

# A TALE OF THREE SCIENCE ACADEMIES OF INDIA

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*The National Institute of Sciences of India, founded in 1935, later renamed as Indian National Science Academy, (INSA), the National Academy of Sciences of India, Allahabad (NASI), founded in 1930, are celebrating their 85<sup>th</sup> and 90<sup>th</sup> anniversary respectively in this year. Though INSA plays a major role in advocating scientific policies and is recognised as a body to advise the Government of India, yet the contribution of another society, namely, Indian Academy of Sciences, (IAS) Bangalore (founded in 1934), and the National Academy of Sciences of India, Allahabad cannot be ignored. Newspaper cuttings and correspondence are analysed to understand how the IAS and INSA were founded, and why the efforts to establish the United Academy of Sciences (UAS) became unsuccessful.*

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## Introduction

In general, on the occasion of celebrations such as 90<sup>th</sup> and 85<sup>th</sup> anniversaries of institutes like National Academy of Sciences of India, and Indian National Science Academy, usual practice is to deliberate positive aspects of the organisations. I am sure that these academies will produce beautiful brochure and pamphlets depicting their achievements. Their authorities have their own reasons to do so.

The present article is intended to present:

1. The conditions, under which the NASI, IAS and INSA were founded.
2. What the media reported about the conflicts between C.V. Raman and “Kolkata group” during the foundation of the IAS and INSA.
3. The unsuccessful efforts made in 1947-1948 to diffuse the three academies into a “United Academy of Sciences”.

## **The Academy of Sciences of United Provinces of Agra and Oudh**

In the first three decades of the twentieth century, S. Ramanujan, J.C. Bose, C.V. Raman, and M.N. Saha were elected as fellows of the prestigious Royal Society of London. Indian men of science were aware that most of the European countries had Science Academies, such as the Royal Swedish Academy of Science, the French Academy of Sciences, Prussian Academy of Sciences, Germany, and the Royal Society London. Indians also felt the need for a science academy. However, the problem was that India was divided into different provinces and states, which were ruled by Indian ‘princes’ and ‘kings’. In 1930 Indian astrophysicist M.N. Saha, who was elected FRS in 1927, came up with an idea of founding a science academy on the state level. M.N. Saha, in December 1929, in a magazine of the University of Allahabad wrote an article under the title “A plea for an Academy of Sciences” and discussed the need of a science academy in India of national character. Till then, Indian Science Congress Association (ISCA) was the only academic forum which catered the need of interactions of scientists and technologists of different disciplines and helped to have political negotiations in policy framing. In December 1930, Saha founded the “The Academy of Sciences of United Provinces of Agra and Oudh” (in 1935 renamed as ‘The

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National Academy of Sciences, India', (NASI). He hoped that other provinces follow the same pattern, and finally all such academies would merge into an All-India Academy.<sup>1</sup> M.N. Saha was elected as the first president, while P.S. MacMahon and P.S. Banerji were secretaries of the NASI. The Academy started with 19 founding fellows. Within a year, their number grew to 87. The first annual meeting of the Academy was held on November 27, 1931, and was addressed by Sir C.V. Raman (CVR).<sup>2</sup>

"The Modern Review" referring to the journal "Nature" stated that the academy had two types of membership: (i) Fellows, elected for scientific work. Their number was limited to 30. (ii) Ordinary Members, for which no special qualification was required. The academy had its Bulletin. The first Bulletin contained an account of the inaugural meeting, and 27 original memoirs. One of them was on 'Spin of light' by Sir C.V. Raman.<sup>3</sup>

As the Academy of Sciences of United Provinces was a successful experiment<sup>4</sup>, the Council of the Academy suggested either changing the name to the Indian Academy of Sciences or forming a new body.<sup>5</sup>

