

Module 22

Limits on Classical Conditioning

John Garcia and Robert Koelling (1966) - taste aversion- maybe several hours after getting sick- rats sickened by radiation avoided unique flavor- each animal is biologically predisposed and learn associations to enhance its survival- rats identify food tainted food by taste Birds develop aversions to the sight of tainted food. The CS must be ecologically relevant-----**Biology + previous experiences and associations + social cultural influences such as preferences and motivations affected by the presence of others.**

BIO-PSYCHO-SOCIAL - We do not learn from our environment alone, but also from cognitive and biological predispositions or influences

coyotes- sheep, baboon from raiding gardens, raccoons from attacking sheep, crows from eating crane eggs.

Pavlov and Watson really overestimated environment and underestimated cognition.

Limits on Operant conditioning

biological predispositions again- pigs taught to pick up large wooden dollars and deposit them in a piggy bank - began to push the coins with snout- called **instinctive drift**.

Animals do use cognition- memory- because they learn the **predictability** of an event and learn **expectancy**-

cognitive maps - Are built without a reinforcer as is latent learning (not apparent until asked to demonstrate it)

cognition can also be seen because **rewards can destroy intrinsic motivation**

Extrinsic motivation is when we do something for rewards or to avoid threatened punishment.

Natural curiosity propels us to learn and we are extrinsically rewarded with grades or money. We are built for challenge and enjoy learning intrinsically- the process.

Observational learning - modeling where we observe and imitate- bo bo dolls, **Albert Bandura**--Vicarious reinforcement or vicarious punishment

Mirror Neurons of the frontal lobe discovered early 2000s, seem to be the neurological basis for imitation. These neurons fire when watching something else do something. Babies imitate facial expressions. Mirror neurons enable empathy and the ability to infer another's state of mind --called **Theory of mind**

We are social beings- behavior modeling can bring about prosocial behavior.
Also- modeling can have anti-social effects such as abused children being aggressive.

Correlational studies show Violence on TV does predict rates of aggressive behavior. It desensitises viewers to violence, can contribute to night mares and fear of being harmed.