

Frequency of Consanguineous Marriages in Madhya Pradesh

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SUMMARY

With the revision of application of terms "endogamous" and "exogamous" the inbreeding levels have been calculated from certain parts of Madhya Pradesh. Higher inbreeding levels in persons with rural background are in conformity with other workers.

Probably throughout human prehistory when populations were small, the coefficient of inbreeding was high. Haldane (1939) pointed out that inbreeding has diminished within historical time, and particularly with increased modern urbanization and transport.

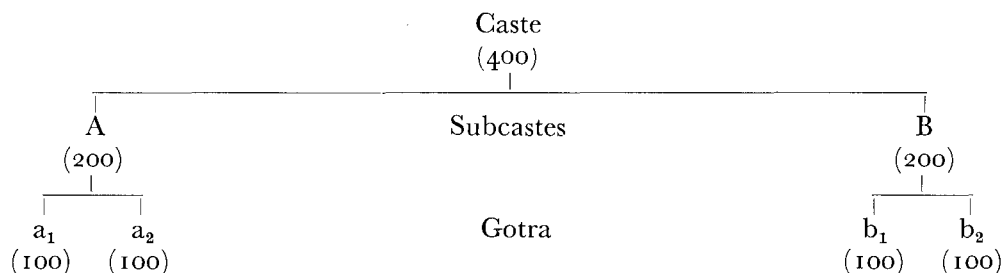
Perhaps the earlier attempts to apply genetical ideas to human societies are found in ancient Indian writings, some of which attempted to justify the hereditary caste system whilst others contended. The peculiarities of breeding systems (concept of caste marriages) in India give rise to situations which are not met in any country in the world (Haldane, 1965). Studies on these lines with genetic aspects have been extensively carried out in Andhra Pradesh (Dronamraju and Meerakhan, 1961; Dronamraju, 1964; Sanghvi, 1966) and in the Bombay region (Sanghvi et al, 1956). No such studies have so far been carried out in Madhya Pradesh (central provinces).

Types of Marriages

In this attempt, the present author wishes to point out the confusing usage of the terms "endogamous" and "exogamous". Sanghvi (1966) stated that "There are three important regulations which largely explain the pattern of marriages in the country. The first one is the regulation of endogamy (marrying within the group of birth) which is the most important attribute of caste (Jati). This regulation by itself does not constitute inbreeding if the size of the group is large. Most of the castes in India today are large with thousands of members and some castes have even millions. The second one is the regulation of exogamy (marrying out) which applies to the sections into which a caste is divided. It prohibits marriages between individuals who belong to the same section. These exogamous sections are known by a variety of names (Gotra, Kūl, etc.) and are transmitted in the male line".

Data collected in the present survey hold out differently. For example, each caste is divided in a few subcastes, which in turn are divided into certain Gotras or Kūl.

Assuming that one caste has two subcastes, each subcaste has two Gotras and that there are 100 individuals in each Gotra, i.e.:



then there would be 400 individuals in the caste as a whole. Now, if a marriage takes place in between individuals of subcaste A only, the choice has to be made from 200 individuals. If, however, an individual of Gotra a_1 is to choose his or her partner from other Gotras (a_2, b_1, b_2), rather than his own one, he or she will have to select the partner out of 300 individuals. Genetic significance of both these "selections" are significantly different. In the former case, chances of common ancestry increase while in the latter, chances for consanguineous marriages are greatly minimized. Surprisingly, Sanghvi (1966) explained endogamy as the marriage between individuals of the same caste, with the view that all marriages between individuals of one caste, no matter to which Gotra they belong, will be endogamous. His usage of "exogamy" means the marriage between individuals of different Gotra. He further pointed out the important consequences of exogamous regulation as far as inbreeding is concerned, "as to prohibit marriages between children of two brothers, although there be no bar to marriages between children of two sisters or of a brother and a sister".

The present author is not aware of the situation in the South, but these assumptions are not valid in this region. The question: "how can a marriage between children of two sisters be called exogamous (marrying out?)", remains unanswered by the previous usage. Also, in most of the Hindus of North (especially in the present report), there is always a bar to marriages between children of two sisters or of a brother and a sister.

Under these conditions, endogamy presently is restricted to marriages of individuals of Gotras of the same subcaste, and exogamy to the marriages of individuals of different subcastes. Obviously, both kinds of marriages are types of a caste marriage. Normally, individuals of one Gotra do not marry in their own Gotra but prefer to marry in the other one of the same subcaste.

The third regulation of consanguineous marriage holds out well also in this region. It prohibits marriages between two individuals related through a common male ancestor up to the seventh generation on the father's side, and the fifth generation on the mother's one.

Still another kind of marriage is an intercaste marriage, i.e., marriage between individuals belonging to different castes (e.g., Brahmin \times Vaishya).

Percentages of types of marriages in relation to caste are shown in Tab. I. It clearly appears that endogamous marriages are the most common ones.

