

6.1 Introduction: What is developmental psychology?

Learning outcomes

- Discuss to what extent biological, cognitive and sociocultural factors influence human development.
- Evaluate psychological research (that is, theories and/or studies) relevant to developmental psychology.

Developmental psychology deals with the lifelong process of change and is the study of how and why people change over time in the way they behave, think, and relate to others. Developmental psychology focuses on developmental areas such as identity, attachment and adolescence. Psychologists assume it is important to understand the extent to which early experience may influence later life, and if there are critical periods for acquiring certain behaviours during the process of development. Knowledge about the influence of biological, social and cultural factors in people's lives is helpful for families and also in professional childcare and education. There are areas of controversy in developmental psychology. For example, the impact of environmental or biological influences on the development of the child and the extent to which these influences interact; the notion of resilience and why different children react differently to stressors in the environment; the origins of gender identity and the interaction between culture and biology in the formation of gender roles.

To access Revision notes 6.1 on Section 6.1, please visit www.pearsonbacconline.com and follow the on-screen instructions.

6.2 Cognitive development

Learning outcomes

- Evaluate theories of cognitive development.
- Discuss how social and environmental variables may affect cognitive development.

Cognitive developmental psychology focuses on how cognitive processes (such as reasoning, perception, memory, intellectual development) change over time. Researchers in this area question how these changes can account for behaviour shown at different ages. The main area of debate is *why* these changes occur over time – what are the main deterministic forces behind them? The nature side of the debate looks at the effects of **maturation** – the unfolding of behaviours under the influence of genetic predisposition. The nurture side of the debate looks at the effects of the **environment** such as diet, parenting styles, culture and education.

It is assumed the major changes occur during childhood and developmental psychologists look at how these impact individuals as they move through their lives. Recently, there has been a renewed interest on the later end of life as researchers focus on the effects of old age on cognitive abilities.

Piaget

One of the main theorists in cognitive developmental psychology is Jean Piaget. He was born in the French-speaking part of Switzerland into a middle-class family whose father was a professor of medieval literature. From an early age, he was interested in the natural world and developed a keen interest in biology as well as philosophy. In later life, he combined these interests and described himself as an epistemologist. Epistemology is the study of the scope and limitations of knowledge and deals with questions such as:

- What is knowledge?
- How is knowledge acquired?
- What do people know and how do they know what they know?

Epistemology also focuses on notions such as truth and belief. Piaget believed these questions could be answered, or at least more appropriately framed, if researchers focused on the genetic context behind them. As a result, his theories of cognitive development and his epistemological views are known collectively as genetic epistemology.

While working as a teacher in Paris, Piaget was helping to grade responses to an intelligence test when he noticed that children consistently gave the wrong answers to certain questions. More specifically, younger children made the same pattern of mistakes that older children and adults did not. This, as well as his intense studies with his own children in the 1920s led him to the following assumptions (which he spent the rest of his career testing).

- Intelligence is under genetic control and develops in the form of predetermined stages.
- Children do not passively receive their knowledge; they are curious, self-motivated and seek out information to construct their own understanding of the environment.
- Children think qualitatively differently from adults. Previous thought dictated that children were the same as adults but 'less than' – that is, they had the same thought processes but were not as advanced or as sophisticated. Piaget argued that children are completely different and their mental processes cannot be viewed in the same way.
- Individuals construct their view of the world through mental frameworks of understanding.

Piaget's theory of cognitive development

Piaget argued that knowledge developed through cognitive structures known as schemas. Schemas are mental representations of the world and how the individual interacts with it. The word has Greek roots meaning shape or plan. Mental schemas help order our thinking and act as mental shortcuts. They influence perception and attention and can be as diverse as mental maps for ease of navigation around a familiar building or a set of expectations for dealing with a person.

As a child develops, his or her schemas develop as a result of his or her interaction with the world. All children are born with an innate range of schemas, such as a schema for sucking, reaching, and gripping. These are in turn modified as a result of experience; Piaget called this process of modification **adaptation**. He also argued children actively *construct* knowledge themselves as a result of their interaction with new objects and experiences. For this reason Piaget is also known as a constructivist. The child's interaction with new events and objects as well as the intermingling of these with existing knowledge cause him or her to develop cognitively.



Jean Piaget (1896–1980).

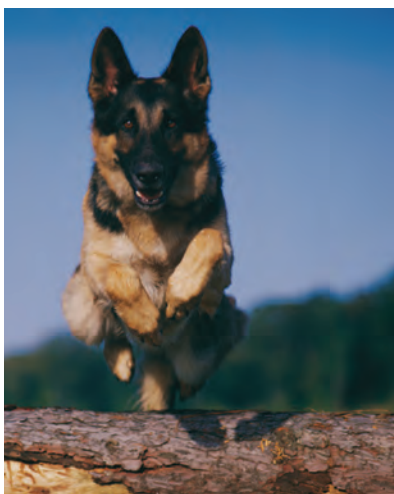
i Piaget used his own children to test his own theories. This has been criticized for lacking scientific rigour but it allowed him to study long-term changes firsthand in a loving and supportive environment.

i Piaget saw himself as an epistemologist. Epistemology is the study of the scope and limitations of knowledge and deals with questions such as: What is knowledge? How is knowledge acquired? What do people know? How do they know what they know?

There are two types of adaptation.

- **Assimilation** – This process occurs when new events (such as objects, experiences, ideas and situations) can be fitted into existing schemas of what the child already understands about the world. For example, a child may call the family German Shepherd a 'doggie'; when he or she also points at the neighbours' Labrador and calls it a 'doggie', we can see that the child has understood the parameters of his existing schema (furry, playful, four legs) and fitted the image into it. Assimilation is a consolidation of existing knowledge; existing schemas receive support and reinforcement.
- **Accommodation** – This process occurs when new events do not fit existing schemas. Either a schema has to be modified to allow the new world view, or a new one schema has to be created. For example, consider a young boy pointing at a small horse and calling it a 'doggie'. He would be corrected and told it is a 'horse' and he would have to create a new schema (with new parameters) in order to understand all future encounters with horses. Accommodation is the creation of new knowledge and the rejection or adaptation of existing schemas.

How does a child know only two of these animals are dogs?



Piaget saw children as little scientists who are always engaged in creating and then testing hypotheses. Piaget forwarded the notion of constructivism, whereby children are actively engaged with constructing their knowledge of the world rather than acting as passive receivers of information.



These two hypothetical processes clearly demonstrate the Piagetian child. He or she is an active learner who is constantly engaged with the world, testing and retesting ideas. Piaget saw children as little scientists who are always engaged in creating and then testing hypotheses.

Piaget proposed four stages each child moves through in sequential order during cognitive development. Each stage is more sophisticated than the last and is the result of biological maturation and an active interaction with the environment. Piaget saw each stage as radically or qualitatively different from the others.

The four stages are:

- the sensorimotor stage
- the pre-operational stage
- the concrete operational stage
- the formal operational stage.

The sensorimotor stage (0–2 years)

This stage is characterized by the infant having no formal schema for the world or itself. It can only know the world via its immediate senses and the motor or movement actions it performs. This stage is illustrated by the following.

- Profound egocentrism – The infant cannot distinguish between itself and the environment as has no real knowledge of the world around it.
- A lack of object permanence – When an infant cannot see or act on an object then the object effectively ceases to exist for the infant. Piaget argued object permanence develops at around 8 months – a 4-month-old will not look for an object it has been introduced to whereas an 8-month-old will. This shows the 8-month-old infant understands the object exists even though it cannot be seen. However, object permanence is still not complete; the 8-month-old will only look for an object in the place where it was found the last time he or she interacted with it. Even if the infant is shown the object being hidden somewhere else, he or she will still seek the object in the place where they found it last. It is only between the ages of 18 and 24 months that toddlers develop full object permanence.

Piaget's claims have been contradicted by other researchers. Bower (1982) constructed a simple experiment whereby a child was shown an object and then a screen was placed between object and infant. The object was removed and the screen taken away. Bower claimed the children showed enough surprise at the disappearance of the object to argue that object permanence was a much more flexible phenomenon than Piaget had envisaged.

The pre-operational stage (2–7 years)

Operations are logical mental rules and Piaget argued that, at this age, the child cannot internalize these disciplines and therefore still relies on external appearances rather than consistent internal logic (hence the label, pre-operational).

This stage begins with the establishment of object permanence and ends with the emergence of concrete operations. It is still dominated by the cognitive limiting effects of egocentrism as the child has a limited ability, or in some cases no ability, to see, think, feel or imagine the world from another's point of view. The child is also still obsessed by the appearance of objects (which Piaget also saw as a cognitive limitation) but shows **centration** – the tendency to focus on only one aspect of an object or situation at any one time. Because of this, pre-operational stage children have a lack of **conservation** – the realization objects can remain the same despite a change in appearance.

Piaget demonstrated this with glasses of water. A child is presented with two glasses containing the same quantity of water and then witnesses the contents of one of the glasses being poured into a taller, thinner container. Children at this stage will argue the taller, thinner container contains more water. This shows the child does not understand how objects can remain the same (in this case, the quantity of water is fixed) despite a change in appearance.

Piaget also argued that this stage is characterized by a third cognitive inhibitor, **classification limitation**. This refers to the early pre-operational child's inability to classify similar objects into the same groups. This ability begins around the age of four and appears in basic form, such as characterizing objects based on shape or colour.

EXERCISE

- 1 Design theoretical methods to demonstrate: egocentrism, a lack of object permanence, and lack of conservation. To comply with IB ethical guidelines for conducting research on young children, you should not actually carry out the experiments.

EMPIRICAL RESEARCH

Egocentrism (Piaget and Inhelder, 1956; Hughes, 1975)

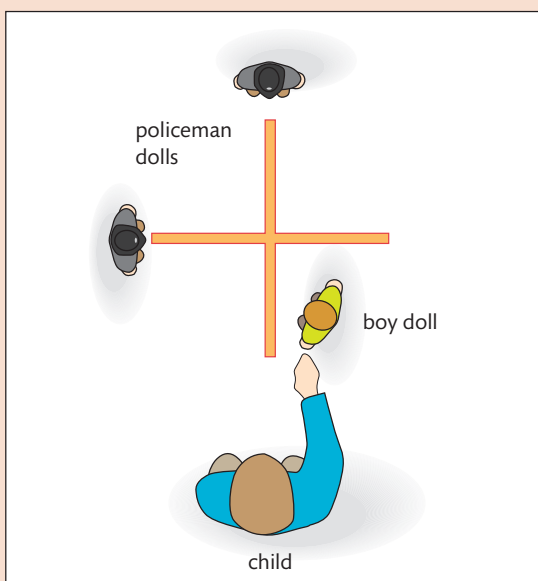
These researchers demonstrated the egocentrism of the pre-operational child through their 'three mountain experiment'. When 4-year-olds were shown a mountain scene, they tended to be unable to describe the same scene from the point of view of a doll on the other side. Six-year-olds showed more awareness of the different viewpoints but still tended to choose the wrong one when asked to specifically identify a scene from the doll's perspective.

The mountain scene apparatus and the methodology have been criticized as being too far from the normal operating world of the child – children are not used to seeing such scenes. They may have been confused by the layout, by adult objects placed on the scenes and by the need to identify the doll's position through a photograph (Hughes, 1975).

Hughes devised his own experiment known as 'the policeman doll' study where children had to hide a boy doll from two policeman dolls who were arranged around a piece of cardboard apparatus (Figure 6.1). The children had to consider the viewpoint of the two policeman dolls before making a decision as to where to place the boy doll so it was hidden from the policeman dolls.

Figure 6.1

The policeman doll experiment.



