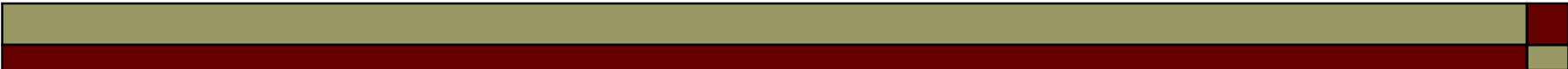


Theories of Development

Biological – Maturation Theories



Introduction to Developmental Psychology

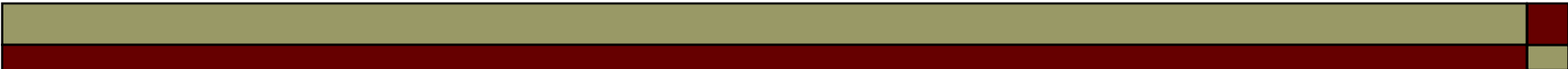
- ❑ The scientific study of how we grow and develop.
- ❑ Includes emotional development, personality, intelligence, communication and socialisation.
- ❑ Studies the various skills humans have and how they are acquired.
- ❑ As humankind evolves – behaviour affected in a number of ways.

Why do practitioners need to know about theory?

- ❑ Theory – set of ideas about experiences or events.
- ❑ Study of children and development – what happens as babies and children grow and why development unfolds.
- ❑ A range of theories proposed to explain child development.
- ❑ Communicated to parents through advice and childcare books.
- ❑ Theory shapes educational philosophy and practice in the childcare and education setting.

Introduction to Developmental Psychology

- ❑ Some biologists argued many of our skills were genetically inherited.
- ❑ The ‘**nature**’ view.
- ❑ Others disagreed – we are the product of our experiences as we grow.
- ❑ We have free will, we change and can be changed.
- ❑ The ‘**nurture**’ view.

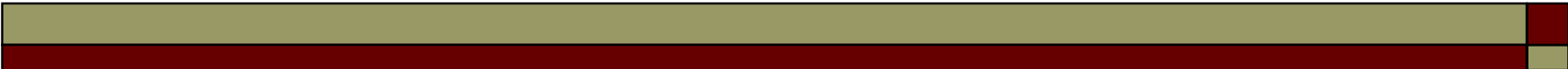


Biological – Maturation Theories

Focus of all biological theories is that the pattern of development we share and our individual differences are based in:

- ❑ Instructions laid down in genes – inherited pattern – controlled by hormones.
- ❑ Maturation patterns triggered by messages from the brain and body chemistry.
- ❑ Inevitable patterns arise from biological constitution and basic human drives.

(Lindon, 2005:17)



Biological – Maturation Theories

“ Theorists who ground their ideas in biology do not usually claim that the environment has no part to play. They argue that genetic programming and the internal workings of the brain are a powerful influence and should not be discounted.”

(Lindon, 2005:17)

Nature – Nurture debate

- ❑ Some early philosophers believed our personality, intellect, gender behaviour was determined by our genes.
- ❑ We have no free will and need not be responsible for our actions.
- ❑ We now know this early view was wrong.
- ❑ We don't always become predicted **genotype**.
- ❑ What we actually become – **phenotype**.
- ❑ We are born with many abilities – what we become results from our experiences. (Nature v Nurture).
- ❑ Children's progress will be determined by nature as well as their environment

Maturation

- ❑ Developmental - Maturation approach was created by Arnold Gesell (1880 -1961).
- ❑ America's foremost authority on childrearing and development.
- ❑ An important pioneer.
- ❑ Developmental tests for babies and children.
- ❑ Introduced ideas of 'milestones' and 'developmental norms'



Maturation

- ❑ A biological influence – the rate at which we mature.
- ❑ Maturation – the process of physical growth which starts at conception.
- ❑ A developmental sequence of changes, controlled by instructions in the genetic code, shared by all children.
- ❑ After birth development progresses according to a particular scale – more or less the same for all children. Use of hands, movement of head, sit, crawl, stand, walk, run.

Maturation

- ❑ All children following ‘normal’ development go through the same stages of development, but these may occur at different rates.
- ❑ Gesell believed the environment a child grew up in did not determine a child’s abilities.
- ❑ He believed the abilities were already made up inside the child.
- ❑ The environment could not affect the child’s abilities but only helped to let them out.

Developmental Norms

- ❑ A rigid approach failed to allow for variety within a culture.
- ❑ ‘Normal’ strongly based in Western and Euro-centric context.
- ❑ ‘Universal child’ criticised since 1980s due to greater awareness of cultural variations in child rearing.
- ❑ Children with disabilities defined largely by their failure to reach milestones on time.

(Lindon, 2005:17)

Developmental Norms

- ❑ To ensure good practice a framework was needed to inform realistic expectations for children.
- ❑ Need was met in the UK for many years by Mary Sheridan's - Birth to Five Years.
- ❑ Based on Stycar sequences.
- ❑ First published 1960 – reprinted several times.
- ❑ Mono-cultural in aspects of dress and eating utensils.
- ❑ More information provided in Lindon (1993) and Meggit & Sunderland (2000).

Challenges to Maturation Theory

- ❑ Gesell's research failed to account for individual differences.
- ❑ Led to the assumption that the entire developmental sequence is predetermined.
- ❑ His work was challenged by Myrtle McGraw, following her research on newborn babies.
- ❑ She carried out research on sets of twins, where only one twin received enriched motor training.
- ❑ Mc Graw concluded – walking develops in four major stages, linked to different areas of the brain.

