

Science and the shaping of modern Indian Mind.

① Introduction:

This remarkable City.

Thank the organizers - for the opportunity to come back to Bombay - and spend a few days in University Campus.

(Free University) Movement  
Father Henry  
Prasanna Prasad  
Vijay Prasad

Scientist  
Kalamaharan  
Philosophers

My subject: Many difficulty: Subject for historians, Sociologists and Political Scientist. (Perhaps - Economists)

Where does modern Indian mind begin? Who are its maker? What part has science played in it?

Ancient, medieval and modern coexist and are inextensibly mixed. (previous + coming speaking)

Some 60 yrs in this extraordinary city - Working in TIFR. Very tower - Extreme end of the City - interaction with Bombay University and its colleges - Also with other Universities (including Calcutta & Madras) - Some off the cuff remarks (from the vantage point of an ivory tower)

Thank Dr. Hiran Dasal for letting me do that. (Limit modern India - 1947 to Now)  
Limit myself "Science and higher education"

## ② Large expansion

Universities 25 - 300

Research In same order

Private College. (Specially) Metropolitan cities + Urban area.

This is continuing and will continue whether one likes it or not. - Recommendation to increase universities to 1500

Students going abroad for higher education - U.K.; USA, Australia. (Singapore + Japan)  
Not necessarily brain drain - "Easy to go out".  
More difficult to get into a good institution in India."

I do not consider this a problem. We have a much larger "reservoir". We have to cast our net wider.

## ③ Science Vs Technology

	Official Jargon Science and Technology
Successes in Technology Abroad	My own field - Biology, Biotechnology and genetic engineering - Physics / Engineering.
in Science	
Not Bad (In Biology)	This is not bad in itself - Reflects societal need.

From my point of view it does raise  
problems - Parent perception of what is worth  
doing?

In other countries - the Govts and cabinets  
of industry want to orient science towards  
utilitarian ends - But scientists have learnt  
to deal with this (Mrs Thatcher ; Nixon ;  
Mr. Bush) -

How should he deal with the problem

↳ there shortage of Talent ?

↳ there shortage of Funds - Equipment ?

I don't think so -

Our inability to manage a fast expanding  
and large system - There is a certain loss  
of leadership -

Size of  
the  
university

(4) Expansion accompanied with some  
loss in quality - its reasons . We  
have our theories .

✓ It is perhaps inevitable ?

✓ Certainly exaggerated .

✓ Part of history .

with  
⑤ What kind of universities we need?

(My own)  
Case

Movement of  
Science out  
of university

(Point has  
been made)

- Education of large number of our youth

- Pursuit of excellence

Science moved away to research institutes.

(offered resources, time) - But institutes too declined with again. They are now becoming universities.

Unwelcome feature - Separation Science from humanities, Arts and Social Sciences.

(Purshin of disciplines)

Conclusion

Geo p  
to admit  
wome

- The problem of leadership?

- the social system?

with this?

Is it inhibited by

Is loss of quality

# Conclusion

Jawaharlal Nehru's Influence on  
our generation -  
Discovery of India  
Autobiography.

My story.

1. Science as an instrument of Pol./Public  
Social change. → (Other factors)  
Market  
(Gandhi) is
2. Scientific Temper -  
(Has Scientific temper spread?)
3. | Are we as good as we  
| say we are? (Be good introspect)  
| and be true  
| to himself.

Bacchanne { Why loss of leadership -  
in Science } Saha Khababhi  
Exception Ram { Bhatia Bhatnagar  
Raman - . . . }

o Restore science to its proper place  
in thinking =

| Independence (Individualism)  
| Boldness.

| Skepticism (Not taking yourself  
too seriously)