Hughes' sample consisted of children aged between three-and-a-half and five. Of these, 90% gave correct answers suggesting they had overcome the egocentrism that characterizes the pre-operational stage. It should be noted that when a child made a mistake, the mistake was explained and the child allowed to try again. However, Hughes states that very few mistakes were made. Even when he devised a more complex situation, with more walls and a third policeman, 90% of 4-year-olds were successful. This demonstrates egocentrism in the Piagetian sense can be overcome if the task is made more age appropriate.

Piaget can be criticized for approaching the issue of egocentrism through the adult gaze – that is, he approached it as an abstract mental problem and his methods can be seen as indicative of his thinking. The use of the photograph and the mountain scene itself, were far from normal expectations of children and it is difficult to imagine any young child being at ease with this. The Hughes' approach is more commonsensical. Also, his correction of the children and encouragement for them to have more tries is a more realistic reflection of what would happen in the 'real world' with parents/caregivers stepping in to correct faulty thinking.

There are criticisms of the Piagetian view of this stage. Piaget himself was interested in the pre-operational characteristic of **symbol use** in play: children often use a single object (e.g. a broom handle) for many different roles (e.g. a horse, a sword). This suggests a more

sophisticated understanding of objects than the simple lack of conservation ability can portray. Another criticism is the negative tone Piaget uses to describe this stage. By calling it 'pre-operational', he focuses on what children cannot do (their cognitive limitations) rather than what they can achieve.

Children at this stage have been shown to have active imaginations. Field et al. (1982a) found 4–5-year-old children can spend as much as 20% of their playtime constructing sophisticated roles for different objects above and beyond their intended use (e.g. blocks become trucks, brooms become horses). At this stage, children also construct complicated role plays for themselves and others (games of 'mummies and daddies', 'cowboys and Indians', etc.). They issue explicit instructions for each member of the group on how to fulfil these roles in sometimes lengthy monologues before play begins (Howes and Matheson, 1992).

Children at this stage can also develop imaginary companions with complex character nuances and with whom they engage in conversation. This used to be seen as a sign of disturbance but it is now seen as a product of a rich imagination and a normal part of the development of pretence for children (Taylor et al., 1993a). Imaginary friends are a significant phenomena in childhood. They act as guardians or protectors and represent, according to some, a child's inner anxieties, goals and perceptions. A small minority of children are unable to distinguish them from real people, but most do understand the difference and use the imaginary friend as an exercise in creative thinking. It has been theorized that children with imaginary friends are able to develop linguistic and mental skills earlier than children who do not have such friends as the former are practising such skills, albeit in a non-real universe. Most children report having an imaginary friend at some point in their early life but, as they reach school age and acquire real friends, imaginary ones are quickly abandoned. These elaborate fantasies demonstrate the advanced skills children possesses in re-imagining the world for their own use; they provide a more complete picture of the child at this age than the pre-operational stage does.

The concrete operational stage (7–11 years)

During this stage, the child develops definitive rules or schemas for ordering the world. These rules are termed **operations**, but they can only be applied to real objects in the real 'concrete' world. Piaget claimed the mental agility needed for carrying out logical operations without a real world object to aid them had not yet been developed.

An example of an operation the child has developed by this stage is conservation – the realization objects can remain the same despite a change in appearance. The pre-operational child lacks conservation (page 185). Piaget demonstrated the development of conservation in this age group using two rows of beads (Figure 6.2a). When the green row is spread out (Figure 6.2b), the concrete operational child realizes the number remains the same even though the appearance has changed.



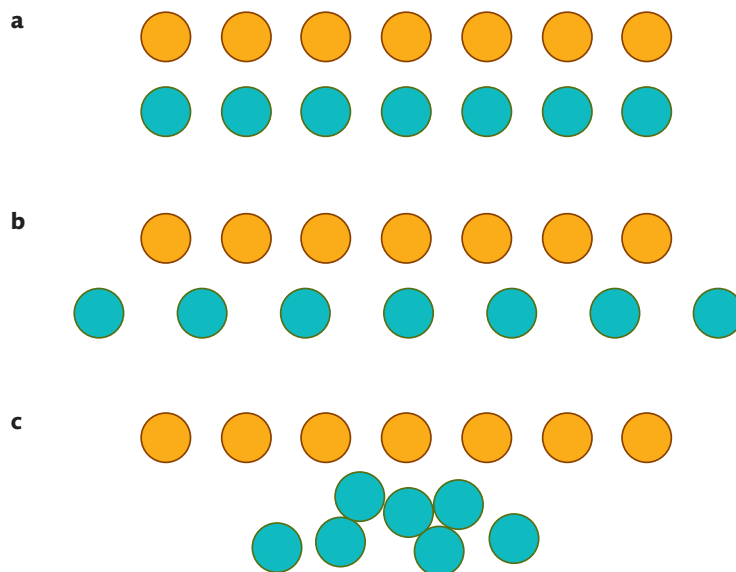
Children have complex games usually made up between them. Lengthy monologues are often delivered before they begin.

Children design complex role-playing games showing active imaginations and an understanding of the adult world.

However, McGarrigle and Donaldson (1974) questioned whether Piaget's methods were suitable for such young children. They used a glove puppet, known as Naughty Teddy, to 'accidentally' transform the beads (Figure 6.2c). Under this condition, they found 63% of 4–6-year-old children could successfully conserve as they recognized the number of beads remained the same.

Figure 6.2

a Equal numbers of yellow and green beads, equally spaced. **b** The green beads have been spread out. **c** Naughty Teddy has moved the green beads.



The formal operational stage (11 years onwards)

At this stage, the child's mental structures are so well developed that ideas and problems can be manipulated mentally without the need for physical objects. Children can think about possible occurrences and imagine themselves in different roles without the need for dolls or play acting. They can also think about hypothetical problems and abstract concepts they have never encountered before, such as:

if $A > B > C$, then $A > C$ (where $>$ means 'is greater than').

Piaget believed everyone reached this stage by the age of 20.

EXERCISE

- 2 Outline the key assumptions of Piaget's theory.

Evaluation of Piaget's theory

Piaget produced the first comprehensive theory of child cognitive development. He modified the theory to take account of criticism and envisaged it constantly changing as new evidence came to light. A great deal of criticism has been levelled at the 'ages and stages' part of his theory but it is important to remember the theory is biologically based and demonstrates the child as a determined, dynamic thinker, anxious to achieve coherence and test theories. Piaget was the first to investigate whether biological maturation drove cognitive development and his vision of a child having cognitive changes regulated by biology is now widely accepted and supported by cross-cultural research. He also developed the notion of **constructivism** – he argued children are actively engaged with constructing their knowledge of the world rather than acting as passive receivers of information. This now widely accepted idea changed the view of childhood and significantly influenced the education profession.

Piaget was the first to investigate the role biological maturation played in cognitive development. His vision of a child as having cognitive changes regulated by biology is now widely accepted and supported by cross-cultural research.



However, there are some well-grounded negative criticisms which should be considered.

- Piaget's methods have been criticized as too formal for children. When the methods are changed to show more 'human sense', children often understand what is being asked of them and show cognitive ability outside of their age-appropriate stage. The small sample sizes also mean caution should be used when generalizing to large groups and cultures.
- Piaget failed to distinguish between competence (what a child is capable of doing) and performance (what a child can show when given a particular task). When tasks were altered, performance (and therefore competence) was affected.
- The notion of biological readiness has also been questioned. If a child's cognitive development is driven solely by innate factors, then training would not be able to propel the child onto the next stage. However, many studies have been carried out whereby children have been taught skills they would not be able to develop according to the Piagetian view. Piaget did go some way to account for this as he argued children will experience uneven cognitive development due to personalized learning styles.
- Piaget has been criticized for under-estimating the role of language in cognitive development.
- Piaget has also been criticized for under-estimating the role of social development in cognitive development. The 'three mountain experiment' is a presentation of a social scene and yet Piaget focused on it solely as an abstract mental problem. When the approach was changed to a more age-appropriate paradigm (the use of a policeman doll), more children were able to understand the different views. Children may also have been anxious to provide what they considered to be the more socially desirable answer.
- He has also been criticized for under-estimating children's cognitive abilities in general as many children show more abilities at younger ages than Piaget outlined.
- Piaget over-estimated people's formal operational ability. Some research has suggested only around one-third of the population reach this late stage of cognitive development.
- The theory is very descriptive but it does not provide a detailed explanation for the stages. Piaget's supporters would suggest that, given his broad genetic explanations, the technology did not exist for him to research his assumptions in depth.
- The model can be seen as too rigid and inflexible. However, its supporters argue that Piaget never intended it to be seen in such a light, and it should be seen more as a metaphor and a guiding principle for teaching and learning.



How might development be seen subjectively? To what extent is it a definitive biological process? To what extent is it a social construction?

EXERCISE

- 3** Evaluate Piaget's theory. Make sure you use positive and negative evaluations in your answer.

Vygotsky

Lev Semyonovich Vygotsky was born in the Russian empire in what is today Belarus. He was heavily influenced by his cousin David Vygotsky, a poet, teacher, translator and literary critic. In 1938, David was killed as part of Stalin's purges of the intelligentsia class. At the time, the authorities took a great of interest in the work of scholars, looking for anything which might be considered subversive. This was very different from conditions academics worked under in the West. In the Soviet Union at that time, repression, imprisonment and murder were a daily reality.

Although Lev Vygotsky died from tuberculosis when he was 37, his impact on psychology has been immense. He studied ferociously through his lifetime and covered many philosophical as well as psychological areas that are still discussed today. He focused on how children play and socialize as well as their language development in the context of their understanding of the world.

Lev's descendents became directors of the Psychological Institute of Vygotsky, in Moscow and he is widely regarded as one of the few genuine pioneers of the cognitive approach.

Lev Semyonovich Vygotsky
(1896–1934).



Vygotsky and his followers founded the school of **cultural-historical psychology** which looks at how cognition can develop in specific times and places. The key assumption is human cognition develops as a response to the knowledge and cultural constructions left by the generation before.

Vygotsky focused on social interaction, culture and language in a child's cognitive development. The Vygotskian child makes sense of the world through shared meaning with others.

Vygotsky's theory of cognitive development

Vygotsky's main contribution is his focus on the importance of social interaction, culture and language in a child's cognitive development. The Vygotskian child makes sense of the world through shared meaning with others whereas the Piagetian child makes sense of the world as the result of an innate maturation process that drives cognitive development.

Vygotsky divided the intellect into basic innate capabilities which he termed elementary functions (e.g. attention and sensation) and higher mental functions. Vygotsky argued elementary functions can only develop into higher functions via the input of culture. Vygotsky thought of culture as a body of knowledge held by persons of greater knowledge or in books – ideas transmitted through language – hence the importance he placed on language development as part of overall cognitive development. Thus, cultural knowledge is the means by which cognitive development takes place.

Vygotsky hypothesized that the child begins to interact with the world through its actions but society places meaning on those actions through social interaction. A typical example of this is pointing. A child may try and reach for an object but fail to actually grasp it. The adult will then hand the object to the child. Therefore, the original movement by the child will take on a new meaning: from simply trying to reach an object to communicating with an adult by pointing to an object.

The primary way we communicate with the world is by language not physical gestures. Language for children is primarily a way to produce change in others. However, when language becomes internalized, it converges with thought, and eventually we are able to

direct and control our thinking with the use of language. We develop an inner voice for thinking and a more complex, vocabulary-rich voice for communication with others.

Vygotsky envisaged language progressing in three stages.

- Pre-intellectual social speech (0–3 years) – Thought is not constructed using language and speech is only used to enact social change (e.g. receiving objects from a parent).
- Egocentric speech (3–7 years) – Language helps to control the child’s own behaviour and is spoken out loud (e.g. when children play games they often verbalize their actions).
- Inner speech (7+ years) – The child uses speech silently to develop their thinking and publicly for social communication.

