

Kashmiri Pandits in Retrospect and Their Socio-biological Diversity

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Kashmiri Pandits or the K.Ps who were regarded as representing the Aryans in the purest form (Guha, 1944) known for their intellectual, political and social attainments, despite belonging to a rather small minority group, like the Parsis, have invariably attracted the attention of social scientists. The recent political upheavals in the valley of Kashmir - the original homeland of the Kashmiri Pandits, have once again focussed world's attention on this community. The recent heinous and highly condemnable activities of the Pak-trained terrorists have made a very large number of Kashmiri Pandits (I would not be very wrong if I say almost all of them) desert the Kashmir valley - the "Heaven on the Earth" - for their very lives and existence. But this is not the first time that the Kashmiri Pandits enmass fled from their home land for their survival - the survival in which they surpassed many other communities. In the present study, the author has attempted to trace and highlight the social and biological changes this community has undergone, particularly on account of the earlier mass exodus of the Kashmiri Pandits from the Valley.

WHO ARE KASHMIRI PANDITS

But before we proceed to understand the above changes it is pertinent to know who Kashmiri Pandits are.

According to "Nila Matpurana" (written by Nila Nag, Head of the Nagas of Kashmir) and "Ragtarangim" (written by Kshemendra in 1148-1149 A.D., continued by Kalhana, followed by Zana Raja up to 1459 A.D., Srivara up to 1486 A.D. and Pragna Bhatta up to the annexation of Kashmir by Akbar in 1586 A.D.), the present day valley of Kashmir was in the beginning a vast mountain lake called Satisagar which was drained by an ascetic named Kashyapa; the reclaimed land became the abode of Kashyapa and was called Kashya-

pa-mar which later on came to be known as Kashmir. Brahmins were brought here by Kashyapa and were entirely engrossed in the pursuit of knowledge, leading the lives of introspection and practising the lives of purity (Koul, 1924). These Brahmins came to be known as Kashmiri Brahmins or Kashmiri Pandits. During summer these Brahmins used to come to the valley for performing austere penance in the cool climate but in winter they used to return to where from they came, for fear of the tribal aborigines of the area, namely, Nagas, Pishachas and Yakshas. These tribals used to go to Tibet during summer and returned here in winter. At the suggestion of Nila Naga (The head of the Nagas), Brahmins started giving presents to these aborigines on specific festivals which enabled the former to reside here permanently.

One such festival is "Khichimavas", which is till date observed by all Kashmiri Pandits on the 15th day of the dark fortnight of the month of 'Poh' (generally in December), when "Khichri" (Rice mixed with lentil) is cooked in Kashmiri Pandits' houses and kept outside in new earthen pot as an offering for the Yakshas.

The population of Kashmir subsequently swelled up because of four prime reasons nicely summed up by Koul (1924), as follows:

- 1) Kashmir being a seat of learning from the earliest period attracted people from far and near in search of Sanskrit; learning many among them charmed by the congenial climate and natural beauties of the happy valley, settled here.
- 2) Alberuni, who accompanied Mahmud Ghaznavi to the Punjab in 1021 says, "victory of the Punjab by Mahmud Ghaznavi, made people fly away in place to where our hands cannot yet reach - to, Kashmir, Banaras and other places.
- 3) The political relations of Kashmir with China in ancient times and later on with

Central Asia had the natural effect of the influx of people from these countries.

- 4) Being a fertile land, Kashmir was always a land of plenty and, therefore, people from where food stuffs and other necessary natural resources were comparatively dearer or in dirth were attracted to Kashmir."

Despite people coming from different places to inhabit Kashmir, the Brahmins of Kashmir retained their caste distinct from ancient times; they were generally followers of Shiva Philosophy. During the time of Ashoka the Great (in the middle of 3rd century B.C.) Buddhism spread in Kashmir, but it almost disappeared from the valley by 638 A.D. and was restricted to Ladakh. During these nine centuries Buddhism amalgamated other aboriginal tribes of the valley but could not cause change to the Kashmiri Pandits, who contrived to retain a separate life and remain unaffected, observing rigid fidelity to their holy tenets of yore and practising their long cherished culture (see Bhatt, 1995)

King Harsha Wardhan is said to have recruited Muslims in his army during 1089 to 1101 A.D. There after, for almost two centuries the Muslims had almost no role in political and cultural history of Kashmir. It was only in 1320 A.D. that the Muslims started having their say in Kashmir.

With the coming of Islam in Kashmir through Sufis, the Muslim saints from Arabia and Iraq who viewed that a man in the world should be one with God, and the profuse proliferation of sufism under the subsequent Islamic rulers, the complexion of the population constituents of Kashmir under went a sea change and the Kashmiri Pandits were subject to much testing times (see Koul, 1924). Never the less the mixture of Shiva philosophy of the Kashmiri Brahmins and Sufism gave rise to a new sect of Sufism in Kashmir, called "Rishis". (For more details on Sufism in Kashmir, see Handoo, 1995).

But neither the Muslims nor any other Hindu group coming to Kashmir could alter the traditions of Kashmiri Pandits. Bohra or the "Buher" and the "Purbi" or the "Purib" were the other groups who came to Kashmir. While

Lawrence (1895) maintained that the Bohras were probably of Punjabi origin and they represented a part of the Khatri (a trading community of Punjab and North and North West India), some Pandits (see Koul, 1924) maintained that the Bohra were descendents of those Pandits who lost their caste during early days of Muslim rule, and had either temporarily accepted conversion to Islam in order to save their skin from the Muslim rule, or failed to observe the vedic rituals out of fear. But Madan (1965) suggested that a Khatri origin is more probable, as the "Bohra" are found only in urban areas and their tradition is trade and shop keeping. The word 'Bohra' (or 'Buhur') is often used in Kashmiri for a grocer. But the 'Purbi' or the 'Purib' are considered to be the descendents of an immigrant Brahman caste of Chamba Valley, who came to Kashmir hundreds of years ago.

The tyranny of the Afghan's rule compelled the Kashmiri Pandits to invite Sikhs to fight against the Afghans. On 20th June 1819 A.D. Sikh army conquered Kashmir. Sikhs ruled Kashmir from 1819 to 1846, and in 1846 the Hindu Dogra ruler purchased Kashmir from the Sikhs. The Dogras who are now by and large restricted to Jammu increased their influence to a great extent and the Kashmiri Pandits were the most affected by this.

The "Gotra's" and The "Krans"

Koul (1924) reported 199 "Gotras" among the Kashmiri Brahmins. Members of each of these Gotras professed to be the descendents of the "Rishi" (The inspired saint) whose name the "Gotra" bears. Some authorities (see Kilam, 1955; Bamzai, 1973) believed that there were only three principal divisions of the Kashmiri Brahmins, namely, Bhat, Pandit and Razdan, from which are derived the distinctive applications of Koul, Sopori Pandit and Raina; each of the three took to a particular occupation, and it was only by adoption or intermarriage that other "Gotras" came in to being.

