Sumahan Bandyopadhyay

KINDNESS OF MOTHER: POX DISEASES, INDIGENOUS SELF-QUARANTINE AND LIMINALITY IN BENGAL

Abstract

Health is a perennial source of anxiety and concern to humanity. Culture whether simple or complex, has responded through innumerable means to deal with crisis of life and death as brought about by disease and illness. The adaptive responses of culture have found the ways in a number of medical practices around the world. Supernaturalism provides one of the possible explanations of the pathological state in man. It relates both to the cause of a disease and its cure. In the present case, the study has been conducted on the incidence of smallpox and other pox-like diseases (PLD) which are believed to have caused by Sitala, a minor deity in Hindu pantheon having almost pan-Indian presence albeit under different names. The disease manifestation, metaphorically called mayer daya ('kindness of mother') is rooted in the religious beliefs and socio-cultural practices of the people of Bengal which in the present study is delimited by the geographical boundary of the Indian state of West Bengal for empirical observation .The paper deals with the anthropological discourses on health, liminality and quarantine; quarantine and self-quarantine with special reference to indigenous people; PLD and its traditional management with regard to disease symptoms, healing practices, goddess Sitala and her transformation and changing attitudes. The concept of liminality and 'indigenous quarantine practice' has been applied to understand the way people behave in order to overcome the crisis following PLD. The paper argues that the understanding of the liminal character of quarantine possesses a broader applicability in the study of other diseased conditions since we live in a liminal continuum of overlapping multilayered liminal states.

Keywords: *Pox-like diseases (PLD), Sitala, West Bengal, Liminality, and indigenous quarantine practice.*

Recived: *23th May 2020* ***Revised:*** *15th Sep 2020* ***Accepted:*** *16th Sep 2020*

SUMAHAN BANDYOPADHYAY, Associate Professor, Department of Anthropology, Vidyasagar University, Midnapore-721102, West Bengal; E-mail: sumahan.b@gmail.com

Introduction

Health is a perennial source of anxiety and concern to humanity. For this, culture whether simple or complex, has responded through innumerable means to deal with crisis of life and death, brought about by disease and illness. The adaptive responses of culture have invented the ways through a number of medical practices around the world. Supernaturalism provides one of the possible explanations of the pathological state in man. It relates both to the cause of a disease and its cure. The present study has been conducted on the incidence of pox-like diseases(PLD) which include smallpox (*guti basanta*), chickenpox(*jal basanta*) and measles(*hâm*) collectively called *Mâ er da â* (which literarily means 'kindness of mother') in Bengal. *Mâ er da â* is said to be caused by the wrath of Sitala, a minor deity in the Hindu pantheon having almost pan-Indian presence albeit under different names. The concepts of liminality and 'indigenous quarantine practice' have been applied to understand the way people behave in order to overcome the crisis caused by these diseases. The paper narrates how the traditional Bengali Hindu society has evolved a practice of self-quarantine in response to these diseases with a worldview oriented towards supernaturalism, that reveals a symbolic structural element of liminality (Douglas 1966; Turner 1969; Bowie 2006). The paper argues that the indigenous society could ease the transition through self-imposed quarantine when afflicted with deadly viruses to a state of containment of disease. The scientific worldview has upheld the quarantine as a measure to check the spread of disease. Here the scientifically propagated quarantine has been discussed side by side the symbolic structural phenomenon of liminality to see how effectively the indigenous society formulated its own disease control mechanism at the local level.

The diseased condition is a period of great distress and crisis for human life. It is well understood from human response to the health related problems. Attempt is made to overcome the crisis in a number of ways and means. These ways and means include the material curatives in the form of medicines and physical methods like bone–setting, massage as well as negotiations with supernatural world. Certain behavioural practices like self-quarantine, isolation are also adopted to ward off the spread of disease. Human approach to illness remains both preventive and curative. It can be said that all these mechanisms are nothing but adaptive strategies for human to cope with an unavoidable existential menace. The sum total of these adaptive mechanisms constitutes the medical domain of human (Pool and Geissler 2005; Winkelman 2009).

This medical domain is differentially understood both epidemiologically and etiologically in different systems and cultures (Trostle 2005). This differential understandings have given rise to different sorts of medical systems such as allopathic, homeopathic, unani, ayurvedic etc. Besides these, several tribal and indigenous communities have their own belief and practices regarding the causes and cure of disease. These are variously termed as indigenous

medicine, traditional medicines, folk medicines etc. So, we can say that there are two divisions – one is composed of grand overarching scheme of health care with its almost universal presence and another division contains numerous local practices. Medical anthropologists study the medicinal plants , herbs etc. , the belief system about the cause(s) of disease (both natural and supernatural), and various methods of administration of these medicines and other curative practices in detail among the so called 'primitive' people or in tribal societies and in the other traditional societies. Different approaches underlie our understanding of the health care systems (Scotch 1963; Colson and Selby 1974; Talwar 2010).However, the medical anthropology has broadened its scope to include the study of people's experiences with existing medical systems, health policy and health delivery system. In reality these different medical worldviews exist side by side. This co-existence of different curing systems has been called 'medical pluralism'(Greenough 2003). The enactment of quarantine measures by the legal authority is a policy, and it is custom when it is part of the socio-religious prescriptions of the society undergoing the distress of an endemic or epidemic. The quarantine results a distinct break in the usual day to day activities. It aims at getting rid of the virulent spread of an infectious disease.

The state of disease or illness is a period of crisis. This state bears similarity with the crisis ridden transitional phase encountered in a life cycle ritual. In this sense, one exhibits liminality when afflicted by illness. Here the normal activities are suspended or at times inverted as in the case of liminality. Therefore, the study of medical or health care domain presents before us a theoretically challenging field where the social importance of this phenomenon is established.

As mentioned earlier in this article that the present study has attempted a theoretical discourse on the indigenous health care system citing an empirical and ethnographic example of local management of pox-like diseases. The discussion has been contextualized in the investigation of the state of etiological practices among the Bengali Hindu caste population residing in the districts of Hooghly,Purba and Paschim Medinipur in West Bengal. Among them both traditional and modern (western) medical practices exist side by side. There are also rural-urban differences with regard to the treatment of these diseases. The variation in conception and treatment of the disease can be seen across the educated and less or uneducated, elite and non-elite cross-sections of the Bengali Hindu community. However, the kernel of the traditional practices that have been precipitated to the present reflects Bengali Hindus' conception of the disease and its treatment. Their indigenous understanding can be theoretically framed through the concept of liminality. This liminality entails an isolation of afflicted person and family members from the immediate familial and social milieu, which resembles with the quarantine imposed at the wake of an infectious disease.

