

MODULE 1

MAJOR DEVELOPMENTAL ISSUES

Unit One

The First Years of Life

Aims

The aim of this unit is to enable you to:

- distinguish between 'innate' and 'learned' approaches to development
- appreciate that there are few clear cut answers in psychology
- describe and discuss physiological and psychological innate reflexes
- quote psychological evidence to demonstrate individual differences in newborn infants
- identify evidence for early social behaviours and how these change during the first year of life
- define cross-cultural studies

Context

The first module of this course takes you quickly through the child's experiences right from birth through to home, family and school life. After this initial review we will focus on more specific issues of research and interpretation.

The Newborn Infant

When an infant is born, he or she clearly achieves biological separation from his or her mother. However, more so than any other young animal, the human newborn remains totally dependent upon the mother or suitable substitute.

We're now immediately faced with a question which will continually arise throughout this course:

How many of a newborn infant's abilities are innate or inborn and how many have to be learned?

This question is continually raised in many areas of child development and is often referred to as the **nature/nurture debate**.

Nativists versus Empiricists

On one side there are the **nativists** who believe that various aspects of behaviour are **innate**.

On the other side there are the **empiricists** who believe that these behaviours must be **learned** and are influenced by the child's experiences in their environment.

Surprise, surprise, there are rarely any clear cut answers to support just one or other of these theorists!

Take for example apparently clear-cut innate behaviours such as sucking and swallowing. Even this has been shown to be open to the effects of learning. **Cohen (1967)** found that babies who were restless and crying for a feed became quicker with practice at recognising the nipple, stopping crying and commencing sucking.

*We've introduced another recurring point here. In psychology there are very few black or white answers. Most are ultimately varying shades of grey. In looking at various aspects of development and behaviour we will consider the balance of **research evidence** which **supports** or **refutes** different theories.*

*This might mean that although we can quote several particular theories, often there are serious **criticisms** of these. We will always aim to **evaluate** these theories by considering both the weight of evidence to support them and specific criticisms of such theories.*

Self- Assessment Test 1	<p>In your own words try to explain the nature/nurture debate.</p> <p>Use the space below to write down your answer and then compare it with the answer given at the end of the unit.</p>

Infant Reflexes

All infants are born with several innate **reflexes**.

A reflex is an automatic, involuntary response to a specific stimulus.

Let's look at some specific examples of reflexes.

Stimulus	→	Response
Food in the mouth	→	Produces saliva
Food in the throat	→	Swallowing
Food in the windpipe	→	Coughing to prevent choking
Puff of air into the eye	→	Blinking

Self- Assessment Test 2	<p>Can you think of a reason why our bodies incorporate such reflexes?</p> <p>As with all SATs, write your answer below, and then check with the suggested answer at the end of the unit.</p>

In addition to these basic **physiological** reflexes (all of which continue to be present throughout our lives), newborn infants possess certain **primitive reflexes** which a paediatrician will usually check as a guide to the **neurological** health of the infant.

These reflexes include:

The rooting reflex - if you gently touch the corner of an infant's mouth and pull your finger slowly towards their cheek, the infant will turn his tongue, mouth and even his entire head towards the stimulated side and attempt to suck your finger.

The moro reflex - in response to any sudden movement or noise nearby the infant quickly extends his arms and brings them together. Sick or premature babies often fail to demonstrate this reflex, though even in normal, healthy babies it often disappears after about 5 days.

The Babinski reflex - if the bottom of an infant's foot is stroked, he will first of all splay out his toes and then curl them in.

The stepping reflex - if the infant is held carefully with his head supported and gently lowered to a table top until his feet touch and his knees bend, his legs will straighten. Then, if he is leaned forward with his feet gently dragging on the table he will make a step-like movement.

Do remember that all children are individuals and that even healthy infants will not display a reflex every time they are stimulated.

Even skilled paediatricians can't always persuade hungry/tired/unhappy/unco-operative infants to demonstrate a reflex.

Also remember that right from the word 'go' infants clearly demonstrate **individual differences**.

Many mums often say that they could identify specific individual characteristics in their children right from their first few days together on the maternity ward.

Binns (1965) demonstrated this experimentally. He studied babies less than 5 days old and found clear differences in babies' reactions to being suddenly disturbed.

Activity 1	<p>Talk to as many different mothers of two or more young children as possible. Ask them whether they noticed differences between their children during their first few days of life.</p> <ul style="list-style-type: none"> • What kind of differences did they notice? • Have these differences remained?
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Those preliminary investigations will not only help you appreciate the way in which individual differences appear to operate right from the moment of birth but may also be of help to you in your individual investigation which you will conduct later in this course.

Early Social Behaviour

Probably **the** most important relationship an infant forms during the first year of life is with his/her mother.