According to some other authorities, (see Kilam, 1955; Bamzai, 1973) Kashmiri Brahmins have six original "Gotra", namely, Aupamanyava, Bhardwaj, Dhattatreya,

Dhaumyayana, Mandglya and Paladeva, and that the number of "Gotras" swelled up to 199 by intermarriage and intermixture with other Brahmins.

In addition to the use of their 'Gotra' as a title, some families use 'krans' or a nickname as a title. These "Krans" or nicknames are added to the original name "because of special calling of the ancestor or because of his association with some particular place or circumstance which has occurred to him" (Koul, 1924). A number of such "Krans" are used by the Kashmiri Pandits. Some of these "krans" are quite old, while some new ones have kept on adding from time to time. A "Gotra" may have a number of "Krans", yet these "krans" are not the monopoly of that "Gotra" as people belonging to different Gotra may use the same "krans" or the nicknames. For instance "Nehru" (those who lived by the side of the river) is one of the famous "krans" yet all "Nehrus" may not necessarily belong to Koul Gotra.

The "Bhaanamas" and the "Malmas"

During the rule of Sultan Sikandar and Sultan Alishah (between 1389 A.D. and 1420 A.D.), when Hindus were forcibly and ruthlessly being converted to Islam, Kashmiri Pandits for the first time fled enmass from the valley. There remained only eleven families of the Kashmiri Pandits in the valley. But Sultan Zain-ul-Abidin (1420-1470 A.D.) whose incurable carbuncle was cured by a Kashmiri Pandit, showed great deal of religious tolerance and Brahmins from south and other parts of India came to Kashmir. These newly arrived Brahmins assumed the appellation of "Bhanmasi", while the appellation "Malmasi" had been assumed by the then indigenous Brahmins of Kashmir.

These two subdivisions follow two different astrological calendars - the "Malmasi" observing the lunar months while the "Bhanmasi" observe the solar months. In leap years, their inter-calary month occurs in two different sessions; consequently the people of each division perform the "Shradhas" of their dead in two different months. Though the "Malmasi" do boast of their "purer" Kashmiri Pandit

ancestry, yet there is no specific social hierarchical stigma attached to any of the two subdivisions, and the two subdivisions freely intermarry.

The "Guru" and the "Karkun"

During the regime of Zain-ul-Abidin, the Kashmiri Pandits were subdivided into two subgroups, namely, the "Guru" or "Gor" and the "Karkun". The "Guru" or the "Gor" are also called as "Bhasha Bhatta" or "Bacha Bhat" included those Kashmiri Pandits who studied Sanskrit and took charge of the religious affairs of the community, while the 'karkun' included those who studied Persian and entered government services. At that time it was only a division of labour within the caste. The community decided that a daughter's son of a person should be made a "Bhasha Bhatta" to administer the religious needs of his maternal grand father's family and will be economically supported by the latter. In the beginning it did not imply any loss of status to the "Guru" or the "Bhasha Bhatta" but in the course of time this division of labour became responsible for the creation of two distinct subgroups within the community with a distinctive mode of life.

Initially the "Bhash Bhatta" or the "Guru" took pride in occupying the exalted position of the custodian of the religion and learning and they were looked at with great esteem and respect by the "Karkun". But because of long sustained economic dependence of the "Guru" on the "Karkun", and because the "Guru" lived on "Dakshina" (payment for carrying out religious performances received by the "Guru") in due course of time there came to exist a "Guru-Karkun" sub-group consciousness, so much so that though there is no social bar, yet the two subgroups inter marry too infrequently as is revealed from the statistics on marriage pattern discussed later. They have practically become two distinct endogamous groups. However, it is interesting to note that the "Karkun" girls are getting married to the "Guru" boys who are not following the priestly profession and have taken up other professions like teaching, Government service and business and are otherwise economically well

settled. But the fact remains that the "karkun" have been economically much better off than the Guru and have continued to dominate within the Kashmiri Pandit community (Kalla, 1985).

Interestingly there were also those Kashmiri Pandits who continued to study Sanskrit and scriptures without taking up priestly duties. These Kashmiri Pandits are known as "Jyotishi" - the astrologers. Quite unlike the "Guru" the "Jyotishi" invariably marry with "karkun" but very rarely with the "Guru".

The 'Taza' Kashmiri Pandits and the 'Purana' Kashmiri Pandits

The recently witnessed persecution of Brahmins of Kashmir is not the first of its kind for them; history reveals (see Lawrence, 1895; Wakefield, 1975; Tikoo, 1979) that they had faced much worse and long sustained persecution in the past too. The mass persecution of the Kashmiri Pandits started about six centuries ago during the reign of Sultan Sikandar (1389-1413 A.D.), and continued till 1783 A.D., with brief stint of respite during the rule of Zain-ul-Abidin, popularly known as Badshah (1420 A.D. to 1470 A.D.) and Emperor Mohammad Shah's last Governor, Abdul Sawad Khan (1727, A.D.). The worst kind of persecution was faced by the Kashmiri Brahmins during the Pathan rule (1753-1819 A.D.) which set in Kashmir with Ahmed Shah Abdali conquering Kashmir in 1753 A.D. This time not only the Pandits but the other Non-Muslim Kashmiris also faced the tyranny of the rulers. The Pathan Governors Ishag Agasi (1758) Amir Khan Jawansher (1770-76) Karim Dad Khan (1776-1783 A.D.) and Asad Khan (1783 A.D.) tyrannized the Kashmiris to a great extent. Mir Fazal Kauth, who was appointed as Chief-Minister by Amir Khan Jawansher, "let loose hell on the Pandits" (Tikoo, 1979). Karim Dad Khan heavily taxed the Kashmiri Pandits and drowned them in the Dal lake. Karim Khan's son Asad Khan out did his father in his atrocities over the Pandits. "It was his practice to tie up the Pandits, two and two in grass sacks and sink them in the Dal lake. Pandits who formerly wore moustaches were forced to grow beards; turbans and shoes were

forbidden and "Tikka" or forehead mark was interdicted" (Lawrence, 1895 Valley of Kashmir, p. 198).

