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The Child Voice in Anthropology

RAJAT KANTI DAS

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For quite some time, children in anthropology were what an adult's construction or interpretation could make out of them. It is only recently (James 1993; J. Briggs 1988; C. Toren 1993) that full attention has been directed to them for giving their own accounts of participation in and creation of relationships in the socio-cultural field. Still, the premise of their understanding and knowledge is not fully independent of adult cognitions. The attributes and identity of the child as a social actor are constructed by anthropologists 'in dialectical relationship to their own senses of world and self.' That could be the reason why anthropological studies on children are so diverse and situation-specific. They do not produce a uniform picture of the children. If there is any uniformity in projecting the child, it is only at the level of conceptualization, where the child is treated like 'an asocial or pre-social putty', who can be easily manipulated. Theoretically, children in anthropology are viewed as if they can not immediately be reduced to known socio-cultural categories and classifications. They are adult concerns and as a result, their existence symbolizes a process in the making, a continuity of palpable existential identity destined to take the course of acquiring collective moral consciousness at the end. Anthropologists approach children and childhood from various evolutionary and psychologically-oriented theoretical positions. They also focus upon children's lives as reflections of specific socio-cultural phenomena in terms of mutually-bound instrumentalities and manifestations of social care and usage, deprivation and disadvantage, denial and abandonment. Children, on their part, occasionally show resistance against and indulge in reinterpretation of adult conceptions, but even in such cases they are seen in the context of adult assumptions and preoccupations. In anthropology children rarely come into their own terms and that's why, we do not get a true reflection of child's voice.

Of course, psychological anthropologists or psychologically-oriented anthropologists study childhood with a view to know the inner cognitive world, but they do so mainly with the purpose of using it to examine conceptual and theoretical frameworks. For example, Margaret Mead in her book "Growing up in New Guinea" inaugurated the field of childhood socialization. She should, however, be credited with introducing her findings that it was the children who were the main transforming agents in the society and who could influence adults irrespective of their overt dependence on them.. These findings were reported by her in 'New Lives for Old' (1956). The focus there was on the old

and children were considered to be the agents of change. On the whole, we get a picture that in projecting 'self' in anthropological discourse the role of the child is to supplement or contribute to adult existence. At the beginning, anthropologists were in search of the exotic, the most outlandish voices to speak the loudest on behalf of the community. The voices of children were not at all counted in those cases. Even otherwise, we were not formally introduced with them as holders of independent voices. They functioned only as possible recipients of adult expectations. Today, the child in anthropology has remained suspended in between traditional absoluteness-cum-fixity and individualism-cum-pluralization associated with modern flexibility. Generally, the independent child voice goes almost unrecognized or remains permanently hidden as the focus is invariably on the changing contexts and life-stages. It is only with the rise of interpretative, phenomenological and literary approaches that the centre of attraction has become the children giving their own accounts of experience of participation in socio-cultural milieu and beyond. Although the accounts recorded by anthropologists have failed to recognize a formally distinct child language, in most cases this question has generated a lot of debate. Side by side, children's capacity to utilize conventional forms and meanings has also been questioned because this creative capacity is usually attributed to the adults. To the credit of anthropologists, however, it may be said that the capacity of children to use conventional forms and symbols without being guided by the adults has not escaped their attention.

Still, the criticism that the child voice as such has not found its true representation in anthropological writing cannot be dismissed outright. One reason could be that the anthropologists select their informants on the basis of age and seniority and their writings are supposed to be dispassionate lest personal feelings and emotional attachments get the better of objective assessment. The informants selected by anthropologists are assigned 'plural authorship', which, in a sense, speaks of their almost total reliance on those authors for unfolding the reality. To Clifford (1983), it is 'the utopia of plural authorship' which grants the informants the status of writers. In the process, the anthropologist is entrapped in an authenticity trap no different from the one inherent in the 'visualist rhetoric of realism' (Kirsten Hastrup 1992). That may be the reason why anthropological description of crisis situation or violent events with disastrous effects on personal life becomes a drab and mechanical exercise. Probably in this respect the anthropologists need to learn from the literary works where the child actor holds the centre stage and speaks from its own experience in a language that is not tutored by the adult. Even when the adult narrates the childhood experiences, it is as if the child in him or her speaks. Leave aside the creators of masterpieces, even the less known literary figures like Loung Ung, the Cambodian writer who could survive the genocide perpetrated by Pol Pot's Khmer Rouge, drew the attention of the whole world

by writing the book in the form of a memoir, "First They Killed My Father". Let us listen to her: 'when I decided to write 'First They Killed My Father", I knew right away I would tell the story in a child's voice and from a child's point of view. In the twenty-six years since the Khmer Rouge's defeat, I have grown older, learned other languages, travelled, and lived in different countries. When I dream about the war, however, it is as if time has never passed. Through the years I have lived many lives, and with each incarnation my war child is there beside me-giving me strength, urging me on, and inspiring me to live life to the fullest. But when I visit her in the Khmer Rouge's Cambodia, none of my new adult incarnations can travel back with me. In "First They Killed My Father" I relived the Khmer Rouge's Cambodia with a child's love, hate, rage and wounds.' She always carried the war child with her and whenever there was any reference to Khmer Rouge's Cambodia, the child in her spoke. The result was a stunning, touching account of a tormented soul, the intensity of which could reach a level beyond the reach of any anthropological writing about the sufferings of a child. After her assimilation as a refugee in the United States of America, who was carrying with her harrowing memories of genocide and deep scars of war, Loung Ung could speak in the voice of a genocide survivor left behind in Cambodia, who was none other than her beloved older sister Chou. Even after she takes a new life, she could not take herself away from her roots. Her identity as a child holds a permanent place in her life, which cannot be dissociated from the disastrous effects of war on her and on those survivors who had to pass through the same traumatic experience. I cannot think of a better example of identity fusion which leaves a lasting impression on mind.

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Chirus, Purums, and How Social Changes in North East India Provided New Windows for T.C.Das

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Abstract: That Tarak Chandra Das, a doyen among the pioneers of professional Anthropology in India made a notable contribution in his ethnographic study on the Purums of Manipur is well known. But it is also true that Das became internationally famous through the writings of western scholars, notably by the British social anthropologist, Rodney Needham. A major reason for Das's fame can be attributed to his ethnographic contribution on the study of kinship and social organisation of the Purum community of north east India. Both the foreign admirers and Indian successors of Das however, missed the core of Das's viewpoint and social commitment for undertaking the Purum study. A critical reading of T.C. Das's works revealed that the decade of the 1940s was a watershed in the anthropological journey of Das and it began with his sparkling and neglected analysis of ground realities of the transforming north east India documented in the Sectional Presidential address in the Indian Science Congress and his *Anthropos* paper on the Chirus. Das's insightful ethnographies on the Chiru and Purum should not be treated simply as the empirical storehouse for western anthropologists for testing their theories nor they only be cited as examples of 'how to conduct a solid ethnography' being viewed by his Indian disciples, These were studies with a purpose and social commitment. North East India provided new windows for Das to look at Indian Anthropology for the future and his insights remained relevant till today.

Key words : T.C.Das, Anthropology of north-east India, Purum Kuki, Chiru, Manipur, Indian Anthropology.

After a whole day's labour of replying to my queries, a batch of Chirus started at nightfall from Bishenpur dak bungalow in Manipur for their home, 15 miles away through hills covered with dense jungle. They were completely oblivious of the hard task that lay ahead when they started from the bungalow. My anxiety over the trouble and risk only evoked a little surprise. With a smile they departed as if on an evening walk.

T.C.Das. 1963.

Application of such knowledge for the improvement of the people concerned is the ultimate aim of the modern ethnographer. He is no longer an academician like his compatriots of the other day. Study for study's sake is not his motive.

T.C. Das. 1945.

INTRODUCTION

T.C. Das was born in January 1898 and earned his M.A. degree from Calcutta University in 'Ancient Indian History and Culture' and joined the then newly founded Department of Anthropology at Calcutta University in

1921 as a research scholar and there he became a lecturer in 1923 and finally retired as Reader in the Department in 1963. (Ray 1974: 56; *Science and Culture* 1941:26-27 & *Wikipedia* 2017). Das conducted fieldworks in Chotanagpur in the then Bihar and in Assam. He had also done pioneering research to assess the impact of industrialisation in Birlapur in West Bengal, wrote thought provoking articles containing anthropological and sociological analyses on Bengal dowry restriction bill of 1940 and Hindu code bill in the years 1940 and 1944 along with papers on the practical suggestions for the improvement of museums in India and an empirical article on the fish-gorge in Bengal in the prestigious journals like *Modern Review*, *Calcutta Review* and *Ethnos*. He was very much interested in the application of Anthropology and had a great reputation as a teacher and trainer in field methods.

One comprehensive available account of the list of publications of T.C. Das including a short life-sketch was prepared not by an anthropologist or a sociologist but by the Reference Librarian in the Central Library of the Anthropological Survey of India, Shyamal Kumar Ray, in his invaluable book *Bibliographies of Eminent Indian Anthropologists (with Life-Sketches)* published by the Anthropological Survey of India in July, 1974 with a Foreword by Surajit Sinha, then Director of the institute. (Sinha 1974: iii). The volume contained the list of publications and short life-sketches of 12 eminent Indian anthropologists including Tarak Chandra Das (Ray 1974: 56-60). It began with L.K. Ananthakrishna Iyer (1861-1937) and S.S. Sarkar (1908-1969) was the last anthropologist covering a span of more than one hundred years as we took the year of birth of Iyer and the year of death of Sarkar at the two ends of the continuum. T.C. Das fell almost in the middle of the continuum.¹

The publications of T.C. Das spanned over a period of 41 years from 1922-1963. He began to write academic articles in Anthropology when he was 24 and wrote his last article in 1963, a year before his death. Das, of course was not (i) a prolific writer like his illustrious contemporaries, viz., K.P. Chattopadhyay, Nirmal Kumar Bose, D.N. Majumdar and Irawati Karve, (ii) he did not publish popular or serious articles in the vernacular in the newspapers and magazines and (iii) Das also did not take part in active politics, like N.K. Bose and K.P. Chattopadhyay (iv) nor did he visit western countries to earn his higher educational degrees. The aforementioned facts made Das not only unique among his contemporaries but might have made him lesser known and famous than his illustrious contemporaries, like N.K. Bose, D.N. Majumdar and Irawati Karve in the public domain.

Despite the institutional amnesia and obliviousness of the individual scholars about the social responsibility and commitment of T.C. Das to human welfare, he is still remembered for his ethnography on the Purum Kukis of

¹The life-sketch and bibliography of T.C. Das in the S.K. Roy book did not contain the reference of the only Obituary of Das published in the *Sociological Bulletin* in 1964. (*Sociological Bulletin* 1964: 88).

north-east India. His brilliant monograph *The Purums: An Old Kuki tribe of Manipur* published in 1945 by the Calcutta University became one of the major sources of database in the acrimonious debate on descent versus alliance theories on kinship in Anglo-American Anthropology which involved mavericks like Claude Levi-Strauss, George Homans, David Schneider, Rodney Needham, Charles Ackerman, Floyd Lounsbury and others. Das's ethnography provided data to the opposing camps in the classic debate between decent versus alliance theorists in social anthropology. (Harris 1969:506-509).

The Indian anthropologists continued their ethnographic enterprise on the Purum on behalf of the premier governmental institution of the country — the Anthropological Survey of India. A team of anthropologists were sent to the field area where Das conducted his ethnographic observations during 1931-1936 and a book was published entitled *Proceedings of the Symposium on Purum (Chote) Revisited* in 1985 as an outcome of a symposium in which about 20 anthropologists two educated members of the Purums participated and presented their views/papers. (Das Gupta et.al. 1985). The Indian anthropologists in the symposium seemed to have been preoccupied them in revisiting the keen interest of the series of Western scholars who wrote and debated on the marriage alliance pattern and rules of the Purum tribe. Thus, from the beginning to the end of the symposium volume I found the contributors harping on the theme of Western attention to the Purum case. None of the anthropologists pointed to one of the most significant chapters of the Purum book in which Das made an attempt to apply his own brilliant findings for the development and betterment of the Purums who according to him were surviving with a very low standard of living in terms of economy, health and education (Das 1945: 281-295).

Under this broader framework, I intended to show in this paper that T.C.Das had not only developed his acute interest in the study of the north east India but he also maintained his anthropological concentration and commitment in this region of India till the end of his life.(Das 1953:12-17; 1957:115-124; 1962: 221-238 & 1963: 137-154).

MATERIALS AND METHODS

From 1922 to 1940, that is about 18 years of his active academic life Das did not venture to write any significant article on the application of social anthropology for the welfare and improvement of the communities and cultures he had studied. His main research interest during this period was to record and study the different aspects of culture and social organisation of the tribal and non-tribal communities of the eastern and north-eastern parts of India. In this period he conducted field work and published on the Ho, Bhumij, Kharia, Chiru, Bathuri and Purum Kuki. His paper in prestigious international journals of Anthropology like *Anthropos*, *Man*, and *Ethnos* had been published during this period.

The year 1941 can be regarded as a major turning point in the academic career of T. C. Das. In 1941, he delivered the presidential address in the Anthropology Section of the Indian Science Congress. The lecture was a 28 page full-length paper entitled 'Cultural Anthropology in the Service of the Individual and the Nation'. This paper can be regarded as one of the pioneering articles on applied anthropology in India, although neither L.P. Vidyarthi nor Surajit Sinha mentioned about this significant article in their works on the application of anthropology in the Indian context (Sinha 1968; 1978 & 1980 and Vidyarthi 1978).

In an earlier article 'Urgent problems for research in social and cultural anthropology in India: perspective and suggestions', Surajit Sinha seemed to have fully engrossed himself with the contributions of his famous teacher Nirmal Kumar Bose whose five articles were mentioned by him as regards urgent research in social anthropology in India (Sinha 1968:123-131). Das's work remained unnoticed by Sinha. Like his Presidential Address delivered in the Section of Anthropology in the Indian Science Congress in 1941, another very significant work of Das went to oblivion by the scholars on Indian Anthropology. This work of Das was published in the prestigious international journal *Anthropos* as early as 1937 under the title 'Some notes on the economic and agricultural life of a little known tribe on the eastern frontier of India' (Das 1937:440-449). Lastly, I must mention another very important work of Das, on north-east which was also neglected by his students and successors. This article was on the land tenure systems among the tribal populations of Assam. (Das 1953: 12-17).

Science Congress Lecture

The year 1941 could be regarded as a major turning point in the academic career of T. C. Das. In 1941, he delivered the sectional presidential address of the Indian Science Congress. The lecture was a 28 page full-length paper entitled 'Cultural Anthropology in the Service of the Individual and the Nation'. This paper could be regarded as one of the pioneering articles on applied anthropology in India. In the address Das elaborately charted out the future path of Indian anthropology with a rich description of the social dynamics of the tribal and peasant societies in India in the context of the role of anthropologists in nation building. B.K. Roy Burman also did not mention Das in his article on 'Sociology of National Integration'. (Roy Burman 1970:41-56).

In this lecture Das's major objective was to convince his readers about the immense potential of social-cultural anthropology as applied science for the overall development of the Indian population. In the five subsections of the lecture, Das dealt with the application of anthropology in almost all the important sectors of a modern nation, viz. trade, industry, agriculture, legislation, education, social service and administration. With the help of concrete empirical findings either from his own field experiences or from the

ethnographic accounts of world renowned social anthropologists(e.g. Lucy Mair, Felix Keesing, Issac Schepera, H.I. Hogbin, B. Malinowski) Das justified the inclusion of anthropologists in policy making bodies and application of anthropological knowledge in every sphere of nation building(Das 1941: 1-29). In order to substantiate his arguments, Das had used rather unconventional sources of data, like Mahatma Gandhi's 1937 article published in *Harijan* about the adverse effects of the methods adopted by the Christian missionaries to convert the economically poorer classes of the Hindu population in different parts of India(Ibid : 17-23). One of the most vital sections in the Presidential Address of Das was on the role of anthropologists in building up a proper type of educational system suitable for the real needs of a particular community in the Indian context. The great anthropologist had the courage to write strong words regarding the colossal wastage of public money by the then colonial government for the establishment of schools among the tribal people. Das then narrated from his own rich field experiences in Manipur valley of North eastern India about the adverse social impact of the establishment of a network of primary schools and a few high English schools. I quote Das

The two schools I saw used to teach their students how to read and write Meitei besides a little arithmetic, which they managed to forget within a few months after their departure from the school. it is difficult to understand how high school education will help Manipuri agriculture or textile industry. The employments at the disposal of the State are very limited and the students who pass out of these schools every year will increase the number of unemployed as they no longer think of going back to their fields. During the first few years they will be idolized by the community but this will soon pass away when they will be looked upon as parasites and it is not impossible that they will be a source of trouble to the State (Ibid 1941:15-16).

Consider this insightful observation of Das in connection with the active participation of the English educated youth in the ethnic and secessionist movements that developed in this region of India after the Independence. Das strongly advocated that in this type of situations the advice of the experienced and trained anthropologists is required in the Herculean task of educating the tribal and other underprivileged communities in a diverse country like India.

Das probably was the first Indian anthropologist to advocate the indispensable role of social-cultural anthropology in nation building by combining micro-level field observations within a macro framework which is still lacking among the majority of Indian anthropologists. We have a lot to learn from Das even today (Guha 2012: 40-46).

Purums

It is interesting to note that the whole discussion and debate on the Purums in Western and Indian Anthropology centered around the monograph of Das, did not take into consideration the final section of the book under chapter X.

This chapter has two sections, viz. 'Acculturation' (section I) and 'The Future' (section II).

I would begin my discussion with L.P. Vidyarthi's reading of the Purum monograph, since he is the lone anthropologist who emphasized the applied dimension of Das's work on the tribe. Vidyarthi in the first volume of his book *Rise of Anthropology in India* described in detail about the findings of Das in the different chapters of the monograph with much admiration for its meticulousness and penetrating analyses. In the final part of his description, Vidyarthi discussed about the suggestions advanced by Das for the betterment of the Purums (Vidyarthi 1978:77-81). For Vidyarthi, with the publication of the Purum book T.C. Das 'set an example of a systematic presentation of ethnographic data' (Ibid 1978:80). He concluded the discussion on Das' monograph with the following comment:

His monograph, though not well known to Indian scholars, remains a piece of meticulous fieldwork and penetrative analysis. It will continue to serve as a model for ethnographic research in anthropology (Ibid 1978: 81).

I would now look more closely into the concluding chapter of T.C. Das' book on the Purum Kuki.

In the first part of his concluding chapter Das laid emphasis on the dynamic nature of Purum society which had undergone changes through historical times and also on the different aspects of Purum culture under various kinds of external influences.

Secondly, Das was keenly interested to understand the nature of the 'productive system'(he did not use the Marxian term *means of production* but it was clear that by the term 'productive system' he did not only refer to technology and material culture but also social organization) in a dynamic rather than in a functional framework.

Thirdly, without borrowing terms from the Western Marxist scholars mechanically Das made a very sincere empirical attempt to record the processes by which the new productive system, characterized by plough and plains-land cultivation had begun to influence the different sectors of the Purum society, viz., inheritance, marriage and religion. Apart from looking into the internal sociocultural changes brought about by the adoption of the plough cultivation among the Purums, Das was also aware of the wider politico-economic forces which were at work in the region where this small tribe inhabited. He stated at the beginning of the section I of his concluding chapter:

Though foreign merchandise has come to Purum home, it is still immune from the money-lenders of the plains. This is partly due to difficulties of transport and partly to the judicious laws of land tenure of the State as well as the nature of land-economy of the people. Investment is risky where there is no permanently cultivated land with a marketable value. Nobody would invest money against *jhum* fields and the Purums have nothing else from which the loan can be realized. The recent introduction of permanently cultivated fields will sooner or later change the situation

and if the State also relinquishes the stringency of the land-laws the Purums will fall easy prey to the land-grabbers who are sure to flock to their home (Das 1945:273).

In section II of the concluding chapter Das put forward some concrete recommendations for the improvement of agriculture and health conditions of the tribe without introducing any quick solutions. Das was more in favour of slow and steady changes through employment oriented education among the tribal youth. He also spoke against the conversion of the members of the tribe to Christianity. B.K. Das Gupta reported in his revisit study that a good number of churches have been established in the Purum villages. (Das Gupta 1985:52-80). But how did it really affect the social and economic life of the Purums? How the wider market economy was influencing the tribe's social and political structures? There was virtually no attempt to explore into these vital questions in Das Gupta's restudy paper. If one reads the concluding chapter of T.C. Das' Purum book one would hardly find any evidence of his interest in the marriage alliance pattern of the tribe which fascinated the Western anthropologists and driven their Indian compatriots to conduct the restudy.

