

# Propagating and practising ‘horizontal control’: Vikram Sarabhai, management and American social science

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**Vikram Sarabhai has long been recognized as a pioneer of ‘management education’ in India. Thus far, however, there has been little attempt to examine more deeply the nature of Sarabhai’s thought in this area. In this article, I argue that Sarabhai’s thinking on management converged around one particular set of ideas about the types of organization (and leadership) required for effective development, at the centre of which sat the concept of ‘horizontal control’. The article goes on to explore parallels between Sarabhai’s thinking on horizontal control and the forms of management education forwarded by post-war American social science.**

**Keywords:** American social science, horizontal control, management, Vikram Sarabhai.

As an industrialist, institution-builder and key player in the creation of the Indian Institute of Management Ahmedabad (IIMA), Vikram Sarabhai has long been recognized as a pioneer of ‘management’ and ‘management education’ in India during the post-independence decades. Thus far, however, there has been little attempt to examine more deeply the nature of Sarabhai’s thinking on management, still less to consider the implications of his ideas for the forms of management education he promoted. In this article, I argue that Sarabhai’s thinking on management converged around one particular set of ideas about the types of organization – and in turn the types of leadership – required for effective development, at the centre of which sat the concept of ‘horizontal control’.

The concept of horizontal control held that the key to effective organizational functioning was a rejection of hierarchical authority and its replacement by systems based on autonomy, mutuality, respect and trust. Sarabhai’s belief in the merits of horizontal management was reflected in his own institution-building pursuits, from scientific research institutes to corporate enterprises. It also became a core feature of the organizational ethos of the IIMA.

In tracing these efforts to propagate horizontal principles, this article will also suggest that Sarabhai’s think-

ing found parallels in the forms of knowledge espoused by post-war American management theory. As Sarabhai worked to build the IIMA as a temple to horizontal control, the Americanized management education that the IIMA then embraced also brought its own attempts to promote horizontality, in this case in the form of social-psychological science.

## Vikram Sarabhai and ‘horizontal control’

The concept of horizontal control had its origins in Sarabhai’s observations concerning the organization of scientific research. As a young scientist, Sarabhai would later recall, he had been greatly impressed by the organizational ethos of the Indian Atomic Energy Commission (AEC) under its first Director, Homi Bhabha. Rather than building the AEC around a formal hierarchical structure extrapolated through an ‘organizational chart’, Sarabhai explained, Babha had established a loose system of oversight in which control was ‘largely inherent and contained in professional commitments’<sup>1</sup>. The AEC’s decision making was therefore conducted ‘through discussion and the judgement of peers, with administration performing largely the role of service’<sup>2</sup>. According to Sarabhai, this emphasis on flexibility and autonomy had proved conducive not just to the performance of the organization as a whole, but also to the self-development of individual AEC researchers.

From this example, Sarabhai developed a firm conviction that effective scientific research required the creation of organizational structures that allowed practitioners freedom to innovate and self-direct, rather than structures that controlled them from above. The best research results, he argued, came when individuals or groups were given space and autonomy to pursue their own interests and needs and when management systems fostered ‘direct interaction’ between individuals ‘at the same level’, rather than elaborate vertical procedures for ‘reporting and feedback’. He called this approach ‘horizontal control’<sup>3</sup>.

The concept of horizontal control was fluid and multifaceted. At its core, however, was an eschewal of all forms of top-down, hierarchical authority. This meant a commitment to organizational structures that allowed for

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delegation, freedom and 'trust'. It also meant a commitment to decision-making based on deliberation, discussion and consensus<sup>4</sup>. Horizontal control thus called not just for certain forms of organizational structuring, but also for certain types of leadership. In horizontal control systems, Sarabhai explained:

'...a leader, if one chooses to identify one, has to be a cultivator rather than a manufacturer. He has to provide the soil and the overall climate and environment in which the seed can grow. One wants permissive individuals who do not have a compelling need to reassure themselves that they are leaders through issuing instructions to others rather they set an example through their own creativity, love of nature and identification to what one may call the 'scientific method'<sup>5</sup>.'

For Sarabhai, horizontal approaches offered more than just greater efficiency over hierarchical ones; they also offered a model of management more suited to democracy. '[I]f we are to base the growth of this country on the application of science and technology within the democratic framework', he argued, 'we shall have to increasingly rely on horizontal controls'<sup>6</sup>. As a form of organizational management suited to both development and democracy, horizontal control was the mirror-image of the logic pervading 'colonial' institutions<sup>7</sup>.