### **Idea of a National Science Academy of India**

According to a newspaper, the idea of an Indian Academy of Sciences was in the air for some years. In May 1933, the editor of "Current Science" issued a questionnaire to scientists soliciting support for a national science academy. During his presidential address at ISCA in 1934, Saha proposed an Indian Academy of Sciences and thanked Raman for circulating the questionnaire. In Bombay, on the occasion of the Indian Science Congress Association (ISCA) conference, a special meeting was held on January 2, 1934. It was decided that all materials collected by "Current Science" be placed at the disposal of the 'Academy Committee' which was appointed by the General Committee of the ISCA.<sup>6</sup> On Jan. 3, 1934, the General Committee suggested the composition of the 'Academy Committee' with renowned scientists from various fields and institutions. For example, L.L. Fermor - Asiatic society of Bengal, J.N. Mukherjee - Indian Chemical Society<sup>7</sup>, Ganesh Prasad - Indian Mathematical Society, A.C. Banerjee - United Provinces Academy of Sciences, K.S. Krishnan - IACS, CVR - Director of the Indian Institute of Science, and a representative of the Editorial Board, "Current Science", Bangalore. M.N. Saha and S.P. Agharkar were appointed as Organizing Secretaries.<sup>8</sup> The first meeting was held in Kolkata on February 11 and 12, 1934 and attended by the representatives of the "The Indian Mathematical Society, South Indian Science Association, the Society of Biological Chemists, India,

Institute of Chemists, India, and the Institution of Engineers, India". One of the issues discussed was about the nomination and number of future Foundation Fellows. The responsibility for the nomination of the Foundation Fellows for 'Physics and Meteorology' was given to C.V. Raman, M.N. Saha, and C.W.B. Normand.<sup>9</sup> The second meeting was planned to be held on April 14-15, 1934.<sup>6</sup>

### **Establishing the Indian Academy of Sciences, Bangalore**

After the February 1934 meeting in Kolkata, at the end of March 1934, some scientists met under the leadership of CVR in Bangalore. A local newspaper reported that scientists gathered under the joint auspices of institutions such as the Indian Chemical Society, (Madras Branch), the Institute of Chemistry, (Indian Branch), the Society of Biological Chemists, India, and the South Indian Science Association, Bangalore. S. Subba Rao, Senior Surgeon in Mysore welcomed the guests and thanked Sir Raman.<sup>10</sup> Another newspaper on April 1, 1934, noted that, scientists of South India met that night to discuss the question of forming an All-India Academy of Sciences (Figure 1). Raman protested against the haste with which the subcommittee was appointed by the ISCA. He was of the opinion that if an Academy was not constituted judiciously, it may do more harm than promote science. He gave the example of the French Academy of Sciences, in which young scientists had no place.

## **SCIENCE ACADEMY FOR INDIA**

### **NEED FOR SECURING ALL-ROUND SUPPORT**

### **CONGRESS COMMITTEE'S SCHEME CRITICISED**

(FROM OUR OWN CORRESPONDENT.)

BANGALORE, Apl. 1.

At a meeting of the scientists of South India, representing several associations, the important question of the All-India Academy of Science, was discussed to-night.

According to "The Hindu" dated April 3, 1934, CVR and his associates were of the opinion that the present 'Academy Committee' neglected representatives of universities, literary scientific and provincial interests. They strongly disapproved of the composition of the special committee appointed for the election of foundation members.<sup>11</sup>

CVR stated that he was strongly against the little group of Kolkata scientists desired to grab the sole power, and wanted to have an academy for a few elite scientists. In his opinion, the group worked with unconstitutional methods. He opined that they ought to have an academy with members from all parts of India. He did "not wish to be a member of an Academy brought out in haste and I refuse to nominate myself to this Academy", said CVR.<sup>12</sup> His colleague C.R.N. Rao stated that a small group of Kolkata's scientists had constituted an absolute monarchy, and tried to dictate terms to the rest of Indian scientists. He had doubt that the appointed 'Academy Committee' could get the support of scientists all over India.<sup>13</sup> Finally, CVR and Subba Rao resigned from the 'Academy Committee'.

S.P. Agharkar, Secretary of the 'Academy Committee' refuted CVR's statement that resolution was not passed unanimously (Figure 2).

<p><b>AIMS OF NATIONAL INSTITUTE</b></p> <p><b>SCIENCE IN INDIA</b></p> <p><b>COMMITTEE REPLIES TO SIR C. V. RAMAN</b></p> <p>Dr. S. P. Agharkar, joint organizing secretary of the Academy Committee of the Indian Science Congress Association, has issued the following: "In view of the statement which Sir C. V. Raman has issued to the Press from Bangalore it has become necessary to publish the resolutions embodying the agreement which were passed unanimously by the Academy Committee.</p>	<p><b>INDIAN SCIENCE CONGRESS</b></p> <p><b>NO CONFLICT INTENDED WITH OTHER BODIES</b></p> <p><b>STATEMENT ISSUED BY SECRETARY</b></p> <p>Calcutta, September 28. Dr. S. P. Agharkar, Joint Organizing Secretary of the Academy Committee of the Indian Science Congress Association has issued the following statement: In view of the statement which Sir C. V. Raman has issued to the Press from Bangalore on September 27, it has become necessary to publish the resolutions, embodying the agreement, passed unanimously by the Academy Committee which included Sir C. V. Raman and the Bangalore representatives on September 16</p>
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Figure 2: Reaction of S.P. Agharkar. Credit: RRI.