(MacLeod-Brudenell, 2004)

Mc Graw –Walking Develops in 4 Major Steps

Phase

1st – under 4 months

2nd - under 4 months

3rd – 4 to 8 months

4th - 8 to 14 months

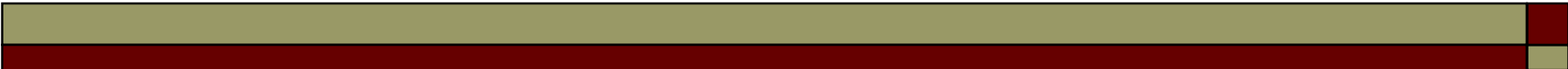
Development

Sub-cortical reflexes largely control limb movements

Reflexes become inhibited, controlling influence of sub-cortical reflexes diminishes

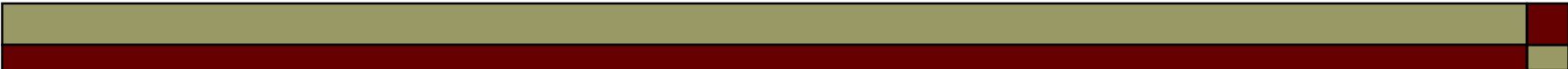
Discrete muscle control – higher cortical mechanisms

Sub-cortical & cortical components combine, mature walking pattern achieved



Foetal Behaviour

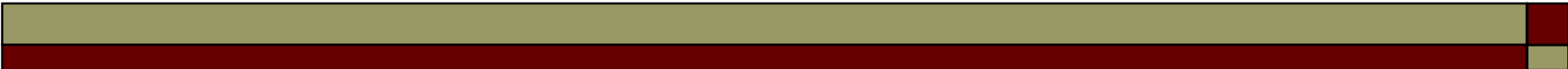
- ❑ Another area now under discussion is the function of foetal behaviour.
- ❑ How the foetus moves around in the womb in relation to certain stimuli
 - Suck their thumbs
 - Blink their eyes
 - Move their mouths
- ❑ Scans of foetus can demonstrate these behaviours



Foetal Behaviour

Questions being asked by some researchers:

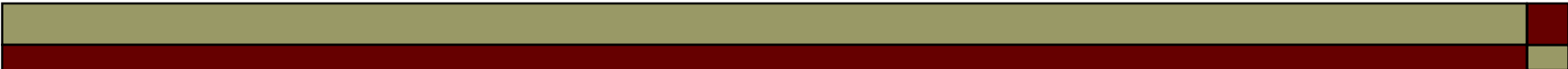
- ❑ Why do they do demonstrate these behaviours?
- ❑ Are there reasons e.g. stress, excitement, pain?
- ❑ Are the behaviours the result of maturation of body's systems?



Foetal Behaviour

Research carried out by Drachman and Sokoloff (1966) suggests:

- ❑ Movements made by foetus are important for its structural development.
- ❑ Behaviour of the foetus may influence the development of the sensory system and brain.
- ❑ This is an interesting area for further reading and has been repeatedly researched by Hepper, P (1994) & (2002).

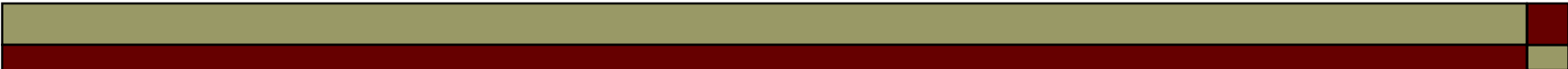


Biological basis for human behaviour

- ❑ Humans are part of mammal family of creatures.
- ❑ Konrad Lorenz (1930s) looked for connections between humans and animal relatives.
- ❑ Crucial periods in early days of mammals and some birds where attachment must take place between infant and mother.
- ❑ Some patterns of animal behaviour seemed to be innate rather than learned.
- ❑ John Bowlby (1940s) - attachment between baby and mother was innate set of behaviours to protect vulnerable infants.

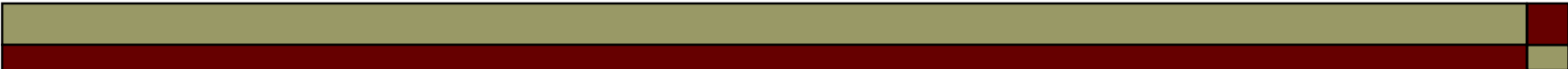
Biological basis for play

- ❑ Young mammals show spontaneous playful behaviour.
- ❑ Observe lambs, cats, monkey/ape families.
- ❑ Use props in their play – logs for jumping, sticks held by young monkeys etc.
- ❑ Practice physical skills for adult life –survival function.



Biological basis for play

- ❑ Playful exchanges build social connections.
- ❑ Immature mammals copy their elders – learning crucial skills e.g. feeding, self-care.
- ❑ Playful, exploratory behaviour is part of mammal and human biological programming.
- ❑ Play is not instinctive – not automatically triggered, but mammals seem predisposed to play.

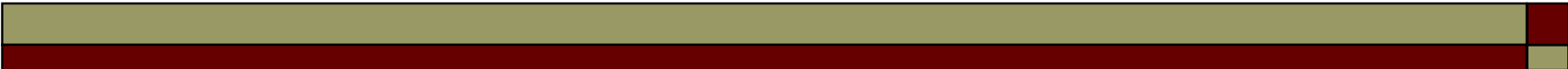


Further Reading/Research

Is development continuous or discontinuous?

This question, together with the nature-nurture debate, has been vigorously discussed and has formed the basis for much research.

Conduct your own research into this area by studying the works of Arnold Gesell (1928) and Myrtle Mc Graw (1935) – pioneers in the study of motor development and later theorists e.g. Piaget (1954) and Keogh & Sugden (1985) to help you decide which point of view you favour.



Further Reading/Research

Carryout your own research into the stages of physical development from conception to birth.

Investigate factors which influence prenatal development.

Consider strategies for educating parents, and their potential benefits to the mother and foetus.