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The Indian Institute of Science

SINCE the Irvine Committee reported on the unhappy circumstances which prevailed in the Institute at the time they commenced their labours, the “atmosphere of insecurity and misery”, to which they had drawn pointed attention, would appear to have worsened, if the correspondence recently published in the press is credible. In the concluding section of the report, the Committee, almost in a prophetic spirit, made the remark which is at once encouraging and disturbing, that “if given a fair trial and if operated in the right spirit, the proposals will enable the Institute to begin its semi-jubilee period with renewed hope, but if our scheme fails, it can only be through the clash of personalities beyond the remedy of any powers possessed by a Reviewing Committee”. We doubt whether the Institute really suffers from any clash of personalities, but we are prepared to admit that there is almost an irreconcilable war of ideals, arising from two academic luxuries

which the Institute can hardly afford. The first of them is apparently a body of elderly authorities composing the Governing Council, whose imagination has become by routine administration as rigid as perhaps their arteries on account of their advancing age: the other is a group of ardent young students and members of the staff who, inflated with noble ideals, are impatient to dash forth to win their spurs in extending the frontiers of knowledge. Any school girl who has passed her matriculation examination on common sense will tell us that the former is as dangerous a symptom as the latter is a healthy sign, for a generous enthusiasm and sterling ambition, when wisely harnessed and judiciously directed, must at all times constitute an invaluable asset for the Institute. We need hardly observe that it would be a historic case of wasted opportunity if the zeal of the young men were compelled to lie fallow or interpreted as synonymous with aggressive spirit.

We have no access to the confidential documents of the Council. No responsible officer of the Institute has disclaimed the statements made in the press, impugning the principles and policies underlying the recent proceedings of the Governing Council. Where, however, one party resorts to the press and the other remains passive, it is natural to assume that the public statements may in some measure be vitiated by exaggeration of the actual state of affairs. In spite of such dubious circumstances, it seems perfectly legitimate to offer some comments on the real issue, lurking behind this superficial and unnecessary controversy, the issue whether the affairs of the Institute are to be conducted on the basis of objective reality or on the strength of emotional convictions, whose source must at all times remain extremely suspect.

The appointment of Sir Venkataraman in the first instance as Director, and later as Professor of Physics, amounts almost to an epic episode in the annals of the Institute. Having perpetrated this act and as a necessary consequence, the Governing Council should have recognised the wisdom of taking the only logical course of inviting a number of Venkataramans to occupy the professorial chairs of other departments, so as to establish a balance of scientific power and a healthy competition among them on perfectly equal terms. If anything is clear in this complicated world, it is clear that administrators are profoundly ignorant of the modern teachings of folklore and human psychology, and failure to appreciate the truth of the maxim that an academic institution is as weak as its strongest member of the staff, inevitably led the Irvine Committee to record that they were confronted at the outset of their task with issues involving the personal relationships between the Director

and the Staff, imposing upon them the undesirable necessity of investigating "the disquieting state of affairs".

On the subject of Staff the Sewell Committee reported as follows in 1931:

"Whatever developments take place in the Universities, we are convinced that with the resources at its disposal, this Institute ought always to be in a position to supply such opportunities for training as cannot be obtained anywhere else in India. This Institute should do what no other institution can do. It should maintain a position of pre-eminence: it should acquire a national, even a world reputation: it should become a place of reference. In order that the Institute may maintain such a reputation, two matters are in our opinion of the highest importance. We have occasion in more than one place in this report to draw attention to the ignorance of the work of the Institute which apparently prevails. But we now propose to deal with a second factor, on which the reputation of the Institute greatly depends.

"We refer to the personnel of the Directorate, professoriate and staff. It is a well-known fact that, in more cases than one, the reputation of a University has been built up round the work of some pre-eminent man. Students are attracted by the reputation of the man under whom they hope to work, rather than by any particular virtue of the University itself. A Nernst or a Ramsay would draw men to any institution to which he happened to be attached. We are of the opinion that the chairs in the Institute should be filled by men of the highest eminence, irrespective of nationality, and we recommend therefore, that the terms of appointment be made sufficiently favourable to attract such men."

In 1936 the Irvine Committee remarked as follows on the work of certain departments:

"Some research of sound quality has been carried out, but much of it would come appropriately within the programme of investigations carried out in the Universities for a first research degree."