It is not surprising that in the wake of such atrocities, humiliation and degradation and persecution while many Pandits embraced Islam and constitute the majority of the present day population of Kashmir, many a Kashmiri Pandits were forced to run away from their home land - as has been recently witnessed too - and seek shelter and bread elsewhere down south in Punjab and the Indo-Gangetic plains. These were the people who fled Kashmir as they wanted to keep their caste integrity intact. In due course of time they were cut off from the parental population in the valley, but were closely knit outside Kashmir and maintained strict vigil on the marriage of their sons and daughters. This population thus grew outside Kashmir in altogether a different socio-cultural environment, and in the course of time came to adopt itself to the changed habitat and the socio-cultural milieu. In this process of geo-ecological and cultural adaptation and retention of caste identity while on the one hand they became strictly endogamous, on the other hand they gradually lost their tongue, the Kashmiri language, which they cannot speak today. This population has now come to be known as the "Purana" Kashmiri Pandits (because of their association with Kashmir in good old days), *vis-a-vis* the Kashmiri Pandits who rather recently (since 1940 onwards) migrated to north Indian plains in search of better opportunities, education etc. or more recently for their very survival. The latter group has come to be known as the "Taza" Kashmiri Pandits, along with all their brethren still living in the valley, or those who have very recently come out of the valley due to the terrorists, hostility towards them and who are looking forward to return to the valley with the return of normal conditions of survival, existence and respectable living.

While the two Kashmiri Pandit populations subscribe to the same cultural tradition and practices, it is interesting to note that some traditional customs are more ceremonially observed among the 'Purana' Kashmiri Pandits than among the 'Taza' Kashmiri Pandits

(Hereafter referred to as P.K.P. and T.K.P., respectively), while some other traditional customs are totally lost among the former (P.K.P.). One of the traditional ceremonies related to marriage is sending of "*Phoolon Ka Gehna*" (Floral ornaments) from the bridegroom to the bride before the marriage procession reaches the bride's home. This traditional custom, which is meant to reveal the ornaments being presented to the bride, from the bridegroom, is rarely observed by the T.K.P. Further, the custom of offering cooked fish and rice (yellow) to the family diety to please him and get his blessings, called "*Gad Bhat*" (In Kashmiri language, '*Gad*' means fish and '*Bhat*' means rice), is ritually observed (on a Tuesday or a Saturday of the dark fortnight of the month of '*Poh*' - Generally in the month of December) by almost all the T.K.P., while the P.K.P. have almost no knowledge of such a custom, let alone observing it.

However, the most clear line of demarcation between the two Kashmiri Pandit groups lies in the use of Kashmiri language. While the T.K.P. have been regularly using the Kashmiri language at home, the P.K.P. by and large speak Urdu or Hindustani at home, and the latter can neither read, nor speak nor write the Kashmiri language. As a matter of fact the T.K.P. condemn the P.K.P. on this account besides the "elder brotherly" treatment mixed with a subtle contempt of the latter towards the former.

Interestingly, the T.K.P. who came out of the valley during the last fifty years having taken a lesson from the P.K.P.'s bitter experience of losing a strong tradition - the Kashmiri language, ensure that their children learn and use the Kashmiri language, no matter where they are, and retain this tradition of the Kashmiri Brahmins with greater compliance.

However the fact remains that the P.K.P. and the T.K.P. of Kashmir have remained socio-culturally isolated from each other for almost ten generations. Such an isolation, particularly when one of the two isolates comes to live in strikingly different climate than its natural climate which the other isolate has till recently enjoyed, is expected to manifest its influence on the demo-genetic dynamics of

the isolates. A study conducted by me during 1979 to 1984 with the help of a major research grant from the University Grants Commission, New Delhi revealed that the above two isolates of the Kashmiri Pandits did exhibit demographic and genetic diversity (see Kalla, 1985) detailed below.

DEMOGRAPHIC DIVERSITY

Demographic data were collected using cluster sampling method and genealogical approach. The genealogical approach makes it feasible to understand the growth pattern of a population through its basic unit (The nuclear family), rather than through the population figures (Bogue, 1969; Goodman, 1969; Cox, 1970; Llewellyn Jones, 1973; Shryok, 1979) which are the consequences of the changes that have taken place in the basic unit. Fewer, yet intensively studied genealogies have good potential to reveal the demographic dynamics of any population, particularly when the Indian census data do not provide any information on the demographic dynamics of any caste group (Aggarwal, 1979; Demeny, 1974; Kaplan, 1976). The "*Purana*" Kashmiri Pandit sample was drawn from Delhi and the "*Taza*" Kashmiri Pandit sample was drawn from Srinagar (Kashmir). In all 199 genealogies were collected for the '*Purana*' Kashmiri Pandits and 390 genealogies were collected for the '*Taza*' Kashmiri Pandits. The unit of study was the ever married woman in each household.

Marriage Pattern

In all 2300 marriages (79 and 809 for Guru and Karkun, respectively among the P.K.P. and 189 and 1223 for Guru and Karkun, respectively among the T.K.P.) were recorded for the P.K.P. and the T.K.P. together. None of the marriages is found to be consanguineous despite the fact that the T.K.P. have been for long surrounded by a highly consanguineous community, namely, the Muslims. About 95.5% of the marriages were found to be intra-group marriages (*i.e.* within T.K.P. and within P.K.P.), 0.5% were inter-group marriages (*i.e.* T.K.P. and the P.K.P.) and 4.5% were inter-caste marriages (*i.e.* between Kashmiri Pan-

mits and non Kashmiri Pandits). However, these figures clearly indicate that the P.K.P. and the T.K.P. who once belonged to the same Mendelian pool before their isolation from each other, have now come to represent two distinct Mendelian pools.

However, much higher inter-caste marriages (8.22%) were found among the P.K.P. than among the T.K.P. (1.42%) which may be due to the fact that the P.K.P. have been exposed to other Hindu caste groups in much greater proportion and for a much longer time than the T.K.P., because most of the P.K.P. had come out of the valley few centuries ago and lived in a multi-caste social surrounding.

The inter-caste marriages among the "Guru" and the "Karkun" subgroups of the P.K.P. are found to be quite similar (about 8%). But among the T.K.P., the "Guru" showed about twenty five times higher incidence of inter-caste marriages (8.47%) than the "Karkun" (0.33%). The big difference in the frequency of inter-caste marriages between the two sub-groups of the T.K.P. seems to suggest a much quicker loss of caste consciousness among the "Guru" than among the "Karkun". While from the national integration point of view it may be a welcome achievement but it may be quite a warning to the traditional T.K.P. community, which may find in it a "disastrous" speed towards disintegration of the community, especially when they were not as much exposed to threats of breakage of cultural barriers from the multi-caste surrounding as their P.K.P. kins were, in whom such a high frequency of inter-caste marriages were noted in both the sub groups (*i.e.* the Guru and the Karkun).

