Animal Communication

Shivani

**HOW** do ants communicate with each other, why do peacocks fan their feather, why does the dolphin slap its tail, how do bees tell other bees when they find nectar and why does the deer flick its tail? These are all forms of communication – animal communication.

Animal communication is the transfer of information from one group of animals to other group members. Communication may also happen between members of the same species or members of different species. Some species are very social; they live in groups and interact all the time with each other – this type of communication is very essential to keep the groups organised.

Dogs can sense smell 40 times acutely as compared to us. Many animals communicate using different types of stimuli collectively known as signals. Some of the most common types of signals through which animals can communicate are pheromones (chemical), auditory cues (sound), visual cues, tactile cues (touch) and in some cases the signals can be electric. Let’s have a look at the different types of animal communication signals.

**Pheromones**

Pheromones are a group of chemicals that an animal produces which leads to changes in the behaviour of another animal of the same species. Pheromones are very common among social insects like ants and bees. The hormones attract the opposite sex, raise an alarm and are also responsible for more complex behaviours.

In the case of ants, the pheromones are present all over their bodies and help them to communicate with their family. For instance, if the food source is rich in the surrounding area where the ants live, the ants deposit pheromones on both the outgoing and return legs of their trip, building up a trail and attracting more ants. If the food source is about to finish then it will stop adding pheromones and return back home.

Ants that don’t belong to the same community may respond differently to the same pheromone signals. A squashed ant will also release lots of pheromone chemicals and warn other ants about some danger. Dogs and cats also release pheromone chemicals to signal danger.

**Auditory Signals**

Auditory signals are very important for the survival of animals because sound can travel much greater distances as compared to visual recognition. Birds use sounds to inform others of the presence of danger. Birds can also use auditory signals to attract their partner, defend territories as well as coordinate complex group behaviours.

Many non-bird species also use sound to communicate like the frog croaks and the cuckoo sings to communicate and attract his/her sexual partners. The sounds could be single tone, mixture of tones or spoken messages. Mammals like whales and dolphins which live in the ocean also speak at ultrasonic frequencies to communicate over long distances.

Image credit: https://itsinqueens.com

Image credit: Knapsack ants by Dake, CC BY 2.5
Visual Signals
This type of communication system is least effective among animals. But most animals and birds that conduct their activities during the day utilize this form of communication. In most creatures, males have colourful plumage to attract the female partner. The best examples are birds of paradise and peacock. Colour of the plumage can be used as a threat and also signals predators to stay away from them. Insects and animals that have a bright colour show venomous appearance acting as a defence mechanism for the creatures.

Image credit: https://parenting.firstcry.com

Communicating by Touch
Touch is considered to be one of the most limiting aspects of communication among animals. For example, chimpanzees and monkeys communicate by holding their hands; domestic animals like dog, cat, cow, horse lick with their tongue to show affection; elephants use their bodies to show aggression, affection and playfulness; honeybees perform different types of motions called waggle dance in the search for food. The waggle dance of honeybees is mainly done in darkness inside the nest. Communication by touch also helps in building social relationships.

Image credit: http://theconversation.com