Chirus

A very significant work of Das also remained unnoticed by the scholars on Indian Anthropology and this was on the Chirus of Manipur. This work of Das was published in the prestigious international journal *Anthropos* as early as 1937 under the title 'Some notes on the economic and agricultural life of a little known tribe on the eastern frontier of India' (Das 1937:440-449). In this paper Das dealt with the relationship between the variation in technology of agricultural practices with the natural environment and the socioeconomic consequences of this variation within the same tribe. Chirus, like the Purums belonged to the old Kuki group of tribes of the north-east India. At the time of Das's field work during 1931-34, the Chiru population was 1272 and they lived in 11 villages, 9 of which were situated on the top of the hills and 2 were on the plains of the Manipur valley. Here Das first established the importance of agriculture particularly shifting hill cultivation among the Chirus despite the presence of hunting, fishing and gathering which were found to be subsidiary occupations among them. According to Das:

Agriculture forms the basis of Chiru economic life. All other activities, whether social, religious, or economic are directly or indirectly connected with this important food-producing work. Economic activities like hunting, fishing, rearing of domestic animals and trading are all subservient to agriculture' (Das 1937:441).

But how did he substantiate his claims made in the above statement? Without going into quantification, Das adopted the ethnographic methodology to prove his argument.

First, he described the methods and situations under which the Chirus engaged them in fishing, hunting-gathering, domestication of animals and trading.

Second, he then described in brief the different rites and rituals connected with *jhum* cultivation and the role of traditional village officials in those communal festivals. The evidences put forward by Das revealed how the natural environment and the socio-religious practices of the tribe have made shifting hill cultivation as the main economic foundation of the tribe. Das then proceeded further to look into the sociological implications of this cultural ecological scenario of the Chiru society. In the words of Das:

Chiru society is composed of agriculturists only. As already shown, hunting, fishing and trading have not grown into independent occupations, but are practised along with agriculture and is subordinated to its interest. Thus, these avocations have failed to produce special socio-economic groups. The traces of stratifications found among them cannot be attributed to economic pursuits. (Ibid 1937: 443).

A careful reading of the paper reveals that the economic life of the Chirus which Das constructed is not a simple description of the methods of shifting hill cultivation and the associated religious rituals and rites. Neither it is an ethnographic report for the search of borrowed culture traits from the neighbouring tribes and Hinduised populations nor was it an attempt to put the Chirus in the classical scheme of social evolution. The ethnography of Das on the other hand is a penetrating analysis of the various socio-cultural dimensions of shifting hill cultivation in an environmental framework and the slow changes that had been taking place at the time of observation. Take for example, Das's method of dealing with an apparently simple ethnographic observation. He recorded that majority of the Chiru villages possessed only 20-30 households and the biggest village did not contain more than 40 households. But what are the reasons and consequences of Chiru village size in terms of the households? It is better to quote Das:

The Chirus do not renew the fertility of an exhausted patch of land by means of fertilizers. It is left to nature which by accumulating the mould for years together makes it again fit for another period of cultivation. The effects of discarding exhausted patches of land are many and far-reaching. It has led to scattering of villages at considerable distance from one another. It puts a limit to the growth of population in each village.... Increase of population leads to establishment of new villages in order to relieve pressure on land. This type of cultivation does not help in the accumulation of wealth in individual hands and consequent growth of rank. On the other hand it has bred an extreme democratic spirit in their social and political life (Ibid 1937: 445).

The most interesting aspect of Das's work on the Chirus is about the changes that took place in their socio-political life due to migration of some sections of the tribe from the hills to the edge of the Imphal valley. Das's observations can be called pioneering in terms of its analytical strength. According to him a shift from *jhum* cultivation on the hills to wet rice cultivation on the edge of the valley is not only a techno-economic affair but it also entailed a whole gamut of socio-political changes in the life of the Chirus. That is why he began his observation by contrasting the ownership pattern of *jhum* land with that of the plains land. While the *jhum* land was not owned by any

individual family but under the control of the village authority, the plains land could be owned by an individual family for which a rent had to be paid to a supra-local political authority. Since wet rice cultivation with the plough could be carried out on the plains, the crop output was higher and a section of the Chirus (though small in number during the time of Das's fieldwork) was found to have been adopting the plains-land cultivation. This shift has had immense socio-political consequences for the community. The analysis forwarded by Das deserves to be quoted in his unique words

So long we had been dealing with jhum-land only. Besides this there is another kind of land which is gradually coming into prominence in Chiru economic life. This is the land at the feet of the hills where plough-cultivation is possible... The village community has no authority over the disposal of this type of land and it does not hold itself in any way responsible for its fortune. On the other hand it is a source of danger to the authority of the village community. The bachelors' house, marriage by service, equal right of every individual over the village jhum-land, and setting up of new houses soon after marriage, are institutions directed to the same end, namely undermining the influence of the family and setting up the village community as the only body to which one may look for help and succour. But the new type of land will set up the family over the village community and place the house-father above all (Das 137:446).

It is an irony that both Marxist and non-Marxist sociologists and anthropologists of India paid no attention to such an incisive analysis of the relationship between productive technology and the socio-political life of a tribal society in the context of the village. In this context, it is interesting to note that one of the earliest publications of Julian Steward in which he dealt with the relationship between productive technology and the other sectors of culture was published in the same year in *Anthropos* (Steward 1937: 87-104). If one compares the paper of Steward with that of Das, then certain important similarities become evident. Like T.C. Das, Julian Steward also gave emphasis on the importance of environment and economy in shaping the social organisational features of a culture in an era dominated by diffusionism. An interesting observation of Das made in the *Anthropos* paper regarding the close interrelationship of the social and economic life of the Chirus in the context of the role played by the women. Although he made this observation at the end of the paper, it was definitely a forward looking one during late 1930s. Let us hear from Das:

The wife helps the husband in all operations of the jhum-field. In the plains-field also she is of equal importance except at the time of ploughing and leveling.... The wife is in the sole charge of preparing the food of the family, drawing water and collecting fuel. Not only these, she supplies the whole family with clothes for all seasons, woven on her loom with yarns spun by herself from the cotton grown on the *jhum* of the family.. Thus women's contribution to Chiru economic life is more important than that of man. So, it is in the fitness of things, that a man has to serve for five years to secure a bride and most of them do not forget her value.'(Das 1937: 449).

Suffice it to say that Das's *Anthropos* paper dealt with relationships between the productive system and other sectors of culture and it was contemporaneous to Steward's earliest paper on ecology. (Guha 2016).

CONCLUSION

Tarak Chandra Das was one of the founders of professional and academic Anthropology in India who earned his international fame through his research on the Purums of Manipur. But both the Indian and foreign anthropologists viewed him only as a meticulous ethnographer of Purum life. His other important works and observations on north east India having contemporary relevance had largely gone unnoticed. As I argued in the introduction of this article that north east opened new horizons in the anthropology of T.C.Das not only through his brilliant monograph on the Purums but also in his Science Congress lecture and the perceptive paper on the Chirus. The other important and comprehensive work which was solely devoted to north east was his 1953 article on the land tenure systems of the tribal population of Assam in which Das made a comprehensive account of the different types of cultivation methods and the nature of communal ownership on agricultural land and its transformation in the whole of north east India. These works have immense application value for making Anthropology useful for the country. Das's Science Congress paper, his incisive cultural ecological analysis of the Chiru society, socially committed observations on the Purums and the comprehensive observations on the land tenure systems among the tribals of the then Assam are not only important for north east India but also for the whole country. Undoubtedly, north east India provided Das with a new window to turn Anthropology towards application and nation building and he was really running ahead of his time.

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A Study on the Reproductive History and Mortality of the Khamyangs: A Tai-Mongoloid Population Group of Upper Assam

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Abstract: We aimed to investigate the reproductive history and mortality pattern of Khamyang community of Assam. Further attempt was made to investigate the association of maternal occupation and education on fertility behavior of these two groups and to compare the selection intensity index of the Khamyangs of Assam with other populations of North East India. A total number of 212 Khamyang women (110 from Sivsagar district and 102 from Jorhat district), who were in wedlock and aged 18-50 years were interviewed to collect data on socioeconomic condition, number of live births, prenatal wastages, pre-reproductive mortality, ages at menarche, marriage, first childbirth, and menopause. We used fertility and mortality data to calculate the selection intensity index.

The trend in the results shows that the Khamyang living in Jorhat district has higher values for mean ages at marriage and first childbirth, in the number of reproductive wastage and pre-reproductive mortality and selection intensity, compared to those living in Sivsagar district. For rest of the variables, the trend is the reverse. The selection intensity of the Khamyangs (pooled) is lower than the other Mongoloid ethnic groups of Assam.

The reasons for high reproductive wastages and pre-reproductive mortality among the Khamyang of Jorhat may be due to their lower socioeconomic condition and lesser accessibility to medical facilities compared to the Khamyangs of the Sivsagar.

Key words : Khamyangs, reproductive history, mortality, selection intensity, socioeconomic condition.

INTRODUCTION

Differential fertility, mortality, and migration are impediments not only in studying the population structure and dynamics, but also in measuring the adaptive fitness of a population (Rao *et al.*, 2006). For example, selection intensity of a population is a measure of adaptive fitness and it experiences variation with regard to factors, like differential cultural practices (Sphuler, 1962; Mukhopadhyay, 1981), education and social status (Reddy and Chopra, 1990) and environmental condition (Roy *et al.*, 2014). Few of the Indian studies on selection intensity shows micro variations among ethnic groups/subgroups (Debnath and Sen, 1983). There are studies that demonstrate the effect of religion and habitat (rural-urban residence) on selection intensity index. For example, the selection intensity index has been observed to vary between subgroups distinguished by occupation and degree of urban contact (Basu and Mukhopadhyay, 1980; Padmanabham, 1985; Sengupta and Chakravarty, 1998); economic status (Bharati, 1981); as well as religion (Mukhopadhyay, 1989; Bhasin and Kshatriya, 1990).

It has been reported that the tribal population groups of North East India are undergoing the initial stages of demographic transition with a continuous decrease of mortality rate without an appreciable decline in the fertility rate (Sikdar, 2012). We have some literature on the selection intensity of ethnic groups of North East India, like the Ahom, Sonowal Kachari, Kaibarta, Oraon, Sayeed Muslim of Assam; Sankar Koch of Meghalaya and Kheza of Nagaland (Sengupta, 2004); Deori (Gogoi, 2006); Boro Kachari (Guha and Mukherjee, 1990); Ahom (Dutta and Sengupta, 2011); Manipuri Meitei, Oraon, Kaibarta, Deori, Garo, Assamese Muslim, Tai Khamyang (Das and Sikdar, 2010); Bamun and Manipuri Muslim (Asghar, *et al.*, 2014); Mishmis of Arunachal Pradesh (Choudhury, 1993) and Jayantias of Meghalaya (Chakraborty 1995). Some of these studies attempted to find out the effects of bio cultural factors on fertility and mortality of Ahom and Khamyang (Dutta and Sengupta 2011, 2013).

Under this backdrop, we attempted to study the reproductive history and mortality pattern of the Khamyangs of two districts of Upper Assam. Further attempt was made to investigate the association of maternal occupation and education on fertility behavior of these two groups and to compare the selection intensity of the Khamyangs of Assam with other Mongoloid populations of North East India.

MATERIALS AND METHODS

The Khamyang or Khamjang populations are popularly known as Nora's. This population is a section of the Thai or Tai stock. In Tai language, *Kham* means 'Gold' and *Yang* or *Jang* means 'to have'. So, etymologically, the term Khamyang stands for the people whose occupation was gold painting. Originally, this population came to North East India from Thailand via Myanmar, but the date of their arrival is still obscure. Ethnically, the Khamyangs belong to the Mongoloid stock and linguistically to Tai-speaking group. The Khamyangs follow Buddhism. At present, they are recognized as a scheduled tribe of Assam. They are small in number with a total population of around 5000 individuals. The Khamyangs are mainly distributed in the districts of Tinsukia (Powaimukh village), Sivsagar (Chalapathar, Chala Bongaon, Moniting, Disangpani, and Rahan Shyam Gaon) and Jorhat (Balijan, Betbari, and Na Shyam Gaon) and Golaghat (Rajapukhuri village) of the state of Assam (Shyam 1981; Gogoi 1985). We interviewed 212 Khamyang women (110 from Sivsagar district and 102 from Jorhat district), who were in wedlock and aged 18-50 years. We used pre-tested schedules to collect information on socioeconomic condition (education of women, occupation of the couples), pregnancy history [frequency of live births, frequency of prenatal wastages (still birth, miscarriage, abortion), age at first conception], pre-reproductive mortality (infant, child and juvenile mortality) and life history events (ages at menarche, marriage and menopause) along with the age of the participants at the time of interview. We selected Chalapathar village of the Sivsagar district and Na Shyam, Balijan and Betbari

villages of Jorhat district of Assam as our study are. These villages were inhabited by the Khamyangs.

Literature shows that the Khamyangs of Sivsagar district are socioeconomically better off and have greater access to medical facilities compared to those of the Jorhat district (Dutta 2015; Barua and Rajkhowa 2011; Gogoi 2007).

We took utmost care to avoid recall bias while collecting information on the age of the participants at the time of the interview, age at marriage and in recording fertility and mortality data. The entire interview was conducted by the first author (DD). A section of the participants was unable to recall their age at the time of interview or age at marriage or the age of their child (ren). In such cases reference was made to some landmark events, which occurred around the time of their birth or marriage. We used the selection intensity indices developed by Crow's (1958) and Johnston and Kensinger (1971) independently on both the groups. Crow's index was computed using the following steps-

$I = I_m + I_f / P_s$, $I_m = P_d / P_s$, $P_s = 1 / P_d$, $I_f = V_f / \bar{X}^2$, where I = Index of total selection intensity, I_m = Index of selection due to mortality, P_d = Probability of deaths up to Pre-reproductive age. P_s = Probability of survival up to reproductive age, I_f = Index of selection due to fertility, V_f = Variance due to fertility, \bar{X} = Mean number of live births.

Johnston and Kensinger's (1971) index was computed using the following steps-

$$I = I_{me} + I_{mc} / P_b + I_f / P_b \times P_s;$$

$$I_{me} = P_{ed} / P_b;$$

$$P_b = 1 - P_{ed};$$

$$I_{mc} = P_d / P_s;$$

$$P_s = 1 - P_d;$$

$$I_f = V_f / \bar{X}^2;$$

where I is the index of total selection intensity, I_{me} the index of selection due to embryonic mortality, I_{mc} , the index of selection due to child mortality, P_{ed} , the probability to die before birth, P_b , the probability to survive till birth, I_{mc} , the index of selection due to fertility, P_d the proportion of premature deaths

up to pre-reproductive age (i.e., deaths before 15 years of life), P_s the proportion of survivors up to the reproductive age and above ($1 - P_d$), V_p , the variance in number of live births due to fertility, and \bar{X} is the mean number of live births per woman aged 45 years and above. We assumed that all the deaths occurred in these two groups of Khamyangs was due to natural reasons.

We calculated both abortion rate and stillbirth rate for both the groups independently by adding the total number of abortion/stillbirth and further dividing by the total number of conception and multiplying by 100.

Infant/Child/ Juvenile mortality rates for both the groups were calculated by adding the total number of infant/child/juvenile mortality divided by the number of live births and multiplying by 100.

STATISTICAL ANALYSIS

We applied descriptive statistics (mean and frequency) to compare the trend in the demographic variables and reproductive history. We also used t-test to compare the mean values between the groups for the variables, like ages at menarche, marriage, first childbirth and menopause of the participants.

RESULTS

Table 1 shows that the frequencies of prenatal wastages and pre reproductive mortality were less among the Khamyangs of Sivsagar compared to those living in Jorhat. The trend was reverse for mean number of live births. The table further shows that the mean number of live birth of Sivsagar participants was lower than that of the Jorhat participants in the 'service holder' category. The trend was reverse for the participants belonging to 'Agricultural labour' category. None of the participants of both the groups were exclusively homemakers. It was found that the mean number of live births decreases with the rise in education level. Women who have attained education above the primary level have substantially lower fertility than those with no education. Again, the frequencies of prenatal wastages and pre-reproductive mortality were reduced among the educated participants for both the groups. The t test values for all the differences in the mean values were statistically non significant.

Table 2 reveals that the mean ages at menarche and menopause were higher in the Khamyangs of Sivsagar compared to their Jorhat counterpart. The reverse trend was observed for the variables like mean ages at marriage and first childbirth. However, the differences were only significant for mean age at marriage. The total prenatal wastages and pre-reproductive mortality were higher among the Khamyangs of Jorhat districts compared to their Sivsagar counterpart. Table 3a and 3b show the age-specific fertility rate of the Khamyangs of Jorhat and Sivsagar respectively. The total fertility of the

Khamyangs of Jorhat was lower (2.25) compared to those of the Sivsagar (2.48) district. The mean childbirth of the Khamyangs of Jorhat (25-29 years) reached its peak in later ages than their Sivsagar (20-24 years) counterparts. The higher age at marriage of the Khamyangs of Jorhat compared to their Sivsagar counterpart might be a reason for lower fertility.

Demographic variables used in calculating selection potential are presented in Table 4. The Khamyangs of Sivsagar district showed higher mean values for live births and proportion of survival after 15 years age (P_s) than that of their Jorhat counterpart. On the contrary, the trend was reverse with respect to proportion of prenatal wastages (P_{ed}) and proportion of death before the age 15 years (P_d).

The index of the opportunity of selection was higher for the Khamyangs of Jorhat compared to those of the Sivsagar district (Table 5) for both Crow's and Jhonson Kensinger processes. Opportunity for selection among the Khamyang operates mainly through differential fertility.

The value of selection intensity index (by Johnson and Kensinger) in the Khamyangs was lower compared to other Mongoloid populations of Assam. However, the Crow's index of selection intensity of the Khamyangs was higher than the Dibongiya Deori population group. The Khamyang sample indicated a very moderate intensity of natural selection and the value was close to the lower level of the range displayed for other Mongoloid population groups of North East India (Table 6).

DISCUSSION

Socioeconomic status of the couple plays an important role in childbearing. For example, a number of studies observed a negative correlation between the economic status and fertility (Nayar 1974, Gupta *et al.*, 1975 and Frisancho *et al.*, 1976). Our results corroborate with the findings of some other studies conducted in India and elsewhere (Driver, 1963; Hussain, 1970a, 1970b; George, 1976; Barua and Sengupta, 2001; Singh, 2006 and Gogoi, 2002).

A decline in fertility along with the rise of educational attainment is indicated in this study. On the basis of these observations, it may be hypothesized that the level of education and not bare literacy of the women has an impact on their fertility performance. Similar findings were reported by Srivastava (1969).

Kabir and Chowdhury (1993) observed that differential access to health care services, like immunisation coverage and safe delivery may bring differences in the mortality rate across the population. In our study, socioeconomic factors and access to health care facilities might be some of the reason behind the high mortality. Most of the women of Sivsagar district delivered their child(ren) in private or public health institutions. On the contrary, home delivery was very common among the Khamyangs of Jorhat

(data not presented). So the risk of survival for the children of the Khamyangs of Jorhat is lower compared to their Sivsagar counterpart. Added to this, poor sanitation and lack of supply of pure water (as observed more among the Khamyangs of Jorhat) accelerates child mortality. The medical facilities are better in Sivsagar than their counterparts. The trend in selection intensity of our study populations showed similarity with that of the Ahom (Sengupta, 2004), Deori (Gogoi, 2006) and Boro Kachari (Guha and Mukherjee, 1990) ethnic groups of Assam, but contradicts with that of the Khampti (Sarkar *et al.*, 1994) and Sonowal (Deka; 1980) populations of Assam.

We conclude from this study that, the fertility and mortality values of the Khamyangs of Jorhat were lower compared to those of the Sivsagar. The selection intensity of the former group is also higher than the latter group. The findings of this study leave challenge among the future researchers to investigate how the Khamyangs of Jorhat, despite their lower socioeconomic condition and less access to health facilities were having higher selection intensity index than their Sivsagar counterpart.