The isolation as a measure to control disease can be dated to the Greek

medical practices as propagated by Hippocrates during fifth century B.C.E. In Biblical sources similar measure was prescribed by Leviticus with regard to the containment of people afflicted with leprosy (McLean 2014). Apart from these explicit textual evidences of quarantine, we also find that there are practices like isolation or quarantine in indigenous cultures stalked by the contagious diseases. This quarantine as a cultural practice has been observed by the members of the family in which the disease has attacked. In this case the person with the infection is kept in isolation, and the members of his/her family go into self-imposed quarantine customarily in the Bengali culture. The duration of this quarantine is twenty one days. Sometimes the duration might be shortened when the cure is faster. It is interesting to note that the days of pollution after the birth of the child in a family in many indigenous societies in eastern India including Bengal are 21 days. The people do not think that this is a medical practice aimed at containing the disease or protecting from contamination. They have been practicing this custom for generations without any complain or complicacy. But they cannot explain the scientific or any other logic behind it. They simply state that they are following what they have seen to practice others as handed down from earlier generations. Therefore, it is an unconscious model for the people. Conscious model for this behaviour is the imposition of 21 days of lockdown by the government to contain the corona pandemic as we see today. Therefore the quarantine phenomenon is not linear; rather it has several layers of occurrence in the simple and complex societies. It is indigenous by nature and occurs in both simple and complex society when it is unconscious model. When it becomes conscious one, it is universal and scientific. Therefore the transportation of an indigenous practice amenable to the scientific explanation strips it off the oral character and leads to heightened secularization. The linking phenomenon between the indigenous belief system and scientific universalism is liminality. Here I have mainly used the example of Chickenpox disease to elaborate liminality-quarantine issue.

Anthropological discourses on health, liminality and quarantine

Anthropological studies on liminality have tried to understand it as subjective experience as well as a social structural phenomenon. In the study of disability, liminality has been conceived as a long time existential state (Murphy *et.al.* 1988). The liminality is termed as enduring and variable in a study of the experience of cancer illness(Little *et. al.* 1998). For Little et. al. (1998), it is a subjective experience. They classified the liminality into two major types – acute or immediate liminality and enduring phase of sustained liminality. From a review of the works on liminality (Besnier 1994; Davis 2008), we come to know about Jean Jackson's (2005) work on the liminal space of chronic pain as a borderland between the mind and the body. Another study done by Joanne Warner and Jonathan Gabe (2004) examined the gap between mental health service providers and the otherness of the people with whom

they had worked. Davis (2008) mentioned about a study (2004) on the liminal space of uncertainty among women who had received abnormal Pap smear test results (Forss 2004). Turner's work is applicable to the domain of health which can be taken as a state of affliction. In *Forest of Symbols* (1967),Turner talked about rituals of affliction. These rituals are 'performed for those individuals who are said to have been "caught" by the spirits of the deceased relatives whom they have forgotten or neglected' (c.f. Deflem 1991:8). Gaur and Patnaik (2011) employed the concept of liminality in experiential health of the displaced Korwa people of Surguja, Chhattisgarh. Here the experiential health has been explained as an embodied post-displacement condition in liminality framework. The ambivalence in self-placement in the new area is equated with an embodied state of 'neither health – nor illness' indicating a liminal condition of betwixt and between.

The studies on chickenpox in its socio-cultural contexts demonstrate that it is still prevalent in countries of South East Asia including India, Latin America and Europe (Neogi 2000; Idrovo 2011). In the ancient medical texts before the Common Era, we find reference to the smallpox which has been called *musurika* (Nicholas 1981).The theoretical approaches to the study of relation between divinity and disease with regard to the smallpox infection, Nicholas (1981) put forwarded a 'Transformation Theory' dealing with supernaturalism and epidemic. According to this theorisation, the robust calamitous event of smallpox epidemic was transformed to be an integrating phenomenon of ritualistic action for the entire community. In his word, it changed from 'calamity to community' by subordinating 'biology to sociology'. It means, when the smallpox was gone, people had no biological threat from this disease anymore; it continued to bind the community as *Sitala pujâ* (worship of Sitala). However, we find that still the *Mâ er da â* stalks the people in Bengal and this category of disease includes chickenpox, meseals and smallpox. Therefore, the relevance of community worship of the goddess Sitala still holds ground. What Nicholas did not mention was the symbolic custom of self-quarantine of the inflicted person and the members of his or her family in the Bengali community. In the community, the compliance to the customary principles is kept in vigil. Therefore, the quarantine is basically a collective mechanism which involves the active participation of the community. The community knows the limit of transgressions to be allowed to the quarantined for his or her as well as community's safety and survival. But when any agency, like the state, imposes any measure without the cognizance of the community sentiment and practices, then it may posit the state and community at the loggerheads. This argument is hinted at in the present paper to focus the idea that the indigenous quarantine practice provides a better management strategy for epidemic. The 'Transformation theory' is important in understanding this community aspect related with the epidemic and its indigenous control. The impact of quarantine is studied to reveal the discontent of the people in Liberia at the Ebola epidemic outbreak (Pellecchia 2017). We may call it 'Malcontent

theory'. The author writes that the mandatory quarantine caused adverse social consequences in Liberia during the Ebola epidemic outbreak. The authoritarian enactment of the quarantine measures brought a wide chasm between the state and the community. It instilled a fear in the minds of the citizens.Thus, it appeared counterproductive in controlling the disease. In the rural society, there is solidarity as well as inequality. The forcing of quarantine measures on the people without taking their indigenous or local system in cognizance might cause 'malcontent' among the people. Pellecchia (2017) suggests that the best approach is to accept the local practices rooted in societal structure. He called it the 'local Forms of Isolation' (ibid P.21). Another theoretical perspective emerged from the study of disease and concomitant isolation (Venables 2017). We may term this position as 'Stigmatization theory'. Venables (2017) studied the epidemic affected people who survived the pandemic in Africa where the male infected patients were considered as 'atomic bombs'. This means that the males are potential threat to the community. For them, quarantine meant further marginalization which resulted into 'stigmatization' of these people. Similar finding is reported from another study on pandemic in Congo (Arwardy *et.al.* 2014, c.f. Venables 2017). The study revealed that the epidemic survivors felt rejected. This study showed how quarantine could have disastrous effect on the social life if it was enacted without customary sanction or not being an embodied practice. But quarantine could acquire a different meaning when transformed into 'self-quarantine' in indigenous culture.

