Why 'classical' isn't classy

In the Indian context, the debate between 'classical' and 'modern' biology (see *Curr. Sci.*, 1991, **61**, 309) actually may be more of a myth than reality since much of the so-called modern biological research in our country is also considerably lagging behind the modern elsewhere. By this token, what is termed classical may more appropriately be termed archaic or primitive. However, rather than applying these subjective adjectives, it is more important to inquire about the nature of questions being asked and the way they are sought to be answered. As emphasized by Chandrashekaran, fields like taxonomy, anatomy, physiology and cytology remain as important today as they were decades ago. One may then ask why research in these areas is looked down upon and considered classical. While our own biased viewpoints (see below) are also to be blamed, a major reason for considering such areas as classical or old-styled lies in the perspective in which research in these areas is pursued. Since most studies relating to these areas in our country lack a relevant question, the subjects themselves unfortunately come to be looked down upon. Taking examples from ethology, Chandrashekaran makes it clear that it is not the discipline that becomes classical or archaic but the way it is pursued.

In this context, one must also ask if all that is being pursued in the name of modern biology (molecular biology, biochemistry, recombinant-DNA technology, tissue culture and so on) in India is really modern. Research in our country is often a fashion rather than a passion. We can see instances where modern techniques were used (because this is fashionable and provides a stamp of modern) in contexts where they were irrelevant. Often it is such researchers who want to give a blanket label of classical to less-fashionable disciplines. The 'pro-modernists' forget that use of recent techniques by itself does not make modern or 'good' science! Actually this may be more sinister than the so-called classical research. We must realize that certain categories of serious research (in biology or any other field) can be done without the so-called modern, elite techniques and expensive equipment.

When one looks at the syllabi of zoology or botany taught at different universities, one notices a comparable conflict of modern and classical. On one hand, we have curricula where only the 'latest' is taught, ignoring some of the basics which are considered to be classical and therefore unnecessary; students of these courses often fail to get a good comprehension of the subject since they are not exposed to the founding principles of modern biology. On the other extreme are places where the same things are being taught which today's teachers or even their teachers were taught as students! These students are obviously not well prepared to understand current trends. A different situation is seen in instances where, in an otherwise updated curriculum, some traditional subjects are taught for the simple reason that these topics have always been taught. These subjects (like classification and taxonomic characters, morphology and anatomy) by themselves are not irrelevant but what is unfortunate is that the specific topics taught and the mode of teaching in these areas have remained the same over decades and continue to rely on books written one or more generations ago. This unfortunate situation exists not because there has been no progress in these areas but because the concerned teachers do not wish to look at current literature (original papers, reviews or even recent books). An obvious reason for this apathy is that these subjects are not directly related to their own research! The result is that students find these classes 'boring' and develop a wrongly founded hatred for classical subjects. Another, and perhaps worse, situation is seen in respect of curricula where modern topics have been included but teaching facilities (both manpower and material facilities) are poor. As in the case of research activity, these 'modern-looking' teaching programmes make the concerned faculty 'respectable' and may fetch better grants irrespective of capabilities; unfortunately the fate of students who take such courses is nobody's concern. The craze for introducing cources in biotechnology by all and sundry (this when these places may not even be capable of giving decent courses in elementary areas like cell biology, genetics, microbiology, biochemistry, immunology and tissue culture) is a glaring example of this syndrome of misplaced priorities and false notions about being modern.

Thus what we need is not a blanket labelling of certain areas (and techniques) as classical or old and of others as modern, but a proper appraisal of the perspective and relevance with which a given question is asked and how it is sought to be answered. The same applies to developing balanced curricula for biology students today. Unless that is done, brighter students will continue to consider subjects like botany or zoology as classical and continue to shy away from them.

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