healthy relations with them by cultivating the virtues of inter-relationship gratitude, service and respect for the rights of all these.

We have also to remind ourselves of the duty laid down by our Constitution under Part IV A that every citizen of India has to develop Scientific Temper, Humanism and the Spirit of Enquiry so as to help in building a Socialist, Democratic and Secular Society.

The feeling of unity is attempted by saying that all religions teach the same ethics and that God is one, but with different names. But it is disappointing to note that all exercises, common prayers, Sarv Dharm Sammellans, etc. have miserably failed to foster interreligious harmony to bring National Integration. So Secularism is the only solution of the problems of national integration as well as to check communal conflicts. Secularism does not

mean lack of religious attitude. It is defined as equal respect for all faiths and cultivation of religious tolerance and harmony.

A secular institution is required to be committed to humanistic ethics and humanistic religion. I know some secular institutions where moral education consists in developing among students feelings of gratitude, respect, affection and serviceableness to parents, brothers and sisters, community, country, mankind, the innocent animals and birds, flora and fauna and natural objects of beauty in the world. Songs and prayers in these schools aim at the cultivation of sweetness and understanding in all relationships. These are free from any theology whatsoever. Hence these can be adopted by the followers of all faiths. The prayer is to evoke and strengthen our better self. The prayer songs are dedicated to refining

our relations with all the four Kingdoms.

I conclude that Value Education for Secular Society should consist of cultivating in children Scientific Temper and humanistic values, both at person-toperson level and at institutional level.

Appendix emphasises the need of encouraging the teaching of Sanskrit as recommended by the National Level Committee. I feel that we should not recommend the inclusion of Sanskrit in the Curriculum as a compulsory subject. But we can make an effort to recommend it as a useful language for the study of our rich heritage.

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The Cartesian Mind: Reflections on Language and Music

DESCARTES' NEW MIND

Genuine inquiries seem to have disappeared from the academic philosophical scene. The space is almost occupied by dogmatic preaching under the thick cloud of obscurantism. A genuine attempt at a fruitful, though controversial, inquiry is as refreshing as a good shower after a prolonged drought. The Cartesian Mind: Reflections on Language and Music by Prof. Nirmalangshu Mukherjee is an exploration first and reflection later. In this sense, it is an extremely refreshing monograph. Moreover, any thorough inquiry into the nature and function of language is intrinsically a selfexploration. The Indian thinkers of the classical era had rightly realised the importance of language study. Consequently, the study of language assumed the greatest significance in the ancient intellectual tradition. We find Bhartrhari expressing the view in his Magnum Opus, Vakyapadrya: "In the

world this [grammar] is the first rung of the ladder towards moksa:

> Yathārthajātayah sarvah śabdakrtinibandhanāh /

Tathaiva loke vidyānam esa vidyā parāyanam//

15//1//

Or,

It (grammar) is the straight Royal Road for those desirous of (reaching) the goal:

Idamādyam padasthānam siddhisopanaparvanam/

Iyam sa moksamananamjihma rājapaddhatih//

16//1//

It is quite true that the discussion on language in the West has taken a self-exploratory turn only after Chomsky. Earlier, though grammar used to be an essential component of academic learning in the Greeko-Roman tradition, it was greatly motivated by the pedagogic in-

by Nirmalangshu Mukherjee, Indian Institute of Advanced Studiy, Shimla, 2000.

pp. 129 + vii, Price: Rs. 200

terest - how to teach the silver tongue (the language of the colonisers) to the barbarians (the colonised). In this regard, if one finds the study of language as a means to explore the self (atman = at + vana, literally meaning that which moves, or grows and which is not an entity imprisoned in a body but an evergrowing enterprise), then it is a welcome exercise even if the inspiration comes from the West in the form of Chomsky.

Coming back to *The Cartesian Mind*, the book is divided into four chapters, mostly for the sake of convenience. Otherwise it is quite apparent that there is a continuous attempt to reach towards the concluding remarks, which are at the very beginning stated: "Various things, mentioned above, seem to fall in place at once. The computational system, under further abstraction, extends to other domains of discrete infinity, The 'perfection' of this (general) computational system leads to its 'biological isolation' and, hence, to the Cartesian

mind viewed as a unity. This work is an attempt to spell out these connections in some detail" (p.7). In the process, the author has to resurrect a "Cartesian mind viewed as a unity", and not partitioned into various modules. This seems to be the crux of the controversy. Scholars of Descartes may try to make hair-splitting distinctions on the issuewhether Descartes really advocated a multi-modular mind or a unitary mind? The question of loyalty towards Descartes may be historically important. But that is philosophically or even theoretically not at all interesting. What is philosophically interesting is the question: Do various philosophical issues fall in place and fit the zig-saw puzzle, once such a conception of mind is assumed? Or, does such a conception of mind have any explanatory adequacy over the large number of data available from various quarters? The second chapter of the book, "The Cartesian Program", is an attempt to resurrect the proposed Cartesian mind, a unitary mind, a mind which is not partitioned into various compartments.