Quarantine, Self-Quarantine and indigenous people

Quarantine is said to have overlapping meanings. It had been used as a term to 'designate spaces for the temporary custody of travelers and cargo suspected of carrying infection' (Risse 2016). The quarantine and isolation has a broader meaning to include the official policy to ' restrict the movement of freight and people suspected of having been exposed to diseases' and 'designed to ostracize potential and actual sufferers of such maladies' , which forms 'the bedrock of governmental legislation and policies intended to protect the healthy majority' (Risse 2016: 30). Risse (2016: 30) adds that:

> "The modern definitions tend to reserve the term "quarantine" for procedures seeking to prevent the transmission of communicable diseases by restricting the movement of individuals potentially exposed to them for prescribed periods of time."

There were several physical arrangements in medieval Europe for segregation of the people suffering from leprosy and plague. These measures adopted to contain the diseases received legal sanction. Unlike this the indigenous self-quarantine practiced by the people in this part of the globe is a socio-ritually sanctioned procedure. It is the segregation of the diseased person and the members of his or her family on their own. With this separation, they used to impose some restrictions on their movement, behaviours, food and

interactions with other members of the society. By entrenching self-quarantine through the liminality, the society sought to provide the social logistics for such measures. The legal prohibitions and ostracism enacted by quarantine have been found to have brought suffering to the ailing people. But by constructing the 'quarantine' culturally to contain the sporadic outburst of endemic infections, the people in this country could alleviate much pains and build a more humane mechanism of disease control.

The present study, as already mention, has been conducted among the caste populations in the districts of Hooghly, Paschim and Purba Medinipur. These districts are located in the southern part of West Bengal.The districts are predominantly rural, however Hooghly is closer to state capital Kolkata and consequently having more urban influence than the other two districts. Data for the present work have collected mostly from the caste people, both highly and lowly ranked in the caste hierarchy. The reasons behind the selection of these districts are, firstly the familiarity with the land and people; and secondly there has been unwavering faith in goddess Sitala as understood through empirical experience and as reflected from a good number of earlier studies in these districts(Bang 1973; Mukhopadhayay 1994). In these districts there are numerous places with the name Sîtalâtalâ invariably with a temple of the goddess Sitala. Another interesting thing is the occurrence of personal name Basanta for the men. We know that the name of the disease is *basanta* in native parlance.One of the reasons for keeping this name was believed to have a magical effect on the averting of danger of disease attack. However, this trend of name giving is now on the wane with the loss of virulence of the disease. All these toponymy and anthroponomy speak volumes about the high degree of reverence to goddess Sitala or Basanta Buri , the tutelary goddess of small pox or pox-like diseases. Since time immemorial this goddess is being venerated by the people across the country. Before the National Smallpox Eradication Programme, 1962 death due to small pox was high. The number of death from smallpox came down from 15048 in 1962 to 176 in 1975(Fenner et. al. 1988). Still mild attack of pox is noticed each year in this region. Here the infections are mostly measles and chickenpox. However, the goddess is worshipped with much pomp and éclat. Fabrizio M. Ferrari has been persistently doing commendable studies on the goddess Sitala and culture of healing practices in India (Ferrari 2010; 2015). Admitting Sitala primarily as a 'small-pox deity', he went on to mention its worship as a curer of fever, measles, cholera and tuberculosis. He has also narrated her transformation into an AIDS-goddess (Ferrari 2010). His objectives are to see how she has been studied by western and oriental scholars and how she lastly came to be identified as a 'small-pox goddess'. He envisioned the unresolved problematics between possession of goddess as infliction and worship or *puja* as its remedy or cure. However, I find that he has characterized the infliction of the body as 'bhara' or filling of the body which so far was being termed as possession. He says that a person is possessed (meaning filled or *bhara)*by goddess Sitala when he or

she is attacked by pox. But this *bhar* is different from the one possessed by spirit or by a deity while making divination.In my opinion; this situation can best be described as *adhisthan* (dwelling) of the goddess in the body of the affected individual. However, Ferrari's discussion made it squarely clear that being afflicted by pox is not a normal state, but a 'possessed' condition which I have termed here as liminal state.

Apart from the grandiose annual celebration of the goddess, one must pay offerings to the goddess in her temple after the recovery from the disease. Before this, the afflicted person undergoes customary isolation during the illness. With this illness, one enters into a liminal state along with the members of the family.

Pox-like Diseases (PLD) and its traditional Management

The management of the pox like diseases is a part of a cultural practice which Marglin has termed the 'undifferentiated traditional medical system' (Marglin 1987). Here, the approach is prophylactic as well curative. By prophylactic it is meant that the people regularly (at least during annual worship in the temple) offer their worships to the goddess even if there is no disease in the family. The main intention of this propitiation is to ward off the wrath of the goddess, as manifest through her 'kindness'. The curative practice is quite obvious with the onset of disease symptoms in the body.

Disease Symptoms

It is also known as *basanta* or *basanta rog* (*rog* is the Bengali word for disease) named after the spring (*Basanta)* season. The people make a distinction between two types of pox as *jal basanta* (chickenpox) and *guti basanta* (smallpox). The smallpox has been the severe infection caused by the viruses *Variola major* and *Variola minor*. The disease was characterized by thickly set skin rashes turning into bumps with a slight depression in the centre and high fever. Before the eradication of this disease as declared by World Health Organization in 1980, it had a high mortality rate. Goddess Sitala has been the presiding deity for this disease (Nicholas 1981). In comparison to smallpox, chickenpox is much less severe, but is highly contagious in nature. It is caused by *Varicella zoster* virus. Its symptoms include small reddish blisters on the body, headache, tiredness and fever. With the increased vaccination the varicella infection has been tamed to a great extent. Still we come across infrequent cases of chickenpox infliction. People also continue to worship the goddess Sitala to ward off this disease in the community.

