

COMMON FEATURES OF HUMAN BEINGS AND ANIMALS IN THE LANGUAGE OF COMMUNICATION AND BEHAVIOUR.

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INTRODUCTION:

Communication is a global means through which ideas, thoughts and expressions are conveyed. This is found to be used by all living creatures to some extent or other. Human and animal communication is yet another sophisticated form of communication. It involves non-verbal speech, in the form of symbols, signs, gestures and other such ways.

In our everyday life, we communicate to animals in some way like we communicate with our pets at home, the birds that chirp in the morning, cats etc. Animals also communicate by the sense of smell, touch and sound.

We will be studying about the various forms of communication like tactile communication, which involves cultures and experiences as well. Visual communication involves signals, signs transmitted visually along with a text message to the receiver, chemical communication and so on. The power of reasoning and the ability to grasp things differs between man and primates.

Animals do have the capacity and urge to learn something new, but the speed and time involved varies when compared to that of a human being. Animals take their own time to achieve new things. They also have different moods and act according to the environment.

Like humans, even animals need to communicate in some way or the other to satisfy their requirements in this world. Therefore, communication and language is very important and is to be taken seriously, be it humans or non- humans. Let us now move in the detailed study of animal and human communication.

Linguistic and biological perspectives of communication:

In human evolution, language plays a major role and it brings about the differences between human and animal communication. Humans with different cultures follow different languages that are passed on from generations.

Suppose a young child is given an exposure to grasp a particular language, he or she can master the language so easily. This proves that the ability they have inherited it from their genes. Chimpanzees on the other hand contradict the above statement as they do not follow any pattern of language.

50,000 years ago the African population was so scattered with their ability of expressing languages that a wide genetic basis was established.

Right from birth, each one of us has the ability to inherit our ancestral language, easily with a little bit of hearing and teaching. Whereas if we take a look at the primates, this doesn't happen in their case, they lack the capacity to perform such an act.

Transmission of genetic information that happens from one cell to another within our body also involves 'communication' by way of expression. Computational biology has an affinity with computational linguistics. There is also a close connection between the culture and language of humans and it will not be true enough to learn the language without looking into the social and cultural events. But still spoken language has gained importance and has adjusted easily in today's world on the basis of genetic expression.

Every language has its own contribution in today's world. It has its own way of expression resulting in different experiences, differing in their phonology, morphology and syntactic nature. There are quite a number of languages spoken across the world that depicts and reads what exactly is in one's mind. Humans change their language or speech as and when required according to the situation or environment.

With creativity, any language can be modified and grasped easily for any individual and this doesn't create a negative impact for the native speakers.

The best way to produce the uniqueness and the ability of human language would be to contradict it with other types of communication existing on earth, such as animal communication. Animal communication is totally opposite to that of a human system of communication.

It is obvious that we humans have the ability and mindset to adhere to the environment and even understand different ways of communicating via symbols etc.

In contrast, animals do not have the capacity or the power of realization and understanding to communicate in a unique way. Some success has been shown in a study to train animals to be creative and to communicate as that of a human style of communication.

Animal communication is also part of the linguistic communication. Therefore, it can be concluded that there is a basic difference between the patterns of communication between animals and humans.

Humans have the ability to adapt and change to the environmental needs and this communication pattern can be linked to our genes. In contrast, animal biological communication pathway is set to respond to very few behavioural cues.

Visual communication - Humans and Animals:

This type of a communication is by means of visualization. It involves the transmission of information and novel ideas that can be learnt and put into practice. There are two dimensional images for the expression of this type of communication.

Drawing, graphics, electronic resources symbols and signs, topography etc. are all part of this visual communication.

Any information in the form of a text along with a visual message has a better way of reaching the receiver or audience. There is a clearer view in visual type of communication.

A comparative study was done between a face-face communication and a mediated communication, wherein it was both dependent on the type of work.

Differences were seen in the case of difficult tasks On the other hand, there were no such differences between the two in the case of cooperative tasks as communication is easier as individuals render good cooperation when it comes to a face to face communication.

It is not so in the case of audio generated communication, as people might hardly cooperate or understand the conveyed message. Gestures, touch, good posture, facial expression, physical distance and a good eye to eye contact are all modes of communicating with respect to humans in visual communication.

Animals have two ways of communicating visually – one is the animal's own colour and shape where it depicts its own image or in other words “a badge”.

The other type is the various activities or signs that are performed by the animal including its behavioural characteristics called as display type of visual communication.

Animals therefore see signs visually and this is best when the primates are close together.

This is particularly preferable for those animals whose activity is high during the day. In the case of some birds like the red-winged black birds whose eyes remain bright red indicated if it is day or night. Here the visual sign is permanent.