Table 1: Reproductive performance and mortality pattern according to occupational types and educational status

Occupational types	Sivasagar					Jorhat					t value
	No. of women	Mean conception	Live births	Prenatal wastages %	Pre-reproductive mortality %	No. of women	Mean conception	Live births	Prenatal wastages %	Pre-reproductive mortality %	
Service holder	20	2.20	2.10±0.72 (42)	0.69 (2)	7.14 (3)	6	2.50	2.17±0.41 (13)	1.06 (3)	1.74 (4)	0.30, df=24,
Agricultural workers	90	2.71	2.57±1.34 (231)	4.51 (13)	3.46 (8)	96	2.47	2.26±0.94 (217)	8.73 (22)	3.91 (9)	1.80, df=184,
Total	110	2.62	2.48±1.26 (273)	5.20 (15)	4.03 (11)	102	2.47	2.25±0.92 (230)	8.86 (25)	5.65 (13)	1.53, df=210
Educational levels											
Non literate	15	3.93	3.80±2.01 (57)	2.09 (6)	5.26 (3)	14	2.57	2.36±1.28 (33)	8.33 (3)	9.09 (3)	0.60,df=108
Primary (I - IV)	2	3.50	3.50±0.71 (7)	-	-	8	3.50	3.62*±1.41 (29)	-	-	0.04,df=107
Secondary (V - XII)	80	2.42	2.33±1.86 (187)	2.63 (5)	4.28 (8)	78	2.34	2.09±1.68 (163)	12.09 (22)	6.13 (10)	0.60,df=101
Graduate	10	2.30	2.00±0.22 (20)	17.39 (4)	-	2	2.5	2.50±0.71 (5)	-	-	
Postgraduate	3	2.00	2.00±0.00 (2)	-	-	-	-	-	-	-	
Total literate	95	2.41	2.27±1.60 (216)	4.09 (9)	3.70 (8)	88	2.45	2.24±1.63 (197)	10.04 (22)	5.08 (10)	0.64, df=100,

Figures within parentheses indicates frequency & *indicates twin births

Table 2: *Life history variables among the Khamyangs of two districts of Assam*

	Khamyang of Sivsagar District	Khamyang of Jorhat District	t value, (df), p	Khamyang pooled
Total number of mothers	110	102	-	212
Mean age at menarche (years)	12.96± 0.15	12.84± 0.25	0.4,1(210), 0.36	12.91±0.10
Mean age at marriage (years)	20.11±0.23	21.79± 0.66	2.40*, (210), 0.01	21.49±0.49
Mean age at first child birth(years)	22.55 ± 0.34	22.71±0.40	0.305, (210), 0.27	22.69± 0.54
Mean age at menopause(years)	47.83±0.39	47.67± 0.40	0.286 (210) 0.57	47.75±0.31
Mean number of conception	2.62 (288)	2.47 (252)	-	2.55 (540)
Mean number of live birth	2.48 (273)	2.25 (230)	-	2.37 (503)
Number of abortion/ miscarriage	3.82 (11)	8.73 (22)	-	6.11 (33)
			-	
Number of still birth	1.39 (4)	1.19 (3)	-	1.30 (7)
Prenatal wastages	5.21 (15)	9.92 (25)	-	7.41 (40)
Infant mortality	2.56 (7)	1.74 (4)	-	2.19 (11)
Child mortality	1.10 (3)	3.48 (8)	-	2.19 (11)
Juvenile mortality	0.36 (1)	0.44 (1)	-	0.40 (2)
Pre reproductive mortality	4.03 (11)	5.65 (13)	-	4.77 (24)

* Statistically significant Figures within parentheses indicates actual numbers

Table 3a: Age-specific fertility rate of the Khamyangs of Jorhat district

Age in years	No. Of women in wedlock	Number of live births							Total birth
		<20 (years)	20-24 (years)	25-29 (years)	30-34 (years)	35-39 (years)	40-44 (years)	45+ (years)	
<20									
20-24	2	1 (0.50)	1 (0.50)						2 (1.00)
25-29	14	4 (0.29)	6 (0.43)	6 (0.43)					16 (1.14)
30-34	23	15 (0.65)	8 (0.35)	7 (0.30)	8 (0.35)				38 (1.65)
35-39	12	1 (0.08)	10 (0.83)	12 (1.00)	4 (0.33)				27 (2.25)
40-44	11	5 (0.45)	7 (0.64)	10 (0.91)	2 (0.18)	1 (0.09)			25 (2.27)
45+	40	11 (0.28)	48 (1.20)	46 (1.15)	15 (0.37)	2 (0.05)			122 (3.05)
Total	102	37 (0.36)	80 (0.78)	81 (0.79)	29 (0.28)	3 (0.03)			230 (2.25)

Figures in the parenthesis indicates the proportion

Table 3b Age-specific fertility rate of the Khamyangs of Sivsagar district

Age in years	No of women in wedlock	Number of live births							Total birth
		<20 (years)	20-24 (years)	25-29 (years)	30-34 (years)	35-39 (years)	40-44 (years)	45+ (years)	
<20									
20-24	3		3 (1.00)						3 (1.00)
25-29	22	6 (0.27)	20 (0.91)	12 (0.55)					38 (1.73)
30-34	17		11 (0.65)	10 (0.59)	4 (0.24)				25 (1.47)
35-39	11	3 (0.27)	15 (1.36)	6 (0.55)	1 (0.09)				25 (2.27)
40-44	8	4 (0.50)	5 (0.63)	8 (1.00)	2 (0.25)	1 (0.13)			20 (2.50)
45+	49	12 (0.24)	65 (1.33)	60 (1.22)	21 (0.43)	4 (0.08)			162 (3.31)
Total	110	25 (0.23)	119 (1.08)	96 (0.87)	28 (0.25)	5 (0.05)			273 (2.48)

Figures in the parenthesis indicates the proportion

Table: 4: Demographic variables used in calculating selection potential

Parameters	Khamyang of Sivsagar District	Khamyang of Jorhat District	Khamyang pooled
Number of mothers aged 45 years and above.	59	51	110
Number of pregnancies	194	158	352
Number of live births	186	149	335
Number of prenatal wastages	8	11	19
Percentage of prenatal wastages	4.12	6.96	5.40
Proportion of prenatal wastages (P_{ed})	0.0412	0.070	0.0540
Number of dead children up to 15 years of age.	8	8	16
Percentage of death before the age 15 years	4.30	5.37	4.78
Proportion of death before the age 15 years (P_d)	0.0430	0.0537	0.0478
Survivors up to 15 years of age and above	178	141	319
Percentage of survival after 15 years age	95.70	94.63	95.22
Proportion of survival after 15 years age (P_s)	0.9570	0.9463	0.9522
Mean number of live birth	3.15 ± 0.16	2.92 ± 0.17	3.11 ± 0.22
Variance of mean live births (V_l)	1.61	1.46	1.53

Table 5 : *Selection Intensity of the study population*

Population / Village	Crow, 1958			Johnston and Kensinger, 1971			
	I_m	I_f	I	I_{me}	I_{mc}	I_f	I
Khamyang of Sivsagar District	0.0449	0.1623	0.2145	0.0430	0.0449	0.1623	0.2667
Khamyang of Jorhat District	0.0567	0.1712	0.2376	0.0536	0.0567	0.1712	0.3056
Khamyang (Pooled)	0.0502	0.1582	0.2163	0.0571	0.0502	0.1582	0.2858

Table 6 : *Comparison of Selection Intensities: Khamyang and other Mongoloid population of Assam*

Population	According to Crow (1958)			According to Johnston & Kensinger (1971)				Sources
	I_m	I_f	I	I_{me}	I_{mc}	I_f	I	
Khmayang	0.050	0.158	0.216	0.057	0.050	0.158	0.286	Present study
Ahom	0.083	0.118	0.218	0.074	0.083	0.118	0.308	Sengupta,2004
Khamti	0.179	0.113	0.312	0.005	0.179	0.113	0.319	Sarkar <i>et al.</i> ,1994
Sonowal	0.192	0.141	0.360					Deka, 1978
Sonowal	0.185	0.179	0.364	0.103	0.185	0.179	0.541	Deka,1980
Sonowal	0.167	0.163	0.358	0.053	0.167	0.163	0.432	Sengupta,2004
Tengaponia Deori	0.108	0.181	0.309	0.073	0.108	0.181	0.403	Gogoi,2006
Borgonya Deori	0.045	0.166	0.219	0.200	0.045	0.166	0.461	Gogoi,2006
Dibongiya Deori	0.046	0.123	0.174	0.098	0.046	0.123	0.290	Gogoi,2006
Boro Kachari	0.110	0.130	0.250					Guha and Mukherjee,1990

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Normal and Ordinary in an Illness Experience: An Anthropological Study

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Abstract: The paper is based on a fieldwork conducted in a village located in the Sirmaur district, Himachal Pradesh. The paper primarily deals with how health and illness are understood and categorised in the cultural context, the contexts in which the terminologies of illnesses are defined and the factors that influence the choices for treatment. The major theorisation of the paper focuses on how illness experiences become normalised and get embedded in the ordinary everyday life of the people, at the same time finer details reveal contingencies of time, economy and survival for those who rely on the labouring body. The uncertainty created by these contingent events does not give leeway to extend the control over body for recuperation well into the future but rather the retained focus is on immediate relief. The study was conducted with an ethnographic approach and the data were collected through in-depth interviews and case study.

Key words : Health, Illness, Normalised, Ordinary, Culture, Himachal Pradesh

'Is it necessary to define the terms – illness, disease, diagnosis, health – that provide the scaffolding concepts through which we intuitively come to know the disturbances in our world but which defy any neat characterisations?' (Das:: 2015: 212)

THE CONTEXT

The profoundness of the statement quoted above is reflected from the factual reality that these categorisations are understood and used as measures to observe, acknowledge and probably work upon the discrepancies that shift or tilt the balance between health on one hand and illness/disease on the other hand. These categorisations have been variedly understood, compared and presented based upon contextual requirements.

Biological rationalities or the biomedical paradigms are based upon physiological, genetic, biological component of human existence with disease, and knowledge production about diseases, including identification of certain populations as susceptible to certain diseases¹ and thus marking itself as an aloof, neutral, universal and technical field. However, this claim for neutrality and universality stands questioned on many grounds (Gordon, 1988). Public health relies upon biomedical discourses for information production, dissemination and consumption to facilitate behaviour change or to promote certain health practices through various means available at disposal, including epidemiological studies (Ahmed, 2011). Economics of/in health focuses primarily on the inequity and inequalities in health care systems experienced

by people in terms of proportions of various indices on health and related variables and economic parameters and the ways to counter these inequities in terms of resource allocation and distribution as matters of demand and supply (Jacobs and Rapoport, 2004; Folland *et al.* 2013). Anthropological and sociological dimensions project the pluralities of beliefs, practices, health seeking behaviour of the people and the structures and institutions that produce or accentuate sufferings and vulnerabilities for the people owing to unequal availability and utility of health care focusing upon how these macro processes impact the lives of people at micro level (Farmer 2001, 2003).

This paper focuses on the experience of illnesses at the level of the ordinary. Furthermore, it tries to project the hybridity regarding the notions of health, illness, disease, diagnosis, treatment embedded in local social institutions and that is what holds significance beyond the time frame.

The word *ordinary* here refers to the existence that is lived as everyday life, without being put into question or most often eventually accepted as the *normal*. It differs from the eventful² in the sense that experiences of the *ordinary* do not create ruptures even if they tend to dislocate the *status quo*. Illnesses, as experienced by people often tend to become *ordinary* whereby they become part and parcel of everyday life. Diagnosis of a disease at clinical level might trigger an imbalance in the *status quo* leading to abrupt changes over a short period of time in lives perceived as *normal*. It may continue its earthquake like shocks and aftershocks in lives of the people concerned or it may get subsumed under the rubric of ordinary everyday normality of life. This paper attempts to present this movement into the *ordinariness* of illness as experienced by the people and recourse(s) that they take while coping and moving from disease diagnosis to illness acceptance and towards a reconciliation of it all being part of their routinised life. Hence, as Green (1998: 3) puts it, ‘... to focus on examining the meanings and complexities of the lived experience... and reveal the extraordinary and subtle by which people ...’ come to live with the realities of their lives either by acceptance, appropriation or dejection. The theoretical orientation of the paper is premised upon the concepts of “everyday, ordinary and normalisation” as problematised and explained in the works of Das (2015), Kleinman *et al.* (1998) focused more upon the experiences and the realities of people embedded in their everyday lives and struggles, which get subsumed in the idea of *normal* and hence often remain unquestioned. The focus is on experiences “and suffering that is assimilated within the normal and yet not fully absorbed in it...” (Das::2015:I)

THE LOCALE

The paper is based upon a fieldwork conducted in a village named Lathiana, located in the hilly terrain of district Sirmour, Himachal Pradesh. The fieldwork was conducted in the month of October, 2015. The data were collected through

interview guide. In total, 25 in-depth interviews were conducted and 6 case studies were collected. 15 females and 10 males aged between 20 and 57 years were interviewed. These respondents were selected based upon their willingness to participate. These respondents were spread across 25 households in the field area, and an attempt was made to include at least one respondent from each household. Two case studies which were directly related in the context of the present paper have been presented in the text. With the publishing of the book *Writing Culture: The Poetics and Politics of Ethnography* (1986), there was a turn in the ways and means of writing ethnographic papers which began to focus upon lone voices and subjectivity of the researcher which otherwise might get subsumed under the objectivity of majority responses and experiences. Janice Boddy's (1998) paper on *Remembering Amal* published in an edited volume, Vincent Crapanzano's (1980) seminal book *Tuhami: Portrait of a Moroccan* are examples of where single experiences were analysed to put forth the hidden structural and institutional forces that perpetuate marginalisation. Also this kind of approach "...defeats categorisation of such issues as principally psychological or medical and, therefore, *individual*. Instead, it points to the often close linkage of *personal problems with societal problems*." (Kleinman *et al.*, 1998:ix)

The village under study falls under block Sangrah, Himachal Pradesh, under the jurisdiction of Jamu-Koti *panchayat*. The village is located at a distance of 11 km from the holy place of Renukaji. The holiness associated with this place is attributed to the celebration of Renuka festival. It is believed that during the period of Renuka festival, Lord Parshuram resides in the famous Renuka temple located in the town of Renuka ji. Lord Parshuram is the deity of not only Renuka ji, but of all the villages in that area. Esoterism of religious occult is a part of life of the people.

The people of this area, including those from the village Lathiana, are mainly dependent upon subsistence based agricultural practice and the extra agricultural produce is sold in the local market of Dadahu town. With the implementation of the 73rd amendment, political emancipation of historically marginalised castes³ by holding positions in village *panchayat* is also observed in the village. However, this political emancipation stands countered by caste based segregation (among Rajput, Koli and Mochi caste groups) of dwellings in the village. There is also restriction in the entry at the village temple by the members of the Koli and Mochi caste groups and in the practice of food commensality between castes. The road divides the village into two sections. The Rajput households are located on the upper slope, and those from the Koli caste groups on the lower slope. At the end of the village there are two houses of the Mochi caste.

The Rajputs are the dominant caste and have larger landholdings. Next in the scheme of hierarchy are those from the Koli caste, who for a long period of time used to serve the Rajput landowners as agricultural labours. With the

changing political and economic scenario over the years, the Koli caste group also gained some economic and social benefits in terms of small landholdings and participation in village political life. The members of the Mochi caste group people are engaged in skinning dead animals. Although they have very small landholding, yet they rely on the upper castes of the village for their survival. The two households are also the caretakers of the village *gharat* (water mill run on the power of the village stream to grind corn, wheat and other crops into flour). Each house takes turn for every round of grinding the flour and on each occasion they are offered a small portion of the produce in return.

Although the state of Himachal Pradesh fares better in comparison to many other Indian states, yet the typicality of overstressed state health system is also observable in the area (Himachal Pradesh HDR Govt. of Himachal Pradesh, 2002; Mukherjee et al. 2014)⁴. There is no school or health clinic within the village. The children of Lathiana go to schools that are located in the villages Galja and Bhatgarh, situated uphill at distance of about 15 km. The health sub-centre of the village is also located in Bhatgarh village. Dadahu is the nearest town located at a distance of 15 km from the village of Lathiana. The referral hospital is situated in this town. There is a bus service which plies thrice a day between Lathiana village and Dadahu town. This small town has a bus terminus from where bus service is available to reach to other places. Owing to the limitation in daily bus service in Lathiana, any exigencies including medical emergencies are catered by private transport services, like jeeps or cars which the villagers often hire for service from Dadahu town. Apart from the government sector health services, there are three other (informal) health practitioners in Dadahu town. The people of this locality refer them as doctors. Their qualifications and practice are typical to formal health practitioners located in other small towns in India. One was a Bachelor of Ayurveda Medicine and Surgery (BAMS) and the other two received education up to the second year of bachelor course and were trained as Multipurpose Health Worker (MPWH). These practitioners consider themselves to be competent in treating common ailments. Administration of injections was the preferred mode of treatment for both the private practitioners and their patients. These health practitioners prescribe allopathic medicine, but nonetheless share the aetiology of traditional categories of hot and cold for diagnosis and advice on diet. The repertoire of their treatment includes giving basic first aid in case of any minor injury, administering injections and medications for minor ailments. They do not perform any surgeries. The people of this area including those from Lathiana frequently visit these practitioners. The reasons are easy availability and accessibility to these health practitioners, getting the preferred mode of treatment (administration of injections) and less waiting time. Added to it, is the relationship of camaraderie beyond typical client doctor relation. The doctors of the referral hospital are transitory in their station, and are considered as *bade saab* (the powerful) who are city based,

dressed up differently, scold the patients when treatment is not followed properly. There is a clear power dynamic between the doctors of the referral hospital and doctors of the town, and also between local people and hospital doctors.

EXPERIENCING ILLNESS AND DISEASE

Every step towards recourse to one or multiple modes of seeking treatment for any anomaly commences with the recognition and acknowledgement of deviation from what is perceived to be a normal way of existence including bodily understandings of the normal and the healthy, at both individual and collective levels. Recognition of symptoms, associated diagnosis and treatment(s) are based upon the subjective meanings associated with health, illness and cure. In order to understand how these seemingly three distinct entities become enmeshed and overlap in the understanding and explanations for the people, response was sought for simple yet nuanced questions on *aap sehatmand kisko samajhte hain?* (who according to you could be considered?), and the dichotomy to it was *app ke hisab se koi bimar kab hota hai?* (who according to you could be considered suffering from an illness?). These questions while trying to address the categories of health and illness, also revolve around the notion of who is the subject of these categories and how he/she is located in the local social cosmology of understanding of these issues. The premise of these queries has been derived from Kleinman's explanatory model that gives emphasis upon narratives of illness⁵. The focus of these queries is to bring forth the experience or explanation of an illness as felt or understood by a sufferer and his/her family, thus in a way giving words to their experiences through simple yet profound questions and articulating how illness is perceived. Based on these primary queries, further questions were extrapolated to understand the perceived and experienced knowledge about health and illness through 'notions of complaints, symptoms and diagnosis in the narratives and see what light these notions throw on the construction of illness, local ecology and the subject' (Das:: 2015: 87).

The subjectivity of identifying with health involves active participation in everyday life chores, be those at individual, familial or social levels. This invokes the concept of what Veena Das (2015: 41) refers to as the labouring body⁶, where the health of an individual is associated with active labour whether in the field or at home. Health is a matter of age and the state of health is reflected from the *freshness on the face*. Illness as opposed to this is inability to fulfill expected activities or is a matter of old age. These subjective understandings reflect the routine transitions in life caused by various factors ranging from change in weather to ageing and hence are perceived to be a part of the normal experiences of everyday life transitions. Within these explanations, emerged narratives such as *chhote mote dukh mein sona nahi*

chahiye, hum zimidar log hain (we cannot afford to take rest for minor bodily ailments, we are farmers). Here, it is not just the labouring body of an individual who is dependent upon agricultural activities but that of his family as well whose survival cannot afford the luxury of being confined to the category of 'rest'. Since illness may complicate the matters of everyday survival, these in many cases are passed off as *routine* and *normal*. This exemplifies in a sense how the *normal* is located in the event of any form of illness owing to fulfillment of other forms of more contingent requirements. Injuries due to fall are commonly occurring and acceptable as normal physical issues owing to the terrain of the area and work in the fields. The terrain of the area and the lack of carpeted pathways on the slopes of the hills accentuate the risk of fall and injury, especially during the rainy season. Women are often found traveling up and down the hilly slopes carrying loads of grass (for animal fodder) on their head, with young children on their arms. Falls and injuries are not given much significance and are rather treated as part of the *normal, chot to lagti rehti hai* (injuries are common, not to worry about them). Presented below is a case study, which depicts how an illness gets normalised, without referring to the medical causation. It reflects the process of acceptance and continuation.

The incident refers to the case of a 23 year old K.S., who lives in a joint family. The family members comprise his spouse and child, his parents, two other siblings and their spouses and children. The interview was conducted in the small courtyard of the house. During the interview session, K.S. fainted. He was immediately taken inside, given some water to drink and was rested. K.S was neither offered any medication nor was he taken to the doctor in the Dadahu town. Next day on enquiring from his wife it was learned that K.S. has been suffering from such bouts of fainting since the age of 18 years. Over the years he lost his body hairs. Many treatment modes were followed, ranging from leech therapy of *ayurveda* to *jhada* to western medical practice. While there was no linearity in the follow-up of these modes of treatment, the explanatory factors for diagnosis differed in each. The *ayurvedic* treatment was administered by a local BAMS at Dadahu, who had placed leeches on his head to suck away *kharab khun* (polluted blood) from the body. On the other hand, the *tantrik* smeared the blood of a local bird on his head and offered him *mantar vala pani* (water made sacred by recital of sacred verses) to drink. In case of encounters with western medical practitioners at hospitals, two referrals were made from Dadahu to Nahan to Postgraduate Institute of Medical and Education Research (PGIMER) to PGIMER, Chandigarh (located at a distance of about 130 km. from Renukaji). Since no medication was administered to K.S during the last three year period, his wife said *sar par baal nahi hai iss liye dhup zyada lagne ki wajah se usse fit padh gaya tha* (because of his baldness and over-exposure to the sun he suffers from sudden bout of fainting) and hence there is no need to consult a doctor further.