Smallpox has two manifestations – one is *Variola major* and the other is *Variola minor*. In comparison to major form is more virulent with a fatality rate ranging from 20 -50 per cent. The fatality is less than 1 per cent in *V.minor* infection (Buchillet 2007). The smallpox virus has an asymptomatic incubation

period of one to three weeks followed by an invasion period of three to four days. The clinical symptoms of this disease include high fever, burning sensation, headache, chills, and nausea. Rashes begin to appear first on the face, then on the trunk and extremities. The nature of rashes changes over the period of manifestation. The papules change to vesicles with head in three to four days, the vesicles transform into pustules by five to six days. After eight to ten days of first appearance of the rashes, they tend to dry and to scale scab of already drying up eruptions (Buchillet 2007). Chickenpox symptoms are usually characterized by mild to high fever, headache, pain in the abdomen, and widespread rash on the body. The chickenpox virus varicella has an incubation period of 14 days (Guilfoile 2010). The rashes are reddish swollen blisters filled with fluid. But the chickenpox infection may be complicated in some cases if it is coupled with bacterial infection on the skin and Reye syndrome is developed (Guilfoile 2010). Measles is another common illness that mostly attacks the children. It is also a viral(MV) infection. The clinical characteristics of measles include the following:

MV is a human-restricted pathogen that spreads among individuals by release of aerosol droplets. An infected individual will undergo a latent period of 10–14 days followed by a few days of fever, cough, coryza, and rash. Primary infection occurs in the upper respiratory tract, but MV will secondarily infect lymphoid cells.(Young and Rall 2009: 5)

Now, if we compare the clinical symptoms of these three diseases, the fever and rash on the body are common everywhere. Secondly, all the diseases carry a potential danger. Smallpox is highly fatal in its virulent form. The chickenpox may become deadly if complications arise as the virus is a type of herpes virus. Measles, if not properly treated can cause serious condition. The externality of the symptoms of these three diseases influences the transposition of smallpox goddess to the goddess of all these pox like diseases. With the eradication of smallpox, the healing practices have been simulated mainly for the cure of chickenpox. However, there still exists an iota of uncertainty of the cure even in case of chickenpox as there is a possibility of further complications in some cases. This uncertainty holds the ground for the traditional healing practices.

Traditional Healing Practices

When someone is attacked by pox, it is traditionally believed that the goddess has taken shelter in the body of the infected person. The family members of the person infected with smallpox formerly used to go to self-quarantine. The self-quarantine is also observed to certain extent in case of chickenpox nowadays. In fact, the chickenpox was not distinguished from the smallpox until the end of 19th Century (Atkinson *et. al.* 2011). When a person falls ill with chickenpox, his or her family members go to a quarantine which is more or less culturally constructed and designed to suspend the normal or

usual contact with the other members of the community. During this period of self-quarantine, as it appears, they undergo a phase of liminality. The present paper tries to know more about the nature of this self-quarantine and concomitant liminality. The link between the quarantine and liminality is less explored, however significant, topic in medical anthropological discourse as reflected from the review of relevant literature.

It has already been mentioned that the disease is known as *Mâ er da â* in Bengal. The believing folk say that the kind Mother i.e. the goddess has bedecked the affected person with ornaments ('mâ ga nâpariechen'). Thus the blisters caused by the disease are like 'ornaments of mother'. The person affected by the infection goes into complete seclusion as some sacred body. Now his or her body becomes the abode of goddess Sitala. At some parts of the country the patient is himself or herself regarded as 'Sitalamata personified' (Mishra 1969: 137),even the patient is worshipped with all formalities(ibid: 138). The room in which he or she is kept is cleaned at regular interval. The incense sticks and *dhunâ* (camphor) are burnt in the room. Water of river Ganges, which is believed to be sacred, is sprinkled. Silence is maintained as the noise may offend the goddess. Leaves of neem(*Azadirachta indica*) are kept under the bed of the diseased person. The body of the person is fanned with neem branches. It is keenly observed that no fly or mosquito would sit on the body of the affected person. For this now the common practice is to keep the diseased person inside mosquito net.

The family members of the affected person observe certain restrictions during the period of variolation. They do not use oil. Male members would not shave or cut hair. The female members do not use vermilion on forehead or lac dye at their feet. Use of anything red in colour is prohibited to the members of the family. They do not consume non-vegetarian food during these days. They do not take any lentil that looks like *masoor dal*. For this they only take *beuli dal* during these days. This *dal* is white in colour and elongated in shape. The entry to the room where the patient is lying is also restricted. One must take bath and wear clean clothes before entering this room. After taking meal one cannot enter the room until and unless he or she has changed his or her cloths. Mishra (1969) has mentioned that it is a taboo to prepare fish in the house where a person is suffering from smallpox. Taking of mustard seeds is strictly prohibited during this period. Widespread use of neem branches and leaves is another practice that is revealed in the Mishra's study as well.

The disease has its own cycle as per folk perception. The first eruption of pustules is the desire of the goddess to take shelter in the body of the affected person. The sequence of eruption starts with its appearance in the central or proximal region of the body, when it appears in the pedal portions then people understand that the infection is on the wane and it will no more grow. It usually takes place by eighth day. This condition is called *bhângâde â* (breaking) by them. It is also called *bhâmipa[â* in Purba Medinipur. The word *bhâmi* means the low

tide (*bhâmâ*), therefore the *bhâmipa[â* (*pa[â* means falling) indicates that the disease is getting cured. It heals by twenty one days. Sometimes, there may be early recovery. *Nimmikâ* mark is applied on the forehead. It is the paste of neem leaves which is put as a mark on the forehead of the recuperating person after he or she is bathed. Then the patient is touched with oil and turmeric paste before bath. It signifies that the recovered person can use oil now. There are some food prescriptions at this juncture. Eating of sour-tasting curry of Falui fish (*Notopterus notopterus*) is said to be a must in Medinipur districts. Now they can take pulses as well. At some places like Contai area of East Midnapore, there is a custom of taking *bhângâponâ* which is a special concoction given to the recovered person and members of his or her family. Taking *bhângâponâ* is a ritualistic activity. The dry mixture of this concoction is available in the local shop which is known as *benebâjâr* or *daúakarmâ bhândâr* selling items for religious rituals of the Hindus. In each of the big market area one can find one or more such specialized shops. This mixture along with cow milk (this milk [*dudh*] is called *sâji dudh* which is milked on the day of offering after the sun rise, from *Surya* the word *sâji* is derived. The implication of mentioning it as *sâji dudh* is that the stale milk [*bâsi dudh*] cannot be used in the offering). Usually the mother or eldest female member of the family carries about this milk, dry concoction, and other offerings to the local Sitala temple where the Brahmin priest ritually places it before the goddess. After being so consecrated, these objects are returned to the worshipper. They bring it back home and take the *bhângâponâ* mixing it with the milk. It is believed that the mixture would replenish the damage caused to the body due to the disease, boost their immunity and save them from further attack since it is blessed by the goddess. This ritual action also marks the end of the seclusion period and prohibitions on the food and movement.