The T.K.P. may find a reason for it in their socio-economic system - be it "Guru-Karkun" consciousness, as reflected from only 0.07% Guru X Karkun marriages among the T.K.P. against 1.13% such marriages among the P.K.P., or be it dowry system which is rampant among the T.K.P. while it is much abhorred by the P.K.P. Further, practice of dowry among the T.K.P. may be one of the reasons why fewer brides were drawn by the T.K.P. from the P.K.P. (0.21%) than by the P.K.P. from the T.K.P. (1.01%); the other reason may be the

fact that during the last 50 years quite a large number of T.K.P. have come and settled in Delhi, much outnumbering the P.K.P., and have thus provided a much larger choice of bride selection to the P.K.P. than what is provided by the P.K.P. to the T.K.P.

Further, the "Guru" subgroup either of the P.K.P. or of the T.K.P. has more frequently drawn brides from the other group (1.25% and 1.59% among the 'Guru' and 0.99% and 0.00% among the Karkun, respectively of P.K.P. and T.K.P.). Thus the 'Guru', irrespective of the group they belong to, appear to break the group consciousness more often than the Karkuns of any of the two groups.

However, in view of very high proportion of intra-group and intra-subgroup marriages in each of the two Kashmiri Pandit groups, as observed above, it is reasonable to infer that the two Kashmiri Pandit groups have demographic and genetic identities of their own, without much mixing either with each other or with other respectively neighbouring populations; in other words they have come to represent two distinct Mendelian pools.

Age and Sex Composition

Age and sexwise distributions of the P.K.P. and the T.K.P. are set out in table 1, from where it is evident that the P.K.P. is an older population than the T.K.P., with the former having 12.5% old dependency ratio, which is much higher than that of the T.K.P. (=4.90%). However, the child dependency ratio is about 2% lower among the P.K.P. (=16.81). Mean ages of the two populations (35.38 ± 19.57 and 29.87 ± 16.62 for P.K.P. and T.K.P., respectively) are found to be significantly differing from each other at 5% level of probability ($t=7.580$; $d.f=2542$; $p<0.001$). However, the variance ratio (f) test revealed that the P.K.P. and the T.K.P. were equally homogeneous in the distribution of the different age group categories ($F=1.386$).

Sex ratio (No of males/100 females) is found to show about 2.5% more dearth of males among the P.K.P. (sex ratio=92.7) than among the T.K.P. (sex ratio=95.2). However, in both the populations, viability of the males appeared to be more than that of the females

at 60 years and above (sex ratio being 106.67 and 124.39 for P.K.P. and T.K.P., respectively). Further, preponderance of males over females is also witnessed at 0-19 yrs (S.R.=107.78) and 40-59 yrs (S.R.107.73) among the T.K.P. but not among the P.K.P. But considerable dearth of males in the marriageable age group (20-29 yrs) (S.R.=73.25 and 64.62 for P.K.P. and T.K.P., respectively) among both the populations might be one of the important demographic factors compelling the P.K.P. girls to marry outside the caste.

Table 1: Age and Sex distribution among the P.K.P. and the T.K.P. (in percentage)

Age Cohort	P.K.P.			T.K.P.		
	Male	Female	Total	Male	Female	Total
0-4	2.35	1.65	4.00	2.08	1.96	4.04
5-9	3.29	2.93	6.22	3.67	3.09	6.76
10-14	2.59	4.00	6.59	4.31	3.83	8.14
15-19	2.59	3.41	6.00	5.43	5.70	11.13
20-24	3.29	4.23	7.52	4.74	6.60	11.34
25-29	4.11	5.88	9.99	4.21	7.24	11.45
30-34	4.58	4.82	9.40	5.17	5.48	10.65
35-39	4.58	3.76	8.34	5.32	5.01	10.33
40-44	4.00	4.58	8.58	4.26	2.98	7.24
45-49	3.41	4.94	8.35	2.66	3.04	5.70
50-54	4.34	3.29	7.63	2.40	2.61	5.01
55-59	2.47	2.35	4.82	1.81	1.70	3.51
60-64	2.47	3.06	5.53	0.96	0.59	1.55
65-69	2.23	1.29	3.52	0.85	0.91	1.76
70-74	0.93	0.82	1.76	0.69	0.48	1.17
75-79	0.82	0.71	1.53	0.21	0.21	0.42
80-84	0.24	-	0.24	-	-	-

Population Growth Rates

The annual population growth rates per thousand of the P.K.P. and the T.K.P. were compiled after back projecting the 1978 data to 1977, 1976, 1975, 1974 and 1973, respectively (Reference month October). In both the populations, the annual growth had drastically fallen from 22.78 and 26.23 in 1973-74 to 12.38 and 6.11 in 1974-75, respectively for the P.K.P. and the T.K.P. While the growth rate further declined to 8.56 during 1975-76 among the P.K.P. it showed an increase to 8.83 among the T.K.P. During the next two successive years, while the P.K.P. showed a gradual increase in the growth rate (rising to 12.12 in 1976-77 and to 19.16 in 1977-78), the T.K.P. first showed an incline to 15.87 during 1976-

77 and then a decline to 11.87 in 1977-78. But the five yearly growth rate is found to be quite similar in the two populations (15.44 and 14.44 for P.K.P. and T.K.P. respectively), despite the fact that the T.K.P. showed a much drastic reduction in the growth rate over these five years (from about 26 to 12) than the P.K.P. (from 23 to 19).

Fertility

Intrinsically related to population growth is the fertility of the women of a population which is bound by two biological episodes, namely, menarche and menopause, besides being influenced by a number of socio-economic factors like age at marriage, educational status (particularly of the women) preference for specific gender, use of contraceptives, experience of offspring mortality and economic status (which may much vary from parity to parity and hence difficult to be assessed precisely - and, therefore, could not be assessed in the present study) etc.

Age at Menarche

The females of the two successive generations are found to show no significant difference between their mean age at menarche (13.3 ± 1.14 yrs and 13.1 ± 1.23 yrs for mothers and daughters respectively; $t=1.351$; d.f. 280, $0.2 > p > 0.1$) among the P.K.P.; but among the T.K.P. the younger generation or the daughters are found to have significantly higher ($t=3.606$; d.f.=726; $p<0.001$) mean age at menarche ($=14.2 \pm 0.90$ yrs) than that of the older generations of the mothers (13.9 ± 1.14 yrs).

However, in both the generations, the T.K.P. females are found to have significantly higher mean age at menarche (at 5% probability level) than that of the respective P.K.P. females ($t=5.714$; d.f.548; $p<0.001$ for mothers generation and $t=9.804$, d.f.=460; $p<0.001$ for daughters generations). The significant deviation of the two populations in each of the two generations is quite expected because of the fact that the P.K.P. have been living at much lower altitude and in a much warmer climate for almost twenty generations, while the T.K.P. have been till recently living at a higher altitude and much colder climate.

