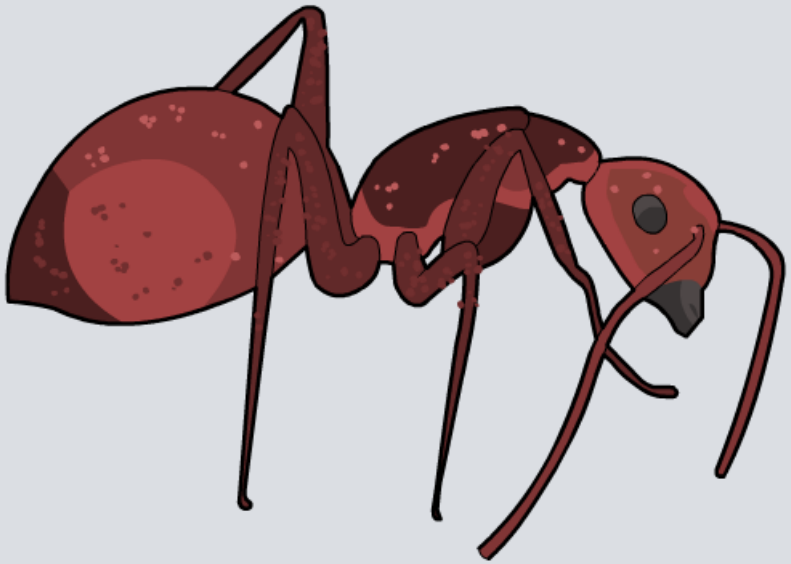
Behavior

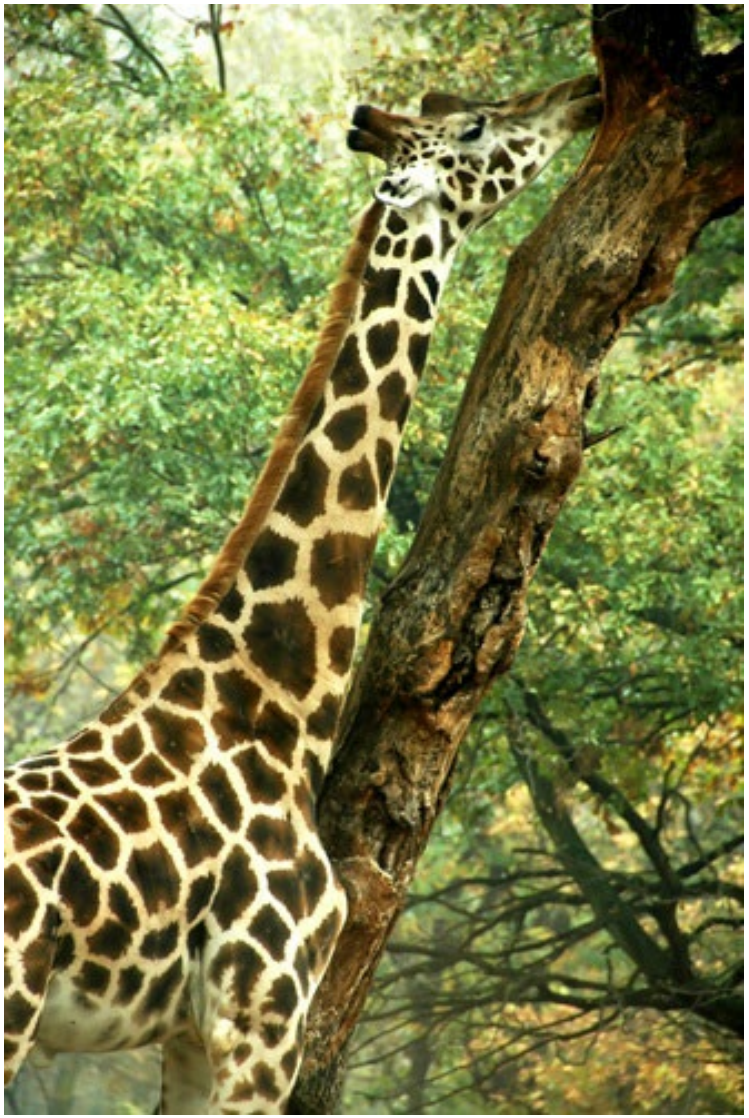


What is behavior?

Behavior is how an animal acts in response to internal and external **stimuli**. Behavior plays an essential role in an animal's ability to survive.

It allows animals to:

- avoid predators
- find food
- reproduce
- communicate with other animals.



Instinctive behavior

Instinctive behavior in animals is essential to their survival. This type of behavior is **pre-programmed**. It includes behavior such as jumping at a loud noise (**reflex action**) and fleeing from danger.

This behavior is not taught but is present from birth, therefore it is thought to be inherited.

Instinctive behavior does not require conscious thought, allowing it to be performed quickly. However, such behavior can be inflexible and therefore might not always be appropriate in a changing environment.

Learned behavior

Learned behavior is behavior which is modified through experience. It allows animals to adapt to changes in the environment, such as the arrival of a new predator.

Learned behavior is not inherited, but can be developed through:

- experience
- observation
- reasoning.

Types of learned behavior include conditioning and habituation.

Learned behavior – habituation

Animals can learn to ignore a harmless stimulus – this is called **habituation**. It means they do not waste energy responding to unimportant stimuli.