Goddess Sitala and Her Transformation

The idol of Sitala reflects the characteristics of a goddess who is the tutelary deity of *basanta* (pox). She has two or four hands, eight handed Sitala idol is also seen. Irrespective of the number of hands, it is always seen that one hand obviously holds a broom, and in the other hand a pitcher is held. It is believed that the goddess cools the body of the afflicted person by sprinkling water from this pitcher and she dispels the germs of the disease with the broom. In fact the name Sitala bears the etymological connotation of the 'Cool one'. Sitala is worshipped in the spring months. During this time the prevalence of pox is more frequent. Besides Sitala, the deity is known by some local names such as Basantaburi, Jungleburi, Jahirburi, Charamburi, Jharbaghini, Beneburi, Khalburi. All these names are suggestive of its existence as folk goddess in the rural West Bengal. However the process of Brahamanisation has crept in and endowed it with an anthropomorphic form. Now it is well accepted as one goddess belonging to the Sanskritic tradition. According to the Sanskritised version, Devi Sitala is a form of Katyayani who is an image of the polymorphous Devi Durga.

Another interesting aspect of goddess Sitala is her association with some other deities namely Basanta Roy and Jwarasur. The image of Basanta Roy has been mostly reported from the districts of South 24-Paraganas (Basu 1978). Basanta Roy is a handsome looking deity with fair complexion and sharp features and adorned with royal attire. He is said to be the son of the deity. Another version on his relationship with Sitals states him to be a companion of the goddess. They are worshipped together in most of the cases. He is also god of pox. It is postulated that he emerged as a controlling deity of the disease at a time when the epidemic was devastatingly active (Basu 1978). It might be possible that people thought the joint worship of mother and son would appease the mother and she would be moved to protect his ailing children like her son Basanta Roy. But Basanta Roy is a almost forgotten deity in the studied area, and this decline in his worship is probably related to the loss of fatality of this disease. Jwarasur is another such deity who is met with Sitala in many of her shrines. Like Basanta Roy, the Jwarasur has also lost its former hold. As the name of the deity suggests, Jwarasur happened to be the 'fever demon'. In earlier times, he was believed to unleash a reign of fear by causing numerous fever-deaths. The pox is invariably accompanied with the rise of body temperature. Therefore, people thought that they would ward off the death by propitiating Jwarasur. A section of the scholarship tried to show the invention of this demon during colonial period when the spread of epidemic appeared to be unbridled. By dislodging this claim, Mukharji(2013) shows the ancient references to this deity. He brings in the concept of 'transmateriality' in order to explain the nature of this deity, which disfavours any boundary between folk and classical. The way Mukharji (2013) advances his argument on Jwarasur, has particular relevance for the present study. He writes:

"Jwarasur, we find, was constantly re-embedded into multiple heterogeneous traditions of medical and religio-moral practice. These diverse embeddings actively militate against the existence of any corpuscular 'systems' called 'folk' or 'classical' medicine. Rather Jwarasur is a common figure that networks a number of heterogeneous, amorphous domains." (261: 2013)

Thus, the deity is actually embedded in the religio-moral practices observed in a society. Such entanglements indicate the structural arrangement accommodating the ambiguous and heterogeneous liminal conditions. That a society continues to change and relates the change meaningfully to the existing social milieu can be understood well from the career of the pox goddess Sitala as well. In support of this statement, I may cite the example of Sitala's transformation to an AIDS goddess in the 1990s. Ferrari (2009) has mentioned the emergence of AIDS-Amma in Karanataka in 1997, which he has considered as an artificial adaptation responding to a new threat. This innovation of goddess again points to the very ambiguity that envelopes the liminal state. However, this innovative practice and traditionalisation of the modern cannot be said to be an alien phenomenon in Indian society. Importation of the 'spiritual' value

into the materiality is the quintessence of the Indian social system (Saksena 1972). Even the Covid-19 incidence has been treated spiritually by inventing and propitiating the Corona divinity (News18.com 2020).This again testifies the ambiguity of the liminal condition cropped up in an extremely unpredictable situation like the outbreak of an epidemic.

Changing Attitudes towards PLD

It is a fact that the traditional attitude towards pox like diseases (PLD) has undergone considerable change in the last few decades. The increased immunization against these diseases has lowered the occurrence of PLD. The scientific reasons behind these diseases are now known to the educated sections of the population. The people now seek professional medical advice in the clinic when fall ill with chickenpox. At the same time, they also follow traditional healing practices to a greater or lesser degree which sometimes depends on class principles, but not always. In the urban areas, the usual practice is to consult the doctor and to keep the infected person in isolation. When isolation in a separate room is not possible due to lack of space, the symbolic isolation is observed by restricting movement of the diseased person and maintaining taboos on food, dress and behaviour. In the rural areas, however, the grip of tradition is stronger as they try to follow the traditional healing practices as outlined above in the typical cases. There are also deviations in the rural areas from the typicality; however, the magnitude of such deviations is less in comparison to the educated or enlightened urban people. A section of this enlightened class of people does not believe in any divine design behind the chickenpox, and they take it like any other diseases having some material causation. Therefore, basically three major modes of attitudes towards this pathological condition emerge–primarily traditional with little modern medication, a balanced combination of traditional and modern, a clinical remedy with little or no traditional practice.

Health and Liminality

Pox has been a rampant disease afflicting a large section of the population. The more serious variety of pox has been checked through improved vaccination. In earlier days it would claim a heavy toll as thousands of people died or were seriously affected by the attack of pox. To get rid of this recurring menace they attempted to propitiate the goddess of smallpox, Sitala. In the southern Bengal Sitala is worshipped in almost all villages with a greater prevalence in the districts of South and North 24 Paraganas, Purba and Paschim Medinipur, Howrah, Hooghly. She is worshipped either in idol or in the form of stone or earthen ware. The idol of Sitala reflects the characteristics of a goddess that is believed to have an instrumental role in the spread of the disease called *basanta* (pox).