Age at Menopause

Age at menopause was recorded for 94 P.K.P. mothers and 111 T.K.P. mothers. Information on daughters menopausal age could not be obtained because none of them had reached menopausal age at the time of the present investigation. The mean age at menopause is found to be 47.0 yrs (± 4.39) and 46.8 yrs (± 4.30) among the P.K.P. and T.K.P. mothers, respectively. Thus the bio-cultural as well as the geographic isolation of the two populations does not seem to have had made any significant ($t=0.327$; d.f.=203; $0.8 p > 0.7$) impact on the age at menopause. But, on average P.K.P. women are found to have their fecund period longer by about 1/2 year than the T.K.P. women.

Crude Birth Rate, General Natality Rate, Reproduction Rate, Total Fertility Rate and Gross Reproduction Rate

The P.K.P. are found to have higher Crude Birth Rate (C.B.R.=11.70) than the T.K.P. (C.B.R.=6.68). Thus higher fertility of the P.K.P. is also reflected in General Natality Rate, which is found to be 84.75 for the P.K.P. and 46.26 for the T.K.P. Again the Total Fertility Rate of the P.K.P. (7590.5) is found to be more than two times that of the T.K.P. (3256.5). Gross Reproduction Rate, which is a more sensitive indicator of fertility as it shows how many female infants are born to a cohort of 100 women, is also found to be more than two times higher among the P.K.P. (3795.3) than the T.K.P. (1753.5).

Age at Marriage

Age at marriage of the women is an important determinant of her fertility. 67.0% of the T.K.P. girls, against 22% of the P.K.P. girls married below the age of 20 years. The rest of the T.K.P. girls married between 20-24 years. But among the P.K.P. while most of the girls marriages took place between 20-24 years, about 9% of them married at more than 24 years of age. Thus it is the T.K.P. women who were exposed to much greater risk of fertility than the P.K.P. women.

Educational Status at Marriage

While 1.51% P.K.P. women were found to

be illiterate, about 7.6% of women among the T.K.P. were illiterate, but the percentage of women having studied upto primary level was quite similar in the two groups (7.48% and 7.21% for P.K.P. and T.K.P. respectively). About 32% of the P.K.P. girls were middle to secondary educated at marriage against 50.61 girls among the T.K.P. But about 59% P.K.P. girls were educated beyond higher secondary at marriage, compared to about 35% girls among the T.K.P. Thus, on the whole, P.K.P. girls were some what more educated at marriage than the T.K.P. girls.

Use of Birth Control Methods

The quality and the quantity of a population is also governed by the use of birth control measures in the population. Regular use of birth control measures is found to be about five times more among the P.K.P. males (21.38%) than among the T.K.P. males (4.12%); while no female regularly used birth control measures among the T.K.P. 6.52% of the females among the P.K.P. were the regular users. This was more than compensated by the use of permanent methods of birth control by 23.36% males and 19.94% females among the T.K.P. against 5.03% males and 5.97% females among the P.K.P. However the irregular use of the birth control methods varied from 1% to 2.5% among the P.K.P. and the T.K.P. males and the females. The much higher predisposition of the T.K.P. men and women to the use of permanent methods of birth control than respectively that of the P.K.P. men and women appears to indicate much greater social acceptability of vasectomy and tubectomy among the T.K.P. than among the P.K.P. and that the social stigma attached in traditional Indian society to a man/woman who had undergone vasectomy/tubectomy seems to persist far more among the P.K.P. indicating a more conservative outlook of the P.K.P. in this regard.

Average fertility of the couples who had limited their family size by using birth control measures showed interesting results when the couples were categorised according to the gender of the offspring in first two birth orders; four categories of such couples are iden-

tified. The categories are:

- 1) Couples having sons in the first two birth orders (*i.e.*, 1M, 2M).
- 2) Couples having first child, a son, and second child a daughter (*i.e.*, 1M, 2F).
- 3) Couples having first child, a daughter, and second child, a son (*i.e.*, 1F, 2M).
- 4) Couples having daughters in the first two birth orders (*i.e.*, 1F, 2F).

While the P.K.P. showed no significant differences between the average fertilities of any of the two categories of the couples which ranged from 2.25 to 2.85, the T.K.P. showed statistically significant (at 5%) differences in average fertility between category (I) on one hand and category (II), (III) and (IV), respectively on the other ($t=3.245$; 4.2717 ; 2.6315 , respectively and $p<0.01$ in each case) with the average fertility gradually increasing from 2.63 (in category I) to 3.46 (in category IV), through 3.29 (in category II) and 3.36 (in category III).

The above differences may be explained by the existence of a stronger gender bias (in favour of sons) among the T.K.P. than among the P.K.P., with the later preferring to control their fertility irrespective of the gender of the children born in the first two parities.

Lactational Amenorrhoea

While the duration of lactation varied from 16 to 23 months (approximately, among the T.K.P., it was much reduced among the P.K.P., being 9-13 months approximately). Accordingly, the post partum infertility on account of amenorrhoea too was of longer duration (6 to 8 months approximately) among the T.K.P. than among the P.K.P. (4-7 months).

This difference in the lactational habit may be partly due to the fact that the P.K.P. were exposed to metropolitan culture of Delhi, besides being more educated which would have made them accept the cosmopolitan norm of supplementary diet more than the T.K.P. who still lived in traditional culture.

Mortality

Besides fertility and migration, mortality is an important factor influencing population growth. Mortality has two major components,

the pre-natal mortality and the post-natal mortality. While the non-accidental pre-natal mortality may be strong indicator of pre-natal genetic selection, the non-accidental deaths before reaching adulthood (*i.e.*, prior to 20 years of life) is a strong indicator of post-natal genetical-environmental selection.

The pre-reproductive (*i.e.*, prior to 20 years of life) mortality is found to be (9.98 per hundred live births) much higher among the T.K.P. than among the P.K.P. (5.8%). But the non-accidental pre-natal mortality is found to be much lower among the T.K.P. (5.6 per hundred conceptions) than that among the P.K.P. (11.11%).

Since the P.K.P. has been comparatively (to T.K.P.) a much smaller isolate, it is likely to be more closely inbred. The increased inbreeding of the P.K.P. may be an important factor contributing to higher pre-natal mortality among the P.K.P.

It appears that the natural selection at the pre-natal stage is favouring the T.K.P. more than the P.K.P., while the post-natal (pre-reproductive) selection is favouring the P.K.P. more than the T.K.P.