Vygotsky articulated the importance of culture through the zone of proximal development (ZPD). A more useful translation is the zone of potential development as the ZPD is seen as the distance between the child’s current and potential abilities under adult supervision. Instruction from an expert wakens a whole series of embryonic functions that can be extended under supervision from an expert (usually an adult).

These abilities would lie dormant and unused if they were left untutored. This precisely illustrates the difference between the Piagetian individual construction approach and the importance of social construction put forward by Vygotsky. Wood et al. (1976) introduced the notion of scaffolding as development of Vygotsky’s ZPD theory, in which the disorganized and spontaneous thoughts presented by the child are responded to with the more systematic, logical and rational concepts of a more knowledgeable (usually adult) helper.

EXERCISE

- 3 Outline the key assumptions of Vygotsky’s approach.

Evaluation of Vygotsky’s theory

The concept of scaffolding has been useful from a teaching perspective. Conner et al. (1997) argued that the quality of the scaffolding provided by a mother and father could predict the success of the child in the classroom. This can be applied to reading and mathematical problems in early development: Those children who are supported at home will be more confident in the classroom. The value Vygotsky placed on inner speech has also received support. He argued the inner voice was a key part of learning and cognitive development; Behrend et al. (1992) quantified inner speech by observing the amount of whispering and lip movement children engaged in when given a task. They found children who used the greatest amount of inner speech tended to perform better on tasks.

Vygotsky makes an important contribution to developmental psychology as he emphasizes the importance of social interaction on cognitive development – an area lacking in Piaget’s approach.

Vygotsky’s approach has been criticized for placing too much emphasis on the social environment and he can also be criticized for being too vague in his outline of social influence. However, it should be noted that Vygotsky died at the age of 38, so his work as a cognitive developmental researcher was still in its infancy. Had he lived longer, he would have advanced his theories and been able to respond to peer review.

Vygotsky and Piaget’s ideas should not be seen as diametrically opposed to each other. In many ways they complement each other and an integration of both views might be a productive way forward. However, there is a lack of empirical support for Vygotsky’s ideas – this is largely explained by his emphasis on processes rather than outcomes (processes are harder to test for).

W To learn more about Vygotsky, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.1.

● Examiner’s hint

When evaluating, be considered and balanced. Many studies and theories have been constructed over many years by experienced psychologists; dismissing them in one sentence is not a sophisticated response.

● Examiner’s hint

Never present Vygotsky and Piaget’s ideas as diametrically opposed to each other; in many ways, they complement each other.

● Examiner's hint

Be considered and balanced when discussing variables.

Social and environmental variables

For ease of learning and presentation, we here examine various social and environmental variables individually. However, to understand how they affect cognitive development in the real world, you need to see that such factors all interact. For example, economic issues may influence the standard of school a child attends; such issues may themselves be the result of the education level of the parent whose job is dependent on their education. A parent's education may also affect the child's diet, which influences their grades as well as how others perceive them. The social environment can influence the peer group the child becomes attached to as he or she grows up, and this may in turn influence their outlook and aspirations as it provides norms and routines that may limit or enhance the child's cognitive growth.

Diet

Processed food is fast becoming a social issue as obesity rates increase in the USA and in Europe. There are many grass roots campaigns to fight the effects of poor food and improve education; there are political incentives to improve the diet of those in the developed world. One area where the debate is particularly well researched is the effect of junk food on children's behaviour and cognitive development. Junk food is a controversial term that usually refers to food with little or no nutritional value, or food where the nutritional content is offset by the unhealthy nature of the food or some ingredient(s).

The effect of diet begins before the child is born; for example, seafood is the primary source of omega-3 fatty acids which are essential for neural development. Hibbeln et al. (2007) compared two groups of women (those consuming high levels of omega-3 fatty acids and those consuming low levels of the same). They found the children of those mothers who had a low seafood intake during pregnancy had lower motor (movement and coordination) skills and lower social development and communication skills than the children of mothers who consumed high levels of seafood. Raloff (1989) studied 1023 6th-grade children over the course of one year and found those who were given free school breakfasts improved their maths and science scores.

A child's diet begins before they are born. Mother's have to eat healthily and seafood is the primary source of omega-3 fatty acids which are essential for neural development.



Children given free school breakfasts improved their maths and science scores. Those experiencing hunger are more likely to be hyperactive, absent and tardy, in addition to having behavioural and attention problems more often than other children.



EMPIRICAL RESEARCH

The benefits of breakfast (Food Research Action Centre, 2010)

Breakfast has wide cognitive-behavioural benefits. A meta-analysis of breakfast programme studies by the Food Research Action Centre (FRAC) in the USA came to the following conclusions.

- Children who skip breakfast are less able to distinguish among similar images, show increased errors, and have slower memory recall.
- Children experiencing hunger have lower math scores and are more likely to have to repeat work – or even an academic year.
- Behavioural, emotional and academic problems are more prevalent among children with hunger.
- Children experiencing hunger are more likely to be hyperactive, absent and tardy, in addition to having behavioural and attention problems more often than other children.
- Children who are undernourished score lower on cognitive tests when they miss breakfast.
- Teens experiencing hunger are more likely to have been suspended from school, have difficulty getting along with other children, and have no friends.
- Children with hunger are more likely to have repeated a grade, received special education services, or received mental health counselling, than low-income children who do not experience hunger.

Caution should be used when attributing improved cognitive functioning to a healthy diet. A healthy diet can have less quantifiably measurable effects on a child such as increased self-esteem, improved personal discipline and a greater sense of responsibility all of which would have an effect on school grades.

Cook et al. (1996) found children who participate in universal school breakfast programmes have lower rates of absence and tardiness, which would inevitably improve their cognitive development simply because they are in school more. This is supported by McLaughlin et al. (2002) who found that schools which provide universal school breakfast have higher breakfast participation, especially when breakfast is served in the classroom, and students who significantly increase their breakfast participation are more frequently in attendance and on time.



How do you measure self-esteem and feelings of self-worth?



To learn more about how diet affects children, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.2.

EXERCISE

- 4 Outline the key influences of diet on cognitive development.

Parenting

In this context, parenting refers to the act(s) of supporting a child physically, emotionally, socially and intellectually; it does not refer to any biological relationship between the adult and child. The duties of parents differ according to cultural variations and expectations: some cultures (e.g. Japan) give some parenting duties to siblings to promote responsibility and family cohesion. In the USA, the Michigan Department of Education (MDE, 2002) in 2001 argued that the most consistent predictors of a child's academic achievement and social adjustment were parent expectations: parents of high-achieving students set higher standards for their children's educational activities than parents of low-achieving students and this drove educational achievement and therefore cognitive development. The MDE stated that when parents are involved, students have:

- higher grades, test scores and graduation rates
- increased motivation and better self-esteem
- better school attendance
- lower rates of suspension
- decreased use of drugs and alcohol
- fewer instances of violent behaviour.

Family participation in education was twice as predictive of students' academic success as family socio-economic status; the more intensely parents were involved, the more beneficial the achievement effects. For example, children who practise reading at home with their parents, make significant gains in reading achievement compared to those who practise only at school (Tizard et al., 1982). But this has wider implications, as parents who read to their children are also more likely to have more books available, take trips together as family, monitor TV watching, and provide stimulating experiences which together contribute to cognitive development.

Overall, the MDE found families whose children are doing well in school exhibit the following characteristics.

- They have an established daily family routine such as providing time and a quiet place to study, assigning responsibility for household chores, being firm about bedtime and having dinner together.
- They monitor out-of-school activities such as setting limits on TV-watching, checking up on children when parents are not home, arranging for after-school activities and supervised care.

Isolating one variable (e.g. diet or parenting) and attributing to it a relative level of cognitive development lacks some degree of ecological validity and is more useful in academic debate rather than real world analysis.



What is effective parenting? Is it definitive? Are there universals all parents should subscribe to?



To access Revision notes 6.2 on Section 6.2, please visit www.pearsonbacconline.com and follow the on-screen instructions.



● Examiner's hint

The command term *discuss* means you should present a range of theories in a balanced and considered way. Do not dismiss entire theories, all have some merit and an eclectic approach is often the most appropriate way to address complex human phenomena.

- They model the value of learning, self-discipline, and hard work, such as communicating through questioning and conversation, demonstrating that achievement comes from working hard.
- They encourage children's development and progress in school by maintaining a warm and supportive home, showing interest in children's progress at school, helping with homework, discussing the value of a good education and possible career options, staying in touch with teachers and school staff.
- They encourage reading, writing, and discussions among family members such as reading, listening to children read and talking about what is being read.

Moscovici (1993) encourages social scientists to always lay claim to the *higher wisdom of common sense* and this applies in this instance: children who are loved and cared for will be disciplined, given healthy food and encouraged to be reflective and set high goals for themselves. As a result, they will have higher self-esteem and will do better in school and in personal relationships and will therefore succeed more in their chosen area of employment. Isolating one variable (e.g. diet or parenting) and attributing to it a relative level of cognitive development lacks some degree of ecological validity and is more useful in academic debate rather than real world analysis.

Vygotsky's ZPD theory provided Wood et al. (1976) with the idea to develop the notion of scaffolding (page 191). The parental strategies above can be seen in the Vygotskian scaffolding sense.

EXERCISE

- 5 Outline the key influences of parenting on cognitive development.

6.3

Social development

Learning outcomes

- Examine attachment in childhood and its role in the subsequent formation of relationships.
- Discuss potential effects of deprivation or trauma in childhood on later development.
- Define resilience.
- Discuss strategies to build resilience.

Attachment

Attachment is a long-lasting, strong and close emotional bond between two people; when separation occurs, the result is distress. First attachments in infancy are of particular interest to psychologists as they appear to have significant consequences for the later development of the individual – especially in terms of relationships. There is strong evolutionary support for a biological explanation of attachment: babies who are attached to a loving care-giver are more likely to survive and be better adjusted. Attachment, particularly between mother and baby, is seen by many psychologists as an innate, predetermined drive and manifests during its initial stages as biologically controlled signals such as smiling, grasping, babbling and crying. In turn, these behaviours elicit caring acts from the parent (feeding, protection and giving affection) necessary for healthy growth.

Bowlby

John Bowlby (1907–90) is a key theorist for the developmental concept of **attachment**. He was born to an upper-middle class family in London and was the fourth of six children. Due to the fashions of the time, he rarely saw his parents. Giving a lot of maternal affection was seen as spoiling the child, so children from elite socio-economic backgrounds were raised by teams of nannies and sent to boarding school from a young age. Bowlby studied psychology at Cambridge University and later qualified as a psychoanalyst but it was World War II that acted as a catalyst for many of his ideas.

In England at that time, a number of wartime activities were seen by Bowlby as having significant effects on the later development of young children. These activities included:

- the rescue of Jewish children (many of whom were orphans) from Nazi Europe
- the evacuation of children from London and other metropolitan areas to more rural areas to keep them safe from air raids
- the use of group nurseries to allow mothers of young children to contribute to the war effort by working in factories and as nurses.



● Examiner's hint

Biographical information about theorists is to give you context. It is rarely needed in an exam.

▶ Bowlby became interested in attachment as a result of the scenes he witnessed in war-torn London.

Bowlby's attachment theory

Bowlby's attachment theory was first published in 1951 but has been adapted and improved many times over the years by Bowlby himself and by other researchers. Like Piaget, Bowlby's theories have been heavily criticized and adapted but like all good social scientists, he provided a solid theoretical footprint to stimulate debate and further research.

The basic assumptions of Bowlby's theory are as follows.

- 1 Between 6 and about 30 months, children are likely to form emotional attachments to familiar care-givers – usually the mother, especially if the adults are sensitive and responsive to child communications such as facial expressions and hand gestures, crying, laughing and so on.
- 2 The emotional attachments of children manifest themselves in their preferences for familiar people; they seek proximity to those people, especially in times of distress, and then use the familiar adults as a secure base from which to explore the environment.

