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NEWS LETTER

Society for Scientific Values

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*Website: www.scientificvalues.org

**Registration No. S-16970 of 1986

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2002-2004

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Dr. M.V.S. Valiathan

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A. ARTICLE

ACHIEVEMENTS OF THE SOCIETY FOR SCIENTIFIC VALUES

P.N. Tiwari and Narendra Nath

Brief History

Some scientists working in Delhi formed an informal group in 1981 to help improve the environment of scientific research and education in the country, by promoting well recognized values and by curbing unethical practices and prejudices (SSV, New and Views, Vol.6 No.1, 2000). In 1984, it was decided to set up 'Society for Scientific Values' (SSV). Dr. A.S. Paintal as President of SSV addressed a letter on June 23, 1984 to all the Fellows of the three Science Academies of the country and other established scientists in India giving the background and objectives of the Society for their comments and suggestions. An overwhelming positive response was received.

The SSV was registered under Societies Registration Act August 18, 1986 with 107 eminent scientists as its Founder Members. Science Journals in the country and abroad welcomed the formation of SSV. Nature, in its volume 326 dated April 9, 1987 welcomed the news under the title 'Healthy Scientific environment promoted by Society in India'. Highlighting the objectives, the journal hoped that the Society would contribute to build scientific environment "free from prejudices bureaucratic formalism, dishonesty, propagation of unsubstantiated research claims, suppression of dissent, showmanship, sycophancy and political manipulation". The SSV has been striving to meet its objectives with some success.

Aims and Objectives of SSV

- a) To promote integrity, objectivity and ethical values in pursuit of science.
- b) To cooperate with other scientific organizations for propagation of the objectives of Society.
- c) To secure and administer funds, grants and endowments for the furtherance of the objectives of the Society.
- d) To do all other things that may be necessary for the fulfillment of the objectives of the Society.

Membership

The membership is open only to those scientists who subscribe to the aim and objectives of the Society and meet the requirements outlined below and whose name is formally proposed by at least one member of SSV for consideration of the Executive Council of the Society. On approval of the Executive Council, the person is invited to become a member. The list of the present members of SSV is available on its website 'scientificvalues.org'.

A scientist whose name is proposed for the membership of SSV should meet the following requirements.

1. He (or she wherever applicable) should have allowed his name to appear as an author in only those publications in which he was actively involved, e.g. in data collection, theoretical formulations, design and construction of apparatus, field trips, statistical analysis, and interpretation of the results, as distinct from administrative support and providing funds or facilities.

2. He should never have plagiarised, or made false claims or indulged in or encouraged any kind of unethical or dishonest activity in science.
3. He should whole-heartedly support the decisions and actions to be taken collectively by the Society after such decisions and actions had been approved by him.
4. He should agree to withdraw from the Society if he ceases to adhere to guidelines 1, 2 and 3 above.

ACHIEVEMENTS HIGHLIGHTS

1. Seminars and Symposia

To serve its objective of promoting integrity and objectivity in pursuit of science and to curb malpractices, the Society organized seminars/symposia on the following topics;

1. Scientific Values and Excellence in Science (April, 1989)
2. Accountability in Scientific Research (April, 1992)
3. Scientific Misconduct and Disciplinary Action (October, 1995)
4. Ethics in Administration of Science (April, 2000)

The first three seminars were attended by 80 to 100 scientists, mainly members of the Society and Fellows of INSA. The No. 4 symposium was attended by more than 400 persons including participants from industry and media. The proceedings of the first three seminars have been published and widely circulated to the members of the Society, the Vice-Chancellors of the Universities, Heads of the Science Departments of Academic institutions, Directors of research institutes and Heads of different scientific organizations. A summary of the symposium on last topic was published in Society's bulletin News and Views, Vol.7, No.1, 2001.