Visual communication depends mainly on sight and they definitely require the sender to be active. Unless they receive signals they cannot transmit the necessary sign or symbol visually. Non-primates do not fall under this category. This type of a communication holds good for humans and primates.

The individual receives the message that is conveyed by the sender by means of sight and this signal is further transferred into a visual image.

The sender conveys the message in the form of a display or a gesture. Both visual images and dynamic signals are real time receivers. There are some drawbacks in visual communication, involving a bit of cheat. Signals that are deceptive attract the receivers to respond such that the senders are benefitted and the receivers end up in danger or harm.

For example, Postures fireflies which are predators, mimic prey species attracting the males for prey. In some cases, males are careful by the display signal from the females in its attempt to prey on them.

Hence, in terms of survival and mating, there is a lot of pressure involved in natural selection. This also implies that visual signals or display type of communication is not receiver specific.

Tactile communication - humans and animals:

Tactile communication is a communication made by touch. Tactile stimulation as nonverbal communication supersedes verbal communication. From the birth, an infant needs tactile communication till the first year of life. Rubin (1963) says, "In infancy, the importance of touch is essential. It plays a fundamental role throughout the infant's life". 1

It is difficult to interpret tactile Communication though it is basic to human beings as a touch will differ depending on life experience, culture etc.

Having spoken about verbal communication, here we find how non-verbal communication is of superior importance than verbal communication.

Tactile communication is one type. From birth till the final stages of life, the sense of touch or feel is important in communication. It is something difficult to analyze.

Transmission of tactile signals is possible only when in close contact say, short distances, as it involves a signal by means of touch. It is also useful in making relationships among social animals.

A good example of this is the chimpanzees that cooperate and mingle well among other animals in terms of food sharing and socialism. One drawback is the distance. The signal between both receiver and sender. They need to be close.

Mutual grooming occurs in a less social population, still a part of the tactile communication. Cleaning among mammals is considered to be part of a social bonding or a ritualistic event.

Monkeys and apes spend most of their time cleaning the dirt from one another's hair and the focus is on the parts of the body which is part of a co-operative cleaning. "Touch regulates physiological states, aids normal biological development, and plays a central part in social development" (Montagu, 1986). 2

Grooming is good, at the same time the sense of touch is very hard to be determined in this case as the signs, postures and gestures involved in grooming are easily visible. One should understand the need and importance of grooming in the case of animals.

Now talking about grooming among adults is widely seen in the case of rodents and other birds.

Among carnivores, the social grooming is noticed in the form of licking each other's hands and face, as in cats, dogs etc. Whereas grooming in the case of humans happens for various reasons:

- Pleasure – touching during sports, bath etc
- Attraction - poking one another, tap on the shoulder
- Profit – massage, health care, hair dressing, prostitution
- Distraction–religious touch, kissing, hugs, tickling during work
- Palliative – rub on the neck, back or hand
- The following section will discuss the chemical communication in humans and animals.

Chemical communication - Humans and Animals:

Pheromone is the agent that is used in chemical type of communication. They serve as signals in communication. Pheromones are liquid substances and becomes a gas or stays as liquid upon transmission.

The sense of smell and taste is always not clearly understood especially among insects but normally the smell helps detect chemical signals in mammals on land.

Pheromones serve as markers in communication among insects and mammals. Here, the senders need not be at a close pace, instead be at a long distance and the signal will yet be transmitted.

Opposite sex species can be brought together by dispersal of chemical agents which attract them. For example, bombycid a substance is secreted by the silkworm and the males of the species are attracted to this signal even from a long distance.

There are also cases where we find the sexual behaviour in males to be high especially in moths and insects just by the sense of smell.

Chemical transmission has connection not only at the cellular level but also functions in organs through transfer by hormones. But still it lies as a complex process in the case of insects and mammals.

Pheromones the agent that is responsible for transmission chemically in animals are seen to be present in anal glands which is transmitted in the faecal sample. Many mammals have scent glands for the chemical means of transmission.

Some animals, like deer for example have scent glands present on the legs and hair and helps in the transfer of the signal through air, leaving the scent on trees, woods, and barks and on the ground.

But still, studies find that this type of a communication by means of scent glands is not quite demanding or operational in animals. These pheromones from insects sometimes spread very fast into the surrounding environment but still very few scent glands persist for a longer time.

Mostly this scent lasts for a short span, the signal being deviated at times. In these cases, the signals will be received by sounds or visual signs. Social insects like ants, termites, bees etc. belong to this type of communication.

Pheromones are present in them as the agent for transmission. It is the scent glands in them that help them communicate socially among themselves.

Even though it has a problem where the pheromones or the scent may not persist for a long time till the signal is reached, tracking of the signal that is, the pheromones is difficult due to the direction of wind and the concentration gradients.

