

## A Study of Morpho-Behavioural Traits Among Rajaka Caste of Andhra Pradesh

C. Parvatheesam<sup>1</sup> and B.V.Babu<sup>2</sup>

1. Department of Human Genetics, Andhra University, Visakhapatnam 530 003, Andhra Pradesh, India

2. Department of Anthropology, Andhra University, Visakhapatnam 530 003, Andhra Pradesh, India

**KEY WORDS** Morpho-behavioural Traits. Rajaka. Andhra Caste.

**ABSTRACT** This paper reports the distribution of six morpho-behavioural traits, viz., hand clasping, arm folding, tongue rolling, tongue folding, ear lobe attachment and hypertrichosis among Rajaka, a washerman caste of Andhra Pradesh.

### INTRODUCTION

Visual observations on morpho-behavioural traits have been used in anthropological studies for the classification of human races. In fact, the characters such as skin colour, hair form, nose shape, etc. are used widely in human variation studies. The present study, therefore, aims at investigating the distribution of a few morphological and behavioural traits among Rajaka caste of Andhra Pradesh. The Rajaka, also referred to as Chakali or Dhobi, falls in the Sudra, the fourth category of the Hindu Varna system.

### MATERIALS AND METHODS

Data on six morphological and behavioural characters were obtained from adult male and female Rajaka subjects residing in Visakhapatnam city, Andhra Pradesh. The standard techniques and methods were followed: Malhotra and Bhanu (1967) for hand clasping and arm folding, Sturtevant (1940) for tongue rolling, Hsu (1948) for tongue folding, Mohanraju and Mukherjee (1973) for ear lobe attachment and Malhotra (1969) for hypertrichosis.

*For correspondence* : B.V. Babu, Regional Medical Research Centre, Indian Council of Medical Research, Chandrasekharapur, Bhubaneswar 751 016, Orissa, India

### RESULTS AND DISCUSSION

The distribution of the six morpho-behavioural characters investigated among Rajaka is presented in table 1. For hand clasping, the frequency of right type subjects is more in males (60%) than in females (50%). The analysis of arm folding indicates that the high incidence of left type of arm folding is observed among both males (52.38%) and females (63.64%). Majority of Andhra castes have reported higher frequencies of right type of hand clasping and left type of arm folding. The ability to roll the tongue into 'U' shape is observed 43.81% in males and 46.36% in females, while 32.38% of males and 35.45% of females can fold their tongues. The incidence of tongue rolling among Andhra castes ranges between 43.64% (Srivaishnava Brahmin; Sethuraman et al., 1978) and 78.21% (Nayi Brahmin; Shameem Bhasha, 1980), while that of tongue folding is between 7.10% (Kapu; Naidu, 1974) and 38.43% (Madiga; Rajasekhar Reddy, 1984). Regarding ear lobe attachment, majority of Rajaka males (63.94%) and females (62.56%) are found with free ear lobes. The Andhra castes show great variation in the incidence of free ear lobes; the highest frequency being recorded 84.81% in Pattu Sali (Jamal Bhasha, 1980) and the lowest (10.90%) in Nayi Brahmin (Shameem Bhasha, 1980). The Y-linked hypertrichosis pinnae auris is found only among males with an incidence of 17.67%. This is within the range of other Andhra castes. The lowest incidence (12.96%) is reported among Nayi Brahmin (Shameem Bhasha, 1980) and the highest (50.00%) among Mala (Veerraju

**Table 1: Distribution of morpho-behavioural characters among the Rajak**

Character	Male		Female		$\chi^2$ value for bisexual difference*
	No.	%	No.	%	
<i>Hand clasping</i>					
Right	63	60.00	55	50.00	2.1695
Left	42	40.00	55	50.00	
<i>Arm folding</i>					
Right	50	47.62	40	36.36	2.7963
Left	55	52.38	70	63.64	
<i>Tongue rolling</i>					
Present	46	43.81	51	46.36	0.1415
Absent	59	56.19	59	53.64	
<i>Tongue folding</i>					
Present	34	32.38	39	35.45	0.2263
Absent	71	67.62	71	64.55	
<i>Ear lobe</i>					
Attached	75	36.06	76	37.44	0.0843
Free	133	63.94	127	62.56	
<i>Hypertrichosis</i>					
Present	38	17.67	-	-	-
Absent	177	82.33	-	-	

\* P &gt; 0.05

and Satyanarayana, 1973). No character exhibited bisexual difference.

### REFERENCES

- Hsu, T.C.: Tongue folding. *J. Hered.*, **39**: 186-188 (1948).
- Jamal Bhasha, S.: *Morphogenetic Studies Among The Patnasalis of Chittoor District, A.P.* M.Sc. Dissertation, S.V. University, Tirupati (1980).
- Malhotra, K.C.: Hypertrichosis of the ear. *Man in India*, **49**: 71-79 (1969).
- Malhotra, K.C. and Bhanu, B.V.: A study of middle phalangeal hair, ear lobe attachment, hand clasping and digital formulae among the Izhavas of Kerala. *J. Ind. Anthropol. Soc.*, **2**: 53-67 (1967).
- Mohanraju, C. and Mukherjee, D.P.: Ear lobe attachment in an Andhra Village and other parts of India. *Hum. Hered.*, **23**: 288-297 (1973).
- Naidu, J.M.: *Genetics Survey of Seven Endogamous Populations in Seven Districts of Southern Andhra Pradesh*. M.Sc. Dissertation, S.V. University, Tirupati (1974).
- Rajasekhar Reddy, K.: *Genetic Demography and Genetic Variation of the Madigas of Cuddapah District of Andhra Pradesh*. Ph. D. Thesis, S.V. University, Tirupati (1984).
- Sethuraman, M., Rao, K.V.R., Ramchandraiah, T. and Swami, K.S.: A study on tongue rolling and tongue folding among Srivaishnava Brahmins of Tirupati (A.P.). *Comp. Physiol. Ecol.*, **3**: 53 (1978).
- Shameen Bhasha, S.: *Morphological Characters and Colour Blindness in Two Endogamous Groups of Nayi Brahmins, Chittoor District (A.P.)*. M.Sc. Dissertation, S.V. University, Tirupati (1980).
- Sturtevant, A.H.: Tongue rolling. *Proc. Nat. Acad. Sci.*, **26**: 100-102 (1940).
- Veerraju, P. and Satyanarayana, M.: Hypertrichosis pinnae auris in coastal Andhra population. *Jap. J. Hum. Genet.*, **18**: 37-41 (1973).