However, the aggregate of the two types of mortalities seems to indicate that the T.K.P. are genetically more viable than the P.K.P. which may partly be a consequence of stringent natural selection by the environment in which the P.K.P. isolate of the Kashmiri Brahmins has come to live during the last twenty generations, and partly due to the effect of 'genetic drift' *vis-a-vis* isolation. At the present moment it is difficult to say which of the two is more important.

Analysis of the sex ratio in infant mortality showed a higher natural selection for females (male:female infant death = 1.39) among the T.K.P. than among the P.K.P. (male:female infant death = 0.66). This high rate of male infant deaths among the T.K.P. could perhaps be one of the factors influencing the fertility of this population. In both the populations special religious ritual status is enjoyed by the sons in comparison to the daughters, which may generate a psychological compulsion for the T.K.P. parents to over compensate male infant's death, particularly

when these are more than the female infants' death, coupled with the fact that the T.K.P. had much higher infant mortality (=6.5%) than the P.K.P. (I.M.=3.98%).

GENETICAL DIVERSITY

The genetical parameters used in the present study are ABO, MN and Rh blood groups, ABH secretion in saliva P.T.C. tasting ability, colour blindness, G-6PD deficiency and sickle cell trait. Peripheral blood samples were collected from 100 families (wife, husband and the eldest child) each of T.K.P. and P.K.P. and the blood samples were analysed using the normal standard techniques (Race and Sanger, 1954; Weiner and Laurie, 1969). (For some characters data were available for only 98 P.K.P. families).

ABO Blood Group

The blood samples of 196 P.K.Ps. (i.e., 98 couples) and 200 T.K.Ps. (i.e., 100 couples), on analysis showed (see Table 2) the preponderance of blood group O (47.54%) among the P.K.P.; but the T.K.P. had the preponderance of blood group B (38.5%). While blood group B (23.47%) followed blood group O in preponderance among the P.K.P., it is blood group O (33.0%) which followed group B in preponderance among the T.K.P. However, both the populations showed the lowest frequency of blood group AB (7.14% in P.K.P. and 9.0% in T.K.P.), while blood group A was third in the order of preponderance (21.94% in P.K.P. and 22.5% in T.K.P.).

Table 2: Absolute and percentage (in parentheses) distribution of ABO blood groups among parents and the offsprings of the P.K.P. and the T.K.P.

Population	Generation	Blood group				Total
		O	A	B	AB	
P.K.P.	Parent	93 (47.45)	43 (21.94)	46 (23.47)	14 (7.14)	196
	Offspring	42 (42.86)	19 (19.39)	31 (31.63)	6 (6.12)	98
T.K.P.	Parent	60 (30.0)	45 (22.25)	77 (38.5)	18 (9.0)	200
	Offspring	24 (24.0)	24 (24.0)	43 (43.0)	9 (9.0)	100

The ABO blood group frequencies of the P.K.P. and the T.K.P. showed statistically significant difference between them at 5% probability level ($\chi^2=15.516$ d.f.=3; $0.1 > p > 0.001$), indicating that the respective parental generations of the P.K.P. and the T.K.P. constituted two different genetic identities *vis-a-vis* ABO blood group alleles.

The data were analysed to see whether there existed any generational change in the ABO blood group frequencies of the two Kashmiri Pandit populations. The generation (parental and offspring) wise distribution of the ABO blood groups are set out in table 2, respectively for the P.K.P. and the T.K.P.

The parental and the offspring generations are not found to differ significantly (at 5% probability level) from each other with respect to ABO blood group distribution either among the P.K.P. or among the T.K.P. ($\chi^2=0.238$, d.f.=3; $0.7 > p > 0.5$ or P.K.P. and $\chi^2=2.23$, d.f.=3; $0.7 > p > 0.5$ or T.K.P.).

But like their parents, the offsprings of the two Kashmiri Pandit populations too have retained their respective genetic identity with respect to the ABO blood group genes ($\chi^2=803$; d.f.=3; $0.5 > p$).

Thus the Purana Kashmiri Pandits and the Taza Kashmiri Pandits have already started exhibiting significant genetic differentiation from each other with respect to ABO blood group alleles.

MN Blood Group

The distribution of MN blood group among the parental and the offspring generations respectively of the P.K.P. and the T.K.P. are set out in table 3.

While the parental generation in each of the two populations is found to have much higher frequency of gene M (=0.9388 in P.K.P., 0.81 in T.K.P.) than that of gene N (=0.0612 in P.K.P. and 0.20 in T.K.P.), a trend which is also observed in the offspring generations (M=0.725 and 0.58 respectively and N=0.275 and 0.42 respectively among the P.K.P. and the T.K.P.), the difference between the two generations with respect to MN blood groups is found to be statistically significant (at 5% probability level) among the P.K.P. ($\chi^2=$

14, 1998, d.f. = 2, $p < 0.001$) but not among the T.K.P. ($\chi^2 = 5.506$, d.f. = 2; $0.1 > p > 0.05$)

Table 3: Absolute and percentage (in parentheses) distribution of MN blood groups among parents and the offsprings of the P.K.P. and the T.K.P.

Population	Generation	Blood Group			Total
		M	N	MN	
P.K.P.	Parent	98 (50.00)	26 (13.27)	72 (36.73)	196
	Offspring	62 (63.27)	20 (20.41)	16 (16.32)	98
T.K.P.	Parent	66 (33.00)	46 (23.00)	88 (44.00)	200
	Offspring	45 (45.00)	24 (24.00)	31 (31.00)	100

Thus, while the 'Taza' Kashmiri Pandits are found to be in a stable state of MN polymorphism, the 'Purana' Kashmiri Pandits have not yet stabilized themselves in this respect and the later seem to be still undergoing transition in this regard.

However, the parental as well as the offspring generations of the two populations are found to retain their distinct genetic identities with respect to MN blood group alleles too ($\chi^2 = 13.4758$, d.f. = $p < 0.001$ between parental generations and $\chi^2 = 7.928$, d.f. = 2, $0.01 > p > 0.02$, between the offspring generations).

Rh Blood Group

Slide test, with direct reacting anti-D was performed to test the Rh(D)⁺ and Rh(D)⁻ phenotypes.

In the parental generation of each of the two populations Rh(D)⁻ were found to be about 1%. But the offspring of the P.K.P. had 6% Rh(D)⁻ while the offspring of the T.K.P. still retained 1% Rh(D)⁻.

Thus while Rh(D) blood group polymorphism is found to be stable among the T.K.P., it is not yet stable among the P.K.P. who had splintered away from the parental T.K.P. population only 20 generations ago.

ABH Secretion

Secretion of A, B and H antigens in saliva is an important genetic characteristic and is known to interfere with the ABH incompatibility effect.