2. Scientific Misconduct Brought under CCS Conduct Rule 3.

To bring scientific misconduct under the purview of Rule 3 of Central Civil Service (CCS) Conduct Rules 1964 which require all employees to maintain absolute integrity, devotion to duty and do nothing which is unbecoming of Government servant, the Society wrote to all the Heads of Scientific organization requesting to issue a circular informing the scientists that scientific misconduct would be punishable under CCS Conduct Rule 3. The Government in their reply to Lok Sabha unstarred question NO.5292 on 18th April, 1990 relating to ICMR circular agreed to it by stating that any scientist found guilty of scientific misconduct will be dealt with, as having committed an act unbecoming of Government servant and lacking devotion to duty.

3. Society's Procedure of Enquiry into Allegation of Scientific Misconduct.

When an allegation of misconduct like false claim, fabrication of data, plagiarism, fake statement of authorship, omission of authorship and violation of publication norms are brought to notice of the Society in writing with proof preferably through a member of Society, then the President of the Society seeks the response of the accused by sending him the details of the allegation. The allegation and the response, if any, are given to one or two members of the Society who are specialists in the area for their examination and reports. The President of Society writes to the Head of the Organization of accused person for taking appropriate action.

4. Specific Recommendations for Actions on Scientific Misconduct.

The Seminar on 'Scientific Misconduct and Disciplinary Action' organized by the Society in 1995 made specific recommendations. Some of which are;

- (I) Each University and research institution must have an 'Ethics Committee', which should follow a transparent procedure to enquire into allegations of scientific misconduct. The institution may request the 'Society for Scientific Values' to conduct the enquiry if deemed fit. The report of enquiry and the action taken must be made public. Academic degrees, awards and prizes based on fraudulent work should be withdrawn. Science academies and societies should withdraw fellowship/membership conferred on scientists found guilty of unethical practices.
- (II) The governmental funding agencies while sanctioning financial grant to research projects should make it clear that if any scientific misconduct is committed by the investigators, the grant will be terminated and appropriate disciplinary action will be taken by the organization of the investigators.
- (III) The final report of large projects should be made public including referee's comments for open scrutiny and accountability.
- (IV) The names of the examiners who approve a thesis for the award of Ph.D./D.Phil./D.Sc. degree must be written on the thesis to make them accountable for the quality of the thesis. A copy of the thesis must be made available to UGC who should keep it at a central place for a certain minimum period for reference and made a copy available on payment.

5. Inculcating Scientific Values in School Students.

On the initiative of the Society the NCERT constituted a small committee including three members of the Society to prepare a write-up for creating awareness about scientific values among students at an early stage. The committee prepared a very brief write-up clearly stating what should and what should not, be done in pursuing science. The NCERT had been printing this statement in all science and mathematics books published since early ninety's for class IX to XII students.

6. Publication of Society's bulletin 'News and Views'

The Society started the publication of its 'News and Views' bulletin in March 1993. It provides the members with information on current activities of the Society besides publishing articles, views and comments by the members. It is proposed to extend the circulation to wider sections of the scientific community.

7. Website of the Society

The Society opened its website 'scientificvalues.org.' in 2001. Information on the Society, its Executive Council and Members, Present Activities of the Society and Newsletter highlighting its achievements are placed online in the website.

8. Discouraging Holding of Seminars/Symposia in Five -Star Hotels

Holding seminars/symposia/conferences in five-star hotels has several undesirable features such as taking scientific discussion away from academic environment besides increasing the cost of organization which often make it beyond the means of many working scientists to participate in it. Therefore the Society resolved in 1986 that the members of the Society would,

- a) voluntarily boycott seminars, symposia and conferences which are organized in five-star hotels,
- b) try to persuade grant-giving agencies not to give their support to such seminars, symposia and conferences,
- c) create an awareness among colleagues and friends of the undesirability of holding such seminars, symposia and conferences.

However, the Society recognized the fact that the present facilities in academic/scientific institutions may not always be adequate for organizing large conferences with participation of large number of foreign scientists. Therefore, it further resolved that such large conferences may be exempted from the above resolution.

