

Democratising Science? The People's Science Movement and the Pandemic

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1. INTRODUCTION

The relation between science and democracy has been articulated long ago by sociologists like Robert Merton (1973 cited in Hess, 1997:58) who had said that science and technology would thrive best in a liberal democratic order. As science became 'the dominant guiding principle' of democracy, its organised skepticism would provide society with a system of socio- cultural checks and balances and a critical mindset that would 'invalidate particular dogmas of the church, economy or the state.' Science as an institution could achieve its relative autonomy because of the support and patronage that it received from the public in Western democratic states.

In the subcontinent, science held several meanings for a colonised people, as it was transformed into a cultural institution. Subsequently in independent India, the affirmation of a scientific temper underlying a modern nation state by Jawaharlal Nehru, established a close connection between state, science and society. However, the progressive potential of science was realised through the slow but active working and nurturing of scientific ideals by the people's science groups and movements in different parts of the country. Ironically, neither in the academia nor in the policies of the state, do the social movements of science receive much attention, as they challenge the idea of science as expert

knowledge and attempt 'to reclaim science as public knowledge.' (Visvanathan, 2001).

In liberal democracies, the social contract between science and the state is forged on behalf of the public. States enter into relations with science in order to secure benefits of scientific development for its citizens, for example, through the reduction of disease, poverty or crisis in food etc. Citizens are in turn socialised into broadly accepting the value of science, and from time to time surveys are undertaken to assess citizens' proclivity towards accepting the knowledge claims based on science and technology. Since big investments in scientific research can be carried out because of public support, public understanding of science and technology has become imperative for the state to assess. According to Sheila Jasanoff (2011), 'as a play could not exist without its spectators, so the grand narrative of progress through science and technology demands assenting publics to maintain its hold on the collective imagination not to mention the collective purse strings.' (2011: 248).

Citizen's participation in processes of development and in controversies around scientific knowledge has brought the politics of knowledge at the centre stage of debates on democracy and citizenship (Leach, Scoones, & Wynne, 2007). In the global risk society, social movements mobilise citizens as

knowledgeable experts to recreate science as global commons, as opposed to privatised knowledge (Visvanathan, 2001) and thus play a powerful role in reigniting the democratic imagination.

This paper attempts to analyse the responses of the people's science movement of Kerala initiated by the Kerala Sastra Sahitya Parishad, to the Covid 19 pandemic. It argues that the movement sought to demystify science, battle misinformation and affirm the importance of a scientific understanding of the pandemic at a time when an epistemic uncertainty assailed science in general. While the first section elaborates the work of the science movement intervening in society, a following section details the myriad responses of the movement in the context of the pandemic and the ways in which it created a space for science and the engagement of the citizen in a democracy.

The paper argues that the movement does contribute to a democratisation of knowledge through a process of training and focuses on inculcation of a scientific perspective through its science classes. Training as a technology of participation of large numbers of people which includes its own members and many other volunteers, constitutes a strategy towards constructing citizens with a scientific orientation. However, the shift towards a more democratic engagement with science based on mutual learning and exchange is not yet complete, it is still an aim to be achieved.

Data for this paper was collected during and after the pandemic, through a series of online and offline interviews of activists of the Kerala Sastra Sahitya Parishad. The paper draws from 6 interviews of activists and participation in lectures, webinars and online training programs that were organised by the Parishad for the volunteers and general public, during the pandemic.

2. INTERVENING IN SOCIETY

The People's Science Movement has a long history of activism in Kerala since the early 1960s. It was initiated by a group of science writers, scientists, science teachers in schools and colleges who formed the Kerala Sastra Sahitya Parishad (henceforth KSSP or the Parishad) with the aim of 'taking science to the masses' in the vernacular. Since all scientific knowledge was available only in English, it was largely out of reach of the masses. Hence the group decided to popularise science in the vernacular. Translations of articles, speeches, excerpts from science books were undertaken but as science writing was not so popular, it did not find a space in the journals and magazines of the day. The Parishad

went on to start three magazines- Eureka, for the children, Sastra Keralam- for the youth and Sastra Gathi - for the general public. Gradually, the group realised the importance of the spoken word and organised public lectures, exhibitions on critical issues to reach out to the people. In contemporary times, along with these avenues of science popularisation, the Parishad has expanded its activities quite extensively in the digital sphere as well.