The parental generation of each of the two Kashmiri Pandit populations is found to have more than 70% secretors (72.45% and 73.50% for P.K.P. and T.K.P., respectively), and the two did not show statistically significant (at 5% probability level) difference between them ($\chi^2 = 0.0556$, d.f. = 1, $0.9 > p > 0.8$) with respect to this genetic character.

Likewise the offspring generation of the two Kashmiri Pandit populations too did not show statistically significant difference between them in this regard (secretors: 74.49% and 78.00% for P.K.P. and T.K.P., respectively; $\chi^2 = 0.7408$, d.f. = 1, $0.5 > p > 0.3$).

Thus, with respect to the ABH secretor gene, the two Kashmiri Pandit populations have not yet significantly differentiated from each other.

Sickler Factor

Sickling of the R.B.C. under reduced oxygen tension due to the presence of S haemoglobin in R.B.C., is an important genetic factor influencing the viability of a population. Slide test using sodium metabisulphite was used for the detection of sickler status.

While 8/198 persons were found to be heterozygotes for sickle cell gene among the P.K.P. parental population, the respective frequency (11/200) was somewhat higher among the T.K.P. Again, the former had no homozygotes while the later had 2/200 homozygotes too. But the difference between the two parental populations in this regard is not found to be statistically significant ($\chi^2 = 3.2621$, d.f. = 2; $0.20 > p > 0.10$). Sickler, whether homozygotes or heterozygotes were found to be altogether absent among offspring generation of the P.K.P., while the T.K.P. offspring generation had 1% homozygotes and 11% heterozygotes. The difference between the two offspring generations in this regard is found to be statistically significant ($\chi^2 = 17.2960$, d.f. = 2, $p < 0.001$).

Nevertheless, the sickle cell polymorphism is found to be more or less stable among the T.K.P. but is rather unstable among the P.K.P. as was the case with MN and Rh blood group polymorphism respectively too.

However, it appears that the P.K.P. and the

T.K.P. who, till a generation ago, not acquired genetic diversification with respect to the sickle cell gene, have come to acquire genetic diversification in this regard too in the younger generation.

P.T.C. Tasting Ability (or Taste Blindness)

P.T.C. (phenyl-thio-carbamide) tasting ability, which is under the control of a dominant autosomal gene, is another genetic marker used to study the genetic difference between the two Kashmiri Pandit populations. The saliva samples of 97 families of P.K.P. and 97 families of T.K.P. were analysed using serial dilution method of Harris and Kalmus (1949).

The P.K.P. showed a much lower taster gene frequency in both the generations ($T=0.34$ and 0.38 for parents and offspring respectively) than the T.K.P. ($T=0.54$ and 0.50 for parents and offspring, respectively). These differences between the P.K.P. and the T.K.P. are found to be statistically significant for each of the two generations ($\chi^2=23.5460$, d.f.=1, $p<0.001$ for parental generation and $\chi^2=4.4924$, d.f.=1, $0.05>p>0.01$ for offspring generation).

The two Kashmiri Pandit populations are thus found to show genetic differentiation with respect to taster gene polymorphism too.

Colour Blindness

The present data on colour blindness, a sex linked genetic character, was collected from 99 P.K.P. males and 100 T.K.P. males, of respective parental generations using standard Ishihara charts (1960).

While 3/99 and 2/99 P.K.P. males are found to be red green colourblinds and total colourblinds, respectively, no male among the T.K.P. showed any of these two types of colour blindness. This difference between the two populations is found to be statistically significant ($\chi^2=7.1120$, d.f.=2, $0.05>p>0.001$), with the P.K.P. having significantly higher colour blindness than the T.K.P. On the basis of the assumption that the P.K.P. and the T.K.P., at one time belonged to a common ancestral population, the P.K.P. seem to have undergone a significant selection relaxation *vis-a-vis* colour blindness in comparison to the T.K.P. who were

still inhabiting the original natural environment in Kashmir.

G-6 PD Deficiency

Like colourblindness, Glucose-6-Phosphate Dehydrogenase (G-6PD) deficiency is also another sex linked genetical character. The present data on G-6 PD deficiency was collected using the micro-technique for Methaemoglobin Reduction Test (Weiner and Lourie, 1969). 99 P.K.P. males and 100 T.K.P. males (both belonging to respective parental generation) were tested for the purpose.

The T.K.P. males are found to have 21% higher incidence of G-6 PD deficiency (27%) than that of the P.K.P. males (6%). The difference is found to be statistically significant ($\chi^2=16.8651$, d.f.=1, $p<0.001$).

The P.K.P. population, thus emerged to be significantly more viable *vis-a-vis* G-6 PD activity than the T.K.P. In any case the two Kashmiri Pandit populations have genetically differentiated in this regard too.

The four genetic characters, namely, sickle cell trait, P.T.C. tasting ability colourblindness, and G-6 PD deficiency are also of considerable adaptive value. The differences observed between the two Kashmiri Pandit populations with respect to these genetic loci could also be a consequence of the adaptation of the two populations to their respective environment. No wonder, the T.K.P.'s showed significantly higher incidence of sickle cell trait and G-6 PD deficiency respectively, as they have been constantly exposed to an area of higher incidence of malaria, compared to the P.K.P.'s who have lived in an environment with comparatively much lower risk of malaria.

MORPHOLOGICAL DIFFERENTIATION

Data on 18 somatometric and 4 physiological characters were collected for 98 spouses of the P.K.P. and 100 spouses of the T.K.P. using standard techniques (Weiner and Lourie, 1969). The values of mean and the standard deviation for each of these characters are set in table 4.

Table 4: Mean and standard deviation (in parenthesis) of anthropometric and physiological characters of males and females among the P.K.P. and the T.K.P.

Population	Sex	1. Height (cm)	2. Weight (kg)	3. Fat at Triceps (mm)	4. Fat at Biceps (mm)	5. Max. Head Length (mm)	6. Max. Head Breadth (cm)	7. Head Circumference (cm)
P.K.P.	Male	164.96 (6.38)	65.34 (12.05)	16.82 (4.13)	11.40 (5.90)	18.87 (1.00)	14.70 (0.64)	55.80 (1.61)
T.K.P.	Male	167.40 (6.08)	59.04 (7.99)	24.34 (4.54)	19.97 (5.09)	19.16 (0.74)	15.01 (0.65)	56.69 (3.54)
P.K.P.	Female	153.60 (5.93)	61.92 (10.46)	11.55 (4.99)	21.68 (9.26)	18.13 (0.78)	14.31 (2.06)	45.54 (1.76)
T.K.P.	Female	151.80 (6.09)	55.01 (8.45)	24.89 (4.42)	20.95 (5.33)	18.58 (0.69)	14.32 (0.70)	55.32 (1.77)