To sum up CVR's criticisms as noted by the 'Academy Committee'— "the charges levelled against the Committee appointed by the Indian Science Congress viz: "unconstitutional procedure", its "non-representative character", "cliquishness" and "indecent haste" are without any foundation."<sup>6</sup> After the charges, on April 19, 1934, a meeting of the ISCA was held, and Raman's views were considered. The Committee sent its opinions to CVR and waited for reply (detail later). However, before that, South

Indian Press wrote an article to prove that CVR was being attacked by "Bengal Press" (Figure 3).

## AN UNWORTHY CAMPAIGN

### PRESS ATTACKS ON DR. RAMAN

Sir C. V. Raman's repudiation of the award that the Press in Bengal had taken up with extraordinary avidity, in connection with the formation of the Indian Science Academy, comes now too soon. He was reported as having described the Calcutta group of scientists as the "coterie of Calcutta Scientists." Knowing as we do the peculiarly retiring disposition of Sir Chandrasekhara and his horror of strong expressions, it could scarcely bring ourselves to believe that he had suddenly developed a penchant for invective.

Figure 3: Reaction of "South Indian Press". Credit: RRI.

Raman criticised Kolkata scientists for 'working in hurry'. He himself, on April 24, 1934, decided to form a new academy. On April 27, 1934, he submitted an application for the registration of the Indian Academy of Sciences, Bangalore.<sup>14</sup>

According to a local newspaper, CVR and his associates registered a society under the name 'Indian Academy of Sciences', which would be changed to the Royal Society of India on reception of the Royal Charter. In July, 1934, a meeting would be held to settle the details of membership. The journalist wrote:

"Sir C.V. Raman has thus presented his opponents with a *fait accompli*, and their announcement that they are carrying on their labours and organising an Indian Academy of Sciences, pales in the light of his direct methods."<sup>15</sup>

The author wrote that it was difficult to predict the future turn of affairs. Sir CVR was world-renowned and an influential scientist. He was director of the IIS. There was nothing in physics, which he had not touched without success. The author could not imagine a Royal Society without CVR as its first President. He opined that many

may oppose his move. He acted while others were talking. He hoped that in the next meeting of Indian scientists to be held in January 1935, Sir CVR with his debating skill might convince the majority of scientists to follow him. "If the Science Congress Committee could join with him, a representative Indian Academy of Sciences would rapidly become an established fact."<sup>16</sup> On May 4, 1934, from Bangalore, another newspaper wrote:

"The formation of an Indian Academy of Sciences supplies a long-felt want, for the stimulation of scientific work in the provinces and to bring them together in a spirit of helpful cooperation in order to promote general and steady progress of scientific research throughout India."<sup>17</sup>

According to the author, Bangalore, which took the lead in the matter, had been chosen as the head quarter of the Academy. For the purpose of reading scientific papers, a scientific meeting of the Academy was proposed to be held towards the end of the month in Bangalore. In July 1934, a general meeting would be held.<sup>18</sup>

**INDIAN ACADEMY OF SCIENCES**

**PROGRAMME OF WORK**

(FROM OUR OWN CORRESPONDENT.)

**BANGALORE, May 4.**

The formation of an Indian Academy of Sciences supplies a long-felt want, for the stimulation of scientific work in the provinces and to bring them together in a spirit of helpful cooperation in order to promote general and steady progress of scientific researches throughout India. Bangalore, which took the lead in the matter, as already reported in these columns, has been chosen as the headquarters of the Academy.

Figure 4: Formation of the IAS. Credit: RRI.

Another newspaper, in the beginning of May 1934 wrote (Figure 4) - since the registration of the Academy, Sir C.V. Raman made efforts to make the Academy a fully representative body of all Indian scientists. In an interview, he said that he sent invitations to many scientists. He was confident of positive and generous response. A

scientific meeting of the Academy would be held towards the end of the month in Bangalore. Scientific papers would be read. They would be published in the journal of the Academy. In July, a general meeting would be held to elect office-bearers, and to frame rules and regulations. In the same month, a symposium on 'Molecular Spectra' would be arranged. Another important problem to be discussed was - how to make it possible for scientists to become Fellow of the IAS without losing membership or fellowship of other societies.<sup>19</sup>

**INDIAN ACADEMY OF SCIENCES**

**SIR M. VISVESWARAYYA'S ADDRESS**

(FROM OUR OWN CORRESPONDENT.)