9. Norms for Awarding Scientific Prizes and Positions.

There was a general feeling in 1986 that scientific awards which have been instituted for scientific contributions as distinct from managerial work, have not gone to most deserving scientists in many cases. In some cases even the persons involved in deciding the award themselves became the awardees, which is totally unethical.

In order to uphold the highest norms in recognizing scientific contributions, the Society resolved in 1986 that;

- a) The members of the 'Society for Scientific Values' involved at any stage of the decision taking process of an award shall not accept the award.
- b) Councils, Board of trustees, committees and other bodies associated with decision-making process of an award must not select the members of these bodies for the award.

10. Publicity of Unsubstantiated Research Claims.

Several members of the Society pointed out in 1986 that some scientists are getting research grants, awards and positions on the basis of wide publicity of their unsubstantiated research claims. To discourage such acts, the society decided that any research which has not been published in reputed journals or received due recognition otherwise should not be given publicity through mass media. The national newspapers and T.V. media should employ competent science reporters who are capable of differentiating between true and false scientific claims.

11. Investigation into Specific Allegations of Scientific Misconduct.

The Society has investigated several allegations of scientific misconduct. Some of them have been found to be correct. A few representative cases are reported here in somewhat detail to show the kind of scientific misconduct in our country.

a) Use of Wrong Means to Claim Priority

In the General Body meeting of the Society held on 27th April, 1987, Dr. R.R. Daniel, Senior Professor of TIFR and some other members of the Society pointed out that four papers have been published in the currently very high competitive area of high temp. super conductivity by the same group of scientists (Dr. C.N.R. Rao and group) without the date of the receipt of the papers in the three journals in which no paper had been published before without the date of the receipt of the paper. They added that this has very much disturbed the other scientists working in the area. The President of the Society, Dr.A.S. Paintal requested Prof. Daniel to send him the particulars of the journals in which these papers have been published. These journals are – (1) Proceedings of the Indian Academy of Sciences (Chemical Science), (2) Pramana, and (3) Current Science. All the three are published by the Indian Academy of Sciences, Bangalore.

The President of the Society wrote to the editors of all the three journals about the matter stating that the omission of the date of receipt of the papers is likely to damage the credibility of Indian science and scientists. He requested them to send the following information:

1. Actual date of the receipt of the papers,
2. Photocopy of the author's letter accompanying the papers in questions,
3. Whether they intend to publish correction indicating the date of the receipt of the said papers in the next issue of the journals.

The editors sent the date of receipt of the papers and informed that the corrections have been/are being published. In all the four cases, the manuscripts were received after the formal date of publication of the journals. Since the editors did not send photocopy of the author's letter accompanying the papers, the President wrote to Dr. C.N.R. Rao, the senior most author to confirm the dates. Dr. Rao confirmed the dates and argued that because of late publication of journals, a rapid communication meant for immediate issue may appear in an issue which may formally carry a previous date. The Society did not agree with this argument because research papers are referred to by the formal date and year of the publication of a journal. It is against the norms to publish a paper in a journal having formal date of publication earlier than the date of the receipt of the paper.

(b) Plagiarism in Research Publications

The Director of National Aeronautical Laboratory, Bangalore, Prof. R.Narasimha wrote to Dr. A.S. Paintal, President of the Society in April 1989 about a charge of large scale plagiarism in research by more than half a dozen faculty members/research scholars of Dr. S.N. Singh's group of the Mathematics Department, BHU. He had enclosed a set of correspondence that he had with Prof. O.P. Chadha of University of Windsor, Canada as the proof of the charge. The Society requested one of its members Prof. A.N. Mitra, a well known theoretical physicist and Professor at Delhi University to examine the case. Prof. Mitra found the charge to be true.