This case represents how the deviance from what is considered as healthy oscillates between the established constructs of illness (a supposed cultural

construct) and disease (a supposed biomedical concept). But what needs to be constructed out of this narrative is how eventually and ultimately a *normal* is established in the event. This established normality hides the fact that rest and continuation of treatment at a premier hospital is not possible owing to distance, time, infrastructural constraints and the struggle of everyday livelihood of farming. This problematises the very premise of *normal* and the learning to live with it narrative because the definition of *normal* is established in such struggles. The incidence also implicates not only the individual sufferer but also the kin members and familial relations.

Paradoxically to the support base of the familial and community care during an illness episode, there are explanations where these support bases are rendered as cause of the problem being faced. Thus, the institutions of kinship and neighbourhood lie in an ambiguous zone. This generates the complexities regarding kinship relations and neighbourhood cordiality, where these very relations might be held responsible for jealousy and evil intention. The idea among people for sudden body ache especially headache, illness of a child or consistent crying of a child were all attributed to the concept of *baan laga hai* or *kisi ki nazar lagi hai* (effect of evil eye). In order to get rid of these health problems, they sought help from the village *tantrik*. Another commonly used concept was of *upari kasar* (black magic) usually practiced out of jealousy against someone especially by neighbours or relatives. These too were managed by the *tantrik*. The diagnosis and treatment for such cases often involves use of biomedical system as well as the occult power.

In such scenario, the role of a healer also projects an ambiguity between the one who protects and the one who is also capable of causing harm. Hence, the identity of a healer is not only viewed in contestation with that of modernity, but one with that of healer who causes illness as well, as Das (2015: 134) puts it, ‘... practitioners of occult are transgressive figures within both tradition and modernity...’

These cases exemplify how the local and medical cosmologies of illness and disease understandings intersect in everyday experiences for the people. It is not about the traditional or the rational dichotomy but rather the hybridity of the systems in lives of the people.

TERMINOLOGIES OF ILLNESS

Each culture has its way of recognising and naming of an illness, thereby, opening an analytical window into how the knowledge of differentiation and typification of illness is understood, maintained and passed on and becomes part of everyday communication. Each illness is diagnosed based on the description of symptoms located in the local cultural terminologies. The diagnostic categories also form the part of this cultural repertoire and these categories together determine the process of treatment. Nonetheless, cultures are not closed off boxes where rigid boundaries are maintained between

various sections. As Das points out, ‘... there are no hermetically sealed cultures, which can provide fully constituted and coherent cosmologies within which illness is experienced, diagnosis made, and therapies are sought’ (Das:: 2015: 29).

At the same time the categories of various illnesses as understood or experienced by people are based upon admixture of two processes: through the lens of cultural standards as well as through personal experiences with illness. There are illnesses, like cold, cough, body ache, insect bites which are understood as *chhoti bimariya* (minor illnesses) and could be treated through home remedies. *Antar dosh* (dysentery), physical injuries due to fall, illnesses which tend to become acute or chronic are referred to as *badi bimariya* (major illnesses) and are contingent for a visit to the doctor. Head ache is specially associated with the concept of evil eye requiring a *jhada* from the *tantrik*. On the other hand, *Budri mata* (chicken pox) is considered as a part of the sacred and is believed to be caused by the action of goddess. Rather than treatment, precautions are observed in terms of intake of less spicy food, hygiene of the patient and his/her immediate surroundings. Reverting of *budri mata* without any harm to the person is thanked with presenting of sweetmeats to goddess in the village temple. However, such linearities in terms of choosing one system after another does not follow a fixed pattern. The case study below explicates the point in the discussion:

The case relates to middle aged R.S., who was detected to be suffering from 3+ stage of pulmonary disease of TB and pneumonia in the year 2003. Prior to the diagnosis of the disease, the only symptom was continued cough. R.S. used to take *ayurvedic* medicines from a local health practitioner of Dadahu town. Seeing no improvement in his case, the doctor asked him to consult the western medical practitioner in the Dadahu referral hospital. In the hospital R.S. was diagnosed with TB. The doctors of the referral hospital administered treatment of anti TB Schedule II for six months. Back home in his village, he also consulted the village *tantric* to ward off evil. R.S. further sought blessing of the village deity, and sacrificed a black goat in a session of special prayer organised at the village cremation ground at mid-night. At the time of conducting the interview, R.S. was free from TB. In this case both magical and the technical, weave together in the cosmology of acceptance and treatment. It presents a scenario where the sense of understanding an illness moves through two systems which are otherwise thought to be in contestation with one another as modernity vs. tradition. But within the cosmology of everyday life and its fragility the two come together, even if they fail to make sense or are bound to create a feel of bewilderment for those who stand outside that person’s sphere of everyday life. Bringing in the conceptualization of liminality⁷ in this context, an extension of time is experienced, marked with specific intervals, which may reflect transition from the state of illness to the state of health or an oscillation between the state of illness and perceived state of

health. Hence, “here liminality appears to have been ‘stretched’ and temporally fragmented” (Prout:: 1989: 351)

A local traditional healer of the village, locally known as the *tantrik* was seen visiting a western health practitioner in Dadahu town. The *tantrik* said that his wife was seeking treatment from the doctor (a BAMS) for the problem of *fit* (the word here does not refer to the condition of fits suffered in epilepsy, but rather it is a localised term for a condition in which a person tends to faint all of a sudden) for which he had learnt the art of healing in the first place. The doctor administered allopathic medicines and injection. Administration of injection as a method of treatment is a well accepted therapeutic method by the people. Another doctor (a graduate and Multipurpose Health Worker) also confirmed that common people of the area appreciates administration of injection for getting immediate relief. Administration of injection symbolises the fastness and efficacy of biomedical treatment. This is viewed as something more powerful than the regular course of medication, because administration of injection is generally done by a qualified doctor, unlike oral administration of medicine, of which was left to the discretion of the patient. Hence, a linear progression in terms of causes attributed and treatments sought cannot be established. At times the categories of symptoms and diagnosis utilised by people and practitioners cut across other explanatory systems. The perceived rigidity between various forms of medical systems lays unbraided and open at the level of the *ordinary* resulting in hybridisation of various modes of therapies and treatments.

These categorisations and meanings attached by the people of Lathiana give a sense of what happened and how it happened. Thus, folding over an event which otherwise is capable of dislocating the *ordinary* and gives it a semblance of *normality*. However, reading between the lines reflects the precarity of survival. Most of the informants are involved in agriculture and rely on the produce for self consumption and selling at the local market in Dadahu town. The locale and geography of hilly terrain compounded by slippery pathways adds to chances of fall and injuries implying lack of infrastructural facilities available for safe commute for the people. Even though the area is not marked by a sense of remoteness, nonetheless, accessibility at ease of medical facilities is difficult.

CONCLUSION

The narratives cited above depict how an illness experience is located within the institutions of family, kinship, economy and state agency, like referral hospitals. Located within these institutions, the illness is understood and defined and hence becomes part of the *ordinary* and the *normal* everyday life of the people. In one context the illness may become a critical event bringing in rupture and change from the established routine and in the other context it may get embedded eventually in the ordinariness of the everyday life. In

both the cases illness located in the body as a discomfort is a result of many factors and implicating in itself many other domains and institutions. These experiences hence, oscillate between the extraordinary and the ordinary. In the cases narrated here is an element of temporality involved where the illness experienced in a particular moment fluctuated between the past and the present and how the knowledge becomes a part of the cultural lexicology.

The temporality is also induced in the form of contingency associated with the illness in terms of a labouring body involved in work for survival and the precarity of falling ill and losing out on precious time of work and survival. It also speaks about how combination of being bedridden, requirement of work, choices for practitioners, categorisations of illness and actual experience of illness place emphasis on immediate relief; thus, leaving the future at a distance and focusing more on the immediate effect. Temporality also involves in terms of past experiences or local cultural knowledge about an illness.

Even if the illness gets subsumed in the assumed normalcy of ordinary, there are instances where the available repertoire of knowledge limited to the individual or the family or the kinship network gets exhausted without producing the expected results. In such scenarios, illness goes into the realm of expert advice, diagnosis and treatment either in form of a doctor or a *tantrik*. Also people hybridise the vocabularies of multiple medical systems to make sense of the situation.

The paper hence attempted to understand the meanings and answers about illness experiences located in questions like who has the knowledge of a particular illness, who defines the steps to deal with illness, who diagnoses the illness, who treats it and how, what strategies are to be adopted and why, were these actions successful or not. In an apt conclusion to this, ‘... illness is made knowable in the course of clinical and social transactions’ (Das:: 2015: 26) and so are the associated notions of health and disease.

NOTES

1. The power associated with biomedical knowledge production as the science of dealing with health issues from the aspects of Cartesian dualism of mind and body separation has been questioned on the premise that body, culture, society, politics, history are all entangled and are capable of bringing about changes in human existence leading to “biosocial transformations” (Lock and Nguyen, 2010).
2. Veena Das (1995) in her acclaimed book *Critical events* refers to critical events as opposed to the uneventful as ‘new modes of action came into being which redefined traditional categories..., new forms were acquired by variety of political actors’ (p.6). In her another seminal work *Afflictions* she refers to Povinelli’s (2011) conceptualisation of illness experiences as a quasi event, which she defines as “... quasi-events never take the status of having occurred or taken place. They neither happen nor not happen”. Her focus is on how these events get noticed or are not noticed in the moral, political or market domains as opposed to the eventful which demand attention. Das, however, noting the importance of this concept states that larger political and economic changes simply cannot be juxtaposed into lives of people

- because simple juxtaposition 'cannot do the work of showing the pathways through which the larger changes are absorbed in individual lives' (p 15).
3. Even though through the 73rd Amendment of the Constitution and the constitutionalisation of the Panchayati Raj Institutions, a way for political and ultimately social emancipation of these castes was paved but social forces played a significant role in maintaining the caste hierarchy.
 4. According to the calculation made by the authors, Himachal Pradesh ranks 3rd in Human Development Index (HDI) for 2011-12 amongst various states in India.
 5. For further details and explanations see Kleinman (1988) *The Illness Narrative*.
 6. Das refers to the labouring body in terms of intermittent employment that people in poor neighbourhoods in Delhi sought and the precarity of this labouring body when the threshold of not finding work and falling into an illness complicates the matter further for them.
 7. For further details refer to Victor Turner's essay on liminality and *communitas* (1969).

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Worshipping of Goddess Rountuk: An Explorative Study on the Traditional Health Care Practices among the Rabhas of West Bengal

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Abstract: Every culture has its own way of explanation for the ailing persons and to get rid of, it has developed specific mechanisms. In the present context we explore the traditional health care beliefs centering the worshipping of Goddess *Rountuk* which is considered as the chief household deity of the Rabhas inhabiting the northern part of West Bengal. Further, the study highlights various rituals related with the appeasement of the deity as a first hand remedial measure to achieve psychological strength to cope up with adverse situations. We also focus on the ecological variations in Rabha habitations and the recent changes in their religion which help them to sustain in different milieu and subsequently compel to modify their perceptions regarding onset and remedy of sickness. Eventually, the article unfolds the continuity of supernatural beliefs among the Rabha as a conspicuous character of explanatory models which also govern their traditional health care practices irrespective of the emergence of changing situations.

Key words : Traditional Health Care, Rabha, *Rountuk*, Religion, Belief, Explanatory Model

INTRODUCTION

Most of the tribal communities have their own beliefs and practices in respect of seeking traditional health care which they acquire through their knowledge and experiences in search of getting physical and psychological support to get rid of ailments (Tarafdar, 2010; 2017). Traditional health care practices may have some supernatural connotation and can be well explained through cross-cultural study based on several religious beliefs. This kind of cross-cultural study holds more significance in the field of medical anthropology because it tries to elucidate the culture specific patterns of healing process by an ethnic group, regardless of several intra-cultural variations and socio-religious alternations. According to Kleinman et al. (1978) both laymen and health professionals tend to combine their society's individual models of beliefs through 'explanatory model'. Explanatory models provide a structure within which individuals sort out their health problems and understand their sickness and related misfortunes.

The present study emphasises on the health related beliefs centering around the prime worship performed by the members of Rabha community inhabiting in the northern part of West Bengal. The worshipping of deities in connection with the traditional health care practices is not rare among the tribal communities (Elwin, 1955; Vidyarthi and Rai, 1977; Chaudhuri, 1986;

Mahapatra, 1994; Tarafdar, 2005; 2016; 2017). As followers of the animistic form of religion, they try to appease the deities responsible for various ailments. The explanatory model of disease causation and related health care practices may vary according to the culture prevailing in a particular area (Hahn, 1995; Guarnaccia and Rogler, 1999).

Rabha are one of the significant Scheduled Tribe communities of West Bengal known for their rich cultural heritage. Traditionally, they are a matrilineal community (Friend-Pereira, 1912) and belong to the Sino-Tibetan language group of Tibeto-Burmese family (Basumatary, 2010). The Rabha tribe comprise of a number of linguistic groups. Each group possesses its own socio-cultural elements with certain distinctive characteristics. Based on their linguistic and cultural differences, the Rabha community can be broadly divided into eight groups (or sub-tribes) viz. *Kocha*, *Rongdaniya*, *Maitoriya*, *Pati*, *Totla*, *Dahori*, *Bitoliya*, and *Hanna* (Rabha, 2003). In the state of West Bengal, the Rabhas inhabit specifically in Alipurduar (newly formed), Jalpaiguri and Coochbehar districts. The Rabha people living in West Bengal belongs to *Kocha* Rabha group and do not perform *Khokchi* or *Baikho* worship, unlike the other groups of Rabha community who are mainly found in the north-eastern states of India (Rabha, 2003).

During the post-colonial period, a number of ethnographic works on Rabha population of West Bengal have been carried out by scholars, like Raha (1967 and 1989). These studies highlighted on the changes in the fundamental structure and function of the Rabha Society from its traditional matrilineal to patrilineal system caused by the interplay of various factors like the heavy influx of refugees, modern education, communication, legislation, market and cash economy. B. G. Karlsson, on the other hand, describes the development of the Rabha people, their ways of coping with the colonial regime of scientific forestry and the depletion of the forest as well as with the present day concerns for wilderness and wildlife restoration and preservation (Karlsson, 2000).

Most of the researchers in their accounts have indicated that the Rabhas are inclined more towards Hinduism. Regarding their religion, Hunter (1876) states, 'Rabha religion is a curious mixture of belief in their own demons and good spirits, and in Hindu Gods, whom they also worship after their own fashion'. The process is marked as 'on the road to Hinduism' by Gait (1892). Friend-Pereira (1912) on the other hand finds the Rabha people as pure animists.

Except Raha (1967, 1989), most of the authors have not clearly discussed about the religious beliefs and worshipping practices specifically performed by the Rabha community to get rid of their ailments. According to Raha (1989), on the basis of their ecological habitation, the present day Rabha community of West Bengal can be divided into two segments, namely 'forest Rabha' and the 'village Rabha'. 'Forest Rabhas' mainly inhabit in the forest areas of

Alipurduar and Jalpaiguri districts, whereas the 'village Rabhas' are generally settled in the plain land of Coochbehar district. Raha (1989) and Karlsson (2000) have also mentioned about the religious divisions found to have existed among the Rabhas of West Bengal. Considering the earlier accounts, the population under study can be divided into three religious groups. The first group is forest dwellers who still practice their traditional religion in the form of animism and continuing with their traditional cultural identity distinct from the wave of modernization that has been sweeping the land. Another forest group has already been converted to Christianity because of the interventions of Christian missionaries who imbibed the feeling of apathy towards expensive and long term traditional rituals. The third group who inhabit areas adjacent to the mainstream Bengalee-speaking Hindu population, have to some extent deviated from their age-old cultural tradition as a result of the influence of the local Hindu culture.

MATERIALS AND METHODS

The above discussion has brought into light the different groups and segments of the Rabha community, who have some special importance in the context of the present study as it is intended to emphasise on the traditional health and belief system centering on a specific worship practiced by the Rabhas. The study provides a detailed account of worshipping of the Goddess *Rountuk* practiced by the Rabhas to whom the worship has a specific value in terms of health beliefs and health care practices. It is also intended to explore the existing explanatory model and treatment modalities perceived by the Rabhas, even after their acceptance or conversion towards alternative (Hindu) and western (Christian) religious system.

Traditionally, the Rabhas are Animists, but eventually, a syncretised form of Animism and Hinduism emerges as a result of continuous interaction with the adjacent Bengalee-speaking Hindu populations (Das and Raha, 1967). The degree of admixture is higher among the 'village Rabhas' or 'plain land Rabhas' who perform almost all the religious practices similar to the local Hindus and are more comfortable to introduce themselves as Hindu to the outsiders. On the contrary, the degree of admixture with the Hindu cultural traits is lesser among the 'forest Rabhas', whereas in the the same group Christianity emerges as a strong catalyst of cultural transformation towards western culture.

It was Chaudhuri (1986) among others who has examined the socio-cultural dimensions of tribal health, mostly based on the traditional worship and medico-religious practices. Tarafdar conducted some important medical anthropological studies on the various tribal communities of West Bengal and explored the 'personalistic belief system' in connection with their disease causation. He also focused on the worship of different traditional deities and subsequent health care practices specifically performed by the Santals (Tarafdar, 2005; 2007; 2010), Kora (Tarafdar, 2005; 2007; 2010), Toto (Tarafdar,

2009; 2011) and Drukpa (Tarafdar, 2016; 2017) communities to get rid of various ailments.

The outcome of the previous studies done on Rabha population reveals that the Goddess *Rountuk* is the chief household deity of the Rabha community (Raha, 1970, 1989) and it has some relation with their disease causation. From the perspective of medical anthropology, the present article is intended to discuss in detail the mode of worship of the Goddess *Rountuk* and related health beliefs and practices specifically performed by the Rabha population primarily as protective and curative measures against sickness and misfortunes. Intensive field work was conducted in different phases for four years (2013 to 2016) in four exclusive Rabha villages. These villages are selected on the basis of stratified sampling method based on its locations and religious features (Box 1).

Box 1

The study villages with their locations and religious affiliation				
Sl. No.	Name of the Villages	Locations	Religious Affiliation	Total number of Families
1.	Andu Basti	Forest Village	Animist	75
2.	Rabhaline	Forest Village	Both Animist and Christian	67
3.	Dhumchi	Forest Village	Christian	57
4.	Bansraja	Plain land Village	Accentuated towards Hinduism	37

Andu Basti is located inside the Chilapata Range of Jaldapara National Park and is mainly resided by the traditionally oriented Rabha population. Rabhaline of Rajabhatkhawa is located inside the core region of 'Buxa Tiger Reserve' (BTR) and is inhabited by the Rabha population from both the traditionalist and the Christian religious categories. Dhumchi village is exclusively inhabited by the Christian Rabhas and is located inside the Dhumchi beat of 'Jaldapara National Park'. All the three villages are administratively located in Alipurduar district of West Bengal. The Bansraja village is located near to Tufanganj Municipality of Coochbehar district. The village is entirely inhabited by the Rabha population and having more faith or belief in the Hindu cultural traits as practiced by the adjoining mainstream Bengalee speaking population.

The present article is a result of an explorative study based on qualitative data. In order to obtain a comprehensive idea about the health-related beliefs and practices associated with the worship of Goddess *Rountuk*, we conducted a preliminary survey on a total number of 236 Rabha families from the four above-mentioned villages (Box 1). On the basis of the preliminary survey, the families practicing *Rountuk* worship has been selected and interviewed separately. Case study and key informant interview played an

important role in this regard. Case studies were taken from the married Rabha women and the traditional healers as the worship is specifically associated with them.

Based on stratified and purposive sampling, six cases were taken into consideration for the present study. The first four cases were considered from the married Rabha females following animistic religion, living in Andu Basti and Rabhaline. The first, third and fourth cases highlight on the curative measures associated with the worship of Goddess *Rountuk* to get rid of untoward health situation. The second case underlines the protective measures associated with the worship of Goddess *Rountuk* in the social occasions, like marriage.

The rest of the two cases have been collected from the married Rabha women of Bansraja and Dhumchi Rabha villages in order to get an idea regarding the contemporary changes in the belief pattern after the religious conversion. The first case of this segment highlights on the recent changes that have occurred in the health related beliefs due to the impact of the dominant Hindu community living in the adjoining areas of village Bansraja, whereas the second case emphasises on the impact of western religion in the Dhumchi forest Rabha village.

We have considered two traditional healers of the villages as key informants. These two traditional healers have their affiliation to animistic form of religion and have proved useful for exploring the in-depth data on ritualistic practices of Goddess *Rountuk* and health related beliefs with cognitive dissemination of the entire phenomena. Observation, specifically non-participant observation technique has been followed in the entire study because *Rountuk* is believed to be the household deity of the Rabhas and other than the clan members no one is allowed to take entry in the core of worship place.