In his original idea Van Gennep advocated that the ritual involves

three essential features: separation, marginality and aggregation (van Gennep, 1905). The phase of separation is marked by a clear break with the normal events. The marginal state is actually the liminal state or 'liminal phase' (van Gennep 1960) . Turner(1969) taking cue from Van Gennep , elaborated the idea of liminality and added the concept of communitus. Turner writes:

" The first phase (of separation) comprises symbolic behavior signifying the detachment of the individual or group either from an earlier fixed point in the social structure , from a set of cultural conditions (a " state") , or from both. During the intervening " liminal" period , the characteristic of the ritual subject ("the passenger") are ambiguous: he passes through a cultural realm that has few or none of the attributes of the past or coming state. In the third phase (reaggregation or reincorporation), the passage is consummated." (Turner 1969: 94-95)

Elsewhere Turner (1979: 43) adds that:

"Liminality is, of course, an ambiguous state, for social structure, while it inhibits full social satisfaction, gives a measure of finiteness and security … the breakthrough of chaos into cosmos, of disorder into order …"

From the discussion of Turner (ibid) the following features of liminality becomes apparent:

1. Liminal entities are neither of here nor of there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial.
2. The ambiguous and indeterminate attributes of liminal persons are expressed by a rich variety of symbols in the society that has ritualized the social and cultural transitions.
3. Liminality is frequently linked to death, to being the womb, to invisibility, to darkness, to bisexuality, to the wilderness and to the eclipse of sun and moon.

Turner primarily talks about a ritual situation. However this idea was later transported to the concept of social drama. In the study of Ndembu ritual Turner brings out the following features that become apparent from his study of the installation of the Ndembu chief Kanongesha (Turner 1969; Bowie 2006).

Firstly, a kind of anonymity and sexlessness of the person under liminal state.

Secondly, the chief shows servile posture and observes silence, his behavior represents extreme submission.

Thirdly,use of ordeals and humiliations that represent destruction of earlier state and preparation for the new state.

The person affected by pox shows the features of liminality as evident in the present case. The diseased state is a period of crisis.This crisis is reflected in their liminal identity. The body of the inflicted person is said to be the abode of the goddess. Therefore the room in which he or she lays is a sacred place to be differentiated from other rooms as is done with the temple or *thakurghar* (literarily means room of the god) that is the Hindu place for worship of their gods and goddesses. It is cleaned with cow-dung mixed with water. The holy water of the River Ganges is sprinkled in the room. Incense sticks and camphor are burnt. All these activities resemble what is done in the temple or in the room that is the abode of deities in the house. Sometimes a separate room marked as *thakurghar* is seen in the Hindu household where daily rituals are done in the morning and in the evening. Separation of this room from other rooms is well reflected in the way the room is treated by the members of the family. The entry to this room is restricted. Nobody with ordinary clothes can enter this room. Without wearing washed clothes after bath, the members of the family do not go to worship there. At least twice daily elderly or female member shows light, burns incense and sprinkles water of the River Ganges in *thakurghar*. Now we can elaborate the idea of liminality to include the liminal space like the temple or seat of divinity i.e. *thakurghar*. The persons in this space are characterized by their liminal identity. The similar status is given to the room where the person inflicted with small pox or *Mâ er da â* is kept. If the infection is very high the person is even laid on a banana leaf. His or her body is now tabooed to be touched. It fact, is believed that this body has been the abode of goddess Sitala. The members of the family of this person are to observe certain taboos and restrictions. They treat the inflicted body with extreme reverence as one show towards a deity. In fact normal food and drinks are suspended for the members of the family. For example, they would not take any non-vegetarian food. The consumption of *moosur dal* is prohibited. The explanation is that the dal looks similar with the eruptions on body of the diseased; therefore, it would increase the infection. This is an example of homeopathic magic. Similar restriction is applied to the consumption of mustard seeds with similar kind of symbolic meaning. Special foods are taken to 'cool' the body which is considered 'hot'. Vegetarian easily digestible food is given to the person and taken by the other members of the family. The onset of the infection is also marked by a ritual action through which the separation of the diseased person and his family members from the rest of the community is also affected. The mother of inflicted person takes bath in the morning and anoints a coin with vermillion. Then she puts this coin in a small new or washed piece of cloth and ties a knot with it. Now she places this coin and a branch of mango tree with five leaves under the scaffolding of the roof which happened to be thatched or tiled in most of the cases. Therefore, we can say that the separation and re-aggregation, both are marked with distinct ritual activity. Moving the neem branches over the body is also done for the same purpose. The liminality is extended to the relations of the affected person who

live in the same house. The way the infected body is treated, clearly reflects the liminal body which is sexless abode of the goddess. Its sexual identity, whether male or female, does not matter since it is now the representing the mother goddess. Thus, it is also an inversion from natural to supernatural. Even the individuals who are senior to the diseased person also show respect to the holy body. It is not the norm to show respect to the juniors by seniors in normal social structure. It is the production of counter-structure which is another feature of the liminal state. However, participation in this liminal state by the members of the family of the inflicted person can be taken as an extension of the original idea of liminality put forward by Turner. Here the liminal state is conceived of as multilayered – members of the same household are differentiated by degrees of liminality. This leveling through liminality gives rise to communitus. Here, the inflicted body rests in analogy with the womb in the secluded chamber under the motherly care. When he or she is emerging recovered, he or she is bathed and appropriately fed as the new born is bathed and fed ceremonially. The birth rites are associated with customary ritual pollution period similar to that of the seclusion of the diseased in case of *Mâ er da â*. So, we can infer that the diseased state here resembles the liminality in almost all its features.

During the liminal period the normal structure of the society is inverted. This state of counter-structure is also the feature of communitus. Turner writes:

"What is interesting about liminal phenomena for our present purposes is the blend they offer of lowliness and sacredness, of homogeneity and comradeship." (Turner 1969: 96)

The sacredness and lowliness seen among the people are of different degrees. The 'lowliness' of these people is manifest in their coming more close to nature forsaking delicate foods and meats. They even do not use oil or pair off their nails. This way they are also coming more close to nature with an implication of lowering down to nature. The homogeneity and comradeship is achieved through a universal application of restrictions and observances among the members of the family irrespective of their age, sex or other status. This is the emergence of communitus that has been defined by Turner as '…an

unstructured or rudimentarily structured and relatively undifferentiated…' (Turner 1969: 96).

