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Innate behaviour

- Innate behaviour patterns are inborn and inflexible
- These are of values in adopting the animals to its environment
- instinctive or innate behaviour is probably the most important type of behaviour in insects
- Fishes reptiles and birds also depend to a large degree on inborn instinctive pattern of behaviour especially during migration

Salient features of innate behaviour

- Hereditary basis for example building of web by spiders, nest building in birds
- Instincts are inherited just as structure of tissues and organs is inherited
- Innate behaviour shows inflexibility
- Carrying out of instincts depends upon the conditions in the internal environment of the organism
- The signals that trigger instinctive acts are called releasers
- An external stimulus or releasers is needed to initiate the response of innate behaviour

Other important features of innate behaviour

- It evolves gradually as the structural features evolve
- Natural selection modifies it to fit in the environment
- It consists of stereotype patterns of movement which are similar in all individuals of a species
- Innate behaviour patterns can sometimes evoked readily by simple stimuli animal
- An animal may moulds its inherited behaviour in the light of of its experience
- Genes may control behaviour but for this they must interact with developing animals environment

Forms of innate behaviour

- Reflexes and reflex action
- Fixed action pattern
- Modifiable action pattern

Fixed action pattern

- Also called inborn, inherent or instinctive behaviour
- Triggered by external stimuli
- Common examples: visible and audible courtship behaviour of insects, birds and fishes to attract males
- Nest building, food gathering behaviour
- Web construction, beehive construction
- Attack and defence behaviour
- Migration of birds and fishes along a fixed route

Modifiable action pattern (MAPs)

- Shows basic core of FIPs but still modifiable by different types of learning processes
- Nest building behaviour of birds and rat
- Singing and calling behaviour of birds.

Reflexes and reflex actions

- Reflex is our fixed, stereotype responses to stimuli
- These are simplest invariable responses of a single organ system
- These depend upon reflex arc
- Examples: eye blinking reflex, knee jerk reflex
- Classification of reflex:
 - 1. simple or unconditioned reflexes: transmitted through inheritance
 - 2. Conditioned reflexes: acquired or learned reflexes
 - 3. phasic reflexes: rapid, short lived
 - 4. Tonic reflexes

Salient features of reflexes

- Threshold, reflex latency,
- Rhythmic response
- Fatigue
- Inhibition
- Summation