

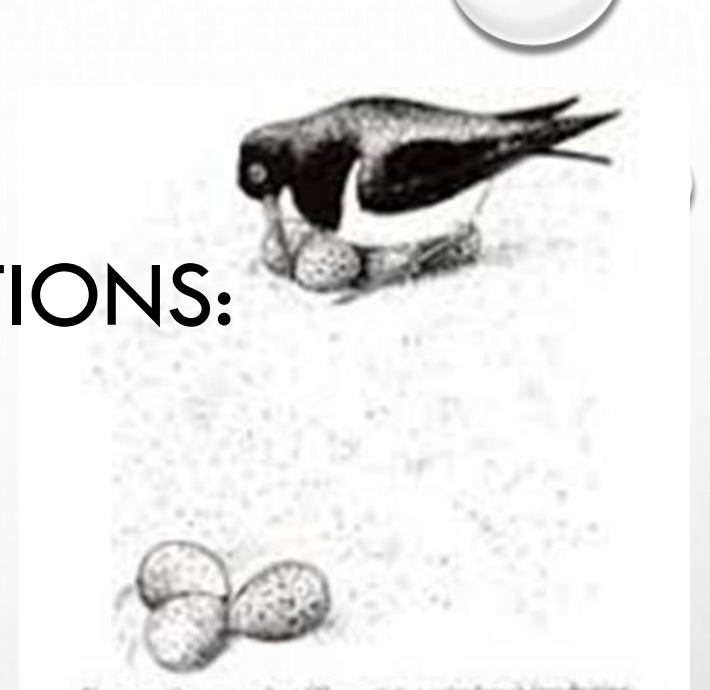
4. ANIMAL FAMILY TIES

DIFFERENT REPRODUCTION STRATEGIES:

- 1) FISH AND TURTLES,
- 2) DOGS AND CATS,
- 3) HORSES AND COWS

WE NEED TO ANSWER FOR SOME QUESTIONS:

- WHO GETS ATTACHED (TIED) TO WHOM?
- WHEN?
- WHEN THE TIE (BOND) STOPS?
- WHAT ARE THE SYMPTOMS OF THE TIE?
- WHAT ARE THE EFFECTS OF PATHOLOGICAL TIE?



THE MOST IMPORTANT THING ...



Altricial
One-day-old meadowlark



Precocial
One-day-old ruffed grouse

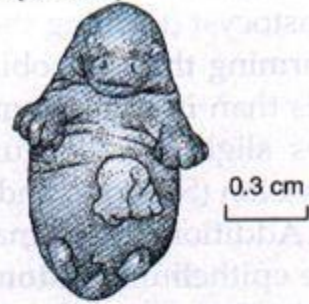
Precocial

(10% of species)

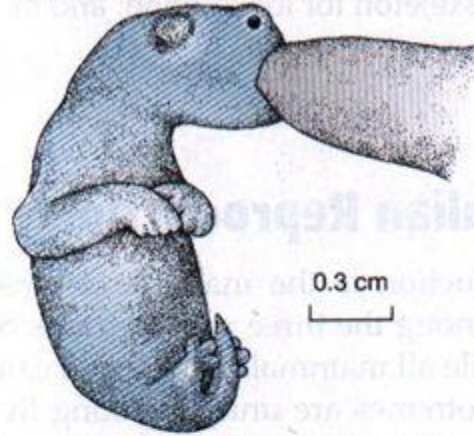


- Shorebirds, ducks, chickens
 - Self-feeding
- Able to regulate Tb
 - Independent
 - The ancestral condition

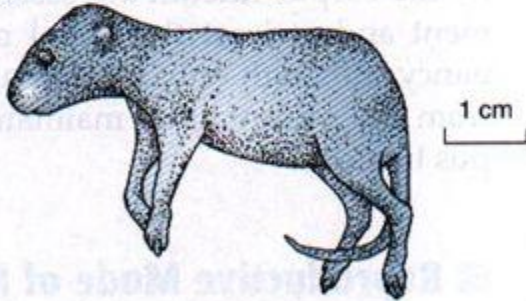
(a) Monotreme (echidna)



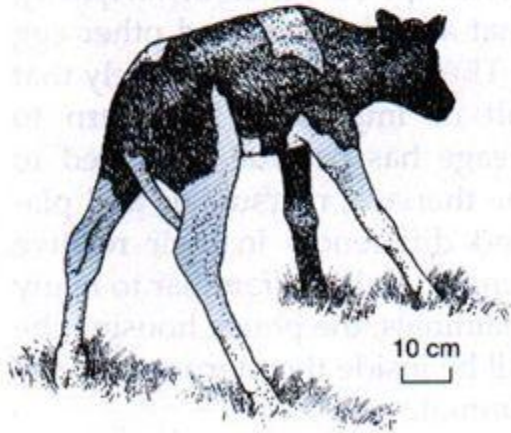
(b) Marsupial (opossum)



(c) Altricial placental (rat)



(d) Precocial placental (cow)



Mammalian neonates.