Upon his return to India from Cambridge, in 1948, Sarabhai would soon find himself presented with his own institution-building opportunities. In each case, he would use these opportunities to create institutions which, in their own way, embraced the concept of horizontal control. The first of these was the Physical Research Laboratory (PRL), established in Ahmedabad in 1947, an institution born directly out of Sarabhai's interests as a physicist. Funded jointly by the Bombay Provincial Government, the Centre for Scientific and Industrial Research and the Ahmedabad Educational Society, the PRL was established to conduct research in cosmic ray and astrophysics, building in part on Sarabhai's own doctoral research at the University of Cambridge<sup>8</sup>. In establishing the Laboratory, Sarabhai took great pains to create a system built around horizontal control. Like their AEC counterparts, PRL researchers were given considerable autonomy over their own areas of research. The most important feature of the Laboratory's administration, however, was its 'committee system' of management. Under this system, all major decisions related to scientific research and administration were taken by committees comprising of employees from different levels of the organization, with committee chairmanship shared between members by rotation. The system ensured that control over institutional decision making remained diffused amongst members, rather than concentrated within any one individual. At its root, writes Padmanabh Joshi, 'was an attempt to avoid a hierarchical control system'<sup>9</sup>.

Sarabhai's second major institution building pursuit of the 1950s, the Ahmedabad Textile Industry's Research Association (ATIRA), was a similar story. At ATIRA, an institute established to conduct 'operational, applied and fundamental research to improve understanding of men, materials and processes in industry', Sarabhai set about building an organizational structure built around three interlinking 'clusters' of control<sup>10</sup>. The first comprised the Association's Board members, including Sarabhai himself. The second consisted of ATIRA's researchers. The third cluster comprised the targets and ultimately the beneficiaries of ATIRA's scientific research: the city's textile mills. Decision making concerning research priorities, methods and processes was taken across these three clusters with participative and discussion-based decision making being encouraged at all levels. ATIRA's researchers, meanwhile, enjoyed 'freedom of work and trust' and a license to plan, budget and implement tasks with autonomy<sup>11</sup>. At ATIRA, noted one contemporary, Sarabhai viewed his role, in relation to researchers as being 'to nourish their developing capacities, to permit them to move in directions that made sense to each'<sup>12</sup>.

According to Sarabhai, principles of horizontal control were of particular relevance to 'scientific organizations' like the AEC, the PRL and ATIRA. This was because 'scientists', together with other select 'professional groups', possessed a particular set of motives and values, at the centre of which sat 'the need for autonomy of working conditions and opportunities'<sup>13</sup>. During the 1950s, however, Sarabhai would also seek to propagate the concept of horizontal control within a broader range of organizations, most notably within the corporate sphere.

Here, Sarabhai made use of his privileged position within the industrial community of Ahmedabad. By the mid-1950s, in addition to his scientific pursuits, he had also taken up positions in a number of enterprises within the Sarabhai group, including Sarabhai Chemicals, Sarabhai Glass, Sarabhai Engineering Group, Swastik Oil Mills, and Standard Pharmaceuticals Limited<sup>14</sup>. Sarabhai used these positions to promote a norm of corporate leadership that, once again, eschewed notions of vertical control. 'Vikram's approach', recalled one former Swastik Oil Mills employee:

'...was democratic. He believed in the delegation of powers and group discussions to arrive at sound management decisions. The working of the company was discussed in detail at monthly meetings. Each person whatever his position was encouraged to express his thought freely and to criticise constructively without any inhibition...He believed in the delegation of duties. At staff meetings, even when he was present, he would insist that the Chief Executive should take the chair and he would sit as an ordinary member even though he was the Chairman of the Company'<sup>15</sup>.

### Propagating horizontality at the IIMA

During the early 1960s, Sarabhai played a key role in the establishment of IIMA. Together with its sister institution, the Indian Institute of Management Calcutta (IIMC), the IIMA responded to a widely felt need among policy-makers, planners and industrialists for new 'all-India' institutes of professionalized management education. Following a Government of India decision to establish IIMs, Sarabhai quickly embarked on a campaign to convince Nehruvian policymakers that Ahmedabad represented a suitable site for a new Institute. Mobilizing his contacts within the Government of India, including M. S. Thacker, Secretary in the Ministry of Scientific Research and Cultural Affairs, Sarabhai also successfully persuaded key figures in the provincial Government of Gujarat and the Ahmedabad industrial community to support the proposal for an Ahmedabad Institute. In 1962, following the decision to establish the IIMA, Sarabhai was appointed Honorary Director, thereby giving him a direct role in the planning of the Institute<sup>16</sup>.