In the early 70s the Parishad intervened in formal education system by attempting to bring about changes in the way science was taught in schools. This entailed opening science clubs in schools, training teachers to use science kits provided by the government in class, devising several informal methods of learning which would encourage students 'to do' the experiments in the syllabus by themselves rather than 'learn by rote' and such other measures. The educational interventions, which went beyond science teaching and learning, attracted a lot of teachers within their fold and the movement grew steadily. The movement's conception of education did not remain limited to the classroom or the schools. In the 1990s, the Parishad instituted a People's Commission under the chairmanship of Dr. Ashok Mitra which advocated among many other things, the consolidation of all its interventions related to school education at the panchayat level, in order to assign the social responsibility of public education to the local bodies.

In the late 1970s and early 80s, the movement's agitation against building a dam across the Attapadi River in Silent Valley is quite well known. Hydel power stations were imagined as an alternative to coal-based options of power generation for electricity deficit states like Kerala, especially to drive forward industrial production. Along with many other organisations in Kerala, the KSSP protested against the Silent Valley Hydroelectric Project which would have submerged thousands of acres of tropical rainforests housing valuable plant and animal species and disturbed the ecological balance of the region. The issue was resolved through the then Prime Minister Mrs. Indira Gandhi's intervention and instead of as the Silent Valley project was shelved. Thus started a more concerted set of activities by the Parishad which pertained to environmental concerns in Kerala.

Public health emerged as an important concern of the people's science movement during the mid-80s. The Parishad undertook several conscientisation campaigns on the issues of commonly experienced health problems of people in Kerala, on the role of

multinational corporations and big business in perpetuating ill health etc. It also undertook a large study which was published in 1987 titled 'Health and Development in Rural Kerala.' Follow up studies ensued trying to understand the linkages between high morbidity and socio-economic variables, but health has remained a relatively neglected aspect of the movement. The onset of the pandemic provided an opportunity to the movement to revive its concern regarding people's health. Several activists of the Parishad devoted themselves to conscientising people about different dimensions of Covid 19.

During the late 80s, the KSSP was involved in initiating and coordinating the literacy campaign of the National Literacy Mission which went on to make one of the districts fully literate. The Left Front government in power, replicated the campaign at the level of the state, to make Kerala wholly literate.

Perhaps the most extensive experiment by the KSSP was in the field of local level planning in the early 1990s. The movement brought together several scientific, research, planning and government departments to participate in mapping local level resources at Kalliasseri panchayat in the northern district of Kannur, in order to undertake planning from below. The enactment of the 73rd and 74th Constitutional Amendments which advocated the devolution of power to local administrative bodies in 1993-94 facilitated the process of decentralisation. Such was the novelty and uniqueness of the experiment that the Left Government adopted it as its agenda when it came to power in the state in the mid-1990s.

The government relied significantly on the resources and expertise of the members of Parishad which drew its experience from Kalliasseri, to collaborate and intervene at the grassroot level all over the state. The participation in the literacy movement of the 1990s had energised the movement considerably. As a post literacy experiment, the relative success of bringing change in the society by mobilising experts, social and political workers, civil society groups and organisations on the ground and the local state, gave the Parishad enormous confidence. It marked a shift in the focus of the people's science movement in a sense that the activists today concentrate their efforts at different levels, in a variety of ways - for example, in advisory capacity to the government, in undertaking independent studies and documenting and publishing reports, in training and conscientisation programs (Lahiri, 2018). All these skills became important during the pandemic as will be evident from the section below.

