A strength of Lorenz’s study is that its findings have been highly influential within the field of developmental psychology. For example, the fact that imprinting is seen to be irreversible suggests that attachment formation is under biological control and that attachment formation happens within a specific time frame (critical period). This is a strength because it led developmental psychologists, such as Bowlby, to develop well recognised theories of attachment. Such theories have been highly influential in the way child care is administered today.

Harlow’s findings have had a profound effect on psychologists’ understanding of human mother-infant attachment. Most importantly Harlow showed that attachment does not develop as the result of being fed by a mother figure but as a result of contact comfort. Harlow also showed us the importance of quality of early relationships for later social development including the ability to hold down adult relationships and successfully rear children.

Evaluation of Lorenz’s study:

In support of the findings from Lorenz’s study, other studies have also found evidence of imprinting in animals. Guiton (1996) found that leghorn chicks imprinted on gloves that were used to feed them in their first few weeks. This supports the view that young animals are probably born with a predisposition to imprint on any moving thing present during the critical window of development.

On the other hand, the original concept of imprinting, that it is irreversible, has been criticised. It is suggested that imprinting is a ‘more plastic and forgiving mechanism’. Guiton found he could reverse imprinting in chickens who had tried to mate with rubber gloves. By spending time with their own species, they were able to engage in normal sexual behaviour with other chickens. This suggests that the impact of imprinting on mating behaviour is not as permanent as Lorenz believed.

Evaluation of Harlow’s study:

A strength of Harlow’s study is that it was conducted in a controlled, laboratory setting. Harlow was able to control potential extraneous variables such as the monkeys being taken away from their mothers straight after birth, the baby monkeys not being exposed to any love or attention from their biological mothers. This is a strength because it means that Harlow was measuring what he intended to measure (i.e. factors that can affect the formation of attachment) and therefore, the study can be seen to have high internal validity allowing a cause and effect relationship to be established.

A weakness of Harlow’s study is that it was conducted in a controlled, artificial laboratory setting. The highly controlled laboratory setting that Harlow used is not reflective of the real-life situations and may cause the monkeys to behave in an artificial manner. This is a weakness because it means that Harlow wasn’t necessarily measuring the real-life attachment formation and therefore the study can be criticised for lacking ecological validity.
The results from Harlow’s study are of large practical value since they provide insight into attachment formation which has important real-world applications that can be useful in a range of practical situations. For example, Howe (1998) reports that the knowledge gained from Harlow’s research has helped social workers to understand risk factors in neglect and abuse cases with human children who can then serve to prevent it occurring or, at the very least, recognise when to intervene. In addition, there are practical applications which are used in the care of captive wild monkeys in zoos or breeding programmes to ensure that they have adequate attachment figures as part of their care.

Learning theory explanation of attachment:

Learning theory is a group of explanations which emphasises the role of learning in the acquisition of behaviour. Explanations for learning of behaviour include classical and operant conditioning. Learning theorists John Dollard and Neal Miller proposed that caregiver-infant attachment can be explained by learning theory. Their approach is sometimes called a cupboard love approach because it emphasises the importance of the caregiver as a provider of food. Put simply they proposed that children learn to love whoever feeds them.

When children are born they are blank slates and everything they become can be explained in terms of the experiences they have. Behaviourists suggest that all behaviour (including attachment) is learned either through classical or operant conditioning.

Classical conditioning:
Involves learning through association. Before conditioning, food is an unconditioned stimulus (UCS) which produces an unconditioned response (UCR) of pleasure as a relief from hunger. The caregiver is a neutral stimulus (NS). During conditioning the child associates the caregiver (NS) who feeds them with the food (UCS). Through repeated pairing, the caregiver becomes a conditioned stimulus (CS) who is associated with the pleasure from feeding. This results in the caregiver eliciting a conditioned response (CR) of pleasure from the child and the formation of an attachment.

Operant conditioning:
Is learning through reinforcement, if the behaviour is followed by a desirable consequence then that behaviour is more likely to be repeated in the future. Proposes that when an infant feels hunger it is motivated/there is a drive to reduce the unpleasant feelings so cries to receive comfort. When the caregiver provides food, a feeling
One limitation of Bowlby’s maternal deprivation theory is that monotropy is a socially sensitive idea. Maternal deprivation is a controversial idea because it has major implication for the lifestyle choices mothers make when their children are young. The law of accumulated separation states that having substantial time apart form a primary attachment figure risks deprivation and poor-quality attachment that will disadvantage the child in a range of ways later. This could push mothers into a particular lifestyle choice, like not returning to work. Consequently, this could be a potential limitation of Bowlby’s maternal deprivation theory of attachment due to the possible implications on society.

If asked for support for maternal deprivation theory talk about 44 juvenile thieves study but if given 16 marker on maternal deprivation include 44 juvenile thieves in A01.

**Romanian orphan studies: effects of institutionalisation**

The term institution refers to a place like an orphanage where children live for long, continuous periods of time. Institutional care has been found to affect children’s attachment and subsequent development, with effects including; physical underdevelopment, intellectual under functioning, disinhibited attachment and poor parenting.

**Rutter and Songua-Barke** conducted a longitudinal study of 165 children who had spent their early years in a Romanian orphanage. 111 of these children were adopted before two years old, and the others were adopted by four years old. They were compared to a control group of 52 British children. The social, cognitive and physical development of all infants was examined at regular intervals.

Before adoption, the Romanian orphans showed delayed development and were physically smaller with many classified as ‘mentally retarded’. Almost all the Romanian orphans who were adopted before the age of 6 months caught up on these measures of development, when compared to the British control group. The Romanian children who were adopted after six months continued to show significant deficits in all areas of development; they were also more likely to experience difficulties with peer relationships and often had disinhibited attachments.

**Evaluation:**

✓ One strength of Rutter and Songua-Barke’s research findings is their real-world application to social services. Their study helped change the way that children are looked after, especially when it comes to the adoption process. Historically, mothers were encouraged to keep their babies for a substantial period by which time the critical period for attachment formation may have passed. Nowadays, infants are adopted as early as one-week old and Singer et al. states that children are as securely attached to their adoptive mothers are biologically related families. This