Bowlby's views on attachment were influenced by the scenes he witnessed in war-torn London, especially the effects of separation on Jewish refugees and the child evacuees.



- 3 Emotional attachments contribute to later emotional and personality development, and the type of behaviour toward familiar adults shown by young children has some continuity with the social behaviours they will show later in adulthood.
- 4 Events that interfere with attachment, such as abrupt separation or the inability of carers to be responsive, sensitive or consistent in their interactions, have short-term and long-term consequences for the child.
- 5 Attachment schemas guide early attachment and later relationships. Bowlby argues that a developing child forms a mental representation of their first attachment relationship – known as the internal working model. This schema acts as a model for expectations of behaviour and care-giving from others. While the motivation to form attachment is biologically predetermined, the schema is modified by ongoing experience.

The model has important implications for the development of the self. If a child receives consistent love and affection from their care-giver, they develop a schema in which they – the self – is worthy of love and affection. Bowlby argued such children will develop confidence and be able to provide love and affection to others in the future. Similarly, if a child is given hostile experiences, they will develop an internal working schema in which they are worthy of such treatment and will repeat the pattern of abuse when they reach adulthood.

EMPIRICAL RESEARCH

'A strange situation' (based on Ainsworth et al., 1978; Main and Solomon, 1990)

During the 1970s, Mary Ainsworth aimed to provide empirical support for Bowlby's theories. She developed a procedure, called 'A strange situation', to observe attachment between care-giver and child.

The procedure involves observing a child playing for 20 minutes while care-givers and strangers enter and then leave the room, creating a flow of familiar and unfamiliar situations that mirror the real life of a child. The situations vary in stressfulness and the child's responses are observed. The situations are as follows.

- Parent and infant are introduced to the experimental room.
- Parent and infant are alone – Parent does not participate while infant explores.
- Stranger enters, converses with parent, then approaches infant. Parent leaves inconspicuously.
- First separation episode – Stranger's behaviour is geared to that of infant.
- First reunion episode – Parent greets and comforts infant, then leaves again.
- Second separation episode – Infant is alone.
- Continuation of second separation episode – Stranger enters and gears behaviour to that of infant.
- Second reunion episode – Parent enters, greets infant, and picks up infant; stranger leaves inconspicuously.

Four aspects of the infant's behaviour are observed.

- The amount of exploration (e.g. playing with new toys) the infant engages in.
- The infant's reactions to the departure of the care-giver.
- The level of anxiety displayed when the infant is alone with the stranger.
- The infant's behaviour during and after their reunion with the care-giver.

On the basis of their responses, Ainsworth categorized the infants into three groups.

- Type A: Avoidant or detached (shown by approximately 20% of the children) – The child shows apparent indifference when the mother leaves the room, and avoids contact with her when she returns. Also, the child is apparently unafraid of strangers. Ainsworth argued that the mothers of type A children tend to be insensitive and do not seem interested in their child's play.

- Type B: Securely attached (shown by approximately 70% of the children) – The child is upset when the mother leaves and is happy to see her again. The child is easily comforted by the mother. The mother is very interested in the child's play and actively supports play and communication.
- Type C: Ambivalent or anxious resistant (shown by approximately 10% of the children) – The child is discontented and can be very upset when the mother leaves the room. When she returns, the child is not easily soothed and may not always seek comfort from the mother. Ainsworth argued that mothers of type C children tend to be inconsistent in their reactions to their children.

Main and Solomon (1990) later added a fourth type.

- Type D: Insecure/disorganized/disorientated attachment – A child with this attachment type shows no discerning reaction when the mother leaves or returns. This attachment type has been associated with child abuse and depressed mothers.


'A strange situation' is a methodological procedure and can be criticized for lacking ecological validity. In some ways, all theoretical research procedures lack realism as their goal is to produce quantifiable results in a controlled environment.


Other criticisms include the following.


- The procedure lacks cross-cultural applicability as separation of parent and infant varies. In Japan and Russia, children are rarely separated from their mother in the early stages of life.
- The technique relies on brief separations and reunions of 20 minutes. This is a highly standardized and constructed approach, designed to increase the reliability of the method not mimic real life.
- It should be noted that only 20 minutes of interaction are used to draw broad conclusions about a complex human process.

Attachment patterns differ from one family to the next, and even between siblings. The following list contains some of the factors thought to influence the process.

- Parental sensitivity – Ainsworth argued secure attachment is particularly dependent on emotionally responsive mothers. Sensitive and responsive mothers tend to have securely attached babies, while insensitive mothers have insecurely attached babies.
- Child temperament – Kagan (1982) states innate differences in children's temperaments influence how the children and the environment interact. He argues a child's temperament is stable over time and is therefore predictive of future behaviour. Kagan claims temperament rather than actual attachment is being measured in the 'strange situation' research procedure as each child will respond differently to different situations as a result of their innate personality. He was also critical of the rigidity of much of the debate surrounding attachment, arguing it was a complex human phenomenon and not well understood by the psychological establishment.
- Family circumstances – A family is not always a stable, unchanging unit over time and setting. Events such as poverty and bereavement intervene, and the child may not receive the consistent support. This will affect attachment development – a stable, loving home is still the best predictor for a well-adjusted adult, competent in navigating their own as well as others' emotional worlds.

 'A strange situation' is methodological procedure designed to induce different levels of stress in an infant.

 Temperament has a biological basis.

 Animal breeders regularly breed for certain types of temperament in the offspring. Dog breeds are often identified by their innate temperament and yet academic research into innate human temperaments is still in its infancy.

The role of attachment in future relationships

Research on adult attachment is guided by the assumption that the same motivational systems which give rise to emotional bonds between care-givers and their children are responsible for the bond that develops between adults in emotionally intimate relationships. This has been challenged by some researchers but overall it is accepted that adult attachment is influenced by childhood attachment patterns.

Baby-talk, infant-directed talk (IDT) or care-taker speech is a non-standard form of speech adults use to communicate with babies. It is usually delivered in a sing-song intonating style and has soothing as well as communicative properties. It has been shown to increase cognitive development and language understanding in particular. It is found in many cultures but not all – some cultures do not speak to their infants. IDT is also used between adults and is often directed at domestic animals. It is far more effective at receiving and maintaining infant attention than regular speech patterns.



To learn more about how Bowlby's ideas have been applied to adulthood, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.3.



Hazan and Shaver (1987) studied parent–child relationships and romantic couplings. They asked people to recall their childhood experiences and argued that adults who were secure in their romantic relationships were more likely to recall their childhood relationships with parents as being affectionate, caring, and accepting. They also note infant-and-care-giver relationships and adult romantic partners share the following features:

- both feel safe when the other is nearby and responsive
- both engage in close, intimate, bodily contact
- both feel insecure when the other is inaccessible
- both share discoveries with one another
- both play with one another's facial features and exhibit a mutual fascination and preoccupation with one another
- both engage in 'baby-talk'.

On the basis of these parallels, Hazan and Shaver argued that adult romantic love is a property of the attachment behavioural system, as well as the motivational systems that give rise to care-giving and sexuality.

According to Fraley and Shaver (2000), secure infants tend to become the most well-adjusted adults, to get along with their peers and are well liked. Generally, secure adults tend to be more satisfied in their relationships than insecure adults. Their relationships are characterized by greater longevity, trust, commitment, and interdependence and they are more likely to use romantic partners as a secure base from which to explore the world. In addition, secure adults are more likely than insecure adults to seek support from their partners when distressed and they are more likely to provide support to their distressed partners.

Segal and Jaffre (2007) emphasize that the non-verbal skills learned in childhood are essential for adult attachment relationships. Newborn infants cannot talk, reason or plan, yet they are able to communicate with a care-giver who understands and meets their physical and emotional needs. Segal and Jaffre argue that the learning and practice of non-verbal cues deeply impact our later love relationships.



Loving parents have long-lasting effects on their child's emotional skills.

EMPIRICAL RESEARCH

Cultural differences in attachment (Miyake et al., 1985)

According to these researchers, Japanese mothers place great value on developing close relationships with young infants and are rarely separated from them. They also place prominence on allowing children to develop their own identity and to solve problems within a wider social group. Essentially, children are raised in a close relationship with the mother but as conscious members of the wider social milieu. Miyake contrasts this style with American parenting in which children are encouraged to be independent from a young age and adults intervene to solve problems within a group setting. As a result, American children show greater avoidant attachment than Japanese children – which can be interpreted as showing greater independence – whereas Japanese children show higher rates of secure attachment – leading to greater sensitivity to group needs as adults.

Deprivation and trauma

Early development and adult disease prevalence

There has been a great deal of research in early developmental experiences and later adult behaviour patterns. The Adverse Childhood Experiences study (Felitti et al., 1998) examined exposure to seven categories of adverse events during childhood (e.g. sexual abuse, physical abuse, witnessing domestic violence). This study found a clear correlation between the number of adverse events in childhood and adult health and the prevalence rates of diseases such as heart disease, cancer, chronic lung disease, and various risk behaviours). In addition, with four or more adverse childhood events, the risk for various medical conditions significantly increased.

Early development and adult behaviour

EMPIRICAL RESEARCH

The pit of despair (Harlow and Suomi, 1971)

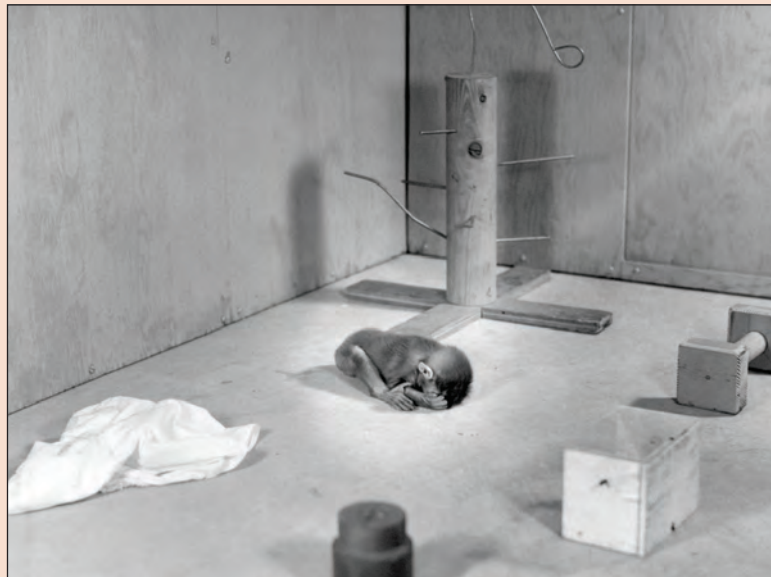
Harlow aimed to produce clinical depression in Rhesus monkeys and then monitor their behaviour as they developed. He designed a device to isolate monkeys and so cause them to be depressed. Technically, it was called a vertical chamber apparatus. However, Harlow wanted a more dramatic name and insisted on calling it the 'pit of despair' to stimulate debate and gain notoriety. He had at first wanted to call it the 'dungeon of despair' and also used terms like 'well of despair, and 'well of loneliness.' It was simply a steel cage that denied the monkey any connection with the outside world or any other living organism: an animal form of a prison isolation wing. Baby monkeys were placed in these steel boxes soon after birth; four were left for 30 days, four for six months, and four for an entire year.

After 30 days, the 'total isolates' were found to be enormously disturbed. After being isolated for a year, they barely moved, did not explore or play, and were incapable of having sexual relations. Two of them refused to eat and eventually starved to death.