Precocial young:

ungulates, whales,
primates

Altricial young:

rodents, insectivores,
carnivores like canids
and bears

Altricial: can have
more young per
litter



Altricial

- Short gestation
- Very immature at birth
- Single or multiple young
- Long development during lactation
- Seasonal or continuous reproduction

Requisite features:

- Occurs when the fetus is sufficiently mature to survive outside the uterus.
- Suited to reproductive strategy.
- Optimized for reproductive efficiency.



Human

- Immature at birth
- Long gestation
- Usually singleton

A secondarily altricial species.



Precocial

- Long gestation
- Mature at birth
- Usually singleton

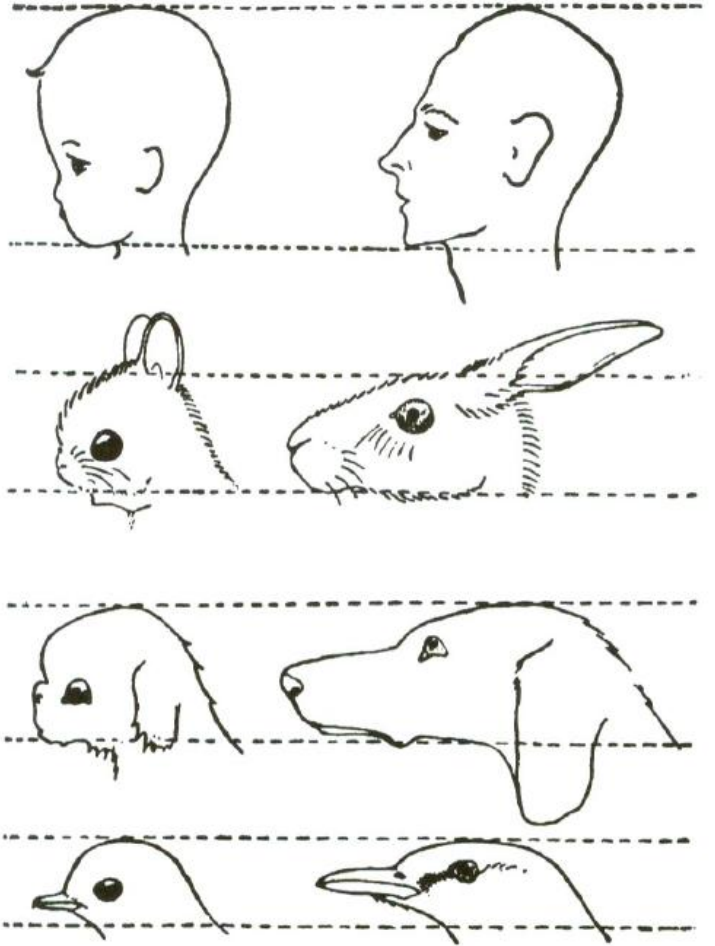
Precocial vs. Altricial development

PRECOCIAL

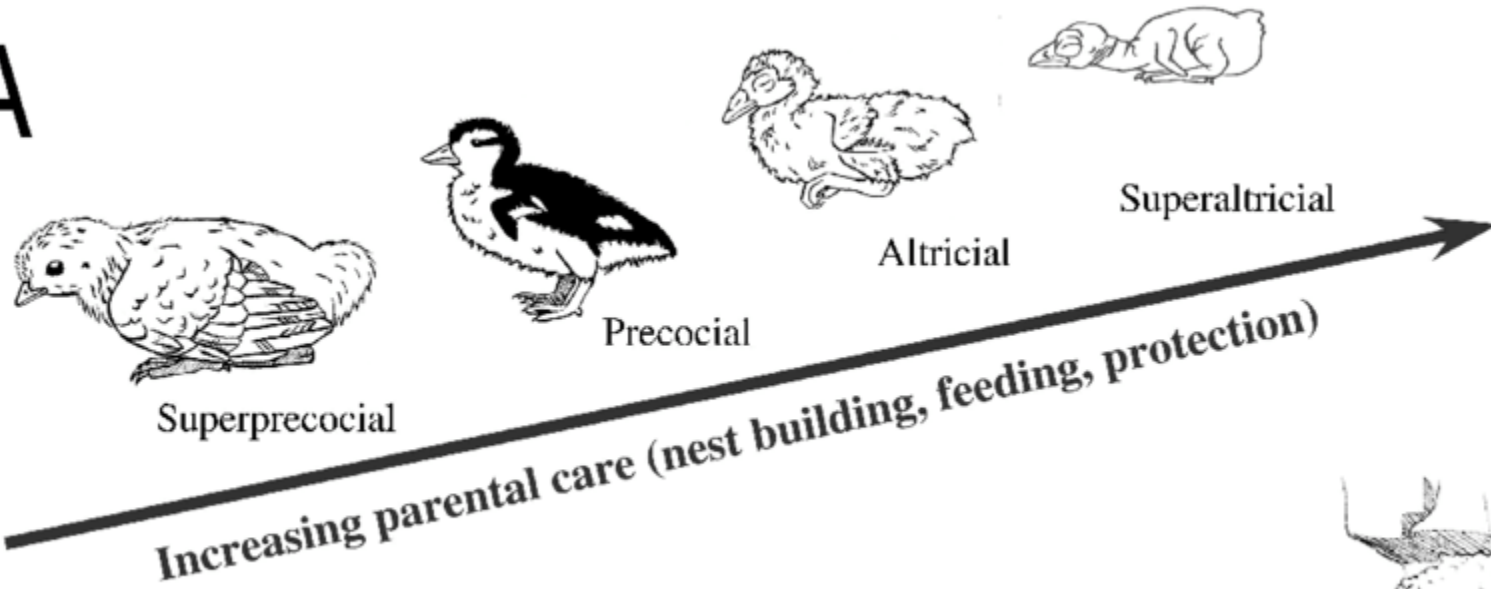