**BANGALORE, June 30.**

Presiding over the second meeting of the Indian Academy of Sciences, Bangalore, this evening, Sir M. Visveswarayya, retired Dewan of Mysore, who Sir C.V. Raman said had not only joined but had agreed to become a Foundation Member of the Academy, congratulated the Members of the Governing Council of the Academy on the progress made and the success that had attended their efforts so far. He had read in the

Figure 5: Second meeting of the IAS. Credit: RRI.

In the second meeting of the IAS (Figure 5) held in June 1934, Sir M. Visveswarayya, Dewan of Mysore stated that he agreed to become the Foundation Fellow. From newspapers, he came to know about the controversy that was going on between Bangalore and Kolkata scientists. He heard that the two groups intended to come closer and that the next meeting was planned in August. He warned: "There was no surplus scientific talent in the country. If they were divided, they would be scattering their force; but uniting, they could conquer all obstacles and make the Academy a great success."<sup>20</sup>

In the first week of August 1934, the first inaugural meeting of the IAS was held (Figure 6). After the meeting, CVR reviewed the five days session. He thanked 'His Highness' Government and Sir Mirza M. Ismail for the

# INDIAN SCIENCE ACADEMY

## SIR C. V. RAMAN'S REVIEW OF WORK

(ASSOCIATED PRESS OF INDIA.)  
HEBBAL, Aug. 4. (By Mail).

The five days programme of the Inaugural meeting of the Indian Academy of Sciences concluded to-night with a speech by Sir C. V. Raman, its President, reviewing in brief the business of the session. He said:

"We have had a week's strenuous activities and we may feel justifiably delighted at the work accomplished during the week. What particularly delighted me is the enthusiasm which the function evoked. We are specially grateful to His Highness' Government and to Sir Mirza M. Ismail for the entirely spontaneous offer of support for the Academy which has come from them. This is very heartening for the future of the Academy. We

Figure 6: The inaugural meeting of the IAS. Credit: RRI.

spontaneous support. He expressed his gratitude to the participants from different parts of India. About the constitution of the IAS, he stated:

"We are gratified at the fact that with very little difficulty we have been able to work out a satisfactory constitution for the Academy which has met with the unanimous approval of those present. We have been very careful to draw it up in a manner which, I hope, will commend the universal assent of men of science in all parts of India."<sup>21</sup>

CVR praised the papers presented in symposium. He specially thanked the Aligarh University for deputing Dr. R. Samuel (who had migrated from Germany), who gave a comprehensive talk on 'absorption spectra of molecules'.<sup>22</sup>

In order to show that IAS had national character, the names of some of the known scientists along with the names of cities they belong to were published by the newspaper – S.R. Keshyap (Lahore), S.S. Bhatnagar (Lahore), J.F. Dastur (Nagpur), D.L. Sahasrabudhe (Bombay), M.R. Sahni (Kolkata), B.N. Desai (Poona), K.S.K. Iyenagar (Mysore), and Ludwig Wolfgang (Andhra University).

# INDIAN ACADEMY OF SCIENCES

## ELECTION OF FELLOWS

(FROM 'OUR' OWN CORRESPONDENT.)

BANGALORE, Nov. 18.

The all-India support, which the Indian Academy of Sciences of which Sir C. V. Raman is the President, has received, was manifest yesterday, when the Council met at the Indian Institute of Science, last evening to elect Fellows. [At a previous meeting, as previously reported in "The Hindu", several distinguished scientists all over India were elected Fellows of the Academy.]

Figure 7: Election of Foundation Fellows of the IAS. Credit: RRI.