The general conception regarding mind (brain) that prevails is that there are different segments to perform specific jobs. Each segment is a module. Under such a conception, it is believed that linguistic ability pertains to one module while musical ability pertains to another. In other words, learning strategies are cognitive domain specific. The strategy that I adopt to learn metaphysics is different from the strategy that I adopt to learn epistemology. This idea, the idea of the supposed purva paksa, is stated by the author quite succinctly on pages 27-29 along with some relevant questions. Let me try to put the matter in my own words, as far as I have understood it. In attempting to form a theory of learning (LT) we must have two domains - the domain of the organisms (O), a member of which learns and the domain of the subject matter (S), about which the organism learns. Thus we may obtain learning theory for rats (R) regarding mazerunning (M) as LT (R, M) or learning theory for humans (H) for language (L) as LT (H, L). In general, LT (O, S) where LT stands for learning theory, O stands for some species of organism or some specific class of organism while S stands for the domain of learning, the subject matter. Here, leaving the other options, we may ask whether LT (H, Si) can ever be the same as LT (H, Sj), if i≠j. In other words, can there be a common learning strategy for an organism for two or more different subject matters?

There is an inherent difficulty in formulating the problem as such. There are extraneous factors specific to the domain as well as specific to the organism, to the social, spatial and temporal conditions. So, we can reformulate the question as follows. Are there common features between LT(H, Si) and LT(H.S.), given i≠j. In case the answer is yes, we can safely say that S, and S, though different, the learning strategy for both of them falls under the same module. We may, contract the question to a more specific one as the author demands—is $LT(H, L) \cap LT(H, M) \neq f$ where L stands for language while M stands for music, possible? In other words, can we find some common learning strategies involved? Such common features may be termed as innate. The differences may be attributed to the external factors. Here the author confessedly attempts to take a very bold step. Despite the general opinion that the non-emptiness of LT $(O,L) \cap LT(O, M)$ is accidental, the author wants us to believe that the nonemptiness of LT(O, L) \cap LT(O, M) is not accidental; rather it is an indication that there may be a single module for any kind of learning. The differences are extraneous and accidental. In case the author succeeds in this enterprise and, in my opinion he fairly does, he would have been able to produce an approach for an understanding of the concept of mind, quite deviant from the traditional approach.

In order to make his point, the author brings forth the general scheme for language learning, with special details regarding what is known as the Government-Binding (GB) Theory due to Chomsky. Chapter 111 is on "The Language System" and is an excellent introductory exposition of the standard

GB theory, though too short. The laconicity has compelled the author to leave many important issues unaddressed. However, one has to be selective while trying to propound a theory. So one should not take this chapter as a complete account of GB Theory though it is an excellent introduction. This chapter can be used as an initial itinerary for any advanced program for learning/ teaching GB Theory. Then he moves on to a sketch of the Minimalist Program of Chomsky as well. Though the sketch of the Minimalist Program is only a sketch, nevertheless it has brought out some of the salient features to the fore. Again the Minimalist Program is still in the process of getting verified and checked in the light of available and cooked-up data. It has not yet assumed as standard a shape as GB Theory.

The fourth chapter though entitled "The Case for Music" is still a continuation of the language system. There is more on language and less on music. There seems to be no attempt to bring forth the case for music as strongly as the case for language has been brought forth. It may be the case that the amount of data or material available on music is insignificant compared to that on language. It would have been more interesting and useful if the author had explored this relatively unexplored area a little more rather than waiting for the relevant material to reach him.

One of the arguments against the singular module theory has been that proficiency in language is much more widespread than in music. This is so, partly if not wholly, because of the environment. A stronger case could have been made by taking the case of musical practices among the tribal societies, where music seems to be as natural a form of expression as language. In most of the tribal societies, even today, music is found to be as widespread as language. Definitely a lot more data is needed to introduce the speculation to the scientific world. Scientific practices are generally directed towards drawing a boundary around a domain and consequently, are attempts to build up a case for offering refusals for the new entrants. We need

not mention that almost all the fundamental ideas in science have emerged out of speculations only. Otherwise most of the scientific discoveries are accidental.

