

Behaviour of stray Dogs in South part of Asansol city under Paschim Bardhaman District of West Bengal

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ABSTRACT

In ethology, behaviour is a key factor in social life of animals. Animals use their own communication method in different way, for surviving. It may be verbal or nonverbal communication. Dogs mainly communicate none verbally through use of different body language and vocalization. Study was conducted in selected wards of South part of Asansol city under Paschim Bardhaman district of West Bengal from October 2017 to December 2017. Study reveals that irrespective of the actors such when dog communicate to another dog in same territory or communicate with humans, major mode of communication primarily Vocalization, followed by facial expression, eye movement and body posture. It has also been noticed that majorly male dogs participate in vocalization process which creates a vigilant atmosphere during and after the breeding.

1. Introduction

In ethology, communication is a part of social life. Like any other animals communicate each other and also with humans. According to the researchers, dogs really do turn on the puppy eyes when human looks at them. Scientists have proven that dogs produce more facial movements when a human is paying attention to them. Dogs and humans are social group species who have developed a symbiotic relationship (Karen Davies, 2017). From ancient time it has been seen that Dogs communicates with the humans in various aspects, especially for better shelter and food. Some of the notable studies on Dogs communication are, Tempelmann.S, Kaminski.J and Tomasello.M, (2014); Hertel.A, Kaminski.J Tomasello.M, (2014); Scheider.L, Kaminski.J, Call.J and Tomasello.M (2013); Grassmann.S, Kaminski.J and Tomasello.M(2012); Scheider. L, Grassmann.S, Kaminski.J Tomasello.M (2011); Hare.B, Tomasello.M (2005); Brauer.J, Call. J and Tomasello.M (2004).

In India, Debottam Bhattacharjee, Nikhil Dev N, Sherya Gupta, Shubra Sau, Rohan Sarkar, Arpita Biswas, Arunita Banerjee, Daisy Babu, Diksha Mehta, Anindita Bhadra (July 17, 2017) worked on free ranging Dogs in respect of age related plasticity and communication.

2. Material and Methods

Communication behaviour of stray Dogs were studied both in the non-breeding and breeding season, during the year October 2017 to December 2017 in different wards of South part of Asansol city under West Bengal. Observation was mainly recorded from 6.00 am to 12.00 pm and from 2.00 pm to 6.00 pm. On some time observation were taken at any point of the day. All together 120 dogs were observed, among them 35 adult male Dogs and 35 adult female Dogs. Attempts were also made on 50 puppies belonging to 30 mothers Dogs. At the time of observation safe distant has been maintained. Equipment 'such as binocular, stop watch, cloth tape, were used to observe the various communication behaviour.

3. Result and Discussion:

a. Inter Family Communication (Dog to Dog):

It is seen that Dogs communicates each other in different ways. The territorial jurisdiction will confirm and safe by communicating behaviour among the Dogs. Study revealed that one or two Dogs were very attentive during foraging activities. In case, anything suspicious happened within their territory, they first communicate with other Dogs in the same society and raise an alert. This alert message assists others to be observant and spread like a chain of communication method in their entire locality.

Table no 1 show the ward no, place. Number of dogs and different communicating features were mostly seen.

Below table 1 represents multi-mode of communication between dogs and relative frequency. These observations are being captured in southern part of Asansol across 7 different adjacent wards.

Table1: Inter Family (Dog to Dog) Primary Mode of Communication

Ward No	Locality	No of Dogs	Primary Mode of Communication	Frequency
46	Hutton Road	08	Eye movement	1020
53	Burnpur Road More	11	Facial expression	0967
83	Mohishila Colony 1	08	vocalization	2309
84	Ismile	13	Body posture	0455
85	Mohishila Colony 2	08	Vocalization	1910
86	Talkuri	12	Facial Expression	0568
87	Damra	10	Eye movement	1268

Followings are the major Mode of Communications:

- i. **Eye Movement:** It has been observed that “Eye to Eye” communication mostly happen during their foraging activity among the male Dogs
- ii. **Facial Expression:** It has been perceived facial expression has correspondence with feeling of happiness, nervousness, sad, fearful, and angry. This observation is common for both male and female.
- iii. **Vocalization:** It has been noticed primarily during the season of breeding. If any foreign animals including dogs from other territory, human tries to enter into

territorial jurisdiction, male dogs start shouting and keep an alarm to other Dogs in the same territory.