- Young hatch or born when almost fully developed
- Open eyes, hair or down
- Active or mobile
- Not confined to nests
- Energy goes into prenatal development

ALTRICIAL

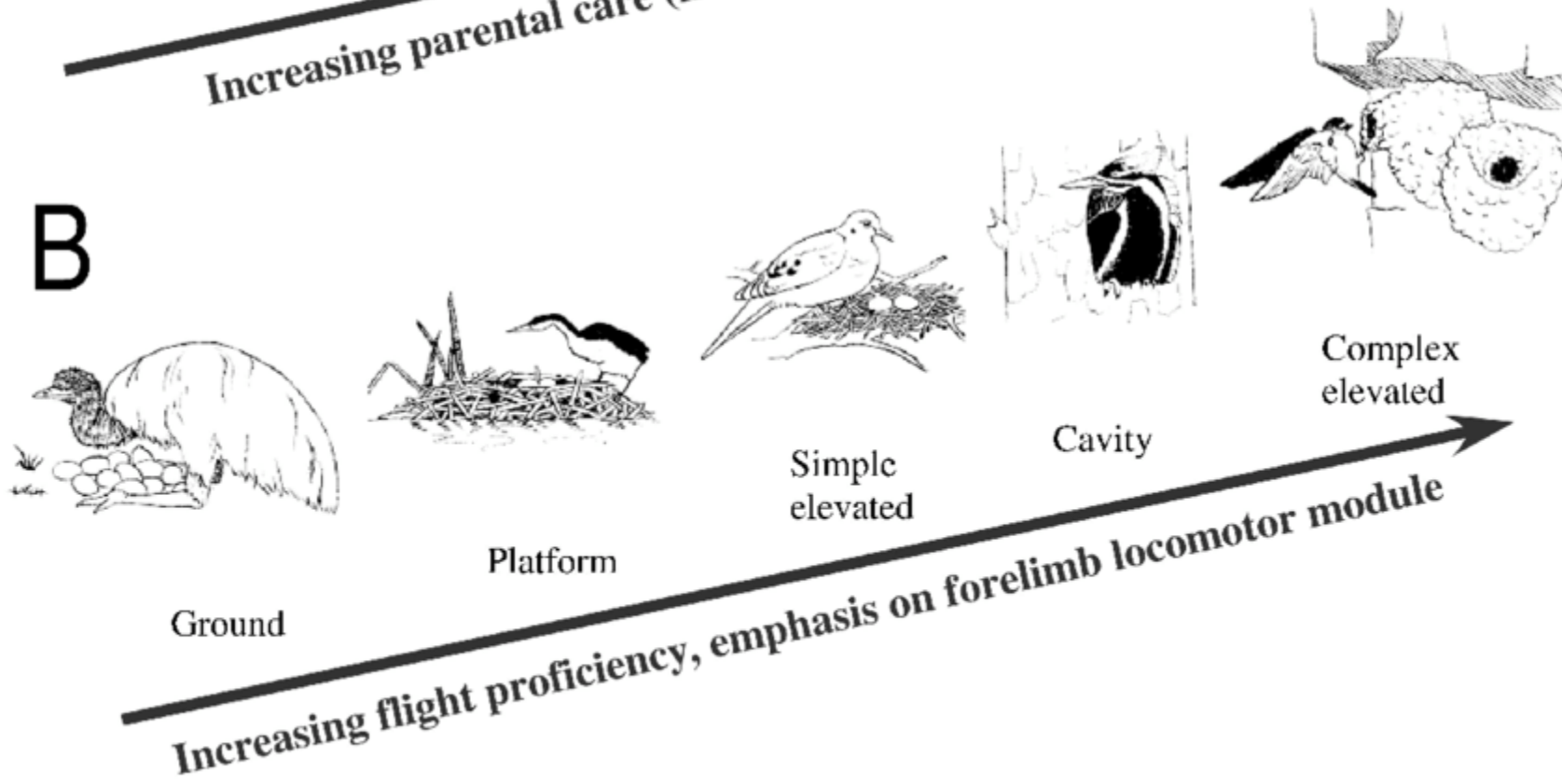
1. Born or hatched when not well-developed
2. Often naked, lacking hair or down
3. Cannot walk or fly
4. Confined to nest or burrow
5. Energy goes into parental care after birth