As the separation is marked by seclusion of the individual and his or her family members, the reaggregation is consummated with puraficatory bath of the afflicted person and sending offering to the temple of goddess Sitala i.e. public authority. Therefore we notice a movement from individual/private to public as the ritual progresses. In all other life cycle ritual among the Hindus, one may find a period of seclusion ended with puraficatory bath and submission to public authority. Among the Hindus it is seen as a custom that the death pollution ends with tonsure and ritual bathing. The twenty one day of pollution

period after birth of a child comes to an end with such ritual bath as well as submission to some public authority which is embodied in the neighbours, barber, midwife and priest. Turner while elaborating this concept hinted that the liminality is frequently likened to death.

Analysis

In the present case there is a problem with post liminal state. Unlike life cycle ritual it apparently does not affect any change of status. However there is marked ritual that materializes the re-aggregation. But in deeper analysis one does not deny that there is a transition from diseased to cured state. As there was a possible danger of death in such disease, the relatives express their gratitude by sending offerings to temple, which is a thanksgiving to the goddess for returning the life of the individual.

There is a paradox in the case of liminal state of transition because a person is at the same time sacred as well as polluting. This ambivalence is a feature of liminal state. It also reflects the internal differentiation of pollution – 'Pure' and 'Impure'. It is the ritualistic context of that debilitates the distinction. Prasad (1984) has shown how the sound generated by a ritually impure person becomes sacred at the time of ritual. In the liminal state the structural principles are suspended in favour of anti-structural properties of liminality. In the person affected by smallpox such ambivalence is clearly noticed.

Now, if we analyse the practice of self-quarantine in scientific worldview, we can say that the main objective of the quarantine is to check the spread of epidemic or endemic. By imposing restrictions on the movement and mixing of the people, we would try to restrict the possibility of transmission of the disease. In case of quarantine declared with the lockdown during the recent outbreak of global pandemic of Covid-19,[1] we have seen that the state authority has tried to impose the quarantine measure stringently. The law implementing agencies were taking stern action against the transgressors of quarantine restrictions. In spite of that we notice surreptitious transgressions by the people. Actually people at times are forced to transgress to collect food and other necessities of life. The practical considerations sometimes prompt the government to relax rules. However, the indigenous customs keep provisions for both security and survival. The customary prohibitions restrict the gathering of people in the family of the infected person by disallowing any socio-religious occasion there. Even, the members of the family cannot participate in any such occasion in the locality. Moreover, the restrictions on bathing and washing clothes also help to contain the spread of disease. In earlier times, there was a custom of giving eatables (*sidha*) to the family of infected person when it used to remain separated through self-quarantine. It provided the family of affliction with food security and necessary protection to the community from the contamination. Thus the indigenous self-quarantine can be considered as an

effective strategy to contain the epidemic outbreak. This self-quarantine is a liminal state. Quarantine de-tour self-quarantine is therefore, by and large liminal too. 'The Transformation theory' helps us to understand the role of the community and salient transformation of the deities associated with PLD. To undrestand people's reaction to the quarantive measures imposed by the government, the 'malcontent theory' can he applied in the present case. But this 'malcontent' has no place in the traditional content of management of the pox-diseases. Similar disjuncture between traditional and modern can he noticed when we try to take stock of the situation through the prism of 'stigmatisation theory'. The PLD affected individual is not stigmatised like a corona virus affected person whom a section of society despises. On the other hand, PLD infected person is revered. However, both the stigmatisation and the reverence generate similar behavioural effect of physical distancing. But, traditional strategy offers better social support.

Here, another question becomes apparent in this regard. Does all diseased condition reflect liminal status? In the present case the folk belief holds a supernatural cause behind the infection. In every diseased case the causes will not be of similar nature. Then when do we consider that diseased condition is liminal (Little *et. al.* 1998; Gaur and Patnaik 2011). In fine it can be said that all such condition is liminal to a greater or lesser extent. In the house where any sort of disease has stalked , the normal activity remains suspended to certain extent. People do not take it seriously if members of such family fail to comply with normal social expectations. It can pass off to be a cogent excuse to escape any social obligation. Thus the normal structural compulsions exist in limbo. If the behavior of individual in such state deflects from expected norm, it is excused on the pretext of the condition of illness. Therefore liminality can be constrned as essentially a cultural adaptation to cope with social crisis when structural components need to logically place the aberrations as some structural phenomena. For this, the confusing ambivalence which characterizes the liminality acts to neutralize structural fluctuations. In this way, the liminality gets an enduring life (Little *et. al.* 1998). The liminal character of quarantine that we establish in the present study can be said to possess a broader applicability in other diseased conditions. Therefore we can say that we live in a liminal continuum that starts with liminal state of birth and ends with death with intermittent overlap of multilayered liminal states.

Notes

1. Vide National Disaster Management Authority, Government of India Order No: 1-29/2020-PP(Pt.II) Dated 24.03.2020; Press Information Bureau, Government of India release on 24.03.2020; Disaster Management Act,2005 and The Epidemic Diseases Act,1897.

References

Atkinson,W., C. Wolfe and J. Hamborsky, (eds.)

2011. *Epidemiology and Prevention of Vaccine-Preventable Diseases*.

Washington, D. C. : Public Health Foundation.

Bang, B. G.

2000. "Current concepts of the Small Pox goddess Sitala in parts of West Bengal". In R. M. Sarkar(ed.) *Through the Vistas of Life and Lore*. Calcutta: Punthi Pustak.

Basu, G. K.

1978. *Banglar Loukik Devata*. Calcutta: Dey's Publishing (Bengali)

Besnier, N.

1994. " Polynesian Gender Liminality through Time and Space" , In Gilbert Herdt (ed.) *Third Sex, Third Gender: Beyond Sexual Diamorphism in Culture and History*. New York: Zone Books.

Bollet, A. J.

2004. *Plagues and Poxes - The Impact of Human History on Epidemic Disease*. New York: Demos

Bowie, F.

2006. *The Anthropology of Religion*. Malden: Blackwell Publishing.

Buchillet, D.

2007. "Epidemic diseases in the past: History, Philosophy and Religious thought". In Michel Tibayrenc (ed.) *Encyclopedia of Infectious Diseases- Modern Methodologies*. New Jersy: Willey

Colson, A. C. and K. E. Selby

1974. " Medical Anthropology", *Annual Review of Anthropology*-245-262.

Fenner, F et.al

1988. *Smallpox and its Eradication*. Geneva : World Health Organization.

Davis, Christine S.