- iv. **Body posture:** It has been found among the puppies, male, and female. Female Dogs wagging their tail and communicate with their puppies. Different types of body posture been observed when they play like raising their legs, wagging tail and nodding their head.

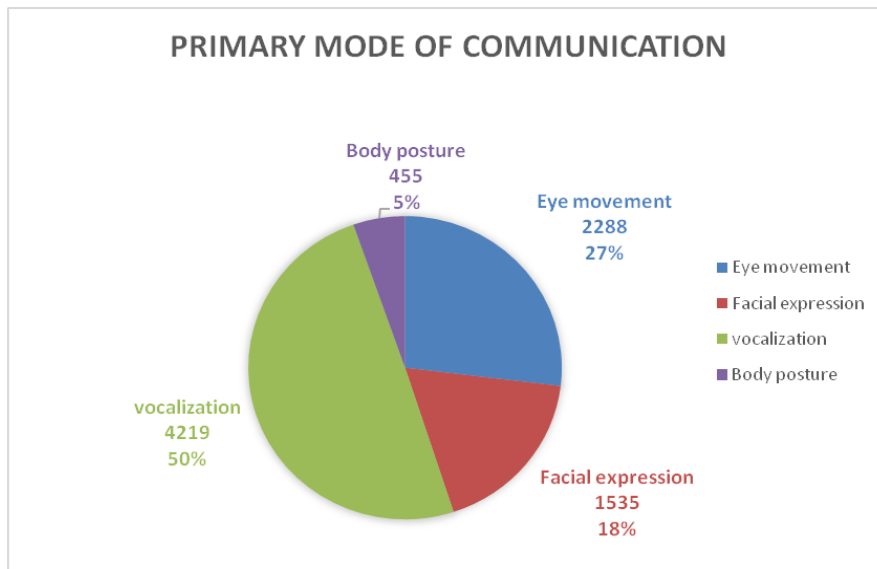


Figure 1: Inter-Family Primary Mode of Communication and Frequency

b. Outside Communication (Dog to Human):

Dogs interact with humans in multiple ways. In this study, 50 dogs (table no 2) were identified from the ward no 84, Ismile of south part of Asansol, to determine the Dogs to human communication.

Table 2: Outside Communication Dog to Human in Ward No. 84

Sample Size	Group Size Primary	Mode of Communication	Frequency
50	6	Body posture	552
	8	Vocalization	533
	5	Facial Expression	468
	8	Vocalization	804
	6	Vocalization	1160
	7	Facial Expression	701
	10	Body posture	422

Followings are the major Mode of Communications:

- i. **Facial expression:** A recent study shows that the social gazing behaviour of stray dogs resembles that of humans. Dogs view facial expression, systematically; preferring eyes, (Sanni Somppi et al, 2016) and present study support their view point.(Figure 9)
- ii. **Vocalization:** Some dogs forages independently and some are in group. However, it has been observed that mostly stray dogs’ bark before the human, so that they can easily search their foods. Some were barking for getting foods from the independent house, multi storied house Grocery shop and Butcher shops.

After the two month study on randomly selected place, it was seen that very little no of Dogs were waiting just front of the owner independent house and multi storied hose (figure 1 and 2) but it was increased in case of Grocery shop and Butcher Shop (Figure 3 and 4)

- iii. **Body posture:** Different types of body posture exhibits before the local people of their territorial jurisdiction when they felling, happy, relax, stress, and angry.(Figure 5 to 8)

Outside Major Mode of Communication, Dog to Human was shown in the Figure 10.