Population	Sex	8. Maximum Facial length (cm)	9. Maximum Facial breadth (cm)	10. Nasal length (cm)	11. Nasal breadth (cm)	12. Bigonial breadth (cm)	13. Trunk Height (cm)	14. Maximum Arm Length (cm)
P.K.P.	Male	11.72 (0.72)	13.52 (1.03)	5.52 (0.45)	3.75 (0.42)	10.86 (1.30)	84.26 (8.20)	74.01 (9.32)
T.K.P.	Male	20.97 (1.32)	11.57 (1.41)	5.77 (0.42)	3.43 (0.29)	11.52 (0.89)	61.67 (4.07)	74.88 (4.29)
P.K.P.	Female	11.00 (1.43)	12.93 (1.05)	5.11 (0.47)	3.36 (0.32)	11.01 (8.68)	79.87 (4.88)	70.36 (7.94)
T.K.P.	Female	19.52 (0.95)	11.08 (1.04)	5.43 (0.16)	3.21 (0.27)	10.95 (1.01)	55.51 (4.28)	67.81 (4.80)

Population	Sex	15. Max. leg Length (cm)	16. Chest Girth (cm)	17. Waist Girth (cm)	18. Upper Arm Girth (cm)	19. Systolic B.P.	20. Diastolic B.P.	21. Heart Rate	22. Pulse Rate
P.K.P.	Male	94.25 (6.01)	91.58 (7.57)	95.03 (8.29)	26.63 (3.45)	136.94 (17.36)	89.39 (10.16)	86.07 (9.11)	86.33 (9.89)
T.K.P.	Male	97.08 (7.44)	86.32 (5.88)	80.04 (9.42)	24.81 (2.34)	132.62 (18.68)	89.97 (11.36)	73.62 (5.17)	76.57 (8.75)
P.K.P.	Female	92.47 (7.37)	92.25 (8.48)	95.95 (10.85)	26.45 (2.91)	137.32 (16.08)	87.48 (11.59)	85.45 (8.03)	87.34 (10.24)
T.K.P.	Female	89.29 (5.78)	84.21 (8.61)	81.37 (11.01)	25.67 (2.64)	139.59 (19.16)	90.85 (10.13)	74.24 (4.56)	77.64 (6.36)

Three sets of measurements with respect to the variation in mean values *vis-a-vis* the males and the females are discernible. These are:

- (a) (i) Weight, (ii) maximum facial breadth (iii) nasal breadth (iv) trunk height (v) chest girth (vi) waist girth (vii) upper arm girth (viii) systolic blood pressure (ix) heart rate and (x) pulse rate, each of which has higher mean value among the P.K.P. both for the males and females respectively.
- (b) (i) Sub-cutaneous fat at triceps (ii) maximum head length (iii) maximum head breadth (iv) head circumference (v) maximum facial length (vi) nasal length (vii) diastolic blood pressure, each of which has a higher mean value among the P.K.P., both for the males and females respectively.
- (c) (i) Height (ii) subcutaneous fat at triceps (iii) bigonial breadth (iv) maximum arm length and (v) maximum leg length; while the P.K.P. females showed higher

mean value for each of these five measurements than respectively that of the T.K.P. females, P.K.P. males showed lower mean value for each of these five measurements than respectively that of the T.K.P. males.

However, the difference between the P.K.P. and the T.K.P. were statistically significant for the mean values of (i) Maximum facial length (ii) Trunk height and (iii) Sub-cutaneous fat at triceps.

The T.K.P.s are found to have significantly (i) shorter trunks, (ii) more subcutaneous fat at triceps (iii) larger facial length respectively than that of the P.K.P.

The general economic status of the P.K.P. population was better than that of the T.K.P. In view of this, the significantly higher fat at triceps among the T.K.P. seems less of nutritional origin and more of genetic origin, possibly providing an adaptive value to the population which had to live for a much longer duration under severe cold stress and hilly terrain. The same fat may not be of much use or may be even a physiological handicap under the sub-tropical conditions of north Indian plains, where the P.K.P. had migrated a few centuries ago. The significantly reduced sub-cutaneous fat at triceps of the P.K.P. may, thus, be quite an expected change.

The adaptive significance of the respectively significantly shorter trunk height and longer facial length of the T.K.P. than that of the P.K.P. is presently difficult to explain.

However, atleast with respect to these three morphological characters the P.K.P. and the T.K.P. have significantly differentiated from each other.

CONCLUSION

Thus, we find that the Kashmiri Pandits have undergone considerable differentiation because of various socio-cultural reasons and political upheavals and this differentiation is reflected not only in their social structure but also in their demographic, genetical and morphological constitution and has during the last 20 generations dissected it in to two major socio-ecobiological sections- the 'Taza'

Kashmiri Pandits and the 'Purana' Kashmiri Pandits, with the latter being much smaller in number and "caste conscious" and subjected to rigorous forces of genetic drift and ecological adaption. This differentiation process which is rather too quick, finds its origin in the mass exodus of the Kashmiri Pandits from the valley to the plains of north India because of religious persecution about two centuries ago.

In view of the above experience the recently witnessed enmass migration of the Kashmiri Pandits from the valley of Kashmir, because of across the border inspired and supported terrorism, seems to have all the potential of further differentiating the Kashmiri Pandits unless the political situation in the valley fast returns to normalcy so that these uprooted Kashmiri Pandits may return to their natural habitat of the valley of Kashmir and grow under it and retain their socio-cultural-ecological and bio-demographic identity, without splitting it any further. Heavy onus lies on the shoulders of the Government to check a further disintegration of the Kashmiri Pandits, by providing security to their lives and property in Kashmir, perhaps on the pattern of the protection being provided to any minority community or rather tribals but presently on a war footing particularly when the culture of the Kashmiri Pandits is firmly based on the principles of non-violence and peaceful co-existence which should not be treated as their weakness. While their equity with the other minorities in this regard is obvious, an equity with the tribals is suggested because of the "nomadism" to which the Brahmins of Kashmir have been forced to. Let me end with the hope that the Kashmiri Pandit community shall survive the present religious onslaught without further splitting. Let the long history of persecution of Kashmiri Pandits change its course at last and let them no more lead the lives of 'nomads'.

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KEY WORDS Kashmiri Pandit, Valley, Kran, Gotra, Demographic Diversity, Genetical diversity.

ABSTRACT The history of Kashmiri Pandits in India has always been very complex because of their constant interaction with the migrating people from across the northern border of India and also because of political turmoil in the Kashmir valley for the past 250 years. Incidentally, these processes have lead them to undergo a substantial social, demographic and genetic transformation. Present paper is an attempt in this direction to highlight the social, demographic and biological changes on account of the past history and their earlier mass exodus from the valley.

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