Prof. O.P. Chadha of Windsor University whose published work of 1973 was plagiarised by S.N. Singh, H.P. Singh and Ram Babu and published in the International Journal of Astrophysics and Space Science in 1984, wrote to the Editor of the journal about it. The Editor in his reply to Prof. Chadha dated February 13, 1989, expressed his regret and wrote; 'in order to mitigate the consequences we propose to take following steps; 1) to publish in our journal an Editorial Note, calling attention to your priority in this matter; and 2) to decline acceptance of any further contributions from the authors who were shown to have perpetrated such a misdemeanor.

The Editor added;

"In the past 20 years of my editorship of our journal, in the course of which we published more than 6000 individual papers - only half a dozen cases similar to yours had been brought to my attention of these 5 were from India and one from Japan".

The members of the Society were shocked to know the extent of plagiarism prevailing in the country. The President of the Society Dr. Paintal wrote to Prof R.P. Rastogi, Vice-Chancellor, BHU in 1990 urging him to take strong disciplinary action against the persons involved. The Vice-Chancellor informed that he has dismissed the involved research scholar and withheld the promotion of the faculty members.

The Society is currently investigating two allegations of plagiarism, one of it is against Prof. Rajput, Vice-Chancellor, Kumaon University and the other relates to a publication by Dr. Padma Vanker, IIT, Kanpur.

b) Fraudulent Research

Nature in its Vol.338 of April 20, 1989, published a long scientific comment of Dr. Johan A.Talent, School of Earth Sciences, Macquarie University, Australia allaging that "through the activities of one Indian scientist (Dr. V.J. Gupta, Panjab University), the paleontological literature on Himalayas has become shot through with disinformation". The charge was related to Dr. Gupta's publications of over more than 20 years. The Science also in its issue of April 21, 1989 published the comments of Dr. Talent stating that "A prominent Australian Scientist has examined two decades of work on ancient Himalayan Geology and alleges it may be the greater paleontological fraud of all time". Dr. Talent has alleged that Dr. Gupta has been collecting his fossil samples not from the locations in Himalayas as claimed in his publications but from laboratories and shops while attending scientific conferences abroad. The Society took note of these important publications and decided to hold an impartial investigation. The President of the Society wrote to Dr. Talent to send the names of about 10 international authorities working in the area who would be included into the investigating team.

While the Society was in the process of constituting the investigating team, the Vice-Chancellor, Panjab University decided to send a team of 7 scientists from different organizations under the leadership of Dr. V.J. Gupta to collect fossil samples from the locations in Himalayas as claimed by Dr. Gupta in his publications. The Society wrote to the Vice-Chancellor to include its President as an observer in the team. The Vice-Chancellor agreed. Dr. Talent had also written to Nature (Vol.343, page 406, Feb.1, 1990) that the specimen whose provenance is under debate should be loaned through a neutral body such as Society for Scientific Values for comparison to be made by an independent laboratory.

The team finally went under the leadership of Society's President Dr. Paintal as Dr. Gupta became indisposed in summer 1990, which was the scheduled period of the team visit. The samples were collected from the claimed locations and were got analyzed an independent laboratory. The finding, which showed that allegations of Dr. Talent were true was sent to the Vice-Chancellor, Panjab University. Initially the Vice-Chancellor took some strong actions, which however, were diluted to mere nothing in a short period.

12. Concluding Remarks

The Society has been operating with very little financial resources, so much so that it has not been able to pay TA even to members of its Executive Council stationed outside Delhi for attending the E.C. meetings. It continues to receive a number of allegations of scientific mis-conduct as there is no other organization in the country, which looks into such allegations. Though, the Society investigates into such allegations, it has no power other than moral to ensure right actions on its findings. It would be appropriate on the part of the Govt. of India to make it obligatory for the scientific organizations of the country to take necessary disciplinary actions against their staff found guilty of scientific misconduct. This will go a long way in curbing the wrong practices which lower the quality of science.

