difficult.

Constructing identities through consumption runs through a number of different aspects of identity:

- maintaining status eg through dress and music (Milner)
- using brands as symbols of high-status identities (Anderson)
- solidarity & conflict in consumption and identities eg need to change style constantly to exclude others (Milner)
- societal differences and style identities: gender, ethnicity & class

Theories of identity & young people's consumption:

- Erikson's ego identity theory: over identification with groups to avoid losing their identity
- social identity theory (SIT) and self-categorisation theory (SCT): group membership is part of the self-concept (see national identity)
- positioning theory: social constructivist approach (Davies & Harre)

Not too bad a chapter to revise but it seems a bit thin on the ground to me as you'll have gathered by the length of these notes.

Early category representation and concepts is a dreadful chapter as it's all over the place but here goes...

We tend to group items into categories which eventually leads to developing concepts. The question is: how do children do this?

Using the familiarisation/novelty approach Younger & Gotlieb found that 3 to 7 month olds had developed a category representation through familiarisation of distorted exemplars. They went on to consider whether the children stored the information through holding every exemplar in their head

or whether they used prototype extraction and found, as you'd expect, that for small numbers they remembered all the exemplars whereas for large numbers they used prototype extraction. BUT, this used dot patterns and thus is outside the everyday experience. Other studies used more familiar items and went on to consider hierarchies eg furniture, chair, deckchair. How do they do it? Rakison & Butterworth looked at animals and found that the legs were a salient cue.

Developing the categorisations into concepts goes down either the single process route (essentially the categories are elaborated more and more) or the dual process one (perceptual schemas are initially developed but a separate deeper analysis is going on at the same time looking at things like movement, function and so on).

Levels of category were looked at by Quinn et al who looked at the above/below experiment (dots above/below a line). They found that 3 or 4 month olds couldn't form the abstract concept but that by 6 or 7 months they could. These guys also found that bottom up processing was being used.

Gopnik & Meltzoff looked at the development of categorisation and the vocabulary spurt and found a strong link.

Overall, a dreadful chapter to revise as it seems all over the place with loads of different researchers working in this field.

First words covers quite literally the first words as grammar is considered by a separate chapter. This might sound a little odd at first but considering that children only deal with isolated words to begin with and add the various bits of grammar around them later it's not as un-natural a split as you might think.

Recognising speech is the first stage of acquiring language. *Recognition and memory of speech sounds whilst still in the womb* has been looked at via experiments by DeCasper & Spence among others who looked at the pre-birth understanding of words through having the mother read stories or rhymes before the birth and checking through dummies containing sensors and heart monitors that they remembered the words. That they still recognised these when someone else read the text suggests that they recognised the words. *Distinguishing of languages by newborns* has been looked at by Mehler et al and Christophe & Morton. *Babies use of prosodic cues to identify word boundaries* has also been looked by Johnson & Jusczyk who considered transitional probability (via nonsense words) and syllable stress.

Harris et al found that **understanding first words** is facilitated by mothers referred and especially when they pointed to the objects and that the age at which children point is strongly correlated with the age at which they show understanding of object names. Comprehension starts around 7 or 8 months and continues nicely to 12 months when there's usually a vocabulary spurt. The possible reasons behind this spurt include naming insight, change in cognitive development and simply that it gets easier when you've reached a critical mass of words (eg the child can then ask).

Learning to say words occurs in parallel with neural maturation which enables the fine motor control required. Macarthur found that children couldn't accurately reproduce all the sounds in their language until around age 5 or 6. The discrepancy between comprehension and production varies.

The **meaning of children's first words** can be context bound (eg "cup" being used when asking for a drink) although some are contextually flexible; Harris et al found that this varied. Goldfield &

Reznick and Nelson found that some children focused on gaining vocabulary whilst others went for verbs. Harris weighs in again in finding that usually the first use of a word is close to the mother's use but later uses moved away from this. All this is highly dependant on the structure of the language obviously thus whilst in English the concentration is usually on nouns, in Korean it's on verbs.

I felt that this chapter is possibly the closest to “where it's at” in terms of child development for me. The downside is that it's relatively short and doesn't strike me as an easy chapter to answer a question from. I suspect that it's easier to follow for those of us with a linguistic background.

The development of children's understanding of grammar kicks off with a run-through of the definitions of some linguistic terminology before moving on to look at the development of spoken language, learning word endings and finally learning word order. Obviously this whole chapter is very much English-specific.

There's not a whole lot of terminology but I suspect it would be quite confusing if you weren't from a linguistic background. **Phonology** is the structure of speech sounds. **Grammar** is broken into **morphology** (how words are formed eg through compounding) and **syntax** (the structure of sentences). The chapter on *first words* looked at studies that showed when children recognised the specific phonology structure of their own language. **Inflections** (word endings) aren't used a whole lot in English outside the likes of “-s”, “-ed” and “-ing” endings.

Chomsky is the main researcher in this area and has the view that children have an innate understanding (his *language acquisition device*). They can understand all languages because there is a universal grammar which they adapt to their native language. Pinker on the other hand feels that children deduce the rules for themselves.