Much like Sarabhai's earlier institution-building pursuits, the IIMA was an institution built to reify the principles of horizontal control. This began at the top, in the relationship between the IIMA and the Government. The IIMA was founded as a 'semi-autonomous' Institute under the auspices of a triumvirate comprising the Government of India, the Government of Gujarat and Ahmedabad industrialists. Unlike other similar institutions, however, which in practice found themselves subject to a significant degree of top-down interference in internal affairs, Sarabhai insisted on the preservation of the IIMA's genuine autonomy and self-determination. Together with other IIMA leaders, including the influential millowner Kasturbhai Lalbhai, he successfully convinced the participating government departments to limit their representation on the IIMA Board, thereby giving the IIMA's own leadership more control over policies and decision making<sup>17</sup>.

An aversion to vertical authority was also instilled in the day-to-day organizational structure of the IIMA. When it came to the teaching and research undertaken by the Institute, tasks and activities were accomplished through 'management by committees'. The committees, recalled one IIMA publication:

'...consisted of not those who held academic positions or had senior rank but of faculty members who were responsible for performing a group of activities to fulfil a need. These committees implemented policy decisions with the advice and approval of the total faculty and the Director. In such a system of management, the initiative and responsibility for accomplishing tasks was spread widely among the faculty and other task groups. Thus the need for a hierarchical structure for academic decision making was avoided<sup>18</sup>.'

The philosophy of horizontal control pervaded Sarabhai's choice for IIMA leadership too. In seeking out a permanent Director for the Institute, Sarabhai took great care to identify an individual who possessed the unique characteristics he deemed necessary for effective leadership. 'Sarabhai', T. T. Ram Mohan argues, 'judged that it was better to have somebody with the qualities of a good manager and a value system that fitted in with IIMA's own, than somebody with great credentials'<sup>19</sup>. Bypassing a number of senior figures, the man Sarabhai nominated for the job was the then largely unknown figure of Ravi J. Matthai. An English literature graduate with only ten years industrial experience (plus one year at the IIMC), Matthai was not only inexperienced; at 38, he was also extremely young to assume such an esteemed position. For Sarabhai, however, what mattered was Matthai's commitment to leadership based on 'freedom', 'autonomy' and 'trust' and his faith in non-hierarchical institutional structures<sup>20</sup>. Following his appointment in 1965, Matthai went onto 'strengthen the foundations laid by Sarabhai': 'Not only did he give freedom to the faculty, he also gave it autonomy...[he] ensured that the academic management was insulated against ingress and interference from the [Board]'<sup>21</sup>.

Even the IIMA's physical architecture was intended to provide, among other things, an expression of the virtues of non-hierarchical authority. Designed by the American architect, Louis Kahn, with close input from Sarabhai, Matthai and Lalbhai, the IIMA campus buildings prioritized the creation of spaces that facilitated the 'open and easy interaction between teachers and learners, between teachers and teachers, and between learners and learners'<sup>22</sup>. Open arches, rather than restrictive doorways, demarcated the space between students and faculty, thereby encouraging individuals to move freely between them. Classrooms, meanwhile, took the form of 'amphitheatres with large wells and wide aisles' in which the professor could roam and ruminate, reinforcing the idea that their job was to integrate with students and be one among them, not to direct and dispense wisdom from the 'safety of the lectern'<sup>23</sup>. Physically as well as administratively, the IIMA was built to model a form of human relations that was, at its core, horizontal in nature.

#### *Creating horizontal leaders: American social science, group dynamics, and management education*

As much as a pioneering management education institute geared towards the provision of technical training in areas such as accountancy, procurement and sales, then, the IIMA was also an institution built to reify the principles of horizontal control. Moreover, as Sarabhai and other IIMA leaders looked to build organizational ethos centred around the rejection of hierarchical authority, the

management courses that their new institute now promoted were also opening the door to new forms of knowledge and practice which, in their own way, emphasized the merits of non-hierarchical authority.

The most important element of this field was an ostensibly bland sounding set of practices known as ‘T-group training’. Known also as ‘sensitivity training’, T-groups comprised experimental group ‘laboratories’ designed to help individuals explore the effects of different forms of leadership behaviour on themselves and others. In the experimental environment of the T-group, proponents argued, participants would learn through experience, the merits of leadership-based ‘participative’, ‘sensitive’, and ‘democratic’ principles. During the 1960s, T-group training became a key feature of the management courses provided to both graduates and existing corporate leaders at the IIMA<sup>24</sup>.

The T-group traced its origins to a series of experiments conducted by psychologists at the University of Iowa during the late 1930s. Led by the German-Jewish émigré Kurt Lewin, the Iowa experiments set out to observe the impact of three different forms of leadership – ‘autocratic’, ‘laissez-faire’ and ‘democratic’ – on groups of young children. Comparing the results, the psychologists had argued that ‘democratic’ leadership, wherein leaders encouraged discussion, consensus-building and participated as ‘a regular group member in spirit’, had produced multifaceted benefits when compared to other leadership styles. In democratic groups, children had cooperated constructively towards the group goal, and demonstrated a capacity to ‘give and take... objective criticism without personal involvement’. They also proved consistently more productive when it came to completing tasks<sup>25</sup>.