3. THE MOVEMENT AND THE PANDEMIC

One of the characteristic ways in which the Parishad responded to the outbreak of the pandemic was by organising *sastra* classes (science classes) as a mass conscientisation and awareness program across Kerala. Everything had come to a standstill due to the announcement of the lockdown in the country and yet the Parishad galvanised into action, took advantage of the digital connectivity across the state and managed to organise nearly 10,000 classes over three days. This was aided by its widespread membership (of about 60,000 members at present) and its close coordination with a dense network of like-minded, civil society organisations on the ground like the Granthashala Sangham¹, Yuvajana Kala Samiti, Purogamana Kala Sahitya Samiti, and such others.

These Sastra classes were organised on the theme '*Ek Logam, Ek Arogyam*' (which translates as One World, One Health) referring to equal opportunities to realise Health for All. Organised around aspects like the social context of human development, the relation between environment and its impact on public health, the origin of epidemics in the world around us, the importance of an international solidarity in science in combating such pandemics, the propagation of 'sound science' and the availability of scientific knowledge for all, the importance of learning from the experiences of people and the need for an interdisciplinary orientation in learning during the pandemic are some of the ideas which emerged. The lectures emphasised that 'they were not just meant for securing the health of human beings but also of the non- humans and of the environment around us².' In other words they were 'meant to outline a philosophy of living' in contemporary times.

These lectures had a twin purpose- they were meant to educate volunteers, activists, political workers drawn from different institutions, organisations, civil society groups who would in turn hold these *sastra prabhashana* classes (science conscientisation classes) over a month in their respective areas. These

¹ Granthashala Sangham is an association of libraries in Kerala which came into being in the context of the library movement in Kerala during the 1950s. On an average there are 12-13 libraries in every panchayat and these libraries have actively participated in the literacy movement and in the cultural activities at the local level.

² Dr. B Ekbal '*Ek logam Ek Arogyam Samipanam*' Online Training program on 8.2.2022.

conscientisation classes, disseminated through the online platforms, were also planned as training sessions through which people could be transformed into 'scientific' citizens with a political consciousness. Alongside, these classes were also open to the general public who joined from far and wide and participated by asking questions through chat boxes, which would be answered by the speaker. On some occasions it would lead to a discussion, though in a mediated and controlled manner.

This model of science communication by the movement combined the traditional and the more deliberative forms of engagement suited to a modern techno scientific democracy. It aimed at consensus building and sharing of information affirming the need to stand with science and uphold citizen's faith in a scientific attitude. The movement aimed to hold a public dialogue as a deliberative democratic participative imaginary (Helen & Chilvers, 2022). The intention was to appraise people about the different aspects of the pandemic and convince them about the need to regulate one's behaviour and participate as a responsible citizen. In fact the traditional model of the difference between the scientist (and doctors in this case) as an expert and the people was largely retained, as the people who gave these lectures were doctors, professors, teachers- experts in their respective fields. However, the language used in the lectures to communicate different aspects of science and public health was always in the vernacular, and informal, accessible, with more situated references to the context of Kerala and its environment. It had a certain appeal and was persuasive. Hence large numbers of people attended these lectures and clarified aspects which were of concern to them. However, due to the limits posed by online technology, the participation was regulated and constrained. The digital engagement enabled the Parishad to reach out to large numbers of people, though mutual learning, and deliberation exchange which is characteristic of a democracy, was not achieved in the same measure.

Along with these lectures, the movement engaged its research centre, the Integrated Rural Technology Centre at Palakkad in manufacturing a large amount of liquid soap and sanitisers. A substantial amount of the soaps and sanitisers was supplied free of cost for public usage at various facilities like the railway stations, government offices or public kiosks etc. Some of it was sold, while a part was given away to various organisations as the Covid 19 pandemic gradually unfolded.