Tab. I. Marriages in Madhya Pradesh

Caste	N. of families	Total N. of marriages	Types of marriages					
			Exogamous		Endogamous		Intercaste	
			N.	%	N.	%	N.	%
Brahmins	34	112	42	37.50	68	60.71	2	1.78
Vaishya	31	168	96	57.14	71	42.23	1	0.59
Kshatriya	9	122	68	55.73	53	43.44	1	0.80
Maharashtrians	49	170	75	44.00	82	48.23	13	7.64
Others (Harijan, Schedule caste etc.)	20	43	9	20.93	34	79.06	—	—
Christians	21	37	5	13.51	30	81.08	2	5.40
Muslims	27	153	12	7.85	132	86.27	9	5.68
Bohras	37	181	32	13.67	147	81.21	2	1.04

Calculations for the mean coefficients of inbreeding have been calculated according to castes and areas (Tables II and III).

Tab. II. Inbreeding according to caste

Caste	N. of marriages	Individuals and types of marriages					Coefficient of inbreeding F
		Total N. of individuals	Random	Uncle-niece	First cousin	Second cousin	
<i>Hindus</i>							(0.0018)
Brahmins	112	315	308	—	—	7	0.00034
Vaishya	168	316	292	—	4	20	0.0019
Kshatriya	122	248	220	4	6	18	0.0047
Maharashtrians	170	266	226	9	7	24	0.0073
<i>Non-Hindus</i>							(0.0129)
Harijan and Schedule Caste	43	147	105	4	22	16	0.01445
Christians	37	72	54	3	2	13	0.0069
<i>Muslims</i>							(0.0263)
Muslims	153	273	69	14	38	52	0.02872
Bohras	181	178	74	12	29	63	0.02414
Total	986	1715	1348	46	108	213	0.0092

It becomes evident from Tab. II that the inbreeding coefficient is higher in Muslims and Bohras than in other castes. Total inbreeding coefficient in Harijans and Christians (0.0129) is higher than Hindus but lower than Muslims (0.0263).

Tab. III shows the inbreeding coefficient in rural and urban parts of areas covered during this survey.

Tab. III. Inbreeding in certain rural (A) and urban (B) areas of Madhya Pradesh

District	N. of marriages	Frequency of consanguineous marriages						Coefficient of inbreeding F
		First cousin or uncle-niece		Second cousin		Third cousin		
		N.	%	N.	%	N.	%	
(A)								
Indore	65	22	33.84	5	7.69	13	20.00	0.0120
Ujjain	129	—	—	7	5.42	14	10.85	0.0198
Shajapur	126	2	1.59	11	8.73	14	11.11	0.0266
Total	320	24	7.50	23.7	7.18	41	12.81	0.0227
(B)								
Indore	260	12	4.66	13	5.00	25	9.61	0.0098
Ujjain	112	4	3.57	5	4.57	3	2.67	0.0193
Bhopal	42	3	7.14	4	9.52	7	16.66	0.0284
Total	414	19	4.58	22	5.31	35	8.45	0.0198

Out of 986 marriages, only 734 have yielded information for this purpose of investigation. Precaution was not taken to record the name of the villages of all subjects; therefore, people residing near the district places have been grouped on the names of rural and urban areas of townships in Tab. III. The mean inbreeding coefficient in rural areas ($F = 0.0227$) is higher than in the urban one ($F = 0.0198$). This agrees with earlier findings by Dronamraju and Meerakhan (1961) and by Sanghvi (1966) from Andhra Pradesh, who also found higher inbreeding coefficient in persons with rural background. However, inbreeding levels in these areas are significantly lower than those observed for single genes ($F = 0.032$) in rural areas of Andhra Pradesh (cf. Sanghvi, 1966).

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RIASSUNTO

È stato calcolato il tasso di consanguineità in alcune zone del Madhya Pradesh, rivedendo l'applicazione dei termini « endogamia » ed « esogamia ». In conformità con gli studi di altri ricercatori, sono stati riscontrati elevati tassi di consanguineità nelle popolazioni delle aree rurali.

RÉSUMÉ

Le taux de consanguinité dans certaines régions du Madhya Pradesh a été calculé sur la base d'une révision de l'application des termes « endogamie » et « exogamie ». En accord avec les études d'autres chercheurs, des taux de consanguinité élevés ont été trouvés chez les populations rurales.

ZUSAMMENFASSUNG

Nach Überholung der Anwendung der Begriffe « Endogamie » und « Exogamie » wurde in einigen Gegenden des Madhya Pradesh der Blutsverwandtschaftsgrad errechnet. In Übereinstimmung mit den Ergebnissen anderer Forscher wurde festgestellt, dass die Blutsverwandtschaft bei den Bevölkerungen der Landgegenden höher war.

H.K. GOSWAMI, c/o Shri L.K. Goswami, Retired Judge, Datia, M.P., India.

Direttore responsabile: Prof. LUIGI GEDDA
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