Just how soon does an infant begin to distinguish his/her mother?

Macfarlane investigated whether infants could recognise their mothers by smell alone. She found that at two days old infants would turn their heads towards a stranger's breast pad as often as they did towards their mother's. However, by the time they were ten days old they showed a definite preference for that of their mother's.

Self- Assessment Test 3	What conclusion would Macfarlane have drawn from this study?

Social Interaction

Human infants are really quite anti-social beings. They often seem to do little but cry, eat and demand changing!

One of the first ways in which they initiate **social interaction** is by **smiling**.

From about the second to the seventh month of life the infant will smile at whoever approaches and interacts with him. He will even smile at a very crude, oval-shaped piece of cardboard with two black dots painted as eyes (**Ahrens, 1954**).

In the second part of the first year of the infant's life a dramatic change takes place in how readily they smile at a stranger's face. Spitz clearly demonstrated this change.

Age of children	Number of children	% smiling at strange face
0 - 20 days	54	0
21 days - 2 months	144	2
2 months - 6 months	145	98
6 months - 12 months	147	3

This change in the infants' social behaviour is clearly related to their development of specific **attachments**, as we'll see in the next unit.

It's important to note that **cross-cultural studies** have noted similar types of behaviour in children throughout the world.

Self-Assessment Test 4	Give a definition of what you understand by cross-cultural studies.

Summary

Check now that you feel able to:

- distinguish between 'innate' and 'learned' approaches to development
- appreciate that there are few clear cut answers in psychology
- describe and discuss physiological and psychological innate reflexes
- quote psychological evidence to demonstrate individual differences in newborn infants
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Suggested Answers to Self-Assessment Tests

Test One

In this debate there are two beliefs:

Nativists - who believe that behaviour patterns are inborn.

Empiricists - who believe that behaviour is learned.

Test Two

One of the most important functions of reflexes is **protection**. They protect the body from, for example, choking or potentially harmful stimuli to the eyes.

Test Three

Macfarlane concluded that infants could demonstrate their recognition of their mothers by smell alone by the age of just ten days.

Try to get used to drawing conclusions from studies such as this. This is a skill which will be assessed in the exam.

Test Four

Cross-cultural studies **compare** the same aspect of behaviour (in this case smiling during the first year of life), in totally different societies.

*The **comparative** nature of these studies is most important.*

Unit Two

The Formation of Attachments

Aims

The aim of this unit is to enable you to:

- define and describe imprinting
- discuss attachment and the factors necessary to bring about attachment
- consider the relevance of animal studies to the study of human attachment, with particular reference to Harlow

Context

Now that we've begun to consider that strange jungle we've all been through, the first year of life, we will look at one of the most important experiences of all, the formation of attachments. Why and how this happens is a subject which has always fascinated psychologists. In the following unit we will consider what happens when such attachments break down.

Introduction

We have seen in Unit One that towards the end of the first year of life infants clearly distinguish between known and unknown people and begin to form attachments to certain individuals. In this unit we shall be looking at the nature and causes of this attachment. To begin with, we will examine a particular mechanism for attachment behaviour found in animals, known as imprinting.

Imprinting

Konrad Lorenz, an Austrian ethologist (a scientist who studies animals in their natural environment) was one of the first to study this aspect of animal behaviour. **Imprinting** refers to an inbuilt tendency for a young animal to follow a moving object with which it forms an attachment.

Lorenz conducted his original observations with greylag goslings who were reared from the egg by human keepers and did not mix with any other geese. He noted that they followed after human beings in the way that goslings normally follow their parents. Also, once these goslings became sexually mature they directed their sexual approaches to humans rather than to other greylag geese.

The greylag gosling appears to be imprinted to the first fairly large moving object that it sees. This process seems to be confined to a very definite period of life and to require only a brief exposure. Greylags imprinted to Lorenz followed him about and peeped in distress when he moved away. Such a gosling placed with its own parents and in a brood that was following the parents in the normal way, showed no tendency to stay with the parents and brood but ran off to Lorenz or any other passing human. Further research has shown that imprinting occurs in many bird species, in some insects and fishes and in some mammals such as sheep and deer.

Self- Assessment Test 1	Supply the missing word for the third box in the flow diagram below:
	<pre> graph LR A[Hatching] --> B[Following first fairly large moving object] B --> C["? -----"] </pre>

Human Attachment

Although imprinting probably does not occur in human infants, it is undoubtedly the case that babies do form close relationships with others. From the second or third month on, the infant behaves differently with his mother than with others. For example, he may smile and vocalise with her more readily, constantly follow her movements and quieten sooner when picked up by her after crying. Clearly the infant can now recognise his mother.