It is appropriate in the light of these observations to enquire whether or not the administration of the Governing Council during the five years intervening between the two Committees, had started the Institute on a process of retrogressive metamorphosis, resulting in its emergence as a University attempting work of the M.Sc. standard. It will be useful in this connection to remember that most of the scholars coming to the Institute for inspiration and guidance in higher researches, have already obtained the M.Sc. degree, and a fairly large number, the Doctorate degree of Universities enjoying a high academic reputation. Commenting on the future expansion of the Institute, the Sewell Committee observed that "students prior to their admission to the Institute have already received a high degree of training, and in many cases have been initiated into the methods of research in their Universities". Regarding the quality of training to be provided in the Institute, the Pope Committee observed that "it is highly desirable that men trained in the Institute should be eligible for appointment to the professorial staff in due course". Having these illuminating documents before them and manifestly hungering for stimulating inspiration and competent guidance, the junior members of the staff and the scholars desire the Governing Council to take appropriate and urgent steps for the fulfilment of the recommendations regarding the work of the departments and the recruitment of professors made by the authoritative Reviewing and Special Committees.

Judging by the statements published in the press, we are inclined to the opinion that the main problem, occupying the minds of scholars and the members of the staff, seems to be a determined desire to possess Nernsts and Ramsays among them, and

naturally when they feel that their reasonable wish is not likely to be realised, they resort to all the constitutional methods open to them for redressing their wants. We have infinite confidence in the sincerity and good faith of the Governing Council, consisting of distinguished scientists, eminent educationists, recognised leaders of public opinion and mature administrators, who have undoubtedly the well-being and prosperity of the Institute nearest to their hearts, but, all the same, having regard to the uniformly impartial treatment accorded to the authoritative pronouncements of all the Committees, respecting the status of the Institute, the qualifications and the breadth of outlook on the part of professors and the range, and quality of scientific work to be initiated and pursued by the superior staff and scholars, we are afraid we cannot rely too confidently on the stability of the mental institution of the Council. It is a well-known psychological fact that almost as a rule when we are compelled to be sensible about working actions, our mind does not necessarily ensure during the same period perfect rationality. It is equally true that administration is a human invention whose treachery is capable of making the admitted virtues of any system a convenient excuse for indulging its vices; for the boldest among us must often shrink from the mental discomfort which is the only reward accruing from our capacity to face truth, though admittedly one of the greatest virtues. We emphasize that the central aim of the Governing authorities of the Institute should definitely tend to reduce the unreasoning fear in its alumni and the unconscious tension in the members of the staff, and this can be achieved only if they give a high-minded attention to all their wants, leaving none of them in an acutely explosive state,

Prior to 1931, the existence of the Indian Institute of Science was known only to the favoured professors and students working in its departments, and probably to those distinguished members who sat in the Governing bodies. Since that date, however, its affairs have formed the subject of acrimonious discussion in the press, calculated to driving the intelligent public almost into a psychopathic state. Both are unfortunate. We are convinced that the only way of restoring peace and harmony so essential for orderly progress and of removing from the atmosphere of the Institute fear, suspicion, discontent, jealousy and all other unfortunate forms of emotional excesses, with which it is now charged, is to reorganise the entire constitution. We make no claim to being a prophet, but we must emphasize that the path of wisdom lies in the clear recognition of the spirit of the times and in the open-handed satisfaction of its reasonable demands.

We attribute the failure on the part of the Institute to fulfil the great intentions of its Founder, we trace the adverse remarks of the Reviewing Committees on the work of its departments and we assign all the later unfortunate developments in its premises, to the divided responsibility and the defective constitution under which the Institute has been labouring for the last quarter of a century. The Governing Council, consisting of exceptionally clever and good men, have been, in a spirit of absolute self-sacrifice, devoting a few hours in the year, snatched out of their pressing professional life, to the consideration of the affairs of the Institute, and it must not be surprising and unreasonable if their view-points and decisions should diverge from those of people who actually live these affairs all the laborious days of the year. We seem to forget that the ardent

observations of the Reviewing Committees are as much applicable to the administration of the Governing Council, as they must be to the work of the staff. If the two spheres constitute a unitary concept of the life and activity of the Institute, it is not quite clear to our minds why the Reviewing Committees do not touch the Governing Council, and why they select only the members of the staff for the exercise of their tender solicitude. Is the Governing Council part or is it not a part of the Institute organisation? Is the Governing Council above the Committee's purview, because it is a composite body of elected and nominated members rendering voluntary service. To whom are the elected members responsible,—to their constituencies or to the Central Government? What is the constitutional, financial or academic relationship of these constituencies to the Institute? What interests do the elected members represent on the Governing Council? Do the Universities which now elect members to the Governing Council purport to prescribe the academic standards or to exercise vigilance over the research work of the Institute? Is there any political, social or academic institution whose affairs are entrusted to a Governing body, some of whose members represent definite interests and others, only general interests. Where the responsibilities of the group of members composing a single administrative unit belong to different constitutional orders, the fundamental principles of the organisation cannot be sound. We are of the opinion that this want of homogeneity in respect of the responsibilities of the members has been, for the past twenty-five years, operating as a conflicting and inhibiting factor, and that if the Institute is emancipated from this fatal anomaly it may start on a new life of hope and activity. The students and the staff are the only real and

legitimate custodians of the destiny of the Institute. It is their duty to fulfil the intentions of the Founder. They must enjoy the unfettered freedom to direct and influence the fate and fortune of the Institute. If, however, the concerned authorities do not see the need for altering the complexion of the constitution, they should have at least the fortitude of mind to face the probability of the next Reviewing Committee assessing the work of the Institute as falling within the programme of a glorified First Grade College.

