



Module 6 : Basic Emotional and Motivational Processes and Social Emotions

- The history of emotional studies
- Oatley and Jenkins functional theory
- Cognitive bias test
- Basic emotions exhibited

Module 6 will cover basic emotional processes, social emotions and motivational processes, as well as the specific topics listed below:

- The history of emotional studies
- Oatley and Jenkins functional theory
- Cognitive bias test
- Basic emotions exhibited
- What motivation is in animals

Basic Emotional and Motivational Processes and Social Emotions - 5m10s

6.1 Introduction

Emotions exist in animals.

As humans, we define emotions as the feelings experienced by animals. They are subjective and based on conscious experiences which are characterised by biological reactions, psycho-physiological expressions and mental states.

Contrary to popular belief, animals experience a wide range of emotions including joy, grief and jealousy in addition to basic emotions like anger, fear and excitement. Jealousy is especially common with regard to mating as well as nurturing their young. If a love bird dies, its partner will experience such extreme grief that he or she often follows suit very soon.

Animal behaviour researchers generally agree that animals display classic response to strong emotions. These physiological reactions could include a certain set of facial muscles, posture, quicker release of blood, faster heart palpitations and hormonal surges.

The debate still exists whether these are really emotions or simply responses to pain or pleasure stimuli in the immediate environment. However, pet owners are aware that pet animals can offer incredible companionship and love. In fact, their love is intense, non-judgemental and unconditional.

For more information on animal emotions and research studies on the same, you can refer to the following links:

[Psychology Today](#)

[Oxford Academic](#)

6.2 History of Emotional Studies



Charles Darwin was anecdotal in his observations of the animal world.

He was also the first person to link behaviour to emotion.

Today scientists, behaviourists and biologists assess animal emotion using hypotheses and the scientific method.

Early studies indicate there is a relationship between human and non-human animals with regards to

non-humans feeling emotions. It is further hypothesized that human emotions evolved from similar mechanisms that researchers still observe in animals. Many tests have been created, including the cognitive bias test and learned helplessness model, to show animals are capable of complex emotions. These cognitive bias tests have been used on rats, cats, dogs, sheep, rhesus macaques, pigs, chicks, honeybees and starlings. Cognitive bias tests examine animals for pessimism and optimism.

Other behaviourists work solely with the stimulus-response method, where the researchers believe studying instincts, natural stimuli and the natural response to the environment and objects/events in the environment, are enough to explain animal behaviour. These behaviourists do not feel that hypotheses which postulate animals have a conscious mind are necessary. The fact is even emotions in humans are not universal. Psychopaths and sociopaths lack the feeling of guilt so their emotions are led by self-gratification and without care for others. There are also individuals who operate on a higher level of rationality and do not believe emotions are necessary or quantifiable. It makes the concept of emotions in animals a varied debate even among experts. Part of the debate is that humans tend to perceive anthropomorphic traits in animals, when it could simply be a stimulus-response behaviour.

6.3 Oatley and Jenkins



Oatley and Jenkins are two behaviourists who use a functional approach for studying animal emotions.

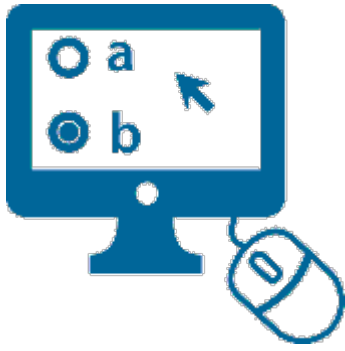
The approach looks at the role human emotions have and examines that same role in non-humans. These two researchers believe there are three stages to emotions: appraisal, action readiness and physiological changes.

Appraisal is where there is a "conscious or unconscious evaluation" of a situation or event that is "relevant to a particular goal". In other words, an emotion may be positive when the goal is attained or advanced; however, if the goal is impeded it is a negative emotion.

Action readiness is where there is emotional priority given to one or several actions. This emotion is usually given urgency above others or at least competes with other emotions.

Physiological changes are usually facial expressions which are followed by a behavioural action. While the theory behind functional approach can work for certain species it does not work across all areas of the animal kingdom.