Bowlby suggests that the infant possesses a number of inborn behaviour patterns, such as following, clinging, sucking, smiling and crying, which serve to bind the child to his mother from the beginning. He calls this attachment behaviour. This can be defined generally as the tendency for the infant to seek the closeness or proximity of certain others and feel more secure in their presence. It is still widely debated whether this need to seek the proximity of others is in fact innate or not.

It's important to distinguish between *attachment and attachment behaviours*.

Attachment is the child's enduring tendency to prefer a particular person whereas **attachment behaviours** are the specific behaviours which the child displays in order to maintain their proximity to this particular person.

There is a clear evolutionary significance to attachment behaviours. In the past it was always necessary for infants to remain close to their mothers in order to enable them to survive. It was because separation was such a potentially life – threatening situation that it was such a traumatic and frightening experience.

Just the ability to recognise the mother is apparently not sufficient to constitute the formation of an attachment bond as **Schaffer and Callender** demonstrated when examining the reaction of infants to

hospitalisation. They found that infants did not protest at being separated from their mothers until approximately 7 months of age – long after they were able to recognise her.

Self- Assessment Test 2	(a) What is meant by the term 'attachment'? (b) Who was chiefly responsible for the popularisation of this term?
	(a) (b)

Factors Necessary for Attachment Behaviour

An important factor involved in the formation of attachments appears to be that the child realises that objects exist when he can no longer see them. Up to the age of 6 months or so when an object drops out of the sight of an infant he makes no attempts to look for it.

By the age of 8 or 9 months a child will look to see what has happened to the toy that has fallen out of his sight and (s)he will realise that the toy that is covered by a cloth is still really there and has not ceased to exist. This marks an important stage in development and is called **object conservation** or **object permanence** by the Swiss psychologist, **Jean Piaget**.

Before an infant understands object permanence (s)he will reach for an object (s)he can see and ignore it when it disappears from view.

Separation protests tend to start occurring at approximately the same time as the infant acquires the ability of object conservation. It appears he realises that the person to whom he seeks proximity has a separate existence and thus separation protests occur when the attachment figure is no longer with the child. It seems that, generally, a child forms specific attachments during the third quarter of the first year.

It is important to note that although many researchers have placed emphasis on the infant forming one close attachment with the mother, this need not necessarily be the case. **Schaffer and Emerson** (1964) found that a substantial minority of their subjects formed several attachments, with the father being an important

one of these, also siblings. We'll return to this issue again in Unit Four.

Activity 1	If you have any contact with infants up to the age of 8 or 9 months, try catching their interest with a small toy and then cover it and observe their reactions. Note their age and whether they have the ability of object conservation.
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Self-Assessment Test 3	What is meant by the term 'object permanence'?

Secure and Insecure Attachment

Ainsworth has distinguished between infants who are securely attached and those who are insecurely attached. The basic difference between the mothers of these two different types of infants was their **sensitivity**. By this Ainsworth means the extent to which the mother could detect her infant's signals, interpret them correctly and respond promptly and appropriately.

The need to be securely attached appears to be of significant importance since security of attachment in infancy is a good predictor of later emotional and social adjustment.

Attachment Across the World

The widespread existence of attachment behaviour has been shown in many different studies conducted in countries and cultures as far apart as Scotland and Africa.

Schaffer and Emerson (1964) followed the progress of 60 Scottish infants from a few weeks old to 18 months. They noted the responses of the infants to being left alone by their mother in

several situations, for example being left alone in a room or being put down after being held. They found that at the age of about 7 months specific attachments emerged which became more intense during the following 3 or 4 months. However, they also noted pronounced individual differences. One infant displayed attachment behaviour as early as 22 weeks old, whereas 2 of the infants did not exhibit such specific behaviour until after their first birthday.

During the course of this study, Schaffer and Emerson found it possible to identify some of the variables which were related to the intensity of an infant's attachments.

1. The degree to which the mother was ready to attend to her infant's crying by picking him up and attending to him immediately.
2. The amount of time and attention the mother gave her infant besides the routine caretaking activities.

This is clearly echoing Ainsworth's remarks regarding the need for sensitivity to ensure secure attachment.

Mary Ainsworth conducted a cross-cultural study into the development of attachment behaviour among the Ganda people of Uganda in East Africa and Americans. This was a longitudinal study conducted over 9 months of 28 babies aged between 0 and 24 months. She found that crying and attempts to follow the mother occurred in one infant as early as 15 and 17 weeks respectively.

Ainsworth noted that both sorts of behaviour were common by 6 months of age amongst the Ganda children. All but 4 of the infants attempted to follow their mother as soon as they could crawl.

It would appear that attachment behaviour exists across many different cultures. It is also relevant to the study of adults as well as children, as **Bartholomew** (1993) has shown. Bartholomew gathered evidence that adults also feel a desire for closeness with an attachment figure, especially under stressful conditions, and a sense of security derived from that attachment.