We now proceed to indicate in broad outline the general changes which might profitably be introduced in the constitution for securing stability and stimulating cheerful co-operative effort in the Institute. We must, however, premise that the success of the experiment we propose depends on one very big condition, viz., that the Professors should be as described by the Sewell Committee. In other words the Institute in the superior services should be peopled by scientific men of the eminence of Hopkins, Haber, Bergius, Robinson, Karrer, Hans Fischer, Debye, Armstrong, Morgan, Langmuir, Ruzicka, Kuhn, Aston, Bragg and Haworth.

I. MANAGEMENT

The Visitor should be the final and absolute authority in all matters relating to the Institute.

The general management of the Institute should vest in the Institute Council, consisting of Professors, who should be its *ex-officio* members; one Reader, one Assistant Professor, one Lecturer and one student member, elected by their respective colleagues. The elected members should hold office for two years. The Rector of the Institute should be the Chairman, and the Registrar its Secretary.

The functions and duties now exercised by the Governing Council should be transferred to this new body.

The Institute Council should meet once a month and the minutes of the Proceedings should be furnished to the Government of

India, the Tata Family, the Government of Mysore and such other Indian States and Provincial Governments contributing an annual subvention of Rs. 10,000.

II. COMMISSION OF INSPECTION

The administrative duties of the Institute Council and the academic work of the departments should be subject to annual review by a Commission of Inspection, appointed by the Central Government on the following basis:

1. Commissioner of Education—*Chairman*.
2. A representative of the Tata Family.
3. A representative of the Government of Mysore.
4. A representative of the Court.
5. A representative of the Inter-University Board.
6. A representative of the Federated Chambers of Industries and Commerce.
7. The President of the Court.
8. The Rector of the Institute should be the assessor to the Commission.

The inspection report should be submitted to the Government of India, the Tata Family, the Mysore Government, the President and members of the Court, to the members of the Institute Council, to the members of the Standing Committee and to all the Indian States and Provincial Governments making an annual subsidy of Rs. 10,000.

III. THE COURT

The Court should be reconstituted as follows:

- (1) Two nominees of the Visitor; (2) Two nominees from the Government of India; two from the Tata Family, two from the Mysore Government; (3) One nominee from each of the Indian States and Provincial Governments contributing Rs. 5,000 and more; (4) One nominee from each of the Industries and Commerce endowing a chair or paying an annual grant of Rs. 2,000; (5) One nominee from each of the Universities contributing Rs. 1,000 annually; (6) All the Professors of the Institute; (7) One elected Reader, Assistant Professor, Lecturer and Student; (8) Two members distinguished in Science and Industries or who have rendered meritorious public service, elected separately by (i) The Professors, (ii) The Readers, (iii) The Assistant Professors, (iv) The Lecturers and (v) The Students.

The Court should elect its own President. It should meet once in the year. Its functions and duties should remain as at present.

IV. THE STANDING COMMITTEE

The Court should constitute a Standing Committee from among its members which should assume the duties now discharged by the Finance Committee in addition to those assigned to it by the Court. The Standing Committee should consist of twelve members, three of whom representing the Central Government, the Tata Family and the Mysore Government should be *ex-officio*. The Rector of the Institute should act as assessor and the Registrar, as Secretary. The Standing Committee shall meet once in every quarter. The President of the Court shall be *ex-officio*, Chairman of the Standing Committee. The staff of the Institute shall not be eligible for election to the Standing Committee.

V. THE SENATE

The Senate should consist of Professors, Readers, Assistant Professors, two representatives of the junior members of the staff and two representatives of the students. The Rector should be the President and the Registrar its Secretary.

It should be competent for the Senate to re-examine the intentions of the Founder of the Institute in the light of interpretations put upon them by the Reviewing Committees. The re-orientation of the academic policy of the Institute should be included among the other functions and duties of the Senate. All decisions of the Senate should be subject to reconsideration by the Institute Council and confirmation by the Standing Committee. Proposals for inviting Visiting Professors and for exchange of Professors should fall within the purview of the Senate, subject to scrutiny by the Institute Council and final approval by the Standing Committee.