### *Foundation of the National Institute of Sciences of India*

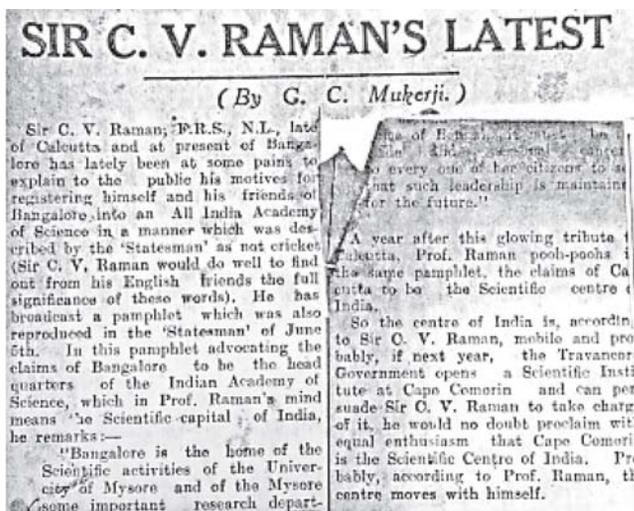
"The Modern Review" from Kolkata in May 1934, wrote that "Associated Press" on April 28, 1934, informed the readers that:

"An all-India (!) institution under the name and style of the Indian Academy of Sciences was registered today in the civil and military station of Bangalore, under the Societies Registration Act of 1860, established on a 'distinctly federal basis' (?), with Bangalore as the temporary headquarter says Sir C.V. Raman."<sup>23</sup>

To show that CVR did not have support from all quarters, in June 1934, "The Modern Review" reported that newspapers in Kolkata and Lahore reported that C.W.B. Normand, Director of the Meteorological Survey of India, had refused to be a Fellow of the Indian Academy of Science.

Kolkata's scientists were surprised and annoyed after CVR had registered the Indian Academy of Sciences. A long article written by G.C. Mukerji was published in "The Amrita Bazar Patrika"<sup>24</sup> (Figure 8).

G.C. Mukerji stated that Sir CVR published a pamphlet in "The Statesman" of June 5, (1934), in which he justified the claim of Bangalore to be the head quarter of the Indian Academy of Sciences. He called Bangalore the scientific capital city of India. He saw the IAS as appendage to the IIS, of which he had been appointed Director for the next



**Figure 8:** Reaction to CVR's view – Bangalore as Science Research Centre. Credit: RRI.

fifteen years. CVR had pains in explaining to the public that Bangalore was the geographical and scientific centre of India. It could not be called central as the time to travel by train to Bangalore from Lahore, Kolkata, Allahabad, and Bombay was 96, 60, 72, and 40 hours respectively.

While living in Kolkata, CVR had praised Kolkata as the centre of scientific activities. G.C. Mukerji stated – CVR believed that the centre moved with himself. Further, he wrote that in his article in “The Modern Review”, Feb. 1934, that there was no question about the head quarter.

CVR had said that the Academy Committee of the Indian Science Congress having 40 members had copied the constitution of the age old Royal Society of London, an aristocratic body. G.C. Mukerji wrote that CVR merely copied the constitution of the Asiatic Society of Bengal and the U.P. Academy of Science in forming the Indian Academy of Sciences. All of a sudden, Prof. Raman opposed the Royal Society model. A pamphlet by M.S. Krishnan, Baini Prasad, J.N. Mukerji/Mukherjee, and S.P. Agharkar exposed Raman's activities in this connection. In July 1933, Raman had written a letter to the Marquis of Zetland and Prof. H. Thomas, in which he stated that he had absolutely no hesitation in taking the Royal Society of Great Britain as a model for the Indian Academy. In the same letter, he had criticised the Asiatic Society model. According to the author, in January, 1934, the Indian Science Congress appointed a Committee to establish a Science Academy, in which Prof. Raman was a member. However, he remained absent from the Committee's meetings. Now, he triggered the controversy, and was trying to give it a North vs. South Indian equation.

We have seen above that Raman had opposed the Academy Committee for its undemocratic and

unconstitutional methods. According to G.C. Mukerji: “This apostle of democracy chose to turn himself into a (Benito) Mussolini by rushing in a fury to the Registry office and registering himself and his obliging friends of Bangalore into a so-called Indian Academy of Sciences.”

After the registration of the IAS, in Kolkata scientists continued to work for the foundation of the Science Academy.