A



B



IMPRINTING

KONRAD LORENZ (1937)

- SOME ANIMALS (I.E. GEESE, DUCKS) DEVELOP ATTACHMENT DURING A „CRITICAL PERIOD” SHORTLY AFTER BIRTH
- **IMPRINTING** – INSTINCTIVELY BECOMES ATTACHED TO FIRST MOVING THING SEEN AT THIS TIME



IMPRINTING

- CONSIDERED A SPECIAL TYPE OF LEARNING
- THE PRIMARY FORMATION OF SOCIAL BONDS IN INFANT ANIMALS
- THE NEWLY HATCHED GOSLINGS AND DUCKLINGS FOLLOWED AND BECAME SOCIALLY BONDED TO THE FIRST MOVING OBJECT THEY ENCOUNTERED
- EVEN AT MATURITY, THESE ANIMALS TRIED TO COURT AND ATTEMPTED TO MATE WITH HUMANS IF THEY WERE IMPINTED TO TCHEM
- A YOUNG BIRD DOES NOT INSTINCTIVELY RECOGNIZE ADULT MEMBERS OF IT'S OWN SPECIES BUT REQUIRE THIS SPECIAL TYPE OF LEARNING

IMPRINTING

CHARACTERISTIC FOR PRECOICIAL

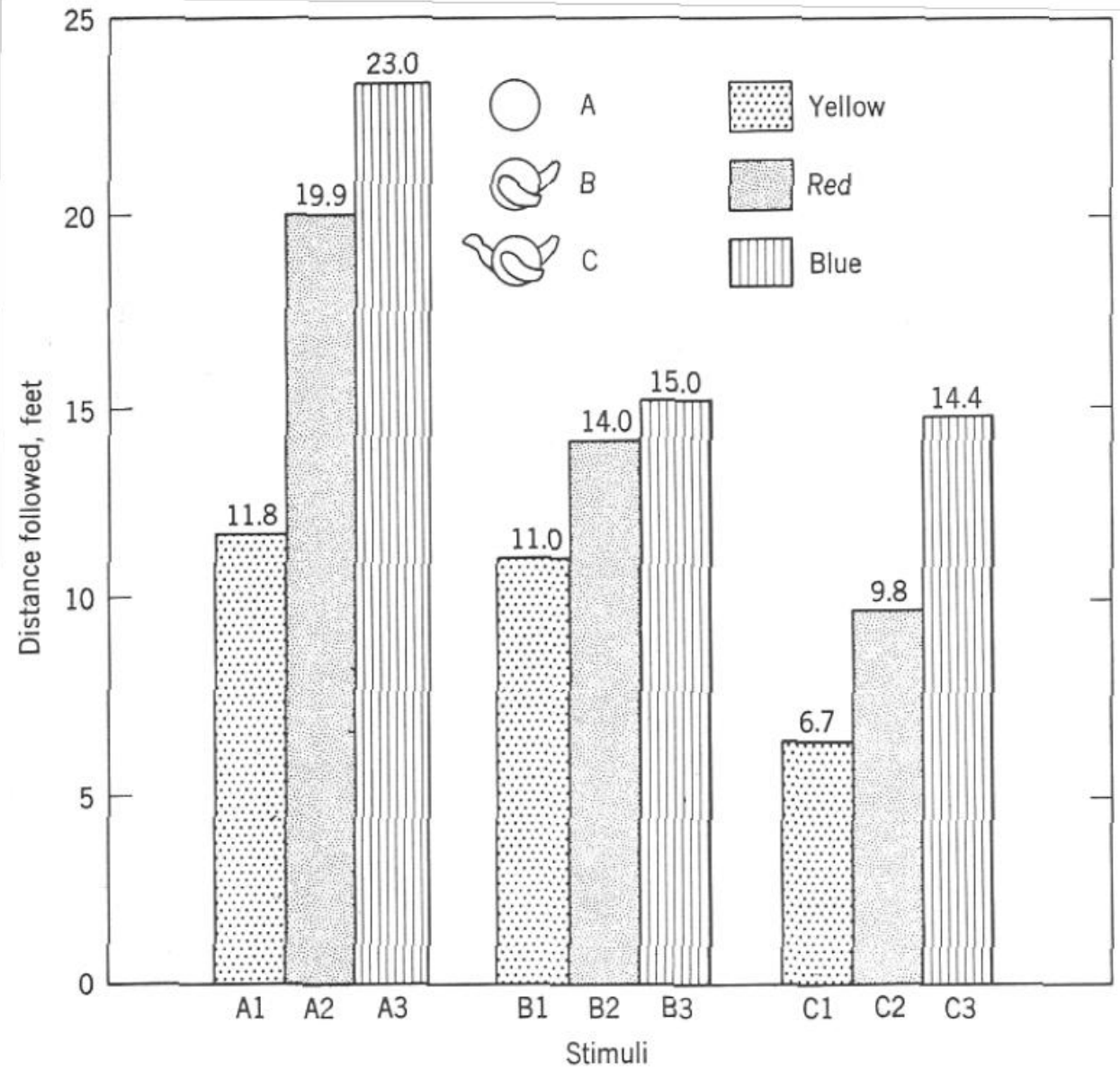


Figure 18-6 The relative effectiveness of models in eliciting the following response of chicks as a function of model complexity (A, B, C) and color. After Hess 1959a.