Harlow also wanted to test how isolation would affect parenting skills, but the isolates were so badly damaged they were unable to mate. At that stage, artificial insemination had not been developed and so Harlow devised what he called a 'rape rack', to which the female isolates were tied in normal monkey mating posture and forcibly impregnated by a male monkey. When they became parents, he found they were actually unable to parent their offspring, either abusing or neglecting them. Having no social experience themselves, they were incapable of engaging in appropriate social interaction with others – including their own young: one mother held her baby's face to the floor and chewed off his feet and fingers while another crushed her baby's head and many others simply ignored their offspring.

continued

This young monkey is showing the effects of prolonged isolation.



The main outcome of Harlow's experiments is to demonstrate the importance of love and nurturing on later life. At that time, it was commonplace to advise parents to limit bodily contact to avoid excessive amounts of emotional stimulation of the child – seen as a form of spoiling or over-indulgence. However, Harlow's experiments have been heavily criticized for violating ethical standards in psychological methods. He has also been criticized for deliberately designing the apparatus to cause shock and revulsion in his colleagues, ostensibly to generate controversy – naming his apparatus the way he did and avoiding technical language is an example of this.

However, the most damning criticism comes from Deborah Blum, who argues that the studies simply produce results that are common sense: monkeys are very social animals, when placed in isolation, they emerge badly damaged (Blum, 2002). Generalizing animal findings to humans should always be carried out cautiously, but it seems reasonable to argue that depriving human youngsters of a loving, nurturing environment will produce adults who are less well adjusted emotionally and socially.

Monkeys who were completely isolated from other monkeys emerged enormously disturbed. They would not procreate or socialize and some starved themselves to death.



Examples of the results of childhood trauma and deprivation can be seen in the Jamie Bulger case and the Edlington torture case, both of which occurred in the UK. Jamie Bulger was a 2-year-old from Kirkby in Merseyside. He was abducted, tortured and murdered by Robert Thompson and Jon Venables who were both 10 years old at the time of the killing. In the Edlington torture case, two brothers aged 10 and 11, subjected two other boys to sadistic and brutal violence over a 90-minute period which they also partially filmed. In both cases, the crimes were planned and coordinated by children still at primary school.

The criminal psychologist Paul Britton argues that disturbed children nearly always come from disturbed backgrounds, with violence and neglect as the norm and where the parents have not given emotional space for their children to develop. Robert Thompson and Jon Venables were found guilty and sentenced to 10 years in a young offenders' institution. This sentence was subsequently reduced to 8 years after the Lord Chief Justice argued that such places were corrosive for young people – an implicit acknowledgement of the toxic effect of abusive backgrounds. The Edlington brothers were sentenced to indefinite detention with a minimum of 5 years to serve but it was noted at their trial they had been removed from their biological parents by social services as they had grown up in an environment characterized by poverty, extreme violence, emotional neglect and general chaos.

Britton (1997) argues such environments produce a strong urge to exert power and control over others to compensate for the high levels of emotional unpredictability, constant

feelings of humiliation and general lack of control in their own lives. Being in control over a victim outweighs any moral constraint or knowledge of wrong doing. Such inhibitors of behaviour are nearly always weak in children raised in abusive environments; violence and degradation are norms rather than exceptions.

However, Jamie Bulger's parents argued one of the killers, Robert Thompson, showed clear signs of being an undiagnosed psychopath, a personality disorder characterized by an extreme lack of empathy and morality despite the ability to appear normal. This is a disorder in which an individual uses charisma, violence, sex and manipulation to control others to fulfil his or her own needs. Such people violate social norms but feel no remorse. Thompson, in contrast to Venables, was reported as not showing any remorse during the trial. Such behaviour has been shown to have genetic causes and it seems likely that the emotional sensitivity which impacts moral frameworks is under the influence of biological mechanisms.

Genetics and parenting

Recently, there has been debate over the interaction between genetic predisposition and rearing styles, and the subsequent effects on adult behaviour. According to Dobbs (2009), most of us have genes that make us able to thrive in challenging environments. He uses a flower metaphor, describing such people as dandelions: able to take root and survive almost anywhere. However, Dobbs argues some people are more like the orchid: fragile and fickle, but capable of blooming if given attentive greenhouse care. Dobbs calls this approach the orchid hypothesis: with a poor environment and poor parenting, orchid children can end up depressed, drug-addicted, or in jail – but with the right environment and good parenting, they can grow up to be society's most creative, successful, and happy people. In other words, there is a genetic predisposition to vulnerability and this can be acted on positively or negatively by the environment the child is raised in.

EMPIRICAL RESEARCH

Rearing styles and adult behaviour (Suomi, 2005)

Rearing styles have been shown to have long-lasting biological effects on non-human animals. For example, Suomi (2005) studied wild rhesus monkeys (considered to be genetically close to humans). In one study, he found high levels of serotonin in the least aggressive adult animals and low levels in the most aggressive. Two groups were studied: one group was reared in a nurturing, supportive environment and the other in a less supportive, non-nurturing environment where they were left to fend for themselves with their siblings. As expected, the non-nurtured group had low levels of serotonin and high levels of aggression and the opposite was true of those reared with a close relationship with their mothers.

In another study, Suomi found clear links between rearing styles and adult behaviour. He identified two types of adult monkey with trouble managing complex adult relations. One type, which he called depressed or neurotic, accounted for about 20% of each generation. These monkeys are slow to leave their mothers' sides when young, even when pushed away by the parent. As adults they are tentative, withdrawn and anxious, and they form fewer bonds and alliances than other monkeys.

The other type, generally male, Suomi called bullies; they do not know how to calibrate their aggression and read signs from other monkeys to moderate their behaviour. They account for approximately 10% of each generation.

Suomi tested the monkeys with a 'cocktail hour' procedure whereby they were given unrestricted access to an alcoholic drink for an hour. Most monkeys have three or four drinks and then stop. However, according to Suomi, bullies do not know how to stop. In this way, he was able to demonstrate their predisposition to extreme behaviour.



Criminal psychologist Paul Britton argues that children who suffer serious abuse and neglect often have strong desires to wield power and control and this can lead to criminal and immoral behaviour. To what extent should society hold children responsible for their actions if they come from abusive backgrounds?

● Examiner's hint

Caution should be used when generalizing the findings of animal studies to humans. However, this does not mean they should be dismissed in their entirety. Researchers use animals because of the ethical restraints imposed on them with human subjects – such studies can give insight into phenomena that would otherwise be left without thorough research.

continued

To what extent does academic psychology teach us more than folk wisdom or common sense?



To learn more about how childhood trauma affects later development, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.4.



Resilience refers to the process of avoiding adverse outcomes or doing better than expected when confronted with major assaults on the developmental process.



● Examiner's hint

If a question asks you to discuss strategies to build resilience, your first task is to define resilience even though it has not been explicitly asked for.

In adult life, the neurotics and the bullies meet different fates. The neurotics mature late and stay within their mothers' family circles an unusually long time allowing them to acquire the social and diplomatic skills necessary for communal living. They don't mate prolifically as they do not rise high enough in their new troops to acquire significant status but they usually survive and pass on their genes.

The bullies fare much worse: they seldom make friends, their aggression and risk-taking leads to social rejection and, therefore, isolation. Most die before reaching adulthood and few mate.

Suomi argues bullies are genetically predisposed to engage in risk-taking and anti-social behaviour but they also came from harsh, disciplinarian mothers who deprived their offspring of opportunities to form attachments through socializing. Thus, genetic predisposition coupled with harsh parenting technique produced offspring which exhibited extreme behaviour detrimental to themselves and their ability to pass their genes onto the next generation.

Again it should be noted that this is an animal-based study. Caution should always be used when generalizing the results to humans but it has the value of common sense that can be found in what Ellis and Boyce (2005) label as folk wisdom: individuals with a close attachment to a care-giver have less need to develop aggressive behaviour as their needs are met through nurturing.

Suomi argues that his results mirror real world studies on humans. For example, a longitudinal study conducted over 26 years followed 1037 children born in 1972 in Dunedin, New Zealand (Caspi et al, 2002). The researchers found that children were much more likely to grow up to be aggressive and antisocial if they had inherited a 'short' version of a gene called MAOA. The gene codes for monoamine oxidase A, an enzyme which helps to break down neurotransmitters such as serotonin. Monoamine oxidase A production is less efficient in the individuals with the 'short' version of the gene. However, these individuals became antisocial only if they had experienced an abusive upbringing. Individuals with the short version of the gene and good mothering were usually completely normal. Suomi replicated these findings in monkeys, showing that carriers of the 'short' MAOA gene only turned bad when denied good mothering.

EXERCISE

6 Discuss the potential effects of deprivation in childhood on later development.

Resilience

According to Schoon and Bartley (2008), there is consistent evidence to suggest serious harm can be caused by the experience of poverty and adverse life events. Factors such as socio-economic disadvantage, material hardship and family breakdown greatly increase the risk of developing later problems such as educational failure, behavioural problems, psychological distress or poor health. However, there is also evidence that not everyone is affected in the same way. Schoon and Bartley argue that some people seem to be more able to 'beat the odds', to do well despite the experience of adversity. They talk of capability (the ability to do or to achieve certain desired functionings). They also cite Luthar et al. (2000) to define **resilience** as the process of avoiding adverse outcomes or doing better than expected when confronted with major assaults on the developmental process.

Strategies to build resilience

Schools are the fulcrum of many communities and a place where children learn academic subjects as well as socialization skills, meet role models and have their aspirations and

feelings challenged and shaped. Schools, therefore, have a duty of delivery beyond the explicit curriculum of academic subjects but within the hidden curriculum of the school environment. This represents an active acceptance that schools teach values, build emotional worlds and create expectations in children beyond the classroom.

According to Sagor (1996) and Wang et al. (1994), schools can provide support to students, particularly those at risk, through resilience-building experiences that focus on five themes:

- competency (feeling successful)
- belonging (feeling valued)
- usefulness (feeling needed)
- potency (feeling empowered)
- optimism (feeling encouraged and hopeful).

Ackerman (1997) argues schools can also be more explicit in developing resilience in children, particularly those who have been hit by unexpected adversity such as divorce. He outlines how group therapy, peer therapy, classroom meetings, individual counselling, and play therapy all build resilience if delivered consistently.

The New York Center for Children noted in 2004 that 872 000 children were abused or neglected in America. They also stated that 81% of all deaths from child abuse comprised those of infants and toddlers. They propose the following strategies for building resilience and preventing further abuse.

- Home-visit programmes – Such programmes have been shown to be effective in reducing child abuse particularly in low-income families. They serve a practical purpose in increasing access to healthcare and also provide a psychological boost, lowering rates of maternal depression and thus enhancing the formation of attachment between mother and baby. They serve to remind the mother of her obligations to care for the child and demonstrate a wider social interest in her parenting skills.
- Teen-mother parent education – Britner and Reppucci (1997) found groups for adolescent mothers were effective in providing peer support and reducing social isolation and depression. The programme also involved the extended family in the baby's care providing a wider social support network for new mothers.
- Head Start and Early Head Start programmes – Love et al. (2005) found parents who participated in Early head start programmes became more emotionally supportive, better at stimulating language development, and used less corporal punishment.
- After-school programmes in all high-risk communities – Mahoney et al. (2005) carried out a longitudinal study of the effect of after-school programmes on the development of academic performance and motivation for disadvantaged children. They found participants who participated in a full year's after-school programme achieved better test scores, reading achievement, and over all motivation.



According to the New York Center for Children, 872 000 children were abused or neglected in America in 2004.



To learn more about the New York Center for Children, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.5.

EMPIRICAL RESEARCH

Sources of resilience (Schoon and Bartley, 2008)

These researchers conducted a meta-analysis of a number of studies covering decades of research. The studies included: the 1958 National Child Development Study, the 1970 British Cohort Study, the 2000 Millennium Cohort, the British Household Panel Study, the Boyd-Orr Cohort, the English Longitudinal Study on Ageing, the Whitehall II Study and censuses. In total, their findings were based on information covering the lives of some 40 000 individuals.

