

PHENYLTHIOCARBAMIDE TASTE THRESHOLD DISTRIBUTION AMONG THE RASTOGIS OF INDIA

SUDHA RASTOGI, DEEPAK TYAGI

Department of Anthropology, Lucknow University, Lucknow, UP, India

The PTC taste threshold distribution has been examined among the Rastogis and compared to those of other Indian caste groups of Uttar Pradesh.

The PTC taste threshold has been examined on a sample of 300 unrelated Rastogis (150 males and 150 females), aged 18 to 55 years, according to Harris and Kalmus technique. Rastogis — a general appellation referred to people traditionally engaged in money lending as a primary occupation — are a closely inbred group, mainly concentrated in Northern India, around the Indogangetic plain. Conflicting claims have been made regarding their position in the caste hierarchy; we consider them to be Kshatriyas (Rastogi 1953). The results of the analysis show tasters to re-

present 79.33% of males and 86.66% of females, the difference being nonsignificant ($\chi^2 = 2.87$). The taste threshold distribution shows the antimodal value to fall between solutions 5 and 6 in males and 3 and 4 in females. The frequency of tasters is found to be highest for solutions 9 (males) and 10 (females) and then to decrease.

The mean threshold appears to be very similar in the two sexes (9.16 ± 0.155 in males and 9.35 ± 0.207 in females) as also confirmed by Student's test ($t = 0.73$). The taster gene frequency is slightly higher in males ($T =$

Table. PTC Taste Gene Frequencies in Rastogis as Compared to Other Indian Caste Groups of Uttar Pradesh

Population	N	T gene frequency	χ^2	Reference
Brahmins (Basti)	69	75.3	9.2026**	Srivastava 1959
Vaishyas (Basti)	53	62.3	1.1712	»
Kayasthas (Basti)	52	75.0	6.9360**	»
Khatris (Basti)	30	70.0	7.3484**	»
Vaishyas (U.P.)	53	62.3	21.1712***	Delhi University Exp. 1961
Rajputs (Kumaon hill)	99	86.9	0.4387	Seth 1962
Brahmins (Kumaon hill)	95	87.3	0.2745	»
Jats (Mahrauli)	105	78.1	7.6982**	Delhi University Exp. 1963
Brahmins (Lucknow)	132	79.5	7.0286**	Srivastava and Tyagi 1967
Rajputs (11)	46	91.1	0.1644	»
Khatris (11)	75	69.3	16.5078***	»
Vaishyas (11)	67	65.7	20.2142***	»
Lower castes (11)	130	91.1	0.2072	»
Kayasthas (11)	114	73.5	14.4584***	»
Gorkhas (Dhauladhar)	202	85.6	1.5188	Parmar 1968
Gujars (U.P.)	69	49.3	50.3080***	Seth et al. 1969
Garhwali Rajputs	229	75.1	18.6745***	Delhi University Exp. 1967
Rastogis of Lucknow	300	89.3	—	Present study

= 0.544 ± 0.063) than females ($T = 0.635 \pm 0.037$).

The PTC taste gene frequencies found in the Rastogis have been compared to other Indian caste groups of Uttar Pradesh, as shown in the Table.

It can be presumed that the Rastogis might

represent an offshoot of Kshatriyas, as the Rajput groups show homogeneity, while the caste claiming themselves as Kshatriyas show heterogeneity.

It seems that Rastogis are still maintaining their parental gene constitution.

REFERENCES

- Harris H., Kalmus H. 1949. The measurement of taste sensitivity to phenyl-thio-urea. *Ann. Eugen.*, 15: 24.
- Parmar P.K. 1968. Taste sensitivity to phenyl-thio-carbamide (P.T.C.) in Gorkhas of Dhaulladhar range (Himanchal Pradesh). *The East. Anthropol.*, 21: 267.
- Rastogi A.P. 1953. Presidential address on community meeting at Lucknow.
- Seth P.K. 1962. P.T.C. taste threshold distribution among the betel chewers, non-vegetarians and smokers. *The East. Anthropol.*, 15: 36.
- Seth P.K. et al. 1969. Genetical study of the Gujars: $A_1A_2B_0$ blood groups, P.T.C., somatometry, midphalangeal hair, ear lobes, hand clasping, arm folding and leg folding. *Hum. Hered.*, 19: 190.
- Srivastava A.C., Tyagi D. 1967. Study of taste sensitivity to phenyl-thio-urea (P.T.U.) among various population groups in Uttar Pradesh. *Bull. Dept. Anthropol.*, 16.
- Srivastava R.P. 1959. Measurement of taste sensitivity to Phenyl-thio-carbamide (P.T.C.) in Uttar Pradesh. *The East. Anthropol.*, 12: 267.

Dr. Sudha Rastogi, 223/153 Raja Bazar, Lucknow-226003, India.