

INNATE RELEASING MECHANISM

Animals sometimes respond to specific stimuli, such stimuli are Sign stimuli, and are the parts of a stimulus configuration. For example a male Stickleback has a red belly during breeding season. This is a sign stimulus elicit aggression in other territorial males. The models of male Stickleback with red belly provide a sign stimulus to elicit attack. The selective responses to stimuli indicate that there must be some built in mechanism by which such sign stimuli were recognized. This mechanism is called Innate releasing mechanism (IRM).

RELEASER OR SIGN STIMULI

It is the stimulus which releases the fixed action pattern or stereotyped actions in animals. It acts as an effective cue in releasing a specific behaviour pattern. Animals are sensitive to certain environmental cues associated with biologically significant objects and events. These cues when received trigger an appropriate response. The term Releaser was given by Konrad Loren in 1935 to describe the characteristics expressed by an individual of a given animal species which activate releasing mechanisms in Co-species and elicit certain instinctive behaviour patterns.

MIMETIC RELEASER

There are variety of animals which have mechanism that exploit the relationship between a cue and a response by another species. An excellent example of natural Mimetic releaser is seen in Parrot fish. The Cleaner fish removes the parasites and fungi from the body of parrot fish. The true cleaner fish approaches the parrot fish with an undulating dance. This behaviour induces the parrot fish to adopt the tilted cleaning position. The False cleaner fish also resembles the True cleaner fish and it mimics its behaviour. The mimic attacks the Parrot fish and depart with a piece of flesh.

SUPER NORMAL RELEASER

It is possible to exaggerate the special cues that release a response by an animal and thus to exaggerate that response. For example, the Infant Gulls pecks more often at the unrealistic super normal bill than at the true dimensional model of the Gull head. Similarly an Oyster catcher incubate giant eggs in preference to its own eggs.

The releaser or sign stimuli are necessary for fixed action patterns. Super normal releasers are very interesting. Their existence suggests that natural selection has no opportunity in some cases to favor individuals with limits on what is an acceptable releaser