Initially, they identified the following sources of adversity.

- Poverty and disadvantage – Growing up in poverty gives people less opportunity to build up strengths and capabilities to maintain good physical and mental health and well-being. This is

continued

Poverty is a main source of adversity. Growing up in poverty gives people less opportunity to develop skills to maintain good physical or mental health. Low income and poor housing are associated with increased levels of family distress, less effective parenting, and higher risk of separation and divorce. However, these ills are not a direct cause of lack of resilience since many poor families produce well-adapted children who go on to be highly constructive members of society.



because low income and poor housing are all associated with increased levels of family distress, less effective parenting, and higher risk of separation and divorce.

- Social exclusion – Living in poverty does not just mean not having enough money; it also means being excluded from normal social interactions. Poorer families are more likely to live in places where facilities and services are in a poor state of repair and may even be unable to access essential services such as healthcare and education.
- Unemployment or low-quality work – This leads to low self-esteem: someone who is unemployed or in low-quality employment may feel they lack control over their life. This impacts family life including aspirations for the children and how they might view opportunities in society such as education. It should be noted that having a job and strong family ties greatly improves self-esteem because work and family are spaces where people can engage in social interaction and build strong supportive relationships.

Schoon and Bartley then put forward the following sources of resilience.

- Academic competence – Resilience was most prevalent in individuals who demonstrated and maintained early academic competence and who had self-belief in their own capabilities. These children had an active life outside of the classroom – they were more likely to participate in extracurricular activities and social networks. They were motivated and showed positive aspirations for the future.
- An effective and supportive family life – Individuals manifesting resilience in the face of adversity (e.g. thriving academically despite growing up in relatively disadvantaged families, with parents employed in unskilled jobs, living in rented and overcrowded conditions) were more likely to have experienced a supportive family environment, and to have parents who showed an interest in their education. A supportive family environment was further characterized by parents who read to their child, who took an active interest and involvement in their education and career planning, and who took the children out for family activities such as holidays and days out. Another important factor was a supportive father figure who helped the mother with the household chores. A warm relationship with both the mother and father is associated with more secure attachments in adulthood and this in turn is been associated with greater career success in those without the advantage of higher levels of education.
- An effective social environment – Schoon and Bartley note that the chances of developing into a healthy, happy and successful adult, despite growing up in poverty, can be improved by the provision of high-quality and affordable childcare because this is key both to children's early development and to releasing parents' time to participate in learning and employment opportunities. Teachers play a role as they smooth the progress of young people, giving them confidence in their own abilities and encouraging positive aspirations for their educational and occupational futures. Government initiatives such as apprenticeship schemes, day-release from work, and evening and adult education classes all contribute to an effective thriving community.
- Employment is a key part of family and social cohesion but Schoon and Bartley note efforts to secure employment should not be enforced at the expense of activities which help people build self-esteem and the social interactions that will help them fulfil their capabilities.

Elder and Conger (2000) examined data from several Iowa counties to see how the farm crisis of the 1980s and 1990s affected children growing up in rural parts of the USA. They found a large number of young people had been protected from the worst social aspects of the crisis and were on paths to successful development and long-term achievement. They also noted that many of the children grew up to be academically successful and law-abiding.

They were able to identify five resource mechanisms:

- strong intergenerational bonds, joint activity between parents and children
- being socialized into productive roles in work and social leadership; stressing non-material goals

- a network of positive engagement in church, school, and community life
- close ties with grandparents, support from grandparents
- strong family connections with the community.

Therefore, in resiliency research it seems there are three factors that are important when it comes to building resilience:

- the child should have a close relationship with at least one parent; even children who suffer from extreme early deprivation can be resilient as long as the rearing environment is loving and supportive
- the temperament of the child and its ability be self-critical and to seek support when needed
- access for the child to a well-rounded social and educational support network in the community.

To access Revision notes 6.3 on Section 6.3, please visit www.pearsonbacconline.com and follow the on-screen instructions.

EXERCISE

- 7 Define resilience and discuss strategies to build it.

6.4 Identity development

Learning outcomes

- Discuss the formation and development of gender roles.
- Explain cultural variations in gender roles.
- Describe adolescence.
- Discuss the relationship between physical change and development of identity during adolescence.
- Examine psychological research into adolescence.

What is gender?

There are a number of ways to categorize human beings: *biological sex* refers to the sexual characteristics a person possesses, *sexuality* refers to the people a person finds sexually attractive and *gender* refers to the identity a person adopts as a result of developmental processes. Gender identity is usually linked to biological sex organs but this is not always the case. Some women adopt a masculine identity, some men adopt a feminine identity, and there is a great deal of nuanced gradation in between. Identity formation is an active cognitive process and is therefore open to influence from innate physiological processes as well as from social forces (such as media, cultures, parenting and so on). This is why it is of such interest to psychologists. Gender role refers to the sets of behaviours, rights, duties and obligations of being male or female (Bee, 1995). It is therefore a schema, a mental guide for action, steering an individual towards a socially agreed construction of gender expression.

Nearly all cultures expect the two different genders to behave differently but many cultures do not expect gender roles to be distinctive and binary.

- Some Native American and Canadian First Nation indigenous groups allow for multiple genders to exist at the same time in a person via the *two-spirit* concept. This concept recognizes that an individual may possess both male and female identities.

Gender role refers to a schema or a set of behaviours, rights, duties and obligations of being male or female.

Examiner's hint

In a question asking you to *discuss* the formation and development of gender roles or *explain* cultural variations in gender roles, your first task should be to *define* gender roles.

The heterosexual British comedian Eddie Izzard often cross-dresses (wears women's clothes). This is known as transvestism. He has variously described himself as an 'executive transvestite', 'action transvestite' and 'professional transvestite'; a male lesbian; a 'complete boy plus half a girl' and a male tomboy. He also argues that most transvestites fancy women. He once said: 'Women wear what they want and so do I.'



- In Oman, the Xanith form an accepted *third gender* in a strictly gender-segregated society. They are usually male homosexual prostitutes who dress as males but have female mannerisms. Xanith mingle with women but they also run their own households, performing all tasks of both male and female gender roles (Lorber, 1994).
- Western cultures have a notion known as androgyny (Bem, 1974). Androgynous individuals have a mixture of feminine and masculine characteristics and Bem argued these people are freer – less constrained by social impositions – and better adjusted. Pop culture figures such as David Beckham, David Bowie and Eddie Izzard have challenged traditional notions of masculinity displaying many characteristics associated with the opposite gender. It is worth noting that in Western cultures it is arguably more acceptable for men to display female characteristics than for women to display masculine characteristics; this inequality often goes unchallenged by cultural commentators.



Eddie Izzard with make-up and nail varnish.

Most psychologists agree that, by the age of 3, most children have an understanding of gender; by the age of 7, they know that a person's biological characteristics are fixed and the person will remain a male or a female – this is known as gender constancy. However, there is some evidence that the genders differ in their enthusiasm for gender role identity. Huston (1983) found children become less rigid in their gender stereotyping as they mature. Carter and Patterson (1982) noted that, as they move through childhood, boys have an increasing preference for male stereotyped activities but girls have less enthusiasm for female stereotyped activities.

There are a number of approaches to explain gender role formation and development:

- social learning theory
- cognitive developmental theory
- biology-based theories.

Despite the terminology, these are not unitary theories – they are approaches that have been adapted over years of research. They should be evaluated in the context of each other as they represent competing approaches to explaining gender role formation. Rarely can any one theory or approach explain complex human phenomena.

Social learning theory

Social learning theory assumes children learn gender-appropriate and gender-inappropriate behaviour via processes present in the environment/culture such as modelling and conditioning through reward and punishment.

Reinforcement can be direct and explicit:

- 'You look like a girl in that hat' (said to a boy)
- 'Girls don't wear jeans' (said to a girl).

Or it can be more subtle in the form of media images and expectations in peer groups.

Archer and Lloyd (2002) report on women observed playing with a 4-month-old baby. The baby was either dressed as a boy or as a girl. They were given a choice of toys to play with. Lloyd found they chose gender-appropriate toys depending on how the baby was dressed. This study has some flaws, most notably the demand characteristics placed on the women (they may have behaved this way to 'please' the experimenter).

Lamb and Roopnarine (1979) observed nursery-age children at play and found they reinforced each other for gender-appropriate play. They also noted reinforcement was more potent if it came from the same gender as the child being reinforced.

Leary et al. (1982) found children who were frequent television watchers are more likely to hold stereotyped ideas about gender and conform more to gender role preferences – suggesting the potency of modelling behaviour from media. Lewis (1972) observed parent-child interaction and found boys were encouraged to be active and independent and girls were encouraged to be passive and dependent. It should be noted, these Western-centric studies have a degree of ecological validity as they were conducted as observations but they were also in a time when gender roles were more clearly defined and caution must be used when contemporizing the results either to current Western society or to other cultures.



Even nursery-age children reinforce gender-appropriate play suggesting a cognitive and sophisticated understanding of gender roles. Reinforcement is more potent if it comes from the same gender as the child being reinforced.

EMPIRICAL RESEARCH

Gender role differences reflect cultural diversity (Mead, 1935)

Mead's classic study from 1935 is used widely to illustrate the socially constructed nature of gender roles. She studied different tribes in New Guinea to illustrate gender relativism (gender roles are specific to culture and place) and gender determinism (the notion of underlying gender constancy). Mead found the following differences.

- The Mundugumour tribe – Both males and females adopted what Western individuals might describe as traditional masculine behaviour – aggressively sexual, ruthless and bold.
- The Arapesh tribe – Both males and females adopted traditional Western feminine behaviour – warm, emotional and non-aggressive.
- The Tchambuli tribe – Gender roles were completely inverted from their Western counterparts.

Social learning theory and Mead's work offer the best explanation for cultural variation in gender role formation. They clearly demonstrate gender as the result of social constructionist forces present within individual cultures. However, although Mead's results showing gender relativity are well known, it must be stressed that she also found cross-cultural similarities in gender roles. This is less widely reported. She found that men were always more aggressive than women, regardless of the culture. This strongly suggests a biological link to gender roles – an idea which is discussed further below.



Mead found cross-cultural differences as well as fixed definitives in gender roles. Her findings therefore suggest underlying biological drives in determining gender identity. For example: men were always more aggressive than women regardless of culture.

Mead's cross-cultural consistencies are supported by Williams and Best (1990) who found gender expectations in children as young as 5 years old; these expectations become firmer and more pronounced by the age of 8. They also found that the male characteristics of aggression, strength and cruelty, *and* the female characteristics of gentleness and

To access Additional information 6.1 on Anthropology and Margaret Mead, please visit www.pearsonbacconline.com and follow the on-screen instructions.



appreciativeness showed remarkable uniformity across cultures. However, they found this uniformity was stronger in collectivistic societies and weaker in individualist societies. These findings again support the social learning theory approach to gender role construction because the differences were due to culture.



Many gay men see Kylie Minogue as an icon but that doesn't mean they would want to emulate her gender-specific behaviour.

Sexuality has an influence on gender role identity. Some lesbians identify with male role models/heroes and some gay men identify with female role models/heroes. However, this is far from always the case and few generalizations can be made. What is certain is the interaction between sexuality and gender is a highly complex and personal area and it is difficult to draw broad conclusions. However, both sexuality and gender have clear biological as well as societal influences.