B. ACTIVITIES

44th Meeting of the Executive Council, Society for Scientific Values, held on 6th October, 2002 at 10.00 A.M. in the INSA, New Delhi

The following were present:

Dr. K.L. Chopra
Dr. M.V.S. Valiathan
Dr. A.S. Paintal
Dr. P.N. Tiwari
Dr. A.R. Verma
Dr. (Mrs.) Indira Nath

Dr. Ashima Anand
Dr. S.K. Gupta
Dr. P.S. Datta

The President welcomed all the members and special invitees, briefly described the objectives of the SSV and emphasized the growing need of fostering ethics and values in pursuing science. Further, he stated that the activities of SSV should be considered as a part of the mission of INSA. The need for a desk space for keeping the SSV papers in any appropriate room in the INSA premises was mentioned by Dr. Chopra. In response, Dr. Valiathan, President INSA, appreciated the role of the SSV and talked about the increasing international concern at various fora regarding ethics in science. He mentioned that a meeting of all the Academies in India will discuss these issues. The views and recommendations of the SSV would be welcome for this discussion.

1. After confirming the minutes of the previous meeting, matters arising out of the minutes were taken up.

- * Regarding the case of Dr. U.S. Bagade of Bombay University, Dr. Indira Nath mentioned that Dr. Kishan Lal has advised her to send the case documents sometime later because, he would be out of the country.
- Dr. Indira Nath and Dr. Gupta mentioned that accounting and auditing of the expenditure in connection with the activities has yet to be done and efforts are being made to complete the same as early as possible. Dr. Gupta informed that based on the documents provided to him by Prof. Karmeshu, the previous treasurer, as on 1st October, 2002, the new Executive Council had four FDs with a total of Rs.1.0 lakh and Savings Bank A/C balance with a total of Rs.22,918/- and paise 79 only. He further stated that all the vouchers and cash receipts w.e.f. 1st April, 1998 to 1st October, 2002 are with Prof. Karmeshu, and in due course, he would return all these things along with audited balance sheets for 2000-01 and 2001-02 to Dr. S.K. Gupta. For operating of the account, the bank will be informed to enter the names of the present Secretary (Dr. P.S. Datta) and Treasurer (Dr. S.K. Gupta) in their record as early as possible.
- * Dr. I. Nath stated that for updating the web page, Rs. 2500/- has to be paid to the Website designer at Hyderabad. Dr. Datta will explore the possibility of getting the same job done in Delhi on expiry of the contract. Dr. K.L. Chopra mentioned that he would write to the INSA in this connection exploring the possibilities of using the server of the INSA
- Regarding the SSV Newsletter and publication of the article "Report of the Achievements of the Society", written by Dr. P.N. Tiwari, the following Editorial Committee was constituted to finalise the draft:

Prof. Narendra Nath, Chairman
Dr. (Mrs.) Ashima Anand
Mr. Dilip Salvi
Dr. P.S. Datta

2. The modified logo and letterhead were discussed. It was decided that approval of the General Body be obtained. Meanwhile, designs of these will be sent by e-mail to the members for their suggestions.

3. Efforts will be made to hold the Executive Council meeting every 3 months, followed by brainstorming sessions/Group discussions on ethical issues in science. Once in a year, Annual General Body meeting will be organized along with a seminar. To ensure larger participation, the date of the GB meeting will be preferably fixed to coincide with the date of the April meeting of INSA. Some of the suggested topics on brainstorming are: Credit and discredit; Code of conduct; Ethical guidelines for publications; Ethics for editors; Role of internet in S&T; Private Educational Institutions; etc..

4. Dr. Chopra suggested that efforts should be made to generate funds from DST and other funding agencies. It was agreed that Memberships and donations from NRIs be encouraged and welcomed. Further, it was decided to approach the Minister, S&T and DST to provide nominal funds for newsletter, one-day seminars, publications, group discussions, etc. Dr Verma agreed to discuss this issue with the Minister of Science and Technology.