The 3<sup>rd</sup> meeting of the Academy Committee was held in Simla, in June 1934. The members present were: L.L. Fermor (Asiatic Society), A.C. Austin (Institute of Engineering, India), H.J. Couchman (Survey of India), Ganesh Prasad (Kolkata and Benares Mathematical Society), Afzal Hussain, Muzaffaruddin Qureshi, S.P. Agharkar, and M.N. Saha. The last two were joint organising secretaries.<sup>6</sup>

It was decided to name the new academy as ‘National Academy of Sciences of India’, which should supplement the existing Science Academies and the Asiatic Society. M.N. Saha was asked to make suitable modifications in the draft rules.<sup>6</sup>

The Academy Committee was still hoping that CVR would cooperate. In a letter on June 16, 1934, to L.L. Fermor, CVR clearly told his views about the foundation of the IAS. In another letter, CVR wrote that he did not understand the resentment felt in some circles caused by the foundation of the IAS. He believed that Bangalore possessed the scientific material and moral resources, which should be placed at the disposal of the whole of scientific India. His aim was to mobilise the resources of the IIS for the benefit of other parts of India.<sup>25</sup> “I had indeed definitely committed myself to creating such an organisation at Bangalore long before the Science Congress met at Bombay and appointed your Committee”, wrote CVR.<sup>25</sup> He suggested to Fermor:

“May I point out that in the Asiatic Society of Bengal – which is an all-India institution and an Academy in the truest sense of the word – Kolkata already possesses an organisation which can perform the function of an Academy to the fullest extent.”<sup>25</sup>

According to CVR - it would be wastage of resources to create a new organisation. It was better to create a new section of science at the Asiatic Society, and publish proceedings. And further:

“As a specific task which your Committee could accomplish and in which I would be prepared to offer co-operation, I would suggest that of establishing a Council or Federation of Academies in India which

the Asiatic Society, the U.P. Academy, and the Indian Academy of Sciences established at Bangalore could join.”<sup>25</sup>

On July 2, 1934, in a letter L.L. Fermor told CVR that his letter was discussed by the Academy Committee. His idea to take the Asiatic Society as the mother-body was not realistic. It would not be possible to deal with the authorities of the Asiatic Society as they were celebrating their 150<sup>th</sup> anniversary. More importantly, if they were to follow CVR’s suggestion, they would have to start from the very beginning to find members from different institutions. However, they accepted that the Asiatic Society, IAS, and U.P. Science Academy may stand as they were. Fermor wrote:

“Accepting the situation as such, we have, therefore, decided to remodel what we are doing, so that the Academy which we are about to found, will really be a Federal Academy. We are proposing to call our Academy the ‘National Academy of Sciences of India’, and to appoint a certain number of Foundation Fellows selected throughout the length and breadth of India on grounds of merit.”<sup>26</sup>

L.L. Fermor, after describing the planned activities, wrote that they hoped “you will consent to withdraw your resignation from the Indian Science Congress Academy Committee.” If CVR did so, they would announce publicly that a general solution had been found, and there would be no loss of reputation to anybody involved. It would be a great step forward in coordinating scientific work in India.

In the end, L.L. Fermor tried to touch Raman’s sentiments by reminding him about their friendly conversation in Simla and long-time acquaintances. He hoped that CVR would be able to come to Kolkata for a meeting on Aug. 11, 1934. “It will be taken as a general sign of peace, and also enable the National Academy and the three existing Academies to accept that concord has been established.”

CVR, B. Venkatesachar, and C.R. Narayan Rao went to Kolkata to discuss the possibility of agreement between the IAS and the Academy Committee. On Sept. 16, 1934, in a meeting it was unanimously adopted that:

- (i) The name National Academy of Sciences of India should be changed to the National Institute of Sciences of India.
- (ii) All the three ‘Academies’ would not form branches in other parts of India.

After CVR forced his conditions, he withdrew his resignation, and returned to the Academy Committee. The National Institute of Sciences of India (NISI) was founded on Jan. 7, 1935, with its head quarter at the Asiatic Society of Bengal.<sup>27</sup>

### **“Official recognition” for the NISI by the British Empire**

The British Empire thought of involving Indian scientists for war efforts. In 1943, the Secretary of State for India asked the Royal Society London to send a person to give advice. The Royal Society sent A.V. Hill, the Secretary of the Society to help the British Empire. He was told by the colonial government to concentrate on defence related research, such as signals and electrical equipment, wireless communication, and airborne forces.<sup>28</sup>

Hill visited different institutions and met many Indian scientists.<sup>29</sup> On April 6, 1944, he left India.<sup>30</sup> While leaving India, A.V. Hill ensured the cooperation between the two countries. To put it into practice, in May of 1944, the British-Indian Government decided to send a delegation of the Indian scientists to Canada, the U.S.A., and U.K. According to “The Hindustan Times”, of April 6, 1944, a delegation was being sent abroad. Its members were S.S. Bhatnagar [Director, Scientific and Industrial Research], M.N. Saha [University of Calcutta], S.K. Mitra [University of Calcutta], J.C. Ghosh [Director, IIS], N. Ahmed [Director, Indian Central Cotton Committee], S.L. Bhatia [Indian Medical Services], and J.N. Mukherjee [University of Calcutta].<sup>31</sup> Now, the questions are: Why CVR was not included in the delegation? Was he not asked for?