There is no evidence for using smell as the means of social communication but it is mostly used in birds especially at the time of their migration.

Mammals and whales are also other example that uses chemical communication minimally whereas monkeys and apes depend minimally on olfaction.

Higher primates lack these scent glands and other such chemical behaviours. Pheromones are known to help in sexual behaviourism.

Human language learning by nonhuman primates:

There are some arguments by few authors like Pinker and Jackendoff.

“Conceptual structure, which captures the algebraic aspects of meaning relevant to linguistic expression (e.g. excluding sensory and motor imagery), is a mental representation that supports formal inference and is present in simpler form in nonlinguistic organisms such as apes and babies (Jackendoff, 1983, 1990a, 2002; Pinker, 1989, 1994)”³

According to them languages were of different forms namely – speech, phonology, perception, grammar words etc. They compliment animals in a way that at least they have the ability to grasp and learn something. “Comparative psychology has already succeeded in providing evidence to help clarify the biobehavioral origins of human language and symbolic competence through studies of our nearest living relatives—the Pongidae (chimpanzee, *Pan*; orangutan, *Pongo* ; and gorilla, *Gorilla*)”⁴

Humans on the other hand have a faster way of learning new languages. By this way humans achieve bigger in communication than animals. According to them, man cannot survive in his environment without proper language. Communication plays a major role.

Therefore, efforts have been taken to examine if human communication can be taught to other primates. To arrive at this conclusion, the similarities and differences between these factors need to be examined.

There are few other authors who speak of language as a part of grammar called recursion. Recursion is something that takes place at the same pace. Recent studies have also shown that animal and human languages differ in the content and the way of acquiring the same. Studies have tried to connect human and animal communication channels through this perspective.

Every language shares some sort of a basic biological aspect as that of animal communication. The language that is acquired by animals can be acquired by infants in a different form. It does not necessarily have to be in the same mode of communication.

Primates and Human beings have comparable ways of communicating. But human beings are capable of learning many languages and they can imitate the voices of many animals in the world. Ernst Mary has analyzed the inter species communicative behavior that derived from nonhuman species. Three actions: 1. Mating display of male and female 2. The interaction between the parents and offspring 3. Fighting over threat of two males of the same species.

Let us find out whether communicative behavior among human beings especially the, human language is governed by a relatively closed or open program. If it happens to be an open programme, it can be transmitted to other non-human primates. Human beings have languages. Whether they are isolated or they have different cultures they are open to environmental input.

Though teaching of human languages to other animals are done, it is not successful. Only human beings naturally learn languages. The language learning by human beings are complicated and systemized; however, it is important to understand if they can be taught to primate animals as a second language. Researchers are trying to understand the dynamics of teaching languages to animals.

For example, one researcher wants to know if animals understand language. He performed an experiment using parrots. Now, we all know that parents can be taught to repeat things. However, are they able to actually understand the words spoken to them? No concrete proof is available. Another researcher postulated that it is next to impossible to find a common language between man and animals.

His logic is that, animals have a very simple language and use sounds to communicate. So far, man who is higher in the evolutionary ladder has had little success in breaking this code. If man is unable to understand the animal language, is it possible for the animal to understand us? Again, no concrete proof is available.

Many researchers are of the opinion that animals can be taught the social interaction and phrases sensitive nature for song learning. There is one consequence of song learning, which is known as the formation of geographic 'dialects'.

Conclusion:

We now see the difference between man and animal in their ways of communicating. Human language is now said to be inborn and something that is cultured. It is also non- Darwinian.

Still there exist evidences and factors that find certain common features in animal and human language of communication, although there are unique and distinct differences in the environment.

Humans have an organized way of communicating. No matter there is a change in culture and tradition humans adapt and acquire the language in no time.

The ability and capacity to grasp is present in humans, whereas animals take time to realize and get accustomed to a specific way of communicating.

Not all animals are clever. Animals also fail to communicate from their past experiences or link their ancestral language.

Communication with respect to humans is dependent on both signs and signals.

Chemical transmission is mostly seen in mammals, insects and avian. However, humans too use chemical communication forms, that it is subtler and not in the preferred way.

According to history, we find human language of communication distinct in its own way, character acting and adapting according to the changes in culture and society.

Human communication in extreme cases may not be inborn. Thus, we conclude that both human and animals have some common features in the language of communication and behaviour like attachment, greeting, assertion, affiliation and so on.

Reference:

1. Rubin, R. (1963). Maternal touch. *Nursing Outlook*, 11, 828–829.
2. Montagu, A. (1986). *Touching: The human significance of the skin*. New York: Perennial Library
3. Pinker, S. (1994). *The language instinct*. New York: Morrow.
4. Jackendoff, R. (1992). *Languages of the mind*. Cambridge, Mass: MIT Press.
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