5. The Council decided in principle to start planning for an International Conference to be organized by the end of 2004. Dr. P.N. Bhargava may be requested to be the Co-Chairman of the Conference and to actively involve himself in planning and organizing the International Conference.

6. The President updated the Council on the pending cases of plagiarism and the actions being taken on alleged cases against Prof. B S Rajput, VC, Kumaon University; and Dr. (Ms) Padma Vankar of IIT, Kanpur.

B. Investigations by the Society for Scientific Values (SSV)

Recent Cases of Plagiarism

1. Professor V S Rajput, Kumaon Univ:

Prof. Kavita Pandey, Head, Physics Department, Kumaon University brought to the attention of SSV, and a number of prominent particle physicists in India and abroad that Prof Rajput, a former Head of the same department and presently serving as the Vice Chancellor of the University, in co-authorship with his research students have indulged in serious unethical practices of plagiarization of published research papers of others, as also of publishing same/similar papers in more than one journal. The SSV examined the published papers in question, and sought information/ clarification from both Prof. Pandey and Prof. Rajput. Prof. Rajput maintains that his former research student and his co-author has plagiarized the paper and has put his name on the paper without his permission. Merit of this argument apart, as the VC, Prof. Rajput has taken no disciplinary action so far against his former student and presently his faculty member of the University. Having confirmed this serious case of plagiarism and unethical practices, as has also been done by several other prominent Particle Physicists in India and abroad, the SSV has written to the President of India, the Governor of Uttaranchal (who is the Chancellor of the University), Minister, MHRD, and the Chairman, UGC, urging them to take a strict disciplinary action against Prof. Rajput. After considerable moral pressure by a number of scientists world over, the Chancellor has now set up an enquiry committee under the Chair of a retired Judge. The SSV feels strongly that prominent scientists in the field best judge scientific unethical practices and thus their verdict should be taken seriously for taking an appropriate action. We hope that a decision to refer such a case to a retired Judge does not meet the usual fate of a long enquiry, ultimately resulting in diluting the seriousness of such a case.

2. **Drs. Rashmi Mishra and Sapna Johnson, Centre for Science & Environment, New Delhi & Padma Vankar, FEAT, Indian Institute of Technology, Kanpur:**

Rashmi Mishra et al have submitted a paper " Analysis of Pesticide Residues in Fruits and Vegetables from different Mandis of Delhi " to J Analytical-Science for publication. This paper has been largely plagiarized from a paper " Monitoring of Pesticide Residues in Summer Fruits and Vegetables from Kanpur" published in Bulletin Environmental Contamination and Toxicology by Dr R Sanghi and Dr V. Tewari of Facility for Ecological and Analytical Testing (FEAT), IIT, Kanpur. The SSV has examined the two papers and have verified that Rasmi Mishra et al have not only plagiarised the paper extensively but have also made false claims. The SSV has written to Dr Sunita Narayan, Director, Centre for Science & Environment and Prof. S G Dhande, Director, IIT, Kanpur to seek their comments and to urge them to take appropriate disciplinary actions against their respective colleagues, if called for. Dr Narayan has informed that Dr. Vankar did not seek permission of her two colleagues in the Centre to be the co-authors

of the paper. Nevertheless , she has taken steps to see that such a thing is not repeated . What these steps are and how Dr. Padma Vankar, who is also a Consultant to the Centre for Science and Environment, is affected, has not been clarified. On the other hand, Prof Dhande has not bothered to respond, despite reminders. We, however, understand that Prof. Dhande set up an Enquiry Committee, the report of which is with him for over two months. The SSV is very concerned that an Institute of national importance is not prepared to face the reality of a scientific fraud committed by a scientist of the institute and to take suitable action as a deterrent for such unethical practices. Having exhausted our moral power of persuasion, this case is being brought to the attention of the Chairman, BOG, IIT Kanpur, Minister, MHRD and is also being put on our Web page (www.scientificvalues.org). We hope the institutions concerned will deem it important to have researchers imbibe ethics and values in the pursuit of science and technology .