The answer is to be found in CVR’s letter to B. Sahni. He wrote to Sahni that he received A.V. Hill’s pamphlet “Scientific Research in India” from the Government of India. On page 36, Hill recommended to give the **National Institute of Sciences of India preferential treatment** (emphasis added).<sup>32</sup> CVR saw that the Indian Science Academy (IAS) and other science societies were given a secondary role. He informed Sahni that he was going to draft a protest letter, which should be signed by

**Thank you for your letter of the 12th February.**

**I agree with you that we should protest against the preferential treatment recommended for the National Institute. If you kindly send me a draft of the representation I shall consult Krishnan and after carefully considering all aspects we may agree to sign the letter jointly.**

**Figure 9:** A part of B. Sahni’s letter to CVR. Credit: NMML, Delhi.

distinguished scientists, and sent to the Government of India.<sup>33</sup> B. Sahni's reply of Feb. 20, 1945, is shown in Figure 9.

As continuation of the above programme, Indian scientists were sent to attend the "Empire Scientific Conference". On Nov. 20, 1945, CVR wrote to B. Sahni, and asked whether he received a letter dated Oct. 24, 1945, from H.V.R. Iyengar – Joint Secretary of the Government of India in Department of Planning and Development, inviting him to be a Member of the Empire Scientific Conference to be held in the U.K. He wanted to know Sahni's opinion, as he himself was not sure, whether to decline or accept the invitation.

CVR's next letter suggests that he agreed to take part, but later declined. The answer for this turn around is found in his letter of March 27, 1946 written to A. Hydari, a government officer:

"When I accepted the invitation of the Government of India to take part in the Empire Scientific Conference, I did not anticipate that the affairs of the delegation would be placed in the hands of the National Institute of Science, ...."<sup>34</sup>

CVR wrote that he gave most careful consideration and felt that "in the circumstances of the case, there is no longer any place for me in the delegation from India to the Empire Scientific Conference."<sup>34</sup> Further, he stated that his action should not be understood as disrespect to the Government and the Royal Society. He requested A. Hydari to forward a copy of his letter, and also about his withdrawal from the delegation to the Royal Society.<sup>34</sup>

From the foregoing we see that NISI had achieved some sort of "recognised" institution from the British Empire. Understandably, it wanted to maintain the status in independent India, which become hurdle, while the issue of a United Academy of Sciences came into play (detail below)

### **United Academy of Sciences—A Missed Chance**

A lesser known fact is that shortly before India's independence, that is, in the middle of 1940s, the NASI and IAS tried to come closer. They organised joint meetings (Figure 10).

Before India's independence, in Feb. 1947, a Scientific Consultative Committee was founded (Figure 11). As we see, CVR was very optimistic that a compromise had been found to establish a paramount academy of sciences, which would include all Fellows of the existing three science academies. According to another newspaper, the IAS and

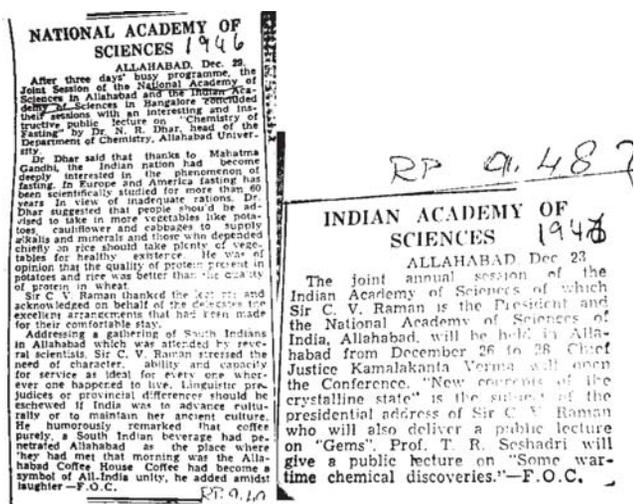


Figure 10: A joint session by IAS and NASI. Credit: RRI.