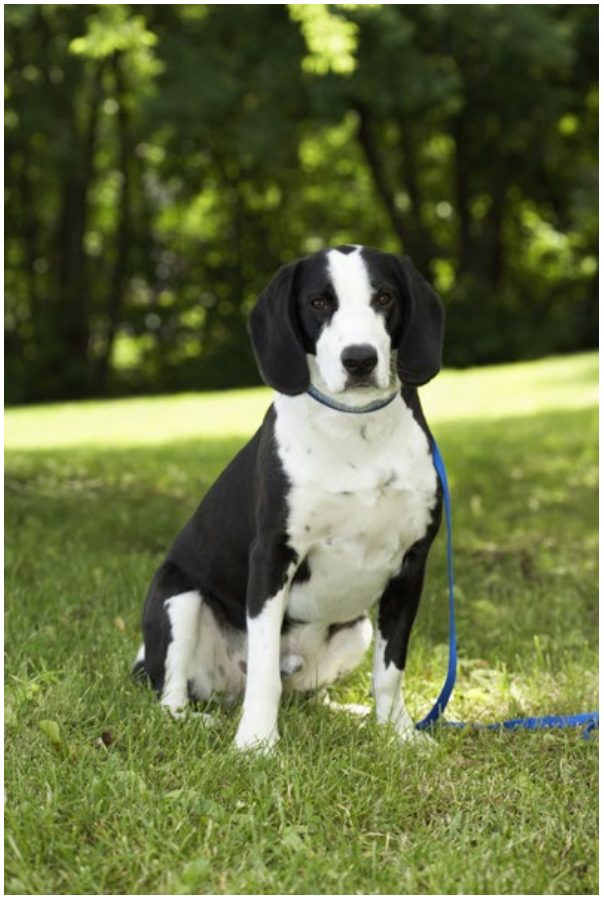
Prairie dogs give alarm calls when predators approach. These alarm calls warn other prairie dogs to escape into burrows.

Humans do not represent a threat to prairie dogs. The young learn not to give the alarm call when a human approaches, so they do not waste the time and energy of the group.

Learned behavior – conditioning

Learning **associations** between stimuli is called **conditioning**.

Animals may have an instinctive response to a particular stimulus, for example, a dog growls at the appearance of a cat.



If a cat always appears through the cat flap, in time, the dog will learn that once the cat flap moves, a cat will appear.

The movement of the cat flap (the new stimulus) is associated with the presence of a cat, and the dog starts to growl every time the cat flap moves.

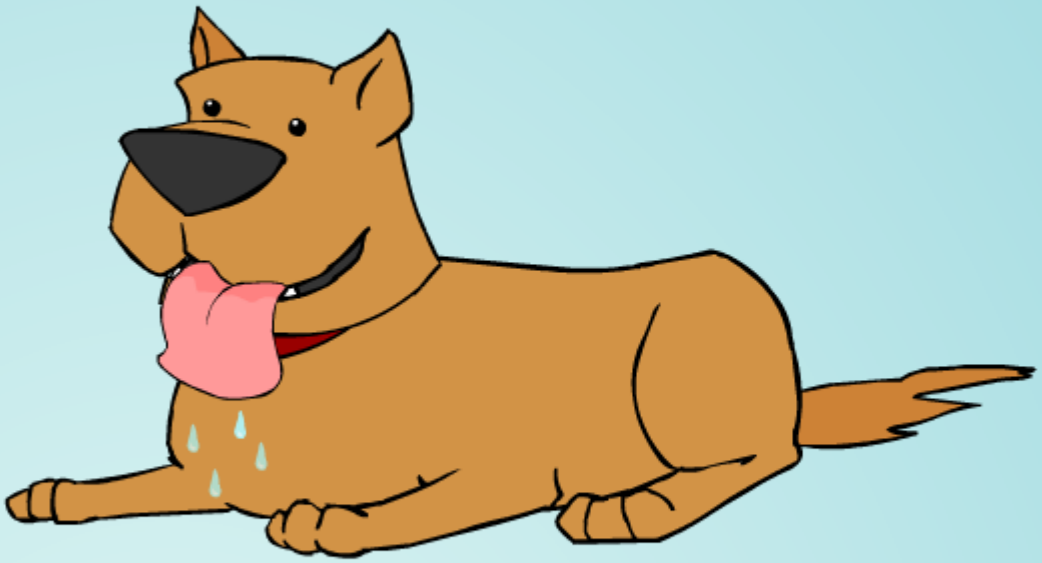
The dog has learned the association between the two stimuli.

Investigating conditioning

How did Pavlov investigate classical conditioning?

A Russian scientist called Ivan Pavlov investigated classical conditioning with some famous experiments on dogs.

Click "**start**" to find out more about his investigation.



start

Instinctive or learned?

Are these behaviours instinctive or learned?

instinctive	learned

blue tit removing milk bottle top

?

C

solve

Courtship

In order to reproduce, individuals need to attract a mate. Many animals have evolved elaborate **courtship displays** to attract the opposite sex. Usually it is the male that shows this behavior.

The Sandhill crane calls and dances as part of its courtship ritual. This requires lots of energy from the male and shows that he is capable of collecting large amounts of resources.

A display may also demonstrate a male's general genetic fitness. Females are attracted to males with greater **fitness** as this may be inherited by their offspring.

Parental care

Mammals and birds have evolved specialized behavior called **parental care**.

Such behavior includes:

- incubation of eggs
- feeding
- protection from predators.

Parental care increases the offspring's likelihood of survival. This increases the probability of passing on the parental genes. Parental care is therefore a successful **evolutionary strategy**.

However, this behavior requires a lot of time and energy from the parents. The cost of this parental care means they can only raise a few young.

Methods of communication

How do animals communicate?

Most animals come into contact with other members of the same species. It is important that they communicate to make their intentions known.

Click on the different methods of communication to find out more.

- Sounds
- Signals or displays
- Chemicals
- Movement

What type of communication?

Match the example to the type of communication

human frowning	chemical
cat arching back	body posture
whale singing	facial expression
moth releasing pheromones	sound
bee dancing	movement

?

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