RESULTS

Worshipping of goddess *Rountuk* and related health beliefs

Jugna Rabha, a 58 year old Rabha male from Andu Basti of Chilapata, is our key informant. He is quite well known and is the only traditional healer in the neighbourhood. During the course of our fieldwork, we learned that the villagers of Andu Basti closely follow the advices of Jugna Rabha. He can act both as *huji* and as *deoshi* if anybody requires his help to get rid of any ailment. Among the Rabhas, both *huji* and *deoshi* are known as traditional healers, but the activities performed by each of them are different. Like shaman, a *huji* can heal any ailment by medico-religious activities, whereas *deoshi* performs healing activities through traditional worshipping as carried out by the priest. The *huji* and the *deoshi* may or may not be the same person, but they should belong to 'uni bamun' *husuk* (clan) because the Rabhas believe that the people from *husuk* (clan) 'uni bamun' hold the highest position in the Rabha society.

While answering to a question regarding the importance of *Rountuk* in the Rabha society, Jugna Rabha replied, '*Rountuk* is our household deity and we confer her the most important place in the Rabha pantheon of deities and spirits. She is thought to be an admixture of Goddess *Laxmi* and *Parvati* (of Hindu religion). Sometimes *Rountuk* is considered as the Goddess *Kali* (Hindu Goddess) who, it is believed, helps in overcoming any kind of ailment. If any mistake occurs during the process of worship, then she would harm the family members (specifically the elderly female member) to a great extent'. So *Rountuk* generally acts like a benevolent deity, but she could turn to a malevolent one and can eventually harm the female members, if anybody fails to propitiate her. According to the Rabha mythology, *Rountuk* is the daughter of Lord *Resi* who is thought to be Lord *Shiva* or *Mahakaal* of Hindu religion (Raha, 1989). It may be mentioned that the Rabhas always try to relate their traditional deities with the deities of Hindu religion for wider recognition of their divine incarnates.

In general, to the plain land 'village Rabhas' *Rountuk* is known as *Thansiri* which means *sthane swari* or *sthanshree*, i.e. the deity of the place (*sthan* means place and *swari* or *shree* means deity/Goddess). *Rountuk* is always worshiped with *Bashek* who is considered as the sister and companion of Goddess *Rountuk* and is to be placed on the left side. The deities do not have a biomorphic figure. A red coloured earthen pitcher full with paddy represents the *Rountuk* which is slightly larger in size than the earthen pitcher which represents *Bashek*. The pitchers are usually purchased from the market. While buying the pitcher, a Rabha individual never bargains with the potter, but ensures that the pitcher is free from any defect.

Rountuk Bai or worshipping of Goddess *Rountuk* along with *Bashek* is an age-old cultural practice which is carried out generation after generation by the Rabhas. The eldest lady of the family (who is regarded as the head of the family) holds the right to establish the earthen pitcher of Goddess *Rountuk* and perform the rituals of worship. The traditional priest *deoshi* counts the auspicious day for the foundation of these deities. The worship connected with the foundation of deities always takes place at night of the brighter half of the lunar month. As long as the lady remains alive, her daughter or daughter-in-law has no authority to worship these deities. The earthen pitchers symbolizing *Rountuk* and *Bashek* have to be immersed in water bodies if the worshipper dies.

Romeswar Rabha, our other key informant is a well-known *deoshi* of the village Rabhaline of Rajabhatkhwa. He has learnt all the ritualistic performances from Basar Rabha, another *deoshi* of the same village. Age related health problems debarred Basar to continue the worship of *Rountuk*. Romeswar Rabha allowed us to observe the entire process of the worship of Goddess *Rountuk* while he was performing the same in a house of an individual belonging to 'forest Rabha' group. However, we could observe the entire

performance only from outside the room. We noticed that *Rountuk* and *Bashek* were placed on a platform made of bamboo at the eastern corner of the northernmost room. As the sun rises from the east, the Rabhas always prefer to worship *Rountuk* by placing her towards the eastern side of the house (*nougou*). They believe that ‘the blessings of the deity would spread with the first ray of the sun which subsequently helps to wipe out the causes of various ailments’.

The bamboo altar known as *chingsangang* is placed at the side of the paddy store because the Rabhas also symbolise *Rountuk* as their Goddess of wealth. *Chingsangang* is adorned with *jatrashi* leaf (*Justicia gendarussa*) and cotton wreath. *Jatrashi* has also medicinal value and the Rabhas generally use the fresh leaf of it to get rid of ailments, like fever, stomach ache and most significantly from irregular menstruation. The women associated with the worship have easy access to *jatrashi* leaf and can consume it according to requirement.

Sitting on *chingsangang*, Romeswar Rabha was busy worshipping the deities with the help of *maitok* (who assists *deoshi*). The pitchers that represent *Rountuk* and *Bashek* are filled with paddy and on the neck of each of these pitchers, one *touche* or egg of hen (*tou* = hen; *che* = egg) is kept. The egg is placed on the acme of rice and is smeared with vermilion. The egg is offered to the respective deities exclusively by the Rabhas residing in that particular area (Sanyal, 1965; 1973; Tarafdar, 2011; 2017). Offering of paddy and egg to the deity may be introduced optimistically for ensuring continuous supply of essential nutritious elements. Among the Rabhas, egg is generally taken as a common food item, especially for expectant mothers and children.

The sacrifice of pig or fowl, offering of *chokhot* (traditional liquor), pieces of new red and white cloth, sunned rice, and banana are required for the worship of *Rountuk*. The place of sacrifice is situated very close to the *fonkor nugdur*, i.e., the door for entering into the kitchen of the house. At the time of sacrifice, the *deoshi* utters :‘*Hal Jal Ji Neu / Hal Jal Ji Nai / Sona Nougou Na Bau / Sona Noktang Na Oau / Hatti Tai Tasay / Ghora Bau Tasay / Hal Jal Ji Neu / Hal Jal Ji Nai*’, which means ‘*Rountuk, Bashek*, you are two sisters; *Rountuk*, I am offering you a house made of gold. *Bashek*, I am offering you a house made of silver. Be kind to us. Do not get angry with us and go away on an elephant; do not go away angrily on a horse. Oh, Goddess *Rountuk* ! Oh, Goddess *Bashek* ! Be kind to us’ (Raha, 1989). The Rabhas believe that if they fail to appease the Goddess *Rountuk*, she would go out of their house either riding on an elephant or on a horse which is regarded as inauspicious; and if it happens, they would suffer from serious ailments, viz, inflammation of the bodily parts, acute headache, dizziness and body pain.

Zerfonk is a long bamboo pole which represents Lord *Reshi* (father of Goddess *Rountuk*). It is usually planted in the courtyard in front of the house. This bamboo pole has two branches on two sides of its free end from which two small cotton lumps are tied with a cotton thread. They believe that these cotton

lumps can heal the family members from any untoward health situations, like inflammation of the bodily parts, headache, stomach ache and body ache. In cases of a very adverse health condition, like jaundice, pneumonia and bronchitis, the Rabhas believe that the cotton lumps attached to the *zerfonk* can help to heal the diseases with proper medication, either by herbal medicines or by magico-religious activities.

Romeswar Rabha added, 'Worship of *Rountuk* may be performed without sacrificing the animals. This type of worship is found among the Rabhas who are not economically well off and are unable to purchase pig for sacrifice. Instead of keeping egg they place a whole betel-nut on top of the paddy inside each pitcher. In this regard, a plant locally called as *akrai-chak fung* (*Leucas aspera*) and one red fowl are required along with the rice water'. The root of *akrai-chak fung* is used to treat fever, the leaf paste of that plant is used in pneumonia and the entire plant paste is ingested in treatment of snake bite.

Offering traditional liquor (*chokhot*) is the most vital part of the ritual. Generally *chokhot* is offered to these deities in *burki* which is a special type of container made by the outside cover of a gourd. After the completion of the ritual, two unmarried young Rabha girls, known as *janay*, serve the *chokhot* to the guests. *Chokhot* is the traditional alcoholic beverages and can be preserved for 6 to 12 months. The Rabhas believe that *chokhot* works as a health tonic which promotes sleeping and hence, rest. They also consider it as having high medicinal value in relieving headache, body ache, inflammation of bodily parts, diarrhoea and urinary problem. Most of them believe that *Chokhot* is highly effective in controlling worms and cures cholera. It is also given to the domestic cattle as a tonic to promote body strength and to cure swelling legs. Studies reveal that *chokhot* contains protein, carbohydrate, calcium, phosphorus, iron, vitamin-B and very less percentage of alcohol (Chowdhury, 2012; Roy, 2016).

After an overnight celebration, the worship of *Rountuk* ends in the next morning. Every year, the day of the foundation of the deity in a house is celebrated with worship and festivity. Every evening the deity is propitiated with earthen lamp and incense. To the traditional Rabhas, the worship of Goddess *Rountuk* is mandatory at the time of marriage ceremony in the family. A day before the marriage ceremony, the bride's mother worships Goddess *Rountuk* praying for the well-being of the couple. They believe that *Rountuk* would also protect the new couple from various malevolent spirits. The evil spirits, according to them, become very active on every full moon and new moon night and in order to protect a family they worship *Rountuk* on the same day and night as a protective measure.

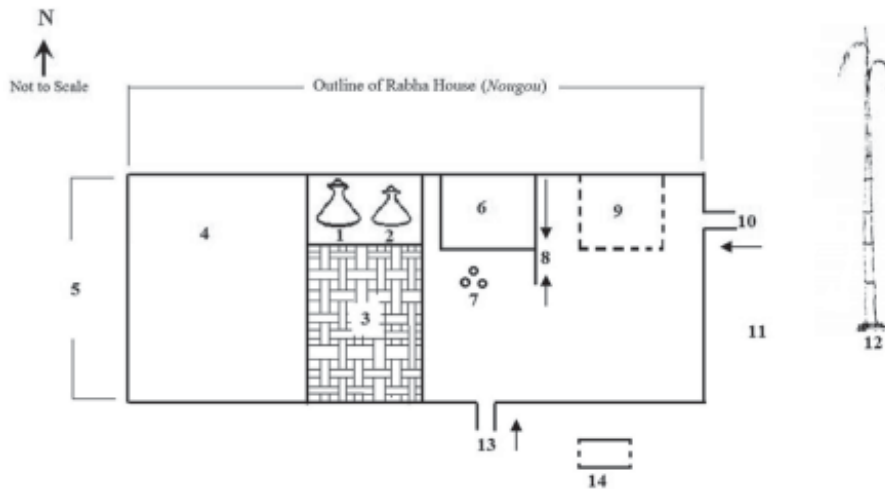


Figure-1: Position of *Rountuk* inside a typical Rabha house (*Nougou*)

1. *Rountuk* – household deity of the Rabhas; 2. *Bashek* – sister/companion of *Rountuk*; 3. *Chingsangang* – the bamboo altar for keeping *Rountuk* and *Bashek*; 4. *Chasang* – place for keeping food grains; 5. *Godou* – Back side of the house, mainly used for drinking country liquor; 6. *Akan* – ceiling; 7. *Fonkor* – hearth; 8. *Dobon* – bamboo made fence; 9. *Akhni Hoga* – place for sleeping; 10. *Nounugdud* – entrance from eastern side; 11. *Hotoknong* – courtyard; 12. *Zerfonk* – bamboo tree; 13. *Fonkor Nugdud* – entrance directly from kitchen; 14. Place of sacrifice

The above discussion mainly concentrates on the ritualistic performances and related health beliefs associated with the worship of Goddess *Rountuk*. The Rabhas strongly believe that *Rountuk* can also protect their health from different evil spirits or demons found in the nearby forests. Personalistic belief system (Foster, 1976; Brown, 1998; Brown and Closser, 2016) regarding the disease causation in connection with the worship of *Rountuk* can be better understood through the following case studies.

Case - 1: Basana Rabha, 32 years old married, a Rabha lady who lives in the Rabhaline (a ‘forest Rabha’ village divided into two religious categories, i.e. Animist and Christian) of Rajabhatkhawa *Gram Panchayat*. The area is located inside the ‘Buxa Tiger Reserve’ (BTR) of Kalchini block of district Alipurduar, West Bengal. Before marriage, Basana was staying in the Salkumarhut ‘forest Rabha’ village and had formal education up to class four. She subscribes to animistic beliefs and primarily engages herself in household work and collection of firewood from the forest. While replying to a question regarding her health condition, Basana said, ‘One month before, I was suffering from an acute headache which was probably caused by attack of some supernatural forces’. No improvement of the situation over a week compelled her to visit a local *huji* for seeking remedy. According to Basana, the *huji* checked her thoroughly by applying traditional method which includes a bowl of water and a holy basil leaf inside it. The *Huji* said, ‘An evil spirit from the nearby forest is trying to harm you and to get rid of the evil spirit you have to

worship Goddess *Rountuk* by sacrificing a fowl and a black pigeon'. Following the advice of the *huji* on the very next day she worshiped Goddess *Rountuk* and eventually threw the sacrificed fowl and pigeon in the forest. After two days of this worship, Basana recovered completely from the ailment.

Case – 2: Sanjita Rabha, an eighth standard pass out and presently 18 years old newly married Rabha girl resides in Rabhaline of Rajabhatkhawa. While briefing on *Rountuk*, Sanjita told, '*Rountuk* has some special importance in the traditional Rabha society so far as the marriage is concerned'. She continued, 'Six months ago my marriage was fixed in the same village and to reduce the burden of expenses both of the families decided to embrace Christianity'.

Sanjita continued, 'We decided to embrace Christianity by performing rituals in the village Church two days before the date of marriage. As soon as we thought to do so, my mother was possessed by some spirit while collecting firewood from the nearby forest situated on the bank of river *Dima*.' Sanjita added that after returning from the forest her mother suffered from high fever and red rashes appeared on her skin. Her eyes also turned into red. Sanjita believed that these symptoms had some connection with the attack by the spirits. Immediately, she called Romeswar Rabha (local *huji*) for necessary intervention. Incidentally, Romeswar was aware of the fact of conversion to be executed by the family. Sanjita continued, 'After reaching our house, he (Romeswar) started to observe intensively the position of rice and egg inside the pitcher of *Rountuk* and advised us accordingly not to convert our religion.' Romeswar explained to Sanjita that as the *Rountuk* became very angry to know about their decision to change their religion, he tried to warn Sanjita's family.

On the very next day, Sanjita's family decided not to change their religion and they sold two pigs to get money for the worship of *Rountuk*, to be followed by the marriage ceremony. The groom's family subsequently decided to continue their traditional animistic religion for the well-being of the new couple. While replying to a question about her mother's health, Sanjita told that her mother became completely cured just after one day of the worship and actively participated in her daughter's marriage. Sanjita concluded, 'During the last six months, none of my family members suffered from any ailment'.

Case – 3: Padmuni Rabha is a 39 year old lady inhabiting in the village Andu Basti (a 'forest Rabha' village exclusively following animistic practices) of Chilapata range of Jaldapara National Park. Although Padmuni did not receive any formal education, yet she can write her name in Bengali. The village is administratively located under Alipurduar-I Block of Alipurduar District of West Bengal and is exclusively inhabited by the Rabha population. Padmuni was suffering from burning sensation in her body since the last six months prior to the time of interview. The problem was aggravating gradually. While explaining about the cause of the ailment, she said, 'Initially I neither

had any knowledge about the cause of the ailment, nor I was concerned about it, but after one month, I had to call a *huji* (traditional healer of the Rabha community) since the intensity of the symptom was increasing.' She believed in the animistic practices, according to which the healing process is mainly performed by the *huji* who may be from the same village or from any other neighbouring villages. Padmuni was the youngest daughter of her mother and stayed in a matrilineal family with her husband and two children. Her mother was a widow and resided in the same house till her last breath. Just after few days of her mother's death, she started to experience the symptoms of burning sensation in her body.

'After making an intensive observation on the arrangement of my *nougou* (house), *huji* suggested to reestablish the *Rountuk link* by replacing the existing earthen pitcher which my mother used to worship', Padmuni said. The *Huji* also advised her to complete the entire process as soon as possible; otherwise, the symptoms would become life threatening in her case. Padmuni was also suffering from financial problem and she said that she would arrange the worship of *Rountuk* and reestablish the deity as soon as she could arrange the money.

Case – 4: Jami Rabha, a 58 years old widow from Andu Basti told that two months back she was attacked by an evil spirit while returning from her brother's house in a full moon night. Jami Rabha had no formal education and she was even unable to write her name. Jami said, 'I was returning home from my brother's place. The moon was clearly visible and the entire village was lightened by its silvery glow. I was about to reach my home, suddenly a small but very glittery substance appeared from the forest and it directly entered into my body. After reaching home, I felt acute headache along with high fever. I was worried about the matter because I knew it might be a spirit of a dead person (*jourakaal*) that had entered into my body. I narrated the entire incidence to one of my neighbours and requested him to call Jugna Rabha'. Jugna Rabha is a well known *huji* residing in the same village. 'The *huji* gave me some sanctified water (*jalkasha*) to drink and afterwards initiated magico-religious activities (*Jhar-Phunk*) with long *dryopteris* (fern) leaves and one peacock feather collected from the forest in order to ward off the spirit. It took nearly half an hour to complete the process of healing and thereafter, Jugna Rabha advised me to arrange the worship of the Goddess *Rountuk*. Jami Rabha narrated, 'The spirits living in the nearby forest become active during full moon and new moon night and to avoid their wrath it is recommended to worship Goddess *Rountuk* in every full moon and new moon night'. Jami Rabha recovered on the very next day after the worship of *Rountuk*.

The above case studies clearly unfold that, in Animistic Rabha society the belief regarding the causation of ailments is largely connected with the worship of Goddess *Rountuk*. The belief system may be described as an organised body of ideas, attitudes and convictions centered on values or things

regarded as important or precious by a community (Winkelman, 2009). The discussion also supports the statement, 'the core of the belief system consists of attitude and values' (Young, 1976). The term value designates the preferences of choices, on a scale of things that people desire and require. Like any other communities, the particular world-view (Hiebert, 2008) of the traditional Rabha community and their faith on deities significantly influence their perceptions about health, sickness and health care practices. While dealing with individual patients from the Animistic Rabhas of Andu Basti and Rabhaline, we have considered the entire 'forest Rabha' community as a patient because the belief system, attitude and behavior of a community are generally conditioned by the particular sociocultural milieu to which he or she belongs (Kleinman 1981; Winkelman, 2009). These cumulative experiences are socially transmitted and get institutionalised gradually (Winkelman, 2009).

To the Animistic 'forest Rabhas', the right of *Rountuk* worship transmits generation wise. *Rountuk* has a great importance in their economic and religious life. Ultimogeniture form of inheritance pattern of *Rountuk* is prevalent among the Animistic 'forest Rabhas'. After the demise of the eldest lady of the house, the right to worship *Rountuk* goes to her youngest married daughter. In absence of any daughter, the daughter-in-law of the house can take the responsibilities, according to her own *rasong* (customs) based on her *husuk* (clan). The worship of Goddess *Rountuk* is not performed by the Christian 'forest Rabhas' and is rarely practiced by the plain land Hinduised 'village Rabhas' (Raha, 1989). It was also reported from the village that the Animist Rabhas sprinkle holy water and *chokhot* in their courtyard if a Christian Rabha visits their house. This process is followed in the worship of Goddess *Rountuk*. The Rabhas believe that the deity may harm them if anyone fails to do so.

IMPACT OF ACCULTURATION AND INFLUENCE OF WESTERN RELIGION

At the time of ailments, the ancestors of the present day Rabha people relied more on their age-old sickness behaviour and often sought support from the supernatural powers available to them. Of late, the changes in the religious faith have compelled the Rabha people to turn to alternative belief system and associated ritualistic performances. The present day 'village Rabha' religion can be placed in the way of transformation towards Hinduism (Hodgson, 1849; Majumdar, 1968; Das and Raha, 1967; Raha, 1989). In the village Bansraja, the Rabha population lives in plain land and practice agriculture and shares close contacts with the Bengalee speaking Hindu populations of the neighbourhood. The Rabha people of this village have adopted the religious practices and culture of the local Hindu populations and considered themselves as Hindu. They are presently worshipping the deities of Hindu pantheon, like *Kali*, *Shiva*, *Shitala*, *Kamakhyā* and *Narayana* instead of their traditional deity *Rountuk*. In majority of the Rabha households of this village, the prominent existence of the earthen biomorphic figure of deity *Shitala* has

been found in their courtyard. Deity *Shitala* is specifically worshiped by the Hindus to get rid of the disease like chicken pox.

Few of the 'village Rabhas' have *Thansiri* or *Rountuk* in their households, but they do not have *Bashek* (sister and companion of *Rountuk*). During marriage ceremonies, *Rountuk* has some special importance only to those 'village Rabha' families who have *Thansiri* or *Rountuk*. A day before the marriage, both the families arrange the worship of *Rountuk* for the well-being of the new couple. They do not practice planting of *zerfonk* like the Animistic 'forest Rabhas'. In every 'village Rabha' household there is a *tulsi-mancha* (sacred Basil altar) which is considered as the adobe of Gods, like Lord *Krishna*, *Balaram* (brother of Lord *Krishna*) and *Narayana* of Hindu pantheon. We also observed that the Rabhas are comfortable in Bengalee language and the married women put vermilion and wear conch shell ornament in both of the hands just like Hindu Bengalee married women do for the well-being of their husband.