The social learning theory has traditionally seen children as passive receivers of the effects of conditioning and modelling. However, recent revisions by Bussey and Bandura (1992) have modified the theory to take account of the child's active participation in gender role development. Cognitive factors such as motivation and perception affect how a child sees and responds to the processes present in the environment. If a girl is told that wearing jeans is a masculine behaviour *and she wants to look masculine* (because this is the gender role she identifies with), then she may not want to stop wearing the jeans. She will be aware of female gender role expectations but decide not to conform to them. She may well perceive jeans as attractive and therefore be more motivated to wear them more than other girls. Perception and motivation are cognitive processes and are not fully explained by social learning theory.

To learn more about how social learning theory can be applied, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.6.



Cognitive development theory

This approach focuses on the mental events which lead to gender identity and then role enactment. Kohlberg (1966) argued children acquire greater understanding of gender as cognition matures – this means children can only acquire gender identity and enact appropriate role behaviours when they are mentally ready. Initially, children acquire a gender concept and then actively seek information from members of the same gender for clues on how to behave. Once they understand gender is fixed and they are to be a boy or a girl forever, they become increasingly motivated to find information on appropriate behaviours.

Cognitive factors such as motivation and perception affect how a child sees and responds to the processes present in the environment and may override negative conditioning.



Kohlberg thought gender identity was acquired between the ages of 2 and 3. Between the ages of 3 and 7, the child understands gender is largely fixed but can still change if there is a change in appearance such as hair or clothing. Gender constancy occurs between 4½ and 7 years old. This represents a form of the Piagetian notion of conservation as the child understands gender as immovable regardless of superficial changes.

There is empirical support for the Kohlbergian approach: Marcus and Overton (1978) report gender conservation occurs at the same time as other forms of conservation suggesting the process has clear cognitive developmental origins. Kohlberg argued children actively construct their gender role knowledge and this is supported by Slaby and Frey (1975) who divided 2–5-year-olds into two groups: one group they considered to have high gender constancy, and the other group considered to have low gender constancy. They showed a film with a split screen; one side had male models performing a task, the other side had female models performing a task. Children with high gender constancy had more same-sex bias in their attention. This shows children actively seek and then respond to appropriate gender models.

However, Kohlberg's theory does not address how most children come to prefer gender-appropriate toys and garments long before they have gender constancy (Bee, 1995). This is addressed with gender schema theory. Gender schema theory proposes that children form mental guides for action linked around concept clusters that radiate information on how to behave appropriate to gender. The key assumption is that clusters develop before the children have an understanding of gender constancy. This would explain why toys and clothing have different levels of potency for different genders in pre-school age children.

Liben and Signorella (1993) found that children who were shown pictures of adults engaged in perceived gender inversion behaviour (e.g. a male nurse) disregarded the information and forgot it – suggesting children are actively engaged in constructing their world view and only select information that supports their vision of gender-appropriate behaviour. However, this emphasis on cognition does not account for biological drives which play a role in perception formation and behaviour manifestation.

Fagot (1985) found that parents and teachers – and perhaps schools in general – positively reinforce the feminine behaviour stereotype (sedentary, quiet, calm behaviour) and negatively reinforce masculine behaviour (impulsive, physical). Yet boys still display masculine behaviour characteristics. Fagot argues this is due to the strength of the male schema the boys have constructed. However, it will also be due to basic biological differences in boys and girls and these are discussed in greater detail below.

Biology-based theories

The biological approach assumes behaviour is the result of physiological mechanisms. There is strong evidence that much of our gender role identity is linked to innate natural



How much of our gender identity is innate and how much is learned from the environment?

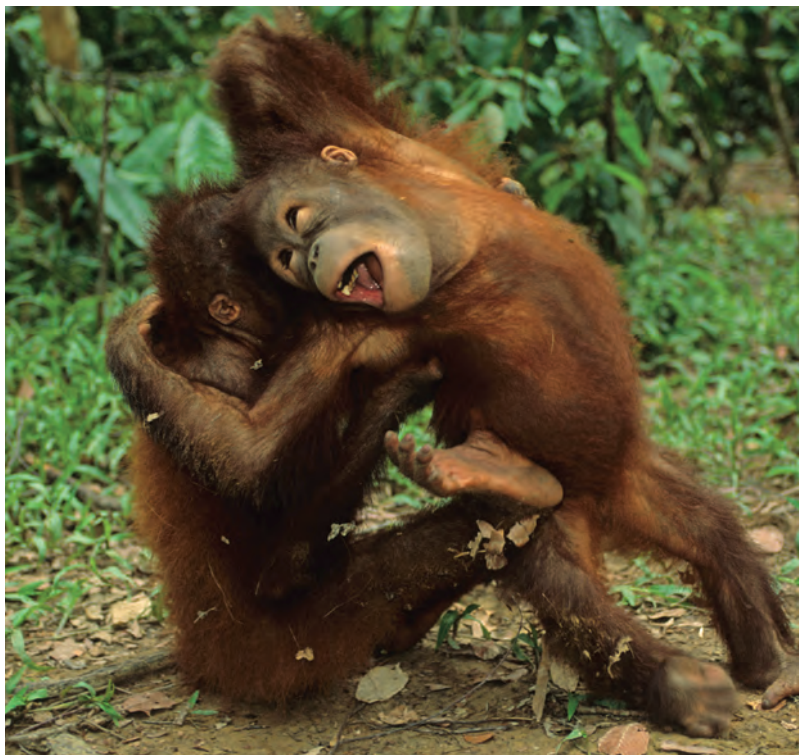
Children are actively engaged in constructing their world view and only select information that supports their vision. This applies to gender and to those they wish to identify with. Therefore, gender construction must be seen as an active cognitive, biological as well as a sociocultural process.

processes but a biologically deterministic position to explain a complex cognitive and social construction such as gender role behaviour is probably unrealistic.

R&T play is prevalent in the males of most mammals, in particular in chimpanzees, orang-utans and humans (Braggio et al., 1978) and even squirrels (Biben, 1998).

Rough and tumble play

Rough and tumble (R&T) play is a key area for gender psychologists. It is widely accepted that R&T play is the result of hormonal changes in young male mammals, in particular an increase in testosterone in early infancy (priming or organizing effect) and at puberty (activating effect).



According to Jarvis (2006), R&T play was first academically named by Karl Groos in his books *Play of Animals* (1898) and *Play of Man* (1901). Jarvis states most research carried out into R&T play of young humans and non-human primates indicates that R&T play creates valuable practice for the complex social interactions creatures need to undertake in order to become competent, socially mature adults. Jarvis notes that over the past 25 years in Western society there has been an increasing reduction of the time and space allocated for children to engage in such play while over the same period, concerns about poor socialization of young people (particularly young men) have been increasingly raised.

Michael Thompson, author of *Raising Cain: Protecting the Emotional Life of Boys*, has written extensively about the unique world of boys and how schools and modern society frequently prevent boys

To learn more about Michael Thompson and his focus on male psychology, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.7.

To learn more about Michael Thompson's documentary, go to www.pearsonhotlinks.com, enter the title or ISBN of this book and select weblink 6.8.



from expressing themselves the way they are naturally inclined to. He has argued many teachers overreact to boys' behaviour in classrooms, corridors and play grounds since most R&T play is non-violent and will not lead to violence. He argues for a recalibration of how we see boys at work and play, and points to other cultures (e.g. Japan) where rules and appropriate behaviour guidelines for socializing and play are left in the hands of the children, not the adults.

O'Donnell and Sharpe (2004) argue that R&T play situations in which boys explore a sense of nationalism and territory show human similarity to other mammalian species which also use physical and expressive play to explore dominance hierarchies. Jarvis (2006) observed children in a primary school in northern England and concluded that boys show a clear preference for R&T play in terms of amount, pace and intensity, as well as showing gender differences and awareness in R&T play-based fantasy narratives. She puts forward an evolutionary argument to explain the prevalence of this behaviour in young males: boys need to learn how to compete with other boys for resources and access to female mates and those who are more practiced are more likely to be successful. Females occupy a primarily nurturing role in primate societies and do not need to engage in R&T play as it does not serve an evolutionary purpose. Girls predominantly engage in complex social and emotional interactions as well as grooming activity, which is also prevalent in primate societies.

R&T play occurs primarily in males. It is found cross-culturally and across species suggesting a clear link between biology and behaviour.



Other evidence

Congenital adrenal hyperplasia (CAH) is a condition resulting from pre-natal exposure to male androgens. Berenbaum and Snyder (1995) found that girls with the condition showed a significantly greater preference for boys' toys and activities, while boys with the condition did not differ significantly from a non-CAH control group in any way. This clearly shows the impact of hormones on behaviour. Beach (1974) found female dogs exposed to male hormones were more likely to urinate like male dogs and this is supported by Young et al. (1964) who found female monkeys exposed to male hormones were more likely to engage in R&T play.

Taking an entirely biological position on gender-specific behaviour and ignoring social and cognitive factors will not present a nuanced view of a complex phenomenon. However, the evidence does suggest gender roles are under significant physiological influence. This may affect cognitive strategies for coping with the world as well as influencing the choices boys and girls make about who they socialize with and imitate.



Male hormones produce male behaviour in monkeys and dogs. Again, this suggests a clear link between gender and physiological processes.

EXERCISE

- 8 Define gender roles and explain cultural variations in how they develop.

Adolescence

Adolescence is typically defined as the transitional period between childhood and adulthood.

Cognitive approach

From a cognitive developmental perspective, adolescence can be defined as the period when the Piagetian notion of formal operational thought develops. This allows for the consideration of new beliefs and possibilities.

Sociocultural approach

Adolescence can also be defined through a political or socially constructed paradigm. The World Health Organization (WHO) defines it as the period between 10 and 20 years of age. However, this does not take into account the varying social roles undertaken in many cultures as a consequence of adolescence. In the West, 18 or 19-year-olds may still be seen as adolescents, but in other cultures, 14-year-olds may be expected to marry and perform adult functions in the community. The culture of **the teenager** developed in post-World War II America and teenagers quickly became a clearly demarcated group for social researchers and for corporations manufacturing specific products (e.g. films, jeans, cars, hair products) to sell to them. A modern equivalent of this trend is the recent increase in interest in the pre-teens from market researchers and companies. They have discovered that many young children in the West have a degree of disposable income and can be persuaded to spend it on tailored food, ring-tones, toys and games, if properly targeted.



R&T play is primarily a male activity. To what extent should schools allow it to happen? Schools promote calmness, verbal communication and ask children to sit for long periods to learn information. To what extent are they feminine places?



Adolescence is typically defined as the transitional period between childhood and adulthood. It can also be defined from a Piagetian perspective as the period in which formal operational thought develops. This allows for the consideration within the individual of new beliefs and possibilities.

EXERCISE

- 9 Discuss how advertisements are aimed at children. You can choose from magazines, bill boards, the TV or radio. Address the following: How do they target children? What methods do they use? How do they portray gender, age-appropriate play, parenting? Consider the ethical implications for these practices. Find out what regulatory bodies are in place to monitor corporate messages to children and research instances where there have been serious transgressions.



James Dean helped to establish the concept of the teenager – a concept not shared by all cultures.

To what extent is adolescence a social construction? To what extent is it the result of biological processes?



James Dean was 24 when he played his iconic role in *Rebel Without A Cause*. The film is an attempt to explore teenage angst and is credited with helping to construct the concept of the teenager in the American mindset. It also influenced how youthful masculinity was portrayed on-screen. The film opened one month after Dean's death in a car accident and he never saw his ascent to icon status.

Biological approach

Adolescence can be defined from a purely biological perspective as the period when there is a rapid increase in growth (known as the growth spurt) and the redistribution of muscle tissue and body fat. The pituitary gland acts to increase the amount of sex hormones entering the bloodstream (oestrogen in girls and testosterone in boys). The individual becomes biologically capable of producing and nurturing children.