6.4 Cognitive Bias Test



The most common test to depict animal emotions is the cognitive bias test.

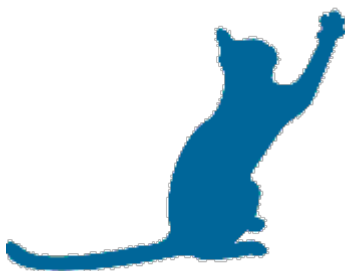
The test is set up in different ways for different species in an attempt to get quantifiable data. In this test on animal species a researcher is looking for a positive or negative response, which would translate into what humans call optimism or pessimism.

An animal is trained that a certain sound is followed by a positive reward. Another sound level is followed by a negative reward. After training using these two sounds and obtaining the conditioned response, the behaviourist then introduces a third response. The animal is supposed to choose whether that sound is positive or negative. If the animal decides it is positive, then the animal is said to be optimistic.

One test used rats to show basic emotions such as optimism and pessimism. The experimenter uses manual stimulation by tickling the rat.

The researcher found rats that were tickled tended to be more optimistic based on the intermediate stimulus.

6.5 Basic Emotional Processes



Testing for emotions in animals is often about anthropomorphic traits; however, some behaviourists have observed species in the wild to assess emotional reactions.

Observation without interference with a species ensures there is no learned trait from a human that could influence the behaviour. However, the inference of that behaviour as an emotional response is typically based on the human's emotional response. Objectivity is required to observe without bias. In pet psychology, owners, trainers and experts believe that dogs, cats and other species can be depressed, happy, sad, worried or fearful.

Taking fear as an example, we can look at dogs and cats.

A dog that has been abused shows fear of their abuser by being submissive. The dog may cower by trying to be small, run to hide, or crawl on its belly when called. A cat can show fear by quivering, meowing or growing larger. A puffed tail, hair standing up on their back, cowering and running are all responses to an object or sound that is causing them fear. This is a basic emotional response seen when the animal experiences a stimulus that causes them fear.

It is also an observable emotional process. A stimulus is in the vicinity or is heard. The animal reacts. As a human, we interpret their body language as fear.

Sadness, depression, worry and happiness can also be observed in a similar fashion. An event, noise or situation occurs, which is the stimulus. This stimulus demands a response, which is displayed by body language or verbal responses.

How would you interpret a cat constantly meowing? You would need to use a process of elimination. For example, is the cat bowl full? Is their water container empty, filled with fresh water, or if you use a water fountain, is it on? What is the temperature of your home? Is their cat litter box clean? How much attention have you paid to your cat recently? Have you varied your routine?

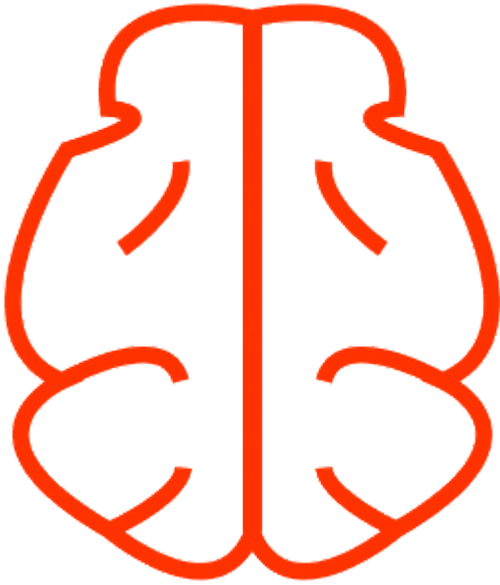
By answering questions you can usually eliminate reasons for a cat that is constantly meowing to get your attention, and determine what emotion they are feeling. If your cat perhaps suffers from hairballs or an upset tummy and they are trying to get your attention, your cat may want to be cuddled because they do not feel well.

Another example is a dog that immediately runs to the door the minute they hear your car. They bark, jump up and down, and enthusiastically welcome you. This is a happy emotion tied to you being home or to the relief their bladder will receive by being able to go outside. Several studies suggest it is often both relief and happiness, based on how long you may have been absent and the last time they were outside for their natural bodily functions.

Other studies have shown depression in animals.