At the local panchayat level, i.e in their respective wards, the Parishad members became

volunteers/members of Covid *jagrata*³ committees. They were part of ward level WhatsApp groups through which they would disseminate necessary information, monitor the number of cases in their wards, coordinate with the local authorities on one hand and arrange for other needs of the Covid affected people like food, medicines etc.

At the organisational level the senior activists involved themselves in a lot of preparatory work. The Parishad members who would work as volunteers needed training; they would in turn train other volunteers at the local level. The training material incorporating scientific information about the virus and its treatment had to be prepared, published and distributed so that it could be shared with other organisations that collaborated with Parishad on this aspect of public communication. 'Many developments were happening within the medical field and even in Ayurveda and homeopathy. But what is a scientific, way to treat the virus? We could not support other forms of treatment without knowing the truth,' said a senior activist during an interview. The pandemic was a time when the activists also worked to strengthen the organisation from within.

During the first phase of the pandemic i.e in April-May 2020, the State government was also caught unawares at the scale and variety of arrangements that it had to make for its people. The movement worked closely with the government assisting the local panchayats in an array of activities. The Parishad would hold regular webinars on various health related and many other social issues, circulate posters with messages to allay the fears of the people, coordinate between the local bodies and the Covid Information Centres at the district level as 'it was committed to stop misinformation' regarding the virus. Further, participating, soliciting and coordinating these varied forms of involvement of citizens during the pandemic, the activists of the Parishad, also simultaneously upheld the value of the social responsibility of the citizens towards the community, their surroundings and even towards other species.

Some of these webinars were on 'The importance of a dialogue with people during Covid', 'Seeking

³ *Jagrata* literally mean to remain alert. *Jagrata Committees* were groups of people who monitored the incidences of Covid at the ward level, reported it to the local authorities and also undertook care to ensure that the affected people stayed in isolation, received medicines, food and any other form of assistance that they required.

treatment during Covid 19', 'Gender related issues during Covid 19 pandemic', 'How to increase our immunity', 'Covid 19 and its impact on agriculture', 'The significance of community solidarity during the Covid 19 pandemic' 'New norms during Covid and the Local self- government institutions' etc. These webinars, usually held online and popularised in social media groups, were attended by large numbers of people.

As a new vocabulary to manage the disease emerged, people had to be made aware of these new norms (*pudiya sheelangal*) of 'isolation', 'quarantine', 'contact tracing' etc. and ways to regulate their behaviour in the light of the new context. In this manner, the Parishad helped the Government in Kerala to set up a system to battle the pandemic. The ideas from the movement also travelled upwards as few activists of the KSSP were part of the Kerala State Planning Board which steered the management of the pandemic in the state.

4. CONCLUSION

Clearly, democratisation of science by the Kerala Sastra Sahitya Parishad attempted to restore people's faith in science at a time when science was assailed by several uncertainties. The movement not only articulated an expansive view of science by linking it to other disciplines, but also simultaneously linking it to society. Through its classes and lectures during the pandemic it managed to convey an understanding that there is no alternative other than adopting a scientific perspective to manage society during the pandemic. Hence, it urged citizens to stand with science especially during a crisis of this magnitude. Further, in an era which is witnessing the ascent of authoritarian regimes globally, popular movements and democratic struggles like the science movements defend the values and ethos of science in a post-truth world. Thus an open community of scholars oriented towards the production of robust knowledge needs to be defended again (Raina & Omprasad, 2023, p. 29).

However, despite its attempts to inculcate a scientific perspective, competing indigenous knowledge and alternative forms of care and cure did prevail in society during the pandemic. The movement attempted to carefully navigate its position through a plethora of such knowledge systems in asserting the importance of certified knowledge. Moreover, another limit to popular involvement could be seen in the fact that people's participation in the making of policies with regard to the management of the pandemic did not find a place in the ideas disseminated by the movement.

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