VI. STAFF

The staff of the Institute should consist of Professors, Readers, Assistant Professors and Lecturers.

1. *Professors.*—The Professors should be distinguished alike for their character and for their scientific eminence whose achievements

have been recognised by Learned Bodies like the Royal Society of London. Their salary and terms of appointment should be determined by the Standing Committee acting in conjunction with the Institute Council.

2. *Readers.*—Readers should be in charge of specialised subdivision of subjects forming corridors of the main departments. Readerships should be occupied by men of outstanding eminence.

3. *Assistant Professors and Lecturers* should be appointed on the basis of their approved capacity for research and for guiding students in the investigation of scientific problems in pure and applied branches.

4. The appointment of distinguished specialists as Visiting Professors and the institution of a definite scheme for exchange of Professors, Readers and Assistant Professors should form the settled and clear policy of the Institute.

5. The administrative head of the Institute should be designated Rector. He should be elected for the post by the Senate. The Rector shall hold office for a term of two years. Professors should be eligible for election.

6. The Rector should be assisted by a Bursar who should also be elected by the Senate for a term of two years from among the Professors and Readers, whose duties will be to look after the finances of the Institute, and to act for the Rector during his absence from the Institute. The Rector should establish sympathetic contacts with industries, commercial organisations, Indian States and Provincial Governments and Universities and official Research Centres and Scientific Surveys for co-ordination of work and for enlisting financial support. The Rector and Bursar should be eligible for re-election.

VII. SELECTION OF STAFF

The Selection Committees should be constituted by the Institute Council subject to the approval of the Visitor. The panel of names (the Selection Committees need not necessarily confine the choice to applicants, but should enjoy the power of inviting those who may feel delicate to apply), submitted by the British and Indian Committees should be first scrutinised by the Institute Council at a special meeting

called for the purpose. A further choice should be made by the Institute Council, which together with the original recommendations should be forwarded to the Standing Committee, with such observations as the Institute Council might desire to offer. The Standing Committee should make the final nomination for the approval of the Visitor, at a special meeting convened for the purpose, and the nomination should be accompanied by a report prepared by the Chairman. It should be competent for the Institute Council to prescribe the terms of advertisement, and all the subsidiary matters relating thereto, including the date for summoning the meeting of the Standing Committee in order to avoid undue delay. The appointment of Readers should follow the same procedure. The nominations of the Standing Committee should be subject to approval of the Visitor.

The procedure for the appointment of Assistant Professors should be similar to that followed in the case of Professors, except that the authority of selection should vest in the Council and the Standing Committee being invited to approve the action of the Council. The Institute Council should have the authority to appoint Lecturers either after advertising the posts or by direct recruitment from among the senior students.

VIII. STUDENTS

The Senate should prescribe the qualifying test for admission of students to the different departments. Their number in each department should be prescribed. Universities contributing Rs. 1,000 should have the power to select their own students. Provincial Governments and Indian States and Industries making a grant of Rs. 5,000 and more should also enjoy the privilege of nominating their students. Where, however, such nominating bodies are non-existent, the Senate should make the selection with due consideration to the interests of the Provinces.

Students should be allowed to form a Union or a Federation of their own whose main object should be the promotion of their physical and intellectual welfare. The management of hostels and sports sections should be delegated to them. They should be associated with the work of the Senate, the Court and the Council, giving them opportunities for representing their views in the field of administration of the Institute.

We are aware that the suggestions we have ventured to indicate above will offend the conservative temperament of administrators who will either smile or scoff or may even brush them aside as impractical. But few realise that the acid test of a good administration of a scientific Institution such as the Indian Institute of Science is our attitude to the students, not merely because that these young men hold in their hands the key to all future developments of the country, but because from a closer co-operation with them we can gather valuable information of our own unconscious mind. If we treat our students with greater humanity and more respect, and if we succeed in eliminating their vast charges of fear and distrust, we might hope to produce a generation better equipped for solving the problems of this complicated world.

We have offered our remarks in good faith and in a spirit of helpfulness. In our judgment the Central Government, the Tata Family, and the Mysore Government, which have the greatest stake in the well-being and prosperity of the Institute, apart from safeguarding their interest, would render distinct public service, if they jointly move for the appointment of a committee,

- (1) to investigate the psychological background of the existing state of affairs,
- (2) to study all the documents relating to the Foundation, including the reports of the Committee, and
- (3) to examine the proceedings of the Council which either accelerated or retarded the fulfilment of the intentions of the Founder and the recommendations of the Committees.

We have no doubt that when such a Committee of Investigation draw up their report, the main features of their findings will not materially differ from what we attempted to depict.