Seeking health assistance from the biomedical system is also a pricey matter to the Rabhas who are not economically well off. Hence, for seeking any first-hand health assistance, the Hinduised and the Christian Rabhas have to depend on their respective Gods or deities. A significant structural change has occurred in the Rabha society because of its proximity with the dominant Hindu Bengalee community. In such a society the traditional religious traits are suppressed by the Hindu cultural traits. Changes from matrilineality to patrilineality, matrilocality to patrilocality and ultimogeniture to primogeniture are indicative of major structural changes due to 'Hindu Method of Tribal Absorption' (Bose, 1941) for the entire 'village Rabha' and to some extent for the 'forest Rabha' who have embraced Christianity. Furthermore, seeking any preliminary remedy for untoward health situation, believed to be caused by some supernatural forces, the Christian Rabhas keep faith on their supreme God, i.e., Jesus Christ. There are two separate Churches in Dhumchi and Rabhaline where the villagers pray in front of their God in the hope to get speedy recovery from any kind of ailments through faith healing. Therefore, in the present context, acculturation and accentuation towards other religious beliefs have replaced the traditional Animistic worship of *Rountuk* by the worship of respective deities in order to get similar kind of indication towards healing .

Case – 5: Parvati Rabha, 31 years old married Rabha lady from the village Bansraja said, 'Inside my home, I have the earthen pitcher of Goddess *Rountuk* which I have inherited from my mother'. Before marriage she was living in the Andu Basti of Chilapata with her widow mother and brother. She had formal education up to the sixth standard. A love marriage with a boy of the village Bansraja led her to stay in a patrilocal family. Since her only sibling was an unmarried male, she inherited the *Rountuk* after the death of her mother. Parvati remarked, 'The cultural value of the Goddess *Rountuk* was considerably less in her family as the family members mostly relied on the deities of Hindu

pantheon, but during the marriage ceremony of any of the family members, it was mandatory to worship Goddess *Rountuk*. While answering to a query about the primary treatment of any sickness caused by the supernatural forces, she answered, 'Of late we mostly believe on the deities, like Goddess *Kali*, Lord *Shiva* and *Maa Shitala* of Hindu pantheon and in order to seek any preliminary health care aids, worshipping of these deities becomes imperative for us'.

While narrating an incidence, Parvati narrated, 'Last year my son was affected with chickenpox and a large number of oozing blisters came out in his whole body'. She added, 'I did not consult any doctor because the oozing blisters were the blessings of *Maa Shitala*, popularly known as *Mayer Daya*.' This kind of beliefs can be found among the Bengalee speaking Hindu population residing in the adjoining areas of the Bansraja village. It is the process of acculturation (Kroeber, 1948) which has drawn persons like Parvati to accept this kind of belief system.

Answering to a question regarding the immediate steps taken by Parvati to cure her son, she replied, 'I did not have any option other than worshipping *Maa Shitala*. I have the earthen figure of the deity in my courtyard and only she has the power to cure any person suffering from chickenpox. I prayed everyday in front of *Maa Shitala* in order to cure my son and to protect the other family members as the disease is highly contagious. She further stated, 'at the time of sickness my son was under complete food restriction. She wanted to give full credit to *Devi Sitala* for the recovery of her son.

Case – 6: Nilshree Rabha, 68 years old widow from the village Dhumchi (a 'forest Rabha' village, exclusively inhabited by the Christian Rabhas) of Madarihat-Birpara block of Alipurduar district said that, after the establishment of the Rabha Baptist Convention in the year 1982 and due to the continuous preaching of the Christian Missionaries, she embraced Christianity. She did not have any formal education but had learned to write her name from the missionary workers. She further narrated, 'I embraced Christianity to reduce the burden of expenses related to the traditional Animistic worships. The worry from the suffering of disease due to non-performance of the traditional worships also compelled me and my family members to embrace Christianity'. She added, 'The nearest health institution (Madhya Rangalibazna Primary Health Center, Shisubari) is situated far away from my village. To reach that health institution I need to hire a vehicle, and this becomes expensive for me. To overcome the situation we have no option other than to keep faith in our supreme God, i.e. Jesus Christ'. While sharing her experience, Nilashree Rabha continued, 'Just two weeks before, I was suffering from severe dysentery. Generally, in such case it is better to consult a doctor; but at that time I did not have enough money to consult a doctor. So, I went to the village Church and prayed for my quick recovery in front of God. Moreover, the pastor sprinkled holy water on me. I derived some psychological strength and returned home accordingly. After two days, I got a little relief but till now I am avoiding to take spicy and non-vegetarian food items'.

CONCLUSION

The study provides a comprehensive account of worshipping of the Goddess *Rountuk* by the Rabhas of West Bengal. It also focuses on the variation across regional (on the basis of distinctive ecology) and religious segments of the present day Rabha populations in terms of traditional health care practices.

The explanatory model (Kleinman, et al., 1978) behind the onset of ailments is similar (personalistic belief system) across all the religious and regional segments of the Rabha community inhabiting in the northern part of West Bengal. The belief that the supernatural forces remain the causal agents behind all types of ailments is prevalent in most of the cases of the present context. The members of the 'forest Rabha', 'village Rabha' and 'Christian Rabha' groups resort to appeasing their respective supreme deities for protecting and curing from the ailments and moreover, to enhance psychological strength for the same.

Finally, the study reveals that, the Rabhas, irrespective of their religious affinity, have some supernatural conviction and reliance on the conspicuous traditional health care practices; even conversion to Christianity has failed to alter the basic cognitive structure of treatment modalities. In the present cross-cultural juncture the belief on supernatural phenomenon somehow intrinsically controls the prime traditional health care practices of the Rabha people. Their cultural moorings have a strong conservative base.

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**You are ‘outsiders’, you cannot touch our ‘*Lalbangla*’ :
Kitchen room, purity-pollution and identity construction among
Chuktia Bhunjia tribe of Odisha, India**

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Abstract: This present paper explores how kitchen room, locally called *Lalbangla* of Chuktia Bhunjia tribe of Odisha shapes people’s behavior, economy, ecology and wider social relationship patterns. Data, empirically collected, show that beliefs, taboos and customary norms associated with *Lalbangla* not only function as social control mechanism, but also shape the social and ecological behaviors of the members of the community in a wider perspective. The philosophy behind ‘outsiders’ and ‘purity-pollution’ over *Lalbangla* has led to the construction of a meaningful system at the social level and thereby embodies a distinctive cultural expression. Furthermore, the solidarity they have built through customary attachment to norms and values relating to *Lalbangla* has given a form of identity to them.

Key words : Chuktia Bhunjia, *Lalbangla*, kitchen room, customary laws, purity-pollution, taboo, identity, Odisha

INTRODUCTION

Anthropological literature provides glimpses of numerous material artifacts and objects used by the people in pre-literate societies (Wissler, 1914; Sayce, 1933; Deetz, 1996; Kroeber, 1948; Fenton, 1974; Hariss, 1979; Glassie, 1999; Prown, 2000). Based on these documents, interlinking theoretical assumptions about material culture have evolved throughout the development of anthropology and anthropological theories. It is noted that classical anthropology, providing classical explanations on the basis of evolution and diffusion, mostly relied on the material artifacts to understand culture and society in time and space. But with the introduction of structural-functionalism, espoused by A.R. Radcliffe-Brown, the material cultural studies gradually waned and the understanding of society and culture through the assemblage of inter-personal relations gained currency over the discretely collected various material objects (Malinowski, 1944; Radcliffe-Brown, 1952; Nadel, 1957; Levi-Strauss, 1963; Prown, 1982; Sharma, 1983; Kaur, 1984; Miller, 1985). Moreover, when social structures or enduring groups per se were the provinces of enquiry, culture was but an epiphenomenon of social life holding the key to the dynamic of anthropological enquiry as ‘man as cultural being’. In such a situation, the overall understanding of material culture remains unchanged (Reynolds 1983; Lemonnier 1986), which becomes ‘an adjunct to the main arena of social enquiry’ (Marwah and Srivastava, 1987).

By definition, material culture represents the tangible part of the human society (Marwah and Srivastava 1987; Patnaik, 1995), which also includes

portable objects, fixed structures and landscape features. House is one such fixed structure that functions differently in different societies. So, house and house structures could be important areas of research within the study of material culture (Miller, 2008). Although house is understood as a physical entity, yet its anthropological meaning reflects the cultural epistemologies of a particular society; thereby it claims the status of a social entity shaping people's relationship with the ecology and behavior. Dant (1999) is of the view that house is the place where much of the phases of life and many of the major events of the dwellers are linked with their emotions and relationships of their lives (p.61). Morgan (1881, reprint 2005) also found a relationship between the form of house and social living. In a Volume titled *Stuff*, British Anthropologist Daniel Miller notes that house is a source of planning and standardization and a 'field of struggle' involving people and things (Miller, 2009: 85). Similarly, Daniel in the book *The Japanese House: Material Culture in the Modern Home* (2010) explores how home in Japan constitutes an arena of negotiation between individual wants, social convection and the material world. Durand (2016) observes that houses in Vanuata are prominent artifacts that materialize people's link to the land and actualize their presence on place they occupy. So, within a society no item of material culture stands in total isolation from other material phenomena, but is structurally linked to each other and always forms a network of a system within a specific society and culture (Reynolds, 1983: 213).

The theoretical polemics concerning cultural or material traits show that material objects, their values, meanings and functions vary from society to society. Archaeologists reconstruct or deconstruct cultural past through specific interpretation of material culture, but anthropologists try to infer meanings from it, which may commonly represent the total structure of the cultural system. From the perspective of structural-functionalists, the social morphology of material traits assumes significance, particularly in terms of moulding people's outward behaviour (Robbins, 1966; Low and Lawrence-Zuniga, 2003); because material culture plays a proactive role in society's adaptation to particular ecology and culture (Forde, 1934; Hodder, 1982; Olsen, 2003). Thus, the material traits play a very important role in the socio-cultural and economic life of the people concerned as these are connected with ideas, beliefs and values of people's social life. Functionalists are of the view that the study of material culture is one of values, or even primarily, it can be an approach to the study of economic and social activities (Rappaport, 1968; Hutton, 1944). This operates as an extra-somatic means of articulating individuals with one another into a closely-knit group, maintaining a socially cohesive structure. There are also some studies that focus on broader social formations and social organizations in relation to material structure (Saraswati and Behura, 1966; Rappaport, 1968; Miller, 1985). These studies argue that a particular complex of institutions emerge out of a particular variety of material culture. Warner (1957) also draws a similar theoretical argument while

studying the structure and value system of the Yankee cemetery and argues that cemetery is a confluence of the living and the dead. So the complex of values, norms and ways of living stands at the base of material culture in many societies, especially among the tribal societies.

In many tribal societies, house and house pattern vary across the groups depending on particular ecology, economy and social structure. Even the pre-historic archaeological remains portray a number of evidences about dwelling pattern. Literature shows that a house mainly serves three purposes: dwelling, working and storing; but the inherent cultural meaning of a house shapes the people's economy, culture, religion and social relationship in a broader context. Thus, owing to the value attached to a house, each society, particularly tribal, designs their house and even a settlement, depending on their specific cultural obligations. For instance, among the Toda (a pastoral community) of the Nilgiri hills, the material culture including the house type revolves around the 'cattle complex'. In many tribal societies we find youth dormitories that are not only used for sleeping, but also plays an important role in socializing the youth (Roy, 1915; Greigson, 1938; Barayon 1974; Sashi, 1978; Haimendorf, 1982). To put it in other words, in tribal societies there are certain norms, beliefs, actions, customs, taboos, rituals and values attached to the house construction (Tribhuvan, 1995).

With the above background, the present paper analyses a particular material trait, that is, the kitchen room, locally called *Lalbangla*, among Chuktia Bhunjia tribe of Odisha and sees how it shapes people's behavior, economy, lifestyles and relationship with the larger society.

MATERIALS AND METHODS

The Bhunjias are one of the 62 tribal groups found in Odisha. They are also distributed in the State of Chhattisgarh. In Odisha, the concentration of this tribal group is reported to be high in the Nuapada district (ex-Khariar estate of Central Province). The Bhunjia are divided into two broad social groups: Chinda Bhunjia and Chuktia Bhunjia (Dube, 1948; Dubey, 1961, 1963; Mishra, 2002; Pattnaik *et al.*, 1984). The Chinda Bhunjias are also known as Oriya Bhunjias because they follow the cultural practices which are similar to that of general Oriya culture and thus form the acculturated section of the tribe. The Chuktia Bhunjia, on the other hand, exclusively inhabit in the Sunabeda Wildlife Sanctuary. They are identified as one of the particularly vulnerable tribal groups (PVTGs) in the State of Odisha. Each of the divisions is further sub-divided into two moieties (*keni*): *Nitam* and *Markam*. Each moiety consists of a number of clans (*Barag*) with different designations. Members of the same *Barag* consider themselves as descended from the same ancestor. They themselves call them as *Dudhbhai*. Such a relationship ranges from worshipping the same deities and totemic objects to the practice of exogamy.

The Chuktia Bhunjia are a numerically small group and are distributed in 16 villages (9 revenue and 7 hamlets) located inside the Sunabeda wildlife

sanctuary. The total population of this community is 2174, of which 1085 (49.91%) are males and 1089 (50.09%) are females; out of the total population, 758 (34.87%) are literates with 559 (51.52%) males and 199 (18.27%) females [Scheduled Caste and Scheduled Tribe Research and Training Institute (SCSTRI) (2010)]. They belong to the Dravidian linguistic group (Russel and Hiralal, 1916) and speak Bhunjia dialect (a mix of Oriya and Chhattisgarhi).

The Chuktia Bhunjia households are nuclear in nature. An individual of this community after marriage establishes his own family of procreation in the same courtyard or in a separate place at the same village. The Chuktia Bhunjia society is patrilineal and patrilocal. Cross-cousin marriage is the most prevailing form of marriage. Shifting cultivation is the dominant form of agricultural practice followed by collection of minor forest produces (MFPs). The declaration of their habitat as wildlife sanctuary has restricted the Chuktia Bhunjia from encroaching on lands and practice slash-burning agriculture; so they are gradually adopting to settled cultivation. Hunting was once an important livelihood activity of the Chuktia Bhunjia. They are animistic and thus worship various deities, including their ancestral spirits. All the festivals of this community are mostly related to agriculture. Goddess Sunadei is the proprietary deity. Besides, there are village councils and important village functionaries that guide and control people's behavior pertaining to livelihood, resource collection, education, healthcare practices and so on that are governed by existing customary laws. Any breach to customary norms is greatly punished by the village council.

This study was conducted in ten villages, located inside the Sunabeda Wildlife Sanctuary. Data pertaining to the construction, use, and functioning of the *Lalbangla* or the kitchen room were collected through formal interview with open ended question and quasi-observation. Both male and female participants, aged between 10 and 70 years were formally interviewed to gather data pertaining to cultural practices, rites, rituals, beliefs and taboos attached to *Lalbangla*. Five in-depth interviews (two with married women and three with pubertal girls) were conducted. Ten focus group discussions (FGDs)- five exclusively with females and five with males - were also conducted to understand the role of *Lalbangla* in their social and economic life with emphasis on 'purity-pollution' concept attached to *Lalbangla*.

RESULTS

Landscaping the dwelling: House structure and patterns

The house pattern of the Chuktia Bhunjia is very distinctive. They build their houses in a particular way. Two or more families build their houses taking a wide-open space in a place. An individual after marriage tries to settle in an independent house. Each family is having two houses: main house (*Jhinjri Mahar*) and kitchen room (*Lalbangla*). Their main house (*Jhinjri Mahar*) generally consists of two rooms that are used for sleeping and storing grains. It is made

up of mud and wood. The walls are painted with floral and faunal designs. The second hut, built adjacent to the main house is the cattle-shed (*Ge-kuria*). It is also made up of mud and wood. This second hut is maintained in a more religious way because they worship Goddess *Mirchuk* inside the hut. A smaller hut, built a little way and in front of main house is the kitchen room, which is traditionally called as *Lalbangla* (Photo I). It plays an important role in their social and religious setting. If more than two brothers build their houses in a closed place, they invariably build their kitchen rooms separately.

The walls of this room are made up of mud and the roof is thatched with wild grasses, like *Singkhar* (*Pennisetum purpureum*) and *Dabkhar* (*Imperata cylindrical*). It consists of two rooms-one is for cooking and another is for keeping the utensils. The room is devoid of window. The doors are made up of wild bamboo or *Gandhla* (*Anthistirla ciliate*) (a type of grass mostly found on river bank). At the entrance of the room, two woods are fixed on the ground and a plinth-shaped wood is placed over it to keep the utensils during daytime. Nowadays, the community members prefer to make plinth like structure in the front side for this purpose. The floor is plastered with mud and cow-dung. The walls are splashed with a locally available red soil (*Ratamiat*). It is the colour of the soil from which the name *Lalbangla* has been derived. In most of the kitchen rooms, a husking tool (*Katen*), usually made of trunk of Sal tree (*Shorea robusta*), is found which is used to husk paddies and cereals with a long stick with iron at one end (*musse*l).



Photo I: A typical *Lalbangla*

Sacred kitchen: Beliefs, taboo and outsiders

The *Lalbangla*, is not only a structural entity, it is also a cultural entity, endowed with certain norms and beliefs. *Lalbangla* has a strong religious value

for the Chuktia Bhunjia because it is also an abode for their tutelary deities. The two important causes behind building and re-building *Lalbangla* are as follows (a) when an individual gets settled in a nuclear family set up after marriage, and (b) when an 'outsider' pollutes this structure. A newly married couple while constructing a new house builds a *Lalbangla*. The couple waits for an auspicious day to begin the construction of the *Lalbangla*. An astrologer (*Dinwari*) is consulted for this purpose. The *Dinwari* suggests of an auspicious day for the start of the construction and also gives his reading about the direction of the kitchen room in order to avoid any misfortune. A stem is fixed in the selected site followed by some rituals suggested by *Dinwari*. It often requires pouring of local liquor usually made of *mahul* flower (*Madhuca indica*) and raw milk over the place in the name of village deities or often with the sacrifice of a pigeon or hen depending on the site chosen. Gradually, he builds his *Lalbangla* with mud and timber. The timbers and stems used in construction are collected from the local forest. Once the construction of the pillar is completed, the individual along with his brothers and/or parents collect wild grasses and bamboo. These materials are used to thatch the roof of the newly built *Lalbangla*. After the construction is completed, his wife and other elderly females collect the locally available red soil (*Ratamiat*) to splash the house. The purification of *Lalbangla* starts after the completion of the construction. In the purification ceremony of *Lalbangla*, the owner invites two affine and few elderly persons of the village who usually purify the newly built *Lalbangla* by sprinkling raw milk and water over the *Lalbangla* with *Sunari* (*Cassua fistula*) leaf. A coconut, local liquor (one leaf cup full), a hen or pigeon are offered to the deities to save them from any misfortune. The invitees are then served with food cooked in the courtyard.

The Chuktia Bhunjia community considers the members of other communities who live in their own village and elsewhere as 'outsiders'. So, the question of (re)building *Lalbangla* arises when an 'outsider' by chance touches the *Lalbangla*. In such a case the *Lalbangla* is considered to be polluted and has defiled their tutelary deities. The head of the family of that household immediately sets the *Lalbangla* on fire and reconstructs a new one. The members of other clans of Chuktia Bhunjia community are considered as 'partially-outsiders' and are not allowed to enter into other's *Lalbangla*, though not prevented from touching it. Even their own married daughters are restricted to enter into the *Lalbangla* at the time of their visit to the parental home. An old woman narrated:

We are Chuktia Bhunjia which itself indicates purity, i.e. 'Chuk' meaning pure and Bhunjia representing our community. We worship our ancestral spirits and other deities inside our kitchen room; any outsider, including the villagers from other communities, our own married daughters, our women during lifecycle phases are not considered as 'Chuk' and may destroy the sanctity of our religious place by their touch or entry. So we restrict them from entering our Lalbangla.

A coconut or a chicken or pigeon is sacrificed to their tutelary deities as a form of purification and a branch of *mahua* tree (*Madhuca indica*) is fixed on the ground.

A *Lalbangla* remains incomplete without deities. So, immediately after the purification of a newly built kitchen room, the head of the household finds a space for their deities, and this is usually done on Tuesday. They invite their bilateral relatives and affines a week before the fixed day. Before narrating the process of how Chuktia Bhunjia keep their deities in a new *Lalbangla*, it is important to mention that the tutelary deities are shared among the brothers once all of them get married. Otherwise, the elder brother or the father has every right to worship these deities. However, in many cases, the elder brother gets the right to worship their clan deities and distribution of deities is seldom reported. Thus, collectively, the other brothers give a leaf made cup full of rice, ghee, local liquor to the elder brother as an offering to the deity on the day of each festival. In all such case, the concerned brother invites village priest, shaman and few relatives well before the fixed day. The drummers, usually from the scheduled caste community, are invited to beat the drum during the process. Shaman and priest play active roles during the whole process. They usually keep the deities inside the kitchen room in the form of 'Kalas' (newly made mud vessel covered with a new cloth with a coconut on the top). The *Lalbangla* then becomes a complete cultural entity after which no 'outsiders' are allowed to touch it or enter inside.