2008. "Liminal Perspective",In Lisa M. Given(ed.) *The Sage Encyclopedia of Qualitative Research Methods*. London: Sage.

Deflem, Mathieu

1991. "Ritual, Anti-structure ,and Religion: A Discussion of Victor Turner's Processual Symbolic Analysis", *Journal for the Scientific Study of Religion,* 30(1): 1-25.

Douglas, Mary

1966. *Purity and Danger*. London: Routledge and KeganPaul.

Ferrari, F. M.

2010. "Old Rituals for New ThreatsPossession and Healing in the Cult of Sitala". In C. Brosius and U. Hüsken(eds.) *Ritual Matters: Dynamic Dimensions in Practice*. New Delhi: Routledge.

2015. ""Illness is nothing but injustice":The revolutionary element in Bengali folk healing", *Journal of American Folklore* 128(507):46–64

Forss A, C. Tishelman , C. Widmark , L. Sachs

2004. "Women's experiences of cervical cellular changes: an unintentional transition from health to liminality?" *Sociol Health Illn.*-26(3):306-25.

Frankenberg, R.

1986. Sickness as Cultural Performance: Drama, Trajectory, and Pilgrimage Root Metaphors and the Making Social of Disease. *International Journal of Health Services* 16(4): 603-626

Gaur, M. and S. M. Patnaik

2011. "Who Is Healthy among the Korwa?"Liminality in the Experiential Health of the Displaced Korwa of Central India. *Medical Anthropology Quarterly*-25(1) : 85–102.

Greenough, Paul

2003. "The Social and Cultural Framework of Health and Disease in India". In Veena Das(ed.) *The Oxford India Companion to Sociology Social Anthropology*. New Delhi: Oxford University Press.

Guilfoile, Patrick

2010. *Chicken Pox*. New York: Chelsea House Publishers.

Idrovo, A. J. , C. Albavera-Hernandez, and J. M. Rodriguez-Hernandez,

2011. "Social Epidemiology of a large outbreak of chickenpox in the Colombian sugar cane producer region: a set theory-based analysis", *Cad. Saude Publica,Rio de Janeiro*-27(7):1393 -1402.

Talwar, Indu (Eds.)

2010. *On Medical Anthropology: India*. Jhargram and New Delhi: INCAA and IGNCA.

Jackson, J. E.

2005. "Stigma, Liminality and Chronic pain: Mind- body borderlands", *American Ethnologist*-32(3):332-353

Little, Miles and Christopher F .C. Jordens, Kim Paul, Kathleen Montgomery, Bertil Philipson

1998. "Liminality: A Major Category Of The Experience of Cancer Illness", *Soc. Sci. Med*. 47(10): 1485- 1494

Marglin, F. A.

1987. *Smallpox in Two Systems of Knowledge*. Wider Working Paper

prepared for the UNU/WIDER Planning Meeting on Systems of Knowledge as Systems of Domination 21-23 July,1987.

McClain, C. S.

2013. "A New Look at an Old Disease: Smallpox and Biotechnology". In Peter J. Brown and Marcia C. Inhorn (eds.) *The Anthropology of Infectious Disease: International Health Perspectives*. London:Routledge

McLean, D.

2014. " Gold,fire and gallows: quarantine in history", *History Today* (December): 46-48

Misra, B.

1969. "Sitala: The Small-pox Goddess of India", *Asian Folklore Studies* 28 : 133 - 142.

Mukharji, P. B.

2013. "In-Disciplining Jwarasur: The Folk/Classical Divide and Transmateriality of Fevers in Colonial Bengal", *The Indian Economic and Social History Review*-50 (3): 261–288

Mukhopadhyay, S. K.

1994. *Cult of Goddess Úîtalâ in Bengal: An Enquiry into Folk Culture*. Calcutta: Firma KLM.

Murphy, R. F., J. Scheer, Y. Murphy and R. Mack

1988. "Physical disability and social liminality: A study in the rituals of adversity", *Social Science & Medicine* 26(2): 235- 242.

Neogi, Maheswar

2000. "The small pox goddess of Assam". In R. M. Srakar (ed.)*Through the Vistas of Life and Lore*. Calcutta: Punthi Pustak.

News18.com

2020. "Coronavirus is Now a Deity in Many Indian Villages, Being Worshipped with Flowers and Sweets" , ,8 June, (https://www.news18.com/news/buzz/coronavirus-is-now-a-deity-in-many-indian-villages-being-worshipped-with-flowers-and-sweets-2659603.html)

Nicholas, R.W.

1981. "The Goddess Sitala and the Epidemic Smallpox in Bengal", *The Journal of Asian Studies*-41(1): 21-44.

Pellecchia, U.

2017. "Quarantine and Its Malcontents - How Liberians Responded to the Ebola Epidemic Containment Measures", *Anthropology in Action*-24(2):15-24

Pool, R. and W. Geissler

2005. *Medical Anthropology*. New York: Open University Press.

Prasad, O.

1984. *Folksong and Folkmusic of Banaras*. Calcutta: Anthropological Survey of India.

Risse,G.B.

2016. *Driven by Fear: Epidemics and Isolation in San Francisco's House of Pestilence.* Illinois: University of Illinois Press.

Saksena, R. N.

1972. "Modernization And Development: Trends In India" ,*Sociological Bulletin* 21(2): 91- 102

Scotch, N.A.

1963. "Medical Anthropology", *Biennial Review of Anthropology*-3: 30- 68

Trostle, J. A.

2005. *Epidemiology and Culture.* Cambridge: Cambridge University Press

Turner, V.W.

1969. *The Ritual Process: Structure and Anti-structure*.London: Routledge&

Kegan, Paul

1979. *Process, Performance and Pilgrimage.*New Delhi: Concept Publishing Company.

van Gennep, A.

1960. *The rites of passage.*London: Routledge & Kegan Paul.

Venables, E.

2017. " 'Atomic Bombs' in Monrovia, Liberia - The Identity and Stigmatisation of Ebola Survivors" , *Anthropology in Action*, 24(2): 36-43

Winkelman, M.

2009. *Culture and Health – Applying Medical Anthropology*. San Francisco: Jossey-Bass

Young V.A. and G.F. Rall

2009. "Making It to the Synapse: Measles Virus Spread in and among Neurons". In D.E. Griffin and M.B.A. Oldstone (eds.), *Measles: Pathogenesis and Control*. Berlin: Springer-Verlag