Boys start producing sperm around the age of 15; girls start their menstrual cycle somewhat earlier. This transition is typically known as puberty. The body changes shape – girls

become heavier with broader hips and the development of breasts; boys develop greater muscle mass and their shoulders widen.

This biological approach does not standardize how we view adolescence as there is increasing evidence that puberty in Western countries is being induced sooner because of environmental toxins (either food additives or the myriad of other chemicals in everyday life). This is particularly true in some girls who, in certain cultural groups, are menstruating at a much younger age than previous generations.

The physical changes of the body can cause problems for teenagers as they develop. Some of these problems centre on the notion of **body image**. According to Croll (2005), body image is the dynamic perception of one's body – how it looks, feels, and moves. The notion of it being dynamic suggests it is constantly under review and is not fixed. It is therefore open to influence.

The physical changes taking place during puberty represent constant challenges to a teenagers' self-image. Body image is shaped by perception, emotion, physical sensation, mood, physical experience, and environment. It is influenced strongly by self-esteem and self-evaluation, more so than by external evaluation by others. It is also influenced by cultural messages, norms and societal standards of appearance and attractiveness. A great deal of research supports the view of a gender difference in how teenagers respond to physical changes in adolescence and Croll cites the following research findings to support her claims.

- 50–88% of adolescent girls feel negatively about their body shape or size.
- 49% of teenage girls say they know someone with an eating disorder.
- Only 33% of girls say they are at the right weight for their body, while 58% want to lose weight and 9% want to gain weight.
- 66% of females think their current size is too large; 21% of males feel this way.
- Over 33% of males think their current size is too small; 10% of women feel this way.
- Strikingly, while only 30% of older adolescents consider their current size acceptable to themselves, 85% of females and 95% of males considered their current size socially acceptable for others.
- 85% of young women worry 'a lot' about how they look and twice as many males as females say they are satisfied with their appearance.

- A report by the American Association of University Women indicated that for girls, ‘the way I look’ is the most important indicator of self-worth. For boys, self-worth is based on ability rather than looks.

Croll (2005) argues that puberty for boys brings characteristics typically admired by society – height, speed, broadness, and strength. On the other hand, puberty for girls brings characteristics often perceived as less desirable; girls generally get rounder and have increased body fat. These changes can serve to further enhance dissatisfaction among girls going through puberty.

Challenges to perception over physical change come from a variety of sources but the media and television in particular are major sources of those challenges.

The following information comes from the TV-Turnoff Network (2005) in the USA.

- Adolescents watch an average of 28 hours of television per week.
- American youth spend, on average, 900 hours a year in school and an average of 1023 hours a year watching television.
- The average American consumes 11.8 hours per day of media of all kinds.
- Children view more than 20 000 commercials per year.
- 75% of all adolescents spend at least 6 hours a week watching music videos.
- Eight million children at 12 000 schools across America watch television at school each day via Channel One, an in-school broadcast current events programme provided (including TV and VCR equipment) free of charge to schools. The programme includes 10 minutes of broadcast news and current events coverage and 2 minutes of advertisements for products such as chips, candy, and beauty-aids.

Brownell and Napolitano (1995) illustrate how the body-image expectations of pre-teens can be distorted with their ‘If Barbie and Ken Were Real’ study. Barbie’s neck would be too long and thin to support the weight of her head, and her upper body proportions would make it difficult for her walk upright. In Ken’s case, his huge barrel chest and enormously thick neck would nearly preclude him from wearing a shirt. Rather bizarrely, Ken would be 7 feet 2 inches tall while Barbie would be 5 feet 2 inches.



i Body image is the dynamic perception of one’s body – how it looks, feels, and moves. The notion of it being dynamic suggests it is constantly under review and is not fixed. It is therefore open to influence.

What would people really look like if their proportions were based on these dolls?

EXERCISE

- 10** Define adolescence and discuss the relationship between physical change and the development of identity during this period.

Psychological research

Erikson's approach

Erikson put forward an assumption in the 1950s that adolescence is a period of stress and uncertainty brought about by intense physical change which causes a crisis in identity. This view was developed when he worked with emotionally and behaviourally disturbed (EBD) youngsters as a therapist and he can be credited with coining the phrase **identity crisis**.

He argued that a typical adolescent thinks: 'I ain't what I ought to be, I ain't what I'm gonna be, but I ain't what I was' (Erikson, 1950). Despite the colloquial language, this statement suggests teenagers cannot achieve a sense of identity because of the intense biological changes taking place in their bodies. He also argued that the crisis was normal and an essential part of identity construction for later adulthood. Erikson's theory has four main components which represent areas an adolescent has trouble processing.

- Intimacy – Adolescents fear a commitment to others as it may involve a loss of identity.
- Time – Erikson argued that teenagers have an inherent disbelief that the passage of time may bring about the possibility of change – while simultaneously being afraid that it might. He called this time diffusion.
- Industry – This involves an inability to concentrate or enormous energy being expended in a singular area. Erikson called this a diffusion of industry.
- Negative identity – Erikson argued teenagers show scornful and snobbish behaviour towards the role offered either by their family and/or society.

He also put forward the notion of a psychosocial moratorium. This refers to a temporary suspension of activity during the period of identity formation when the adolescent is moving between childhood (when identity is clearer) and adulthood (when a new identity has to emerge). Erikson notes this is often recognized by those around teenagers, when society and family members allow adolescents to 'find themselves' and try on different identities in an effort to find one that suits them best. This is seen as the dominant task of this age group and its eventual resolution forms the basis of the adult identity.

Evaluation of Erikson

Erikson intimates adolescence is associated with low self-esteem and low productivity when this is not always the case. Adolescence is more likely to be associated with positive identity formation (Marsh, 1989) and can be a time of community projects and productive charity work. Offer et al. (1981 cited in Eysenck 2000) conducted a meta-analysis of adolescence literature and concluded that most American teenagers can be characterized as being confident, happy and self-satisfied – a contradiction of the Erikson view as the teenager in constant, negative turmoil.

Erikson did not conduct any empirical research to support his view. He based his theory on non-rigorous observations of teenagers undergoing therapy in the 1940s and 50s. This represents a biased sample and also has scientific shortcomings in method. This does not mean academics should reject his notions completely, but it does mean caution should be used when generalizing to a larger group.

Erikson argued females develop their sense of identity later than males as part of their identity and social status is heavily dependent on the type of men they will marry. He

published this view in 1969. It can now be seen as largely outmoded in Western society, although it may still be applied to non-Western cultures.

In the West, identity demarcation was clearer in the 1950s than it is today: Erikson's notion of identity construction was formed at a time when a job-for-life was accepted as the norm and he centred his notion of identity on a career and a marriage partner. It was also a time when people could be easily identified via socio-economic class, geographic and ethnic background, and music preference. Arguably, modern culture and technology, globalization and contemporary economic reality has made identity less fixed and more fluid – open to buffeting from market conditions and the myriad of identities available to construct.

Marcia's approach

Marcia reformulated much of Erikson's work so it could be tested empirically. His basic approach is centred on the notions of crisis and commitment. Crisis occurs through having to re-evaluate previous choices and values; commitment occurs after this re-evaluation and the individual must take on a set of roles and ideologies.

After developing a semi-structured interview for identity research, Marcia proposed identity statuses as psychological identity development:

- Identity diffusion – The status in which the adolescent does not have a sense of having choices; he or she has not yet made (nor is attempting/willing to make) a commitment.
- Identity foreclosure – The status in which the adolescent seems willing to commit to some relevant roles, values, or goals for the future. Adolescents in this stage have not experienced an identity crisis. They tend to conform to the expectations of others regarding their future (e. g. allowing a parent to determine a career direction) As such, these individuals have not explored a range of options.
- Identity moratorium – The status in which the adolescent is currently in a crisis, exploring various commitments and is ready to make choices, but has not made a commitment to these choices yet.
- Identity achievement – The status in which adolescent has gone through an identity crisis and has made a commitment to a sense of identity (i.e. certain role or value) that he or she has chosen.


Based on Marcia (1966).

These statuses are not *stages* and should not be viewed as a sequential process.

The core idea is that a person's sense of identity is determined largely by the choices and commitments made regarding certain personal and social traits. The work done in this paradigm considers how much a person has made certain choices, and how much he or she displays a commitment to those choices.

Evaluation of Marcia

Marcia's approach was an extension of Erikson's original work and was an attempt to make it more empirically robust and therefore more useful. Research does suggest confusion and crisis decline as adolescence progresses. For example, Meilman (1979) looked at 12–24-year-old males and found identity achievers rose steadily post-15 years old. There is also an intimation of active, dynamic identity construction which sits well with what we know about teenagers and their predisposition to try out different identities in sometimes very explicit ways. However, Marcia used mainly middle-class, white male American fathers and sons in his sample and conducted his interviews in the 1960s and 70s. Caution should therefore be used when generalizing to wider cultures in a contemporary setting.

 According to Marcia, identity is determined largely by the choices and commitments made regarding certain personal and social traits.

Waterman and Waterman (1975) suggested Marcia's theory suffers from cohort effects – that is, the statuses are dependent on particular groups (cohorts) in society. Cohorts are linked to age and culture, and Waterman and Waterman argue many of the fathers in Marcia's sample matured in the pre-World War II period, when adulthood was achieved earlier. The sons in the sample reached adolescence in the 1950s and 1960s when attitudes towards adolescence and young people in particular, had shifted. There is also an assumption in Marcia's work that adolescents have either formed an identity or they have not; this suggests a binary, all-or-nothing approach. This is an oversimplification of a complex human process.

Archer (1982) tested the identity statuses in areas such as occupational choice, gender roles, religious values and political ideologies and found only 5% had the same identity statuses in all four areas. This suggests that people are at different stages towards identity formation in different areas of their lives. There is also a great deal of cultural relativity in identity formation. Condon (1988) studied Inuit in the Canadian Arctic circle: he found that individuals who would be seen as adolescents in Western culture were treated as adults from the onset of puberty. They simply had no time or an appropriate environment in which to ponder their inner identity in the same way that Marcia's middle-class, college-bound sample might in 1960s and 1970s America.

● Examiner's hint

Psychological research refers to empirical studies as well as theory construction. Erikson did not produce a great deal of empirical research but he did construct an influential theory.

Evidence from MRI scans suggests brain development differences between males and females are much larger than the more obvious differences such as height.

To access Revision notes 6.4 on Section 6.4, please visit www.pearsonbacconline.com and follow the on-screen instructions.

To access worksheet 6.1 with a full example answer to question 2, please visit www.pearsonbacconline.com and follow the on-screen instructions.

Gender differences in identity development

Recent studies have shown gender differences in identity development and these can be linked to biological processes. Lenroot et al. (2007) examined evidence from 829 MRI scans taken from 387 subjects, aged between 3 and 27 years. They argued that brain development differences between males and females are much larger than height differences. The evidence from MRI scans suggest young women reach full brain developmental maturity between 21 and 22 years of age while young men do not achieve this until nearly 30 years of age. Such differences are rarely noted in educational literature but Lenroot et al. do note that what is developmentally appropriate for a 6-year-old girl may not be developmentally appropriate for a 6-year-old boy. Killgore and Yurgelun-Todd (2004) support these findings. They conducted fMRI scans during a test requiring participants to respond to images of fearful faces. They argued emotional development occurs at different rates in males and females and this is linked to brain development.

PRACTICE QUESTIONS

- 1 To what extent do biological, cognitive and sociocultural factors influence human development?
- 2 Evaluate one psychological theory relevant to developmental psychology.
- 3 Discuss how social and environmental variables may affect cognitive development. Use empirical research to support your answer.
- 4 Examine attachment in childhood and its role in the subsequent formation of relationships. Use empirical research to support your answer.

To access Worksheet 6.2 with additional practice questions and answer guidelines, please visit www.pearsonbacconline.com and follow the on-screen instructions.