Lalbangla, purity and social relationship

From the structure and social morphology of *Lalbangla* described in previous sections, it is seen that kitchen room is a sacred place for Chuktia Bhunjia. The collected narratives reveal that it plays a crucial role in shaping not only the socio-cultural, economic and religious life of the people, but also in the interaction of local people with wider social world. But, each of the interacting phenomena is governed by a set of customary laws, the breaching of which is always believed to destabilize their social structure. The offender is always believed to receive punishment by supernatural forces. It is observed that during a marriage ceremony, before the bride is taken to the marriage spot (*modo*), her elder brother takes her to *Lalbangla* where he gives her a fist of turmeric mixed rice and asks her to bow heads to the deities and offer the mixture to the deities. The married girl of the family is considered as an 'outsider' since she belongs to a separate clan. The elder brother of the girl also suggests her not to enter to the *Lalbangla* at the time of her visit to the parental house. Since she is considered 'outsider', her acceptance of food cooked in parental *Lalbangla* may defile the sanctity of her husband's clan. So, the married girl cooks food for herself in the courtyard of her parental house.

A closer look at the social structure of Chuktia Bhunjia reveals that there are certain customary norms surrounding *Lalbangla*. This determines the

behavior of the people in time and space and construct the notion of 'purity and pollution'. For example, it is a taboo for women to touch *Lalbangla* during pollution periods observed in connection with child birth, on the days of menstruation and puberty. It is believed that during these periods, the blood discharged is perceived to be impure and may taint the deities. This is the reason why a woman at the time of child delivery is secluded to the main house or in a special hut meant for this purpose. She is considered pollutant and impure while giving birth and thus no other members of the family, except her husband, is allowed to touch the woman. As soon as the child is born, the father of the new born cuts the umbilical cord with an arrow and buries it in the courtyard to avoid being used for black magic or sorcery. If the mother gives birth to a male child, then her husband fixes an arrow at the end of village (*Delabat*), and in case of a girl child, he keeps a husking tool (*Paharun*) at that position. The arrow and husking tool are directly related to their economic activities. A *Dai*, the traditional birth attendant or any female member of the household, assists the new mother during this period in cooking of food, fetching of water and cleaning of clothes and bathing of the new born as well. Being perceived pollutant for a month, she is advised not to go to the forest for MFP collection, to the river or pond for bathing and touch *Lalbangla* as these are considered sacred. Although the food items cooked in the *Lalbangla* are given to the mother, the family members ensure that these are not touched by the mother and the leftovers are not taken back to the kitchen room. So, food is usually served to the mother in a leaf plate which is disposed in garbage immediately after consumption.

After one month, they perform a purification rite locally called *Hanichhia/Chhati*. Only women from affine groups are invited to celebrate this ritual. On the fixed date, the *Dai* washes the used cloth of the mother with hot water and ashes in an earthen vessel. The earthen vessel is later disposed into the garbage after the wash is over. This earthen vessel is termed as *khar*. She also collects seven varieties of cereals in a new earthen vessel from different houses of the village. The *dai* asks the mother to carry the vessel on her head to a river to take bath. The mother is asked to break the vessel on the river bank so that the cereals get scattered in water and on the river bank. It is considered as an offering to the deities for protecting her throughout the pregnancy period and at the time of child delivery. The mother takes her bath by applying turmeric powder and oil. She wears a new cloth. Once she returns from the river after taking bath, the new born child is warmed up with the light of the lamps. One of the invited female clan members takes her to *Lalbangla* and allows her to touch the kitchen room after sacrificing a chicken and a cup of *mahua* liquor to their tutelary deities. Her entrance into the kitchen room signifies that she is free from pollution. A feast is then offered to the other invited women.

In a similar vein, pubertal girls and women during monthly menstruation (*Maskia*) are prohibited from touching *Lalbangla*. A pubertal girl is secluded in

a corner of the main house for a month in such a manner that no male can see her. She is considered impure and unclean during this period. She is assisted by a female member of the household or father's sister or mother's brother's wife (*Aata*) during this period. Food is usually served to her in a leaf plate which is later disposed into garbage after use. She takes bath in the kitchen garden, adjacent to the house in the early morning before any person gets up. After one month, her *Aata* takes her to the river or stream. The girl holds an earthen vessel filled with some cereals and a coconut. She breaks that vessel in the river basin and later takes bath in the river by applying soap and oil-mixed turmeric. She wears a new cloth and on return she goes straight to mother's brother's house or to somebody's house related to her in classificatory term of reference. On reaching there, her *Aata* gives a brass pot filled with water which she carries to her own house. She directly enters into the *Lalbangla* with it and starts cooking food in a new vessel. This ritual is followed by the sacrifice of a fowl and pouring a leaf-cup of local liquor signifying her freedom from the pollution period. She is then taught about the rules, norms and sanctions of their society as well as of *Lalbangala*.

Similar notion of pollution is reported during the five days of menstruation (*Maskia*). During this period, women are debarred from entering into the *Lalbangla*. If there is any ceremony or festivals to celebrate in the family, it is postponed until her pollution period is over. On the fifth day, she takes her bath by applying turmeric paste and oil. She then directly goes to an affine's house, where a woman (who is not menstruating at that time) gives her a palm full of water which she drinks as a mark of purification. She then brings water from a well and directly enters to *Lalbangala* and starts cooking food.

At the community level, there are values and customary norms attached to *Lalbangla*. It is said that girls after 'kanbiha' (pre-puberty marriage) are compelled to learn the values of kitchen room, such as wearing *kapta* (small *saree* meant for girl child), eating food which were cooked in *Lalbangla*, washing feet after returning from agricultural field or forest. Obeying to such norms is obligatory after puberty because fear of ostracism by village council works as compulsive force. In case of noncompliance to these norms, the parents of the girls remain answerable to the village council. A few cases of disobedience of such norms were reported by the participants. Those who had breached such norms were either penalized or ostracized from the community interaction. The families who were expatriated by the village council for the breach of norms did not stop sending their daughters to school or joining job, but they have considered their daughter as 'partially outsider'. In some instances, although girls prefer to cook for themselves in the courtyard, their cooked food is not taken to the *Lalbangla* due to the belief that food cooked by 'outsiders' may defile their deities.

After the establishment of Chuktia Bhunjia Development Agency (CBDA) in 1994, there are many families who came forward to send their girl children

to school. However, the contributions of Tribeni Chhatria and Chandini Jhakar (two members of the Chuktia Bhunjia community) in this regard cannot be ignored. They challenged their cultural dogmas and became the first to pass matriculation examination from this community. Both of them are now working in the government sector as a school teacher and a staff nurse respectively. Such icons although attracted few older generation members to rethink about their customary laws, few of them try to maintain a balance between traditions and modernity. A formal conversation with Lakhiram Barik, age 52 years revealed that his daughter-in-law had passed 10th grade examination and wanted to become a lady matron in the residential school which runs under Social Welfare Department, Government of Odisha. She applied for the position and got selected. Lakhiram allowed her to join the job not because of the necessity, but to cite as an example of social transformation. He also said that his daughter had appeared 10th grade examination from Akalvya Residential School, Nuapada, which is run only for tribal children in the state. He also adheres to the cultural value by restricting them from entering into the *Lalbangla*. Both her daughter and daughter-in-law are allowed to eat food which are cooked inside the *Lalbangla*, but the food is not served inside the premise of *Lalbangla*; rather food is being served by other female members of the household to them in leaf plate and are immediately disposed to garbage. He further said that his daughter will be purified before her marriage by performance of a ritual. An affine will come and sprinkle raw cow milk and water over her head with Sunari (*Cassia fistula*) leaf followed by sacrifice of a pigeon or hen to their tutelary deities. A feast will be offered to few elderly members of village council. She will then be considered as a complete Chuktia Bhunjia girl.

Lalbangla being an abode of deities and a determinant of socio-economic relationships, the Chuktia Bhunjia maintain it in a more religious way. For example, in case of death of a person, they splash it with red soil and cow-dung, wash their clothes in ash, throw all earthen vessels and purchase new ones. Since they observe death pollution for three days, no clan members of the deceased family enter into the *Lalbangla*. During this pollution period, food is being served to the family members by their affinal families, which is locally known as *Mithipej*. On the 3rd day of the pollution period, they invite their bilateral kin and affine to perform a rite called *pitachaba* or *penmila* where an affine gives a finger tip of crushed neem (*Azadirachta indica*) leaf to all clan members of deceased clan family to eat as a mark of purification. After this ritual, the family members are then allowed to cook food in their kitchen room. On the tenth day of death, they perform a rite called *Badkam*, where they invite relatives not only to witness to the ritualistic performance and purification, but also to pay homage to the deceased soul. So in the same afternoon, the head of the family along with other invited affines go to the nearby river. A barber is called to shave

the head. Everybody takes bath in the river with oil and on their way to home, they catch an insect in wheat dough and bring it home in a new earthen vessel. The insect is believed to be the soul of the deceased and is worshipped in *Lalbangla*. They offer a leaf-cup of local liquor and sacrifice a chicken or pigeon as a part of the ritual. Until this rite is performed, the families of the deceased clan abstain from any form of social interaction or participation in community festivals.

Rebuilding kitchen: Purifying deities, purifying self

The Chuktia Bhunjia re-builds *Lalbangla* for two reasons: renovation of old one and if it is touched by an outsider. The former does not have any cultural significance, and is usually done to replace the old grass and wood from the roof. But in case of the later, the *Lalbangla* was set into fire, and a hen or pigeon is sacrificed in the name of their ancestral spirit requesting the spirit to forgive the outsiders. They also invite an affine who sprinkles little water and milk around the ashes of the *Lalbangla* and also over the family members as a symbol of purification. From the next day onwards they collect local plants, like *Karla* (*Cleistanthus cillinus*), *Sihna* (*Lagerstgroemia parviflora*), *Dhaura* (*Anogeissus latifolia*), *Bheru* (*Chloroxylon swietiana*) and ropes from *Sial* (*Bauhinia vahlii*) and *palsa laha* (*Butea porviflora*) to reconstruct the *Lalbangla* (Photo II). Once the structure of the wall is completely constructed, the roof is then covered with *Singkhar* (*Pennisetum purpureum*) and *Dabkhar* (*Imperata cylindrical*) leaves. They also smear red soil across the walls as part of cultural obligation. This is done to show respect to their deities. They also purchase new earthen vessel and keep inside *Lalbangla* for both cooking and worshiping purpose. Now-a-days, people use aluminum made utensils for



Photo II: Structure of new *Lalbangla*

cooking inside *Lalbangla*. Once the construction is completed, they splash the *Lalbangla* with red soil and then keep their deities inside it followed by sacrifice of a hen or pigeon.

The rebuilding of *Lalbangla* in such a case does not affect the structure of the concerned household, but it takes a part in stabilizing or restructuring the social morphology of relationships. The members of the concerned household have to purify themselves according to their cultural norms, otherwise they have to face social ostracism. Thus they invite one or two affines who purify the family members usually by sprinkling raw milk and water over them in Sunari (*Cassia fistula*) leaf. The smearing of red soil to *Lalbangla* is a distinctive characteristic not only to uphold its name (i.e. *lal* means red and *bangla* means room) or avoid social penalty, it also functions as a symbol of purity. A feast is then offered to the invited affines and few elderly male members of the village from different clans who are present to witness the purification.

DISCUSSION AND CONCLUSION

The narratives of *Lalbangla* portray that the socio-cultural life and social relationships of Chuktia Bhunjia community are revolved around the kitchen room. A closer look to the structure and function of *Lalbangla* reveals that though the structure does not have much importance except avoiding any misfortune in the family, at the functional level, the *Lalbangla* is linked with the rules that govern their social behavior, some cultural phenomenon and also interaction with the environment. The values regarding the concept of 'purity and pollution' centering around the construction of *Lalbangla* is the means to control the behaviors of the members of the community. The concept of 'outsiders', which they have developed in relation to the *Lalbangla*, brings into focus their cultural contact mechanism and integrative structure of their society expressing 'purity'. Although such impositions are seen as a mentally perceived pattern, the basic structure of their society and its system mediate it through the material trait, i.e. *Lalbangla*. But the dialectic relationship of such embodiment or construction together with the total social system produce a kind of reality or become praxis or put into action simply because of the existing customary norms. Such a relationship also imparts a meaning to the social existence of such material traits.

The *Lalbangla* of the Chuktia Bhunjia community is a symbol through which it binds and socializes the members of the community. It further gives a meaning to ecology and livelihood pattern since everything they do are infused with the underlying order of their social structure. The metaphor of 'outsiders' has two distinct implications: (a) it avoids cultural contamination or maintains cultural purity; (b) it fortifies outsiders from the chance of spirit's attack. Although the cultural representation is overtly visible, yet the internal character it holds expresses a different meaning of the society, i.e. secularisation of material culture which is intimately connected with ideas,

beliefs, and values of social life. Besides, the construction of *Lalbangla* being closely determined by the local ecological resources, the feminine value it has- as reported in terms of seclusion of women during childbirth, puberty and menstruation- directly contributed to ecological management. The customary norms imposed in the construction of *Lalbangla*, particularly in terms of materials used have created a sense of fear to be penalized for using materials other than the ones recommended. However, this practice has been able to transmit the cultural or ecological knowledge to younger generation.

Therefore, the analysis of material culture of Chuktia Bhunjia in general and *Lalbangla* in particular shows that it has an abstract entity whose value and meaning passes back and forth in everyday life of people of this society. Its semiotics and intricacies are intimately connected with ideas, beliefs and values of social life and always accompanied by various forms of rituals and rites to make *Lalbangla* as a complete entity (Mariah and Srivastava 1987; Gazin-Schwartz 2001). However, the metaphor of designing *Lalbangla* portrays the cultural uniqueness and the function it plays in controlling the people's behavior and social relationships. Similarly, the solidarity it builds through norms and performance of taboos, as a part of latent function, has balanced their notion of purity (Van Wormer 2006). In this way, the structure, meaning and approach they have formed around *Lalbangla* are intricately related with the basic structure of their society.

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Age related changes in Hand grip strength and its association with ACE I/D gene polymorphism among adults: A cross-sectional study on Jat population of Haryana

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Abstract: The study investigated the association of ACE I/D gene polymorphism with age-related changes in hand grip strength among rural Jat males and females. The study was based on a sample of 221 Jat females and 91 males, in the age group 30 to 70 years. Hand grip strength was measured using dynamometer. Blood samples were collected; DNA was isolated, and amplified by PCR and genotyped using agarose gel electrophoresis. Age-related decline in hand grip strength was observed among rural Jat males and females. ACE insertion deletion locus was found to be polymorphic in the studied population. D allele carrying individuals (both ID and DD genotype) exhibited lower hand grip strength compared to that of individuals with II genotype. The distribution of ACE I/D genotypes in individuals with weak hand grip strength were found to be statistically significant. These significant differences were only observed among males possibly because of the over representation of DD genotype among individuals with weak grip strength. Odds ratio revealed 3.35 fold increased risk for weaker grip strength specifically in the right hand of males. Findings of the present study hint towards the possible beneficial role played by D allele, despite being responsible for the decreased grip strength among males.

Key words : Hand grip, Strength, Ageing, ACE I/D polymorphism, Age-related changes

INTRODUCTION

The grasping power of hands which is called grip strength normally indicates the muscular strength of muscles of arm. Reduction in muscle strength with the advancement of age is considered as the most important biological change (Vandervoort *et al.*, 1992). Hence, lower hand grip strength is a major problem (Sasaki *et al.*, 2007; Andersen-Ranberg *et al.*, 2009; Massy-Westropp *et al.*, 2011; Forrest *et al.*, 2012), which leads to increased risk in age-related diseases, such as metabolic syndrome (Artero *et al.*, 2012), cardiovascular disease (Cooper *et al.*, 2011; Silventoinen *et al.*, 2009), cognitive impairment (Bohannon *et al.*, 2008; Taekema *et al.*, 2010; Cooper *et al.*, 2011; Artero *et al.*, 2012), diabetes mellitus (Wander *et al.*, 2011) hospitalization (Bohannon *et al.*, 2008), treatment related complications (Bohannon *et al.*, 2008) functional limitations (Artero *et al.*, 2012), and quality of life (Fortin *et al.*, 2006). Grip strength has also been proved to be a strong predictor of physical functioning and disability (Rantanen, 1994; Rantanen *et al.*, 1999; Nybo *et al.*, 2001), morbidity (Blake *et al.*, 1988; Rantanen *et al.*, 1998), and all causes mortality (Fujita *et al.*, 1995; Rantanen *et al.*, 2000; Al

Snih *et al.*, 2002) among elderly population. Literature suggests that certain genetic variants affect physical activities of daily living and cognitive functioning late in life (McClearn *et al.*, 1997; Christensen *et al.*, 2000). The considerable individual variation in human muscular strength reflects a possible interaction of environmental factors (e.g. specific training and habitual use) with genetic elements (Hakkinen *et al.*, 1998).

Angiotensin Converting Enzyme (ACE) is a key component of the circulating human Renin—Angiotensin System (RAS) generating angiotensin II, a vasoconstrictor, and degrading vasodilator kinins. Local ACE expression may also modulate tissue growth processes since both angiotensin II and kinins appear to have growth regulatory effects (Geisterfer *et al.* 1988 and Ishigai *et al.*, 1997). A functional polymorphism of the ACE gene has been identified, with the absence (deletion, D) rather than the presence (insertion, I) of a 287 base pair fragment associated with higher tissue and serum ACE activity (Rigat *et al.*, 1990). The D allele has been associated with the growth of vascular smooth muscle at the site of coronary angioplasty (Ohishi *et al.*, 1993) and human cardiac hypertrophy in response to exercise (Montgomery *et al.*, 1997). There is a considerable ACE activity in skeletal muscle (Reneland and Lithell, 1994), which raises the possibility that the ACE D allele might similarly influence the response of skeletal muscle to functional overload. The present study was designed to address the paucity of this information. We hypothesized that muscular strength could be associated with the ACE I/D genotypes in Jat population. Thus, the present study was aimed to investigate the association between ACE I/D polymorphism and hand grip strength among males and females of Jat population from Haryana, India.

MATERIAL AND METHODS

Area and People

The study was conducted as a part of Research and Development Grant 2014-2015, University of Delhi in the Palwal district of Haryana, which is a Northern state of India in the month of May to June 2015. The study area is approximately 60km away from New Delhi, the national capital of India. The area is majorly inhabited by rural populations. Jats being the single largest group in the region are considered as one of the predominant community of Haryana. Data were collected from six villages of Palwal district. The field work was conducted by two of the authors (SC and MKT). Prior to the administration of tools informed written consent was obtained from all the participants. Most of the study participants of either sex were not formally educated and were engaged in agricultural works, while others were in private jobs and small scale business. The women of this community equally participate in the agricultural works and cattlerearing that involves high physical activity. The demographic details of the population were published elsewhere (Chandiok *et al.*, 2016).

Recruitment of the subjects

A total of 312 individuals of age range 30-70 years were recruited for the present study. Out of these, 91 (29.07%) were males and 221 (70.92%) were females. Since the nature of the study includes genetic trait, we chose the study participants who were unrelated up to first cousin level. The ethnic background of the participants was confirmed with the help of genealogies. The study was conducted through door to door household survey using convenient sampling. Since more number of females was available at home at the time of the day when fieldwork was conducted, the frequency of this group is higher than the males. Individuals who were diagnosed with problems related to cardiovascular and /or metabolic disorders and with any musculoskeletal maladies were excluded from the study.

The study protocol was approved by the Departmental Ethical committee, Department of Anthropology, University of Delhi.

Hand Grip Strength Measurement

Hand grip strength (kg.) was measured with a digital dynamometer (Smedley Digital Hand Dynamometer Model no 12-0286, range 0-99 kg, (made in UK). Participants were boosted to exert their maximal grip at standing position with elbow in full extension. Three concordant readings of grip strength on both the hands of each participant were obtained. The average of the readings was considered in the analysis. Individuals were categorized into normal, weak and strong on the basis of hand grip strength of both the hands with respect to their age independently for males and females. These categories were made using the ranges provided by Smedley's Digital Hand Dynamometer, Model no 12-0286, range 0-99 kg (UK made) (Box 1). It was observed that majority of the participants primarily used (91.66%) their right hand, whereas 0.9% used left hand and 7.05% of them used both the hands equally for various manual activities.

ACE I/D Polymorphism analysis

Intravenous blood sample of 3 ml was collected from the participants whose hand grip strength was measured. None of the participants refused to give blood sample. DNA was extracted from the whole blood samples using standard salting out method proposed by Miller *et al.* (1988). The ACE I/D polymorphism was identified by (PCR)-based DNA amplification technique (Rigat *et al.*, 1990), followed by agarose gel electrophoresis (Fig 1 supplementary). Chi- square test was used for calculating Hardy-Weinberg equilibrium and to compare the differences between the groups with respect to the genotypes.