In sum, *The Cartesian Mind* is an enjoyable reading, though it is a pity that almost all the other works by the author referred to in this book are not available for general public, especially when the author seems to be very selective in sharing his ideas. More specifically he does not "like to waste" even his off-

prints for an inquiring mind. Perhaps, this particular stance of the author has led him to enter into an unnecessary chain of arguments against the so called post-modernists before resurrecting Descartes' New Mind. He even goes on to say that much confusion arises when scientific issues are conflated with sociopolitical ones (p. 9). It may be true that some or even most of the works in this direction are based on hasty generalisations and have been quite successful in creating confusions. However, this

empirical fact cannot form a firm ground for the conclusion that there are no sociopolitical issues involved in the practices of the scientists. It will be an equally hasty generalisation to conclude that there is a necessary (or scientific) connection between conflation of sociopolitical issues with the scientific ones and arising of confusion.

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Peasantry and the State: Early Nineteenth Century Punjab

A revised version of a doctoral thesis, Radha Sharma's book consists of seven chapters, in addition to a glossary, a map, a bibliography and an index. As the author herself mentions in the preface, it was written with reference to the Agrarian System of the Sikhs by Indu Banga, the first comprehensive work on the agrarian history of the region, covering land-tenures, land-revenue and its administration, the political arrangements and institutions like vassalage, the jagirdari system and dharmarth grants. The Agrarian System contains an exposition of landed rights and peasantry, providing the basis for further exploration of the subject of peasantry and the impact of state policies on its condition during the early nineteenth century. The term 'peasantry' in Radha Sharma's book includes all landed elements engaged in the process of production and deriving livelihood from land. Thus, the large and small proprietors, the non-proprietary cultivators, and the contributors of labour and skill towards agricultural production are taken up for detailed study in this book. The link between the state and the agrarian producers was provided by the intermediary zamindars who, consequently, form an integral part of the study.

The area taken up for study is the core dominions of the Sikhs, covering the whole of the Bist Jalandhar and the upper *doabs* from the river Satlej to the Indus. This area was subsequently

covered by the British districts of Jullander, Hoshiarpur, Lahore, Amritsar, Gurdaspur, Gujranwala, Sialkot, Jhang, Gujrat, Shahpur, Rawalpindi and Jhelam, and the state of Kapurthala. The period of study extends from 1799, the year in which Ranjit Singh occupied Lahore, to 1849, the year in which the Kingdom of Lahore was annexed to the British Empire. That the scope of the work is quite comprehensive is evident from the chapters. The demographic pattern with special reference to agricultural population of the area under study is the starting point, followed by a discussion of agricultural production and the extent of cultivation. The third chapter deals with the number, the categories and the rights of the proprietors in the area under study. The size of holdings and the role of the proprietors in the social economy of the village are also taken up. Similarly, the number, distribution and differentiation among the non-proprietary cultivators are analysed in the fourth chapter. The intermediary zamindars, who too were land-holders in their own right, are treated in the fifth chapter. The sixth chapter deals with the agrarian policy of the state. Towards the end of Sikh rule, British administrators had begun to interfere in agrarian matters of the Kingdom of Lahore. This process was followed more vigorously after the annexation of the Kingdom in 1849. Therefore, the last chapter deals with

by Radha Sharma K.K. Publishers and Distributors, New Delhi, 2000, pp. 200, Rs. 350.

'transition' from the agrarian system of the Sikh Raj to that of the British.

Radha Sharma's Peasantry and the State in the Punjab during the early nineteenth century is based on a variety of primary sources. Apart from the familiar chronicles, newsletters and orders in Persian, the contemporary travel accounts, and local histories in Urdu and other contemporary works in Punjabi, she has used a large volume of materials from the National Archives of India. In addition to books and articles published by a large number of historions, she has used the official publications of the early decades of British rule, like the district gazetteers, administration and settlement reports, census data and occasional reports. Obviously, the study is based on a comprehensive variety of source materials for empirical evidence.

In the absence of the figures of population for the early nineteenth century, the author has estimated the population by projecting the figures of 1855 backwards according to a formula devised by her, assuming a uniform rate of increase from 1791 to 1851. According to this formula, the population of the area under study was less than 39 lakhs in 1791 and over 67 lakhs in 1851. This is not very convincing because the rate of increase appears to get inflated through backward projection. The author states further that the population of the area under study in the 1840s was only a little less than what it was in 1855.