NASI were allowed to continue their activities and keep their journals as they were (Figure 11). Obviously, there was no success. A few weeks later, another attempt was made to merge the three academies and establish the United Academy of Sciences (UAS), which should adopt the rules and regulations of the NISI. All Fellows of the three academies elected before Jan. 1, 1947, would become the Fellows of the new academy. More importantly, the person already elected as President of the academies would not be elected as President of the new academy. The Council of the NISI would serve as the first Council of the UAS, whereas the IAS and NASI would serve as branches of the UAS. However, the Council of the NISI, in a meeting of March 7, 1947, did not support the foundation with the following argument:

"It was felt that the recorded minutes were not accurate as they did not indicate the purpose of formation of the United Academy of Sciences. The Council felt that it was not appropriate to open this issue or make suggestions **in view of the fact that NISI had already been accorded the status of a premier scientific organization in India** (emphasis added), which included representatives of NASI, Allahabad, IAS, Bangalore, and the Royal Asiatic Society of Bengal in its Council."<sup>35</sup>

Evidently, the NISI wanted to retain its status as representative of India.

The last attempt to reunite the three bodies was made on Aug 5, 1947, when the Presidents of the three academies, that is, CVR, S.S. Bhatnagar, and A.C. Banerjee met. They could not agree on<sup>36</sup>:

- (i) "giving up the legal title of properties of existing academies in favour of the UAS" and,

(ii) “the reservation of quotas for each Academy in the Council and officers of the UAS.”

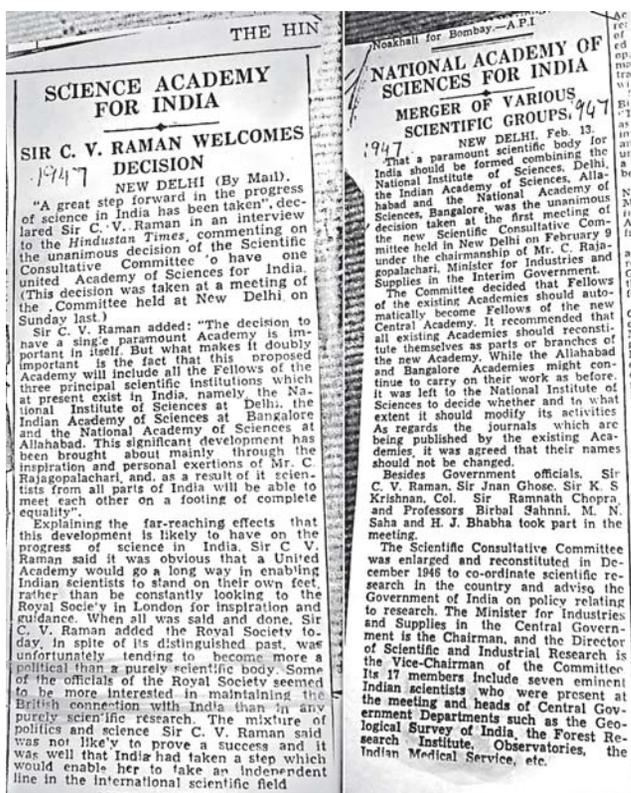


Figure 11: Attempt to merge the three science academies. Credit: RRI.

Consequently, the formation of the United Academy of Sciences of India remained a dream.

### Conclusions

Before India’s independence in 1947, the country was divided into different kingdoms. The British, who were minute in number, were able to control Indians due to their so-called “divide and rule” policy. This can be considered as partial reality. Individuals, M.N. Saha and in particular C.V. Raman, put their petty interest in the foreground. This is evident from the foundation of different Science Academies. C.V. Raman had a strong personality and liked to be in the middle point of the scientific world. He completely ignored that others were working hard to establish a Science Academy. In spite of this fact, within a short time he established the Indian Academy of Sciences.

Neither M.N. Saha (founder of the NASI) nor L.L. Fermor (the first President of the NISI) were life-long Presidents of the academies, but Raman was. Was he a dictator? The answer is – no. He was duly elected. Why it was done? This needs further research.

NASI and IAS were ready to form the United Academy of Sciences, but NISI did not agree, as it wanted to maintain the status as given by the British Empire. Obviously, C.V. Raman was not responsible that UAS did not come into existence.

C.V. Raman and M.N. Saha, both of them created a number of brilliant scientists, which influenced the development of science and technology in independent India. However, at the same time, their students did not question the deeds of their teachers. The animosity between their teachers was there and is being carried on upto the third generation. The standard example is that of the existing three science academies in India. The British left India on Aug. 15, 1947. They are no longer forcing Indians to have three academies. Thus, Indians need to think seriously about the causes of their failures.

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