Statistical analysis

Bivariate statistical analyses, like Chi –square test was used to compare the difference in the distribution of I and D alleles of ACE gene and association of these alleles with hand grip strength; and t-test was used to see age wise decline in the hand grip strength of left and right hand of males and females.

Odds ratio was calculated to estimate the possible risk of I and D allele for weak hand grip strength using different models. Potential confounders, age and sex were adjusted for estimating odds ratio. All the statistical analyses were carried out with the help of a software Statistical Package for Social Sciences (version 20.0). P values (two-tailed) at 0.05 were considered significant.

RESULTS

The mean age of the study participants was 51.04 ± 0.03 years. The mean age of the male and female participants were 54.7 ± 9.11 years and 49.5 ± 10.02 years respectively. Table 1 shows the age wise distribution of male and female participants. It has been observed that one third of the male study participants represent each of the age cohorts starting from 41 years and beyond. Around one fourth of the female participants represent in each of the age cohorts ranging from 30 years to 60 years

Table 2 shows that the average right and left hand grip strength of males were 32.91 kg and 31.97 kg respectively. The average right and left hand grip strength of females were 21.37 kg and 20.30 kg respectively. ACE gene locus was found to be polymorphic among the study participants. The population was not found to be in Hardy Weinberg Equilibrium with respect to ACE polymorphism (Chi square=16.85, $p=0.005$) (Table 2). The allele frequency of I allele was found to be 0.37 and that of D allele was 0.63. The frequency of DD, ID, and II genotypes were found to be 45.19%, 35.89%, and 18.91% respectively in the overall population. We did not find any significant differences in the distribution of genotypic frequencies between males and females (Chi square=0.825, $p=0.38$).

Table 3 shows a trend in the age wise decline in the grip strength of right and left hands of the participants for both the sex. Significant sex differences (males higher than females) were observed when compared for right ($p=0.01$) and left ($p=0.01$) hand grip strength, irrespective of the age groups. The average decline of grip strength in males and females of right hand was 10.01kg and 6.32 kg respectively. On the other hand, the average decline of left hand grip strength in males and females was recorded as 8.66 kg and 4.63 kg respectively. The highest grip strength of right and left hands among males was 37.5 kg and 36.18 kg at the age group 41-50 years, whereas among females it was observed to be 23.66 kg and 22.9 kg in the age group 30-40 years. The minimum value for the hand grip strength of both the hands in both the sexes was observed among the participants who were above the age of 60 years.

Table 4 shows that out of 312 individuals, only 4 of them fall under the category of strong (3 of them were males while only one is female). Since there were only 4 individuals in the strong category, we included them in the normal category (Table 4). The mean age of the participants (overall) from the 'weak grip strength' category was significantly higher compared to that of the

participants from 'normal grip strength category' for both the hands. Similar trends were observed when compared independently for males and females, but the differences were not significant ($p > 0.05$).

Figure 1 shows the gel picture showing the ACE insertion deletion polymorphism. Table 5 shows significant over representation of DD genotype among individuals with weaker grip strength for both the hands in males (Chi square= 9.46, $p=0.009$ for right hand and Chi square= 7.01, $p = 0.030$ for left hand), but not in females (Chi square=0.066, $p=0.96$ for right hand and Chi square=0.59, $p = 0.74$ for left hand).

The crude (OR 0.63, CI 0.37-1.02) and age adjusted (OR 0.62, CI 0.36-1.04) odds ratio revealed that D allele was not showing any risk for weaker grip strength in any of the hands in the overall population (Table 6). However, we observed that the likelihood of weaker grip strength for right hand rises significantly by 2.5 (OR 2.50, CI 1.55-4.35) fold with the association of D allele, after adjusting for sex. In contrast, I allele showed a reduced risk for weak hand grip strength in overall population as well as among males and females independently. When we estimated the odds ratio separately for males, we found D allele posed a 3.35 (OR 3.35, CI 1.01-11.09) fold significant increased risk for weaker grip strength in the right hand of males. Even after adjusting for the age, the D allele seemed to be posing 3.28 (OR 3.28, CI 0.99-10.91) fold increased risk for lower grip strength at a near significance level. In contrast, no such association between grip strength and ACE I/D polymorphism were found among females.

DISCUSSION

Hand grip is considered as the most common method for assessment of muscle strength of upper extremity (Rantanen *et al.*, 1999). The present study aimed to investigate the association between ACE I/D polymorphism and hand grip strength among males and females of Jat population from Haryana, India. The observed frequency of D allele in the present study group, which shares Indo-European ancestry is in close agreement with the other studies conducted on other European populations (Johanning *et al.*, 1995; Morris 1996). The highest frequency of DD genotype and its increase with age perhaps indicates a selective advantage of DD genotype in this study population, corroborating with the findings from other research works carried out in India (Pasha *et al.*, 2002) and elsewhere (Abdi-Rad and Bagheri, 2011). The findings also indicate a possible association of DD genotype with the longevity (Garatachea *et al.*, 2013).

Grip strength of the individuals of the present study showed a considerable decline with increasing age which corroborates with other studies (Chong *et al.*, 1994; Hussain, 1997; Carmeli *et al.*, 2003; Jansen *et al.*, 2008; Kaur, 2008, Kaur *et al.*, 2009). Longitudinal (Grimby, 1995) and cross sectional (Rantanen *et al.*, 1998) studies also reported that there is a rapid decline in the grip strength after 60 years of age, conforming to our results.

It was also observed that the decline in physical activity, including exercise and the adoption of sedentary lifestyle by the elderly populations may contribute to the deterioration of their hand function (Carmeli *et al.*, 2003; Ranganathan *et al.*, 2001). The effect of malnutrition may be another contributing factor to reduced manual functioning among elderly populations (Watters *et al.* 1985; Chilima and Ismail 2001). These findings clearly depict that the ageing process is associated with progressive decline in muscle strength, resulting in functional disability and reduced quality of life (Forrest *et al.*, 2007). The males have greater grip strength compared to the females due to the presence of more muscle mass in the upper extremity in case of the former, and more of fat mass in case of the later (Janssen *et al.*, 2000).

It was observed from various studies that strength training and physical activity would lead to better hand grip performance among the individuals with DD genotype (Folland *et al.*, 2000 and Giaccaglia *et al.*, 2008). Hence, we can say that individuals with DD genotype have increased risk for lower hand grip strength, especially in males, which is possibly due to their reduced physical activity and adoption of sedentary lifestyle compared to the females. It was also observed that the individuals with II genotype have greater grip strength compared to the individuals with DD genotype and those with II genotype have a significant reduced risk for weakness of the grip strength. The findings of Woods *et al.* (2001) and William *et al.*, (2005) conform to our results. These studies also suggest an association of ACE I allele is with enhanced contractile efficiency by the skeletal muscles compared to D allele. In spite of more risk and lesser grip strength among individuals with DD genotype in terms of hand grip strength, the DD genotype has a selective advantage in this population. Perhaps presence of DD genotype acts as a protective mechanism against other complex disorders, like cardiovascular adversities (Kumari, *et al.*, 2016) by enhancing ACE levels.

Previous studies with respect to association of ACE I/D polymorphism with various complexities were highly debated (Bahi *et al.*, 2004; Ahmetov *et al.*, 2016; Gayagay *et al.*, 1998) and failed to reach a consensus. Thus, the findings of this study gives a clear indication that D allele might not be contributing to the mortality, but may be increasing morbidity in terms of lowering the muscular strength and endurance.

Population ageing is an emerging demographic phenomenon in India, warranting a strong multi-sectoral policy and programme response to deal with many significant implications for the elderly in particular and society at large. The present study with its limited sample size as a major limitation, highlights the importance of genetic pre-disposition of individuals with DD genotype for lower hand grip strength, which in turn is reported to be associated with numerous health complexities. Genetic screening, followed by strength training would surely help in reducing and tackling the upcoming burden of

morbidities in terms of grip strength and other related complexities, resulting through enhance longevity among such populations.

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Box1. Status of hand grip strength following the protocol of Smedley's hand Dynamometer (in kg)

Age groups (years)	Male			Female		
	Weak	Normal	Strong	Weak	Normal	Strong
10-11	<12.6	12.6-22.4	>22.4	<11.8	11.8-21.6	>21.6
12-13	<19.4	19.4-31.2	>31.2	<14.6	14.6-24.4	>24.4
14-15	<28.5	28.5-44.3	>44.3	<15.5	15.5-27.3	>27.3
16-17	<32.6	32.6-52.4	>52.4	<17.2	17.2-29.0	>29.0
18-19	<35.7	35.7-55.5	>55.5	<19.2	19.2-31.0	>31.0
20-24	<36.8	36.8-56.6	>56.6	<21.5	21.5-35.3	>35.3
25-29	<37.7	37.7-57.5	>57.5	<25.6	25.6-41.4	>41.4
30-34	<36.0	36.0-55.8	>55.8	<21.5	21.5-35.3	>35.3
35-39	<35.8	35.8-55.6	>55.6	<20.3	20.3-34.1	>34.1
40-44	<35.5	35.5-55.3	>55.3	<18.9	18.9-32.7	>32.7
45-49	<34.7	34.7-54.5	>54.5	<18.6	18.6-32.4	>32.4
50-54	<32.9	32.9-50.7	>50.7	<18.1	18.1-31.9	>31.9
55-59	<30.7	30.7-48.5	>48.5	<17.7	17.7-31.5	>31.5
60-64	<30.2	30.2-48.0	>48.0	<17.2	17.2-31	>31.0
65-69	<28.2	28.2-44.0	>44.0	<15.4	15.4-27.2	>27.2
70-99	<21.3	21.3-35.1	>35	<14.7	14.7-24.5	>24.5

Table 1. *Distribution of the participants on the basis of age and sex*

Age (years)	Males N (%)	Females N(%)
30-40	5 (5.49)	55 (24.88)
41-50	28 (30.76)	70(31.68)
51-60	29(31.86)	58 (26.24)
>60	29(31.86)	38 (17.19)
Total	91 (99.97)	221 (99.99)

Table 2. *Over all and sex wise distribution of ACE I/D genotypes along with the mean grip strength of both hands*

Grip strength and ACE genotypes	Over all N (%)	MALES	FEMALES
Right hand grip strength (kg)	24.6	32.91	21.37
Left hand grip strength(kg)	23.71	31.97	20.30
II	59(18.91)	19(20.9)	40(17.9)
ID	112(35.89)	31(34.1)	81(36.3)
DD	141(45.19)	41(45.1)	100(45.24)

Table 3. *Age and sex wise distribution of right and left hand grip strength*

Age(years)	Males		Females		Right hand t-test (p value)	Left hand t-test (p value)
	Mean±SD (Right hand in kg)	Mean±SD (Left hand in kg)	Mean±SD (Right hand in kg)	Mean±SD (Left hand in kg)		
30-40	30.46±8.63	30.48±6.90	23.66± 4.1087	22.29±4.48	3.09(.003)	3.65(.001)
41-50	37.54±8.2554	36.18±8.16	22.53±3.21	20.70±3.371	13.1(0.01)	13.2(0.01)
51-60	34.23±8.29	32.63±7.41	20.48±4.52	19.62±3.99	9.9(0.01)	10.4(0.01)
61-70	27.53±7.43	27.52±7.21	17.34±4.34	17.66±4.44	7.19(0.01)	7.23(0.01)
Total	32.91±8.8	31.97±8.19	21.37±4.64	20.30±4.42	15.1(0.01)	16.4(0.01)

Table 4. *Mean age differences between normal and weak individuals in the overall population and for males and females separately*

	Right hand		p value	Left hand		p value
	Normal	Weak		Normal	Weak	
Overall						
N (%)	230 (73.71)	82 (26.28)	-	210 (67.30)	102 (32.69)	-
Mean age (years)	49.82±9.99	53.9±11.9	0.001	49.94±9.99	53.55±11.9	0.002
Male						
N (%)	53(58.24)	38(41.75)	-	47(51.64)	44(48.35)	-
Mean age (years)	53.94±8.43	55.76±10.08	0.314	54.31±8.57	55.16±0.5	0.66
Female						
N (%)	177 (80.09)	44 (19.90)	-	163 (73.75)	58 (26.24)	-
Mean age (years)	48.59±9.52	52.31±11.3	0.02	48.68±10.03	51.17±12.2	0.08

Table 5. *Distribution of ACE I/D genotypes among normal and weak individuals*

ACE Genotype	Males				Females			
	Right hand N (%)		Left hand N (%)		Right hand N (%)		Left hand N (%)	
II	Normal 15(28.3)	Weak 4(10.8)	Normal 10(21.2)	Weak 9(20.45)	Normal 32(18.2)	Weak 9(19.5)	Normal 32(19.51)	Weak 9(15.78)
ID	21(44.6)	10(27.0)	21(44.6)	10(22.72)	64(36.5)	16(34.7)	60(36.5)	20(35)
DD	17(34.0)	24(64.8)	16(34.0)	25(56.8)	79(45.1)	21(45.6)	72(43.9)	28(49.1)
Chi-square (p-value)	9.46(0.009)		7.01(0.03)		0.066(0.96)		0.59(0.741)	

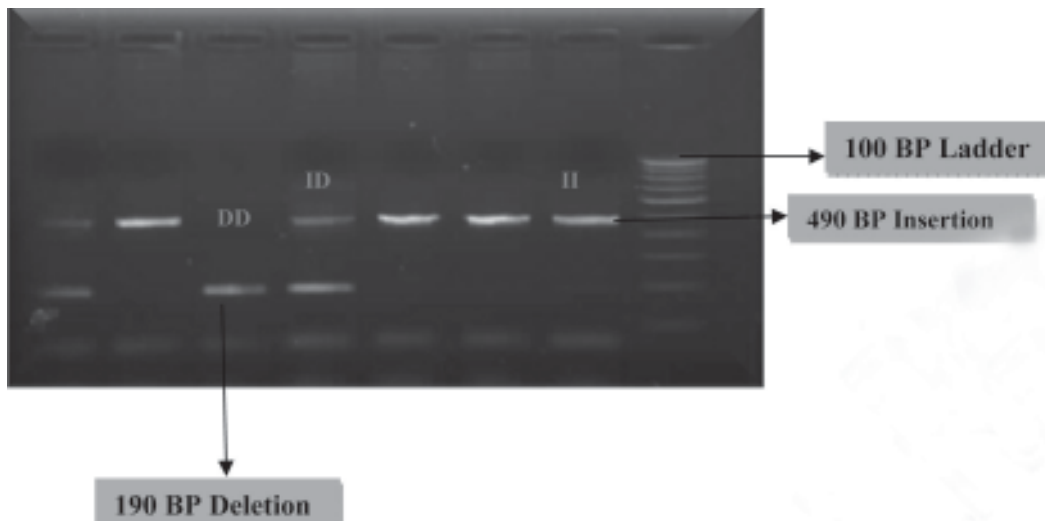


Fig 1: *Gel picture showing the ACE Insertion Deletion Polymorphism.*

Table 6. Association of hand grip strength with dominant and recessive models of ACE I/D polymorphism

Model	Right hand		Left hand		Odd Ratio (95% CI)	Odd Ratio (95% CI)
	Normal	Weak	Normal	Weak		
Overall	III+ID/DD	133/97	38/45	123/81	50/52	Crude - 0.66 (0.415-1.073)
						Age adjusted - 1.49(0.923-2.41)
						Sex adjusted - 0.82(0.437-1.542)
Males	DD+ID/II	145/47	71/12	163/41	93/19	Crude - 1.132(0.613-2.09)
						Age adjusted 1.20(0.643-2.22)
						Sex adjusted 0.82(0.437-1.54)
Males	II+ID/DD	36/17	14/24	32/15	18/26	Crude - 0.93(0.510-1.699)
						Age adjusted - 0.33*(0.138-0.769)
						Crude - 1.37(0.49-3.81)
Females	DD+ID/II	38/15	34/4	36/11	36/8	Age adjusted 1.35(0.488-3.78)
						Crude - 0.33*(0.138-0.766)
						Age adjusted 0.94(0.513-1.719)
Females	II+ID/DD	97/80	24/21	90/73	31/28	Crude - 1.08 (0.49-2.38)
						Age adjusted 1.16(0.526-2.596)
Females	DD+ID/II	145/32	36/8	133/30	48/10	Crude - 1.08 (0.49-2.38)
						Age adjusted 1.16(0.526-2.596)

BOOK REVIEW

Leprosy and a Life in South India– Journeys with a Tamil Brahmin; James Staples; Lexington Books; Lanham; 2014.i-xxxi +171 pages, ISBN 978-0-7391-8734-0; Hb

In the history of ethnographic studies in India certain thematic engagements, like caste and village studies have a preponderating presence. The nature and development of these studies also reflect the change of styles and approach of ethnographic research on the Indian population. Colonial scholars, like Dalton, Risley, and Hunter evinced a grand scheme by classifying the vast Indian population vis-à-vis describing the material culture and social structure of numerous castes in India. The institution of caste appeared to them as a very unique pattern of social organization, which is rooted into the ancient past. The subsequent studies by the first generation of Indian professional anthropologists and foreign scholars focused on the issues, like functioning of caste system, factors behind their origin and the changes in the caste system with the inception of a different economic system introduced by the colonial rulers. These studies bear the influence of two major orientations – (a) Chicago School of Research, which viewed caste in the backdrop of civilization and (b) Manchester School of Thought, primarily instituted by Max Gluckman through his African studies, which had primary focus on the study of conflict and change. Gradually, the studies on caste shifted to understand the relations between market, polity and social organization. This trend became more manifest as the land came to the market resulting in the freeing of productive organizations from the rut of caste system. Bailey showed how the land initially held by the warrior castes got diversified in the hands of other castes who could buy it in the market. Gough's study in South India also showed a similar trend. Caste was no longer being studied in their static social structural model, but rather in their changing relations with regard to class and power. The hierarchizing discourse on caste (Dumont) added another dimension to the caste studies in India. This trend was followed by the ethno-sociological approach mainly advocated by McKim Marriott. The emerging forms of social stratification and relation of caste to the elite were replacing the earlier paradigm of caste studies which later reoriented much to the understanding of identity in relation to the caste.

In the backdrop of the above mentioned anthropological studies on caste, villages were considered as the units for study. The anthropologists stayed in villages for a pretty long time and collected data mostly by employing conventional anthropological methods. The design of research was initially set in pre-figured pattern of study-guideline.

The book under review tells us about a Tamil Brahmin (Mohandas or Das as mentioned in the book) who was afflicted with leprosy made several departures with regard to the theme, methodology and style of presentation from the earlier studies on the caste, hierarchy and social relations. It is a life history of a person who was born as a caste Brahmin in Tamil Nadu and later embraced Christianity. This Tamil Brahmin was with leprosy during his youth and spent two years in hospital. After recovery he could not return to his past life and began a new journey. He lived in platform with the porters and earned bread by doing several odd jobs. The attack from this disease changed the trajectory of his life. At last, when the author met him, he was landed in a rehabilitation colony run for the lepers with grants from foreign agencies. In this place, Das rose to a high position in office of the NGO by his meritorious service.

It is a commonly held view in India that only a cursed or sinner suffers from leprosy. A diseased is despised by all and not allowed to live with the unaffected people. The chance of survival of the affected person is curtailed since he becomes tabooed to most of the jobs that require touch or physical contact. The individual is forced to beggary or at

the margin of subsistence. The disease did not even spare a high caste Brahmin like Mohandas in the present account. The transforming effect of a disease blurred the boundaries propagated in the traditional hierarchic model of caste system in India. The conversion of Mohandas to Jobdas, the name he took after becoming a Christian had little effect on this since it could not bridge the former linkages with his family members whom he left behind and later reunited with. Thus, the theme of the book has uniquely taken up an issue which was hitherto unraveled. The study interrogates the ideas or value systems, like freedom and emancipation linked with caste system and were given much importance in the ethno-sociological studies as categories important for the understanding of caste system in India.

The work was based on long interviews and discussions with Mohandas and his acquaintances with field visits to several places where Das used to live. The traditional understanding of informant did not hold ground in the present case since Das was more of a collaborator than an informant. The book is an excellent exposition of life history method. The study is also a good example exposition of multi-sited ethnography. It is said that the essence of multi-sited ethnography is to follow people, connections, associations and relations across space. The present study was conducted in multiple settings, like leprosy colony, Tamil town, and metropolis, railway platforms to understand the different aspects of the life of a converted Brahmin in relation to caste, religion and kinship. The style of writing is reflexive but it has moved further from writing culture genre by a sinuous treatment of data. It gives the account a sort of texture that the 'post - writing culture' advocates call 'baroque'. In presenting the highly myriad life experiences full of vicissitudes, such a trope seems to be appropriate. The book is certainly a contribution to our existing understandings of approach and methods of study of the contemporary Indian society.

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ANNOUNCEMENT

The Indian Anthropological Society announces with pride and pleasure the yearlong celebration of its sixty years of formal existence as the oldest professional body of anthropologists in India, in the year 2018.

The detailed programme will be communicated to the members shortly.

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