MAMMALS

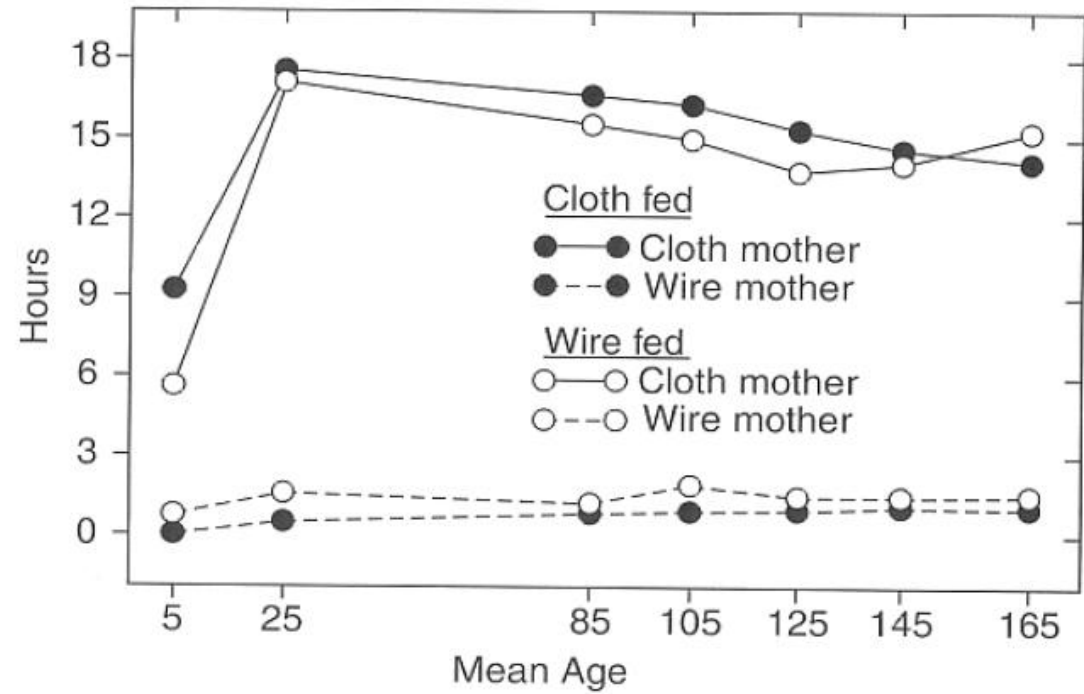
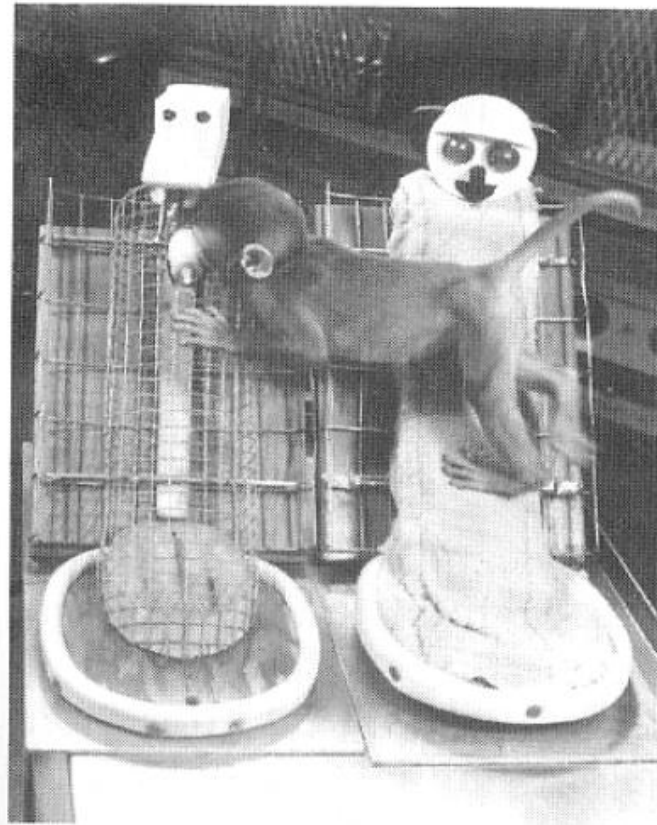


FIGURE 12.7. (a) Surrogate mothers used in the classic experiments on attachment in infant rhesus monkeys conducted by Harlow and Zimmerman (1959). The wire mother (left) is a wire cylinder tilted at a 45° angle so that the infant monkey could cling to it. The cloth mother (right) is similar except that it has a different face and the cylinder is covered with cloth. (b) Infant monkeys spent most of their time in contact or proximity to the cloth mother, whether milk was provided by the cloth or the wire mother. Experiments like this support the hypothesis that contact comfort is a primary incentive capable of facilitating the development of attachment in infant monkeys.

DEVELOPMENTAL PERIODS – IMPORTANT FOR THE DEVELOPMENT OF ANIMAL TIES

- POST-PARTURIENT PERIOD
- THE MOMENT OF STOPPING MILK FEEDING
- EARLY ADULthood

ANSWERS FOR THE QUESTIONS:

	Altricial	Precocial
Who gets attached (Tied) to whom?	Parents to eggs/nest/offspring	Newborn to mum
When?	Young – when start to move	In time frame just after be born
When the tie (bond) stops?	1th step - Post-parturient period 2nd step -The moment of stopping milk feeding 3rd step - Early adulthood	Early adulthood
What are the symptoms of the tie?	Tendence to spend time together Stress symptoms after separation Escape from novelty to ,mother' Happyness after meeting again	
What are the effects of pathological tie?	Anxiety, Panic in rospense to novelty Inability to take care activities towards their own offsprings Increased level of defensive aggression	