The development of spoken language proceeds through a number of phases. One word utterances are common early in the second year with two-word utterances coming around 21 months (just before the vocabulary spurt). In the early stages they speak in *telegraphic speech* ie with no elements of grammar such as link words. By the age of 4 the various elements of grammar have been learnt.

Learning about word endings has two basic theories. The **dual route theory** of Pinker & Prince considers that there is both a rule system (eg “add S for plural”) and a memory system (for irregularities). The **single route theory** of Rumelhart & McClelland comes from the neural network studies. There seems to be more evidence in support of the single route model through examination of the types of errors which children make (eg the occasional production of irregular inflections for regular words supports the single route model) and how they explain generalisation of inflections to new words. Marchman looked at this. Studies of the acquisition of German which has lots of regular inflections by Szagun tend to support the single route model. Studies by Pinker of developmental disorders could support the dual route model but then they also support the single route one.

Learning about word order seems quite an interesting field. As Brown & Hanlon found, parents rarely correct their children's grammatical mistakes. Chomsky argued from this that they needed to rely on innate linguistic knowledge (his universal grammar). Tomasello felt that children gradually built up grammatical knowledge through learning (eg about nouns and verbs). Studies in this area

are extremely time consuming as most diary studies are. Elman looking at computer simulations found that starting with simpler grammatical structures and working up worked well which implies that using “motherese” (child directed speech) is a good thing (but note that this isn't used universally).

Quite a nice chapter to revise though that simplicity might mean more complex questions.

Although **executive functions in childhood: development and disorder** is probably one of the more complex chapters, the notes on it are amongst the shortest. **Executive function** refers to those activities that are under conscious control rather than being habitual or automatic functions that we do. Things tend to move from executive function activities to automated ones over time eg when you started to read it was very much an executive function but everyone reading this will be doing it pretty much automatically. This activity is handled by the prefrontal cortex. It's generally divided into **cognitive flexibility**, **planning and working memory** and **inhibitory control**. Hughes et al looked at this using the Tower of London task which revealed good correlation between poor scores on the task and poor communication skills and high anti-social behaviour.

The **development of executive function in children** has been looked at by a number of researchers. The **Stroop task** (colours and colour names mixed up eg RED). Diamond discovered some inhibitory control at 9 months and improvement at 10 months. Piaget's A-not-B and the go/nogo (press a button when a letter that's not “X” appears) are also used. There are variants of this for children who can't read eg the fist and pointing hand however they are more complex and it takes a 4 year old to pass them. **Casey** et al looked at these using fMRI scans which showed that children, as you would expect, needed more brain power dedicated to them than adults do. Finally, there's the Wisconsin Card Sorting Test with different shapes and colours.

Executive disfunction is a massive field of study throwing up peculiar effects. Children with poor inhibitory control tend to be more distractible, less able to control emotions, more impulsive, etc. and have difficulty in social situations and tasks needing concentration. **ADHD** involves distractibility, impulsivity and hyperactivity; they have delayed myelination of the prefrontal cortex and low levels of dopamine. Since it's hard to pick this up before age 6, **Parker & Asher** looked at pre-schoolers who are classed as disruptive and found that basically it was downhill from there.

Overall, a surprisingly short set of notes for what's quite a massive field but presumably we'll be picking this up in somewhat more detail at level 3.

Understanding minds is the shortest chapter in the Erica Cox notes at just over three pages vs six pages for most of the preceding chapters which certainly sounds good in terms of being able to learn the content.

Understanding a theory of mind is the realisation that others have views, opinions, feelings, etc. that are different from ours. Examining the development of a theory of mind was originally looked at by Premack & Woodruff who showed monkeys videos and then had them select a “what next” photo; **Dennett** pointed out that this was really flakey in terms of methodology as they could be working it out for themselves rather than considering what the actor might do next. Therefore, the attention moved on to **Sally/Anne tasks** where Wimmer & Perner found that 3 year olds couldn't do it, by 4 or 5 half of them could and almost all 6 to 9 year olds managed it. Gopnik & Astington used the

deceptive Smartie tube and found that children of around 4 got the right result ie recognised the false belief.

Moving on from this the **second order theory of mind** kicks in around 6 to 8. This is the ability to attribute beliefs about beliefs. Sullivan found that children from 5 to 9 could distinguish between the lie about having cleaned the room and the joke about eating the peas. Theory of mind generally is related to improved social interaction (Astington & Jenkins) and obviously facilitates social manipulation (Sutton et al re bullies).

Other means of looking at the **development of a theory of mind** include examining behaviour and talk, investigating cognitive skills and research into environmental factors. Wellman & Bartsch investigated children from 2 to 5 and noted the trend of moving from talking about others desires to talking about their beliefs. Repacholi & Gopnik considered this via the broccoli experiment. On the cognitive skills front Charman et al examined **joint attention** which predicted future theory of mind knowledge and Meltzoff looked at **understanding intentions** through comparing actions following watching an adult fail and watching a machine fail at a task.

Social factors affecting theory of mind development include: language ability & number of siblings (particularly the number of older siblings), interaction with adults, how the mother spoke in terms of asking the child how the victim felt, age, gender (girls are slightly better), and speaking generally (deaf studies of deaf parents & children vs hearing parents & deaf children). Which all support Vygotsky's learning through social interaction.

Overall, it looks like a reasonable chapter to revise and answer questions on.