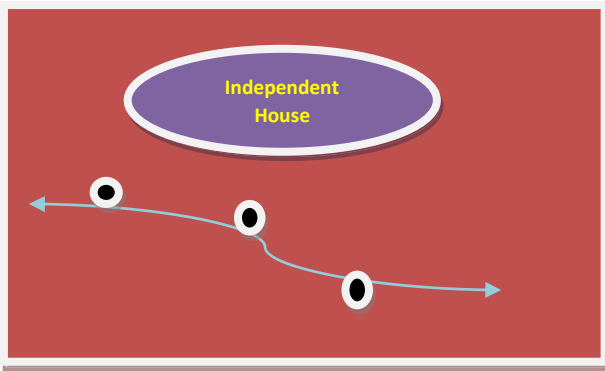


Figure 1: 3 Dogs were waiting

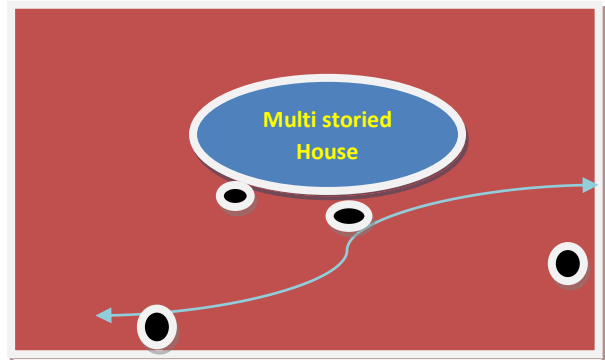


Figure 2: 4 Dogs were waiting

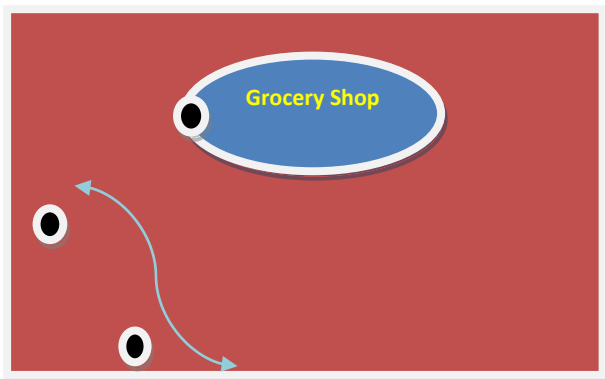


Figure 3: 3 Dogs were waiting

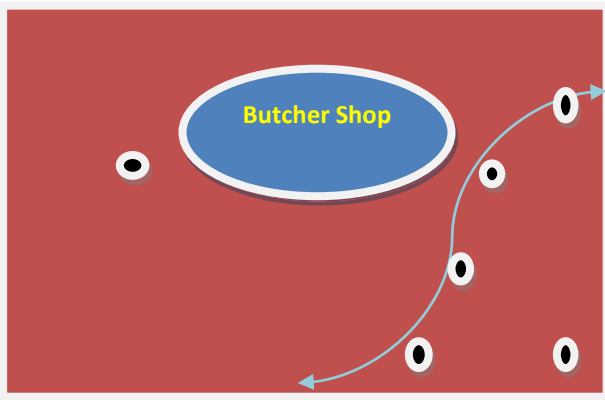


Figure 4: 6 Dogs were waiting



Figure 5: Happy moment



Figure 6: Relax moment



Figure 7: Stress mode



Figure 8: marked Dog was angry



Figure 9: All were waiting

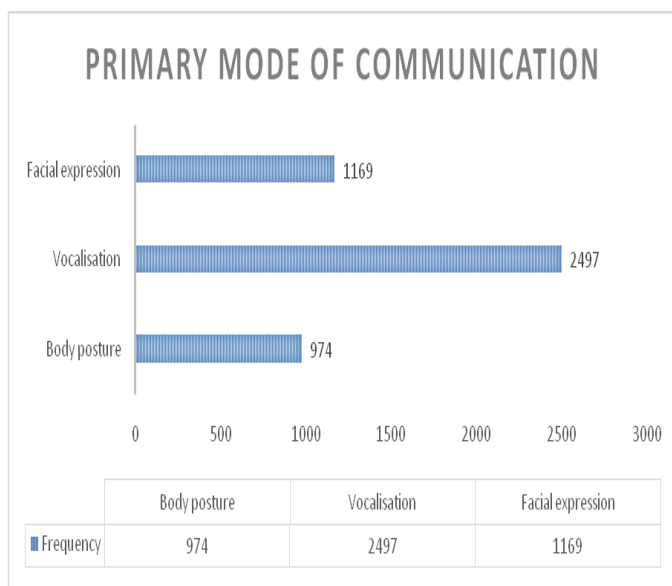


Figure 10: Outside Major Mode of Communication, Dog to Human

4. Conclusion After the 3 month observation it has been concluded that Dogs primarily communicate by vocalization but other different types of communication method were seen entire the period. Vocalization, body posture, facial expression, eye movement are the secondary type of communication method. Dogs are very social and living in a group by communicating each other.

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