It may seem unbelievable that a pet can become depressed. However, the best example of this basic emotional process is seen after a pet's owner dies. Some perfectly healthy pets have died within a few days of their owner's passing. Other pets will stay by their owner's favourite spot or wait anxiously for their owner to return home. The pet may also stop exhibiting happiness at the door when their main companion does not return home.

FACT



MRIs of the canine brain indicate that dogs experience positive emotions similar to that of a human child.

Source: dailymail.co.uk

6.6 Motivational Processes in Animals



Motivation is considered a theoretical construct that explains behaviour in animals.

Motivation represents the reasons behind actions, needs and desires. In behavioural studies you may consider this stimulus-response; where there is a cause and effect based on an action, need or desire. One stimulus or cause may lead to a repeat of that behaviour based on a met goal. The behaviour may not be repeated if it is a negative effect.

Behaviourists sometimes argue basic emotional processes are actually driven completely by instincts in animals.

Hunger is a motivational process that requires animals to seek and consume food. From this motivational process certain behaviours are seen that can be misinterpreted as emotional processes. There are two models of motivation: natural versus rational and content versus process.

Natural versus rational is the theory that certain "cognition is based on natural forces" like needs,

desires and drives. It also states that there is a type of rationality like meaningfulness, instrumentality or self-identity that can be motivating.

Content versus process is about the "what" and the "how" that takes place. The "what" is the content and the "how" is the process. So what is motivating the animal and how is the motivation being expressed?

When it comes to rational motivation the only species that shows this behavioural thought is humans, at least that we are aware of. The idea behind rational motivations is that we can rationalise certain thoughts and behaviours based on the needs, desires and actions taken.

For other species, intrinsic and extrinsic motivations are usually observed. Intrinsic motivation is "self-desire" where an animal will seek out new challenges or things to fulfil a goal. Usually there is an interest or enjoyment in the event or action taken, rather than a pressure from an outside source.

Returning to our example of the cat that likes going on walks, we can see that the cat does not have an external or internal need to go outside for a walk. A domesticated cat is trained to receive all its food and toileting needs from its owner. However, there is something in a cat that enjoys being outside; whether it be for the fresh air, the entertainment found or the adventure of being outdoors. If the cat did not like going outside or being on the harness and lead, it would refuse. However, the fact that it waits by the door, meows and even purrs in anticipation of going out, suggests there is a motivation based on emotion rather than a need.

Extrinsic motivations are activities based on outside motivational factors. In pets these extrinsic motivations are based on rewards. A dog may show a certain behaviour or response because it knows it will receive a treat or other reward. In the same vein, there can be a threat of harm or punishment when an incorrect behaviour is seen, which motivates this dog not to display such behaviour again.

One could argue that extrinsic motivation and the behaviour seen, as well as the emotional response, is tied to social emotions. Socially, the pet wants to be accepted and therefore shows emotions, actions or behaviours, in an attempt to obtain this acceptance in the social hierarchy.

6.7 Common Emotional Processes

Within basic emotions, motivations and social acceptance there are certain emotional processes that tend to be common among animal species.

They include:

- Self-control, usually relating to emotional intelligence and survival. In this instance there is a motivation to remain alive, so control of one's actions will depend on that survival.
- Drives or desires are based on needs or deficiencies that elicit a certain behavioural response to meet a goal or gain an incentive. Sexual drive is a basic motivation for the procreation of animals, but behaviourists would also argue that there are species like humans that enjoy the act.

- Incentive theory or emotional processes based on incentives are about associating certain behaviours with rewards. For example, a hungry animal like an anteater will dig until it finds its food because there is a positive result.

Through the observation of animals it is possible to see various emotional processes based on instincts, desire and satisfaction.

Summary

Basic emotional processes result in certain displays of emotion such as happiness, sadness, fear and depression. These processes are often linked to instincts of survival, both on one's own and in a social situation.

Motivations could also be considered instincts, where intrinsic motivations are instinctual based on internal needs, desires and actions.

Extrinsic motivations are more in line with a push from society. For example, a mother pushing her offspring to learn how to fly or a polar bear raising its cubs for two years so the cub can survive life on its own. These emotional factors are not specific to one species but are found across various species.

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