**Planning the IIMA:** Those pictured include Kasturbhai Lalbhai (third from left), Prakash Tandon (fourth from right), Vikram Sarabhai (third from right) and Kamla Chowdhry (second from right). (Source: IIMA: India’s Management Athenaeum (1961–2011), Indian Institute of Management, 2010.)

From this experiment, Lewin and his colleagues had drawn a firm conviction that meaningful and effective democracy hinged on the proliferation of the democratic leader-group relations witnessed at Iowa. In the years that followed, they had worked tirelessly to promote this model of ‘democratic group relations’ within American society. The ‘Basic Skills Training Group’ – soon shortened to T-group – was one outcome of this. At its centre sat one basic concept. By putting individuals within informal group situations and encouraging free and open ‘feedback’ on the functioning of the group itself, the psychologists argued that participants would learn through experience the merits of ‘democratic group relations’<sup>26</sup>.

The T-group had soon found an institutional home in the form of the National Training Laboratories, a training institute established in Bethel, Maine. By the mid-1950s, the T-group had found footing within one place more than any other: the corporate sphere. The key here was a wave of interest, shared by American social scientists and corporate leaders alike, in the merits of participative, democratic management styles for both workplace relations and workforce productivity. From its origins as a tool for promoting democratic citizenship, by the mid-1950s the T-group had morphed into a core feature of the management training programmes offered by many American business schools<sup>27</sup>.

The inclusion of T-groups within the curriculum of the IIMA spoke of the transnational connections surrounding the Institute’s formation. Like its counterpart in Calcutta, the IIMA drew liberally on the support of American consultants and advisors during its early years. In the case of the IIMA, Institute leaders, including Sarabhai, embraced a five-year collaborative partnership with the faculty of the Harvard Business School (HBS), funded and facilitated by the Ford Foundation. Arriving in Ahmedabad from 1962 onwards, HBS personnel would promote an



**Vikram Sarabhai and Kamla Chowdhry:** (Source: Merriam, D., Marshall, K. and Chen, L. (eds), *In Service to Humanity: Kamla Chowdhry: A Loving Tribute to Her Life and Spirit*, Ruder Finn, New York, 2008.)

approach to management education centred around the prevailing practices of the American business school – one aspect of which would be T-group training<sup>28</sup>.

At the same time, however, there were also clear correlations between the T-group concept and Sarabhai's own ideas about horizontal control. Like Sarabhai's calls for management based on non-hierarchical principles, the T-group promised to produce individuals marked by new, non-authoritarian attitudes and behaviours. This 'systematic' form of behavioural training, explained one IIMA trainer, would assist with the 'development of those horizontal relationships that are necessary for modern technology and administration'<sup>29</sup>.

The alignments between Sarabhai, horizontal control and the experimental format of the T-group found concrete expression in the form of one individual: Kamla Chowdhry. A social psychologist by training, Chowdhry had studied for a Ph D at the University of Michigan during the late 1940s, at that time an emerging centre of Lewinian group dynamics research. In 1949, following her return to India, she had taken up a position as head of Psychological Research at ATIRA, therein leading studies on a wide range of topics concerning workforce productivity and industrial labour relations. At ATIRA, Chowdhry embraced wholesale. Sarabhai's thinking on horizontality<sup>30</sup>. In doing so, she also sought to connect these ideas to the latest 'human relations' concepts. At the centre of these efforts sat the enterprise of T-group training.

During the 1950s, in her capacity as an ATIRA researcher, Chowdhry led numerous T-group laboratories for the managers of Ahmedabad's textile mills. Here, she collaborated with social scientists from the London-based Tavistock Institute for Human Relations, a UK partner of the American NTL. From 1962 onwards, Chowdhry assumed the new position of 'Director of IIMA programmes', thereby giving her the key role in the development of the IIMA's curriculum. At the IIMA, Chowdhry would further advocate the use of T-group training as a technique for promoting new leadership behaviours. The 'use of sensitivity training as a method of teaching human relations', she reported to HBS colleagues, had made her and other IIMA staff 'very excited about the possibilities'<sup>31</sup>.

## Conclusion

For Vikram Sarabhai, the success or failure of post-colonial nation-building and 'development' hinged on the effective 'management' of institutions. In examining Sarabhai's thought on management more deeply, this article has drawn attention to one organizing principle running through it: the concept of 'horizontal control'. As an ardent advocate of the need for horizontal forms of management, I have suggested, Sarabhai used both his

own institution-building pursuits and his own leadership behaviour in an attempt to elucidate the merits of a horizontal approach.

The concept of horizontal control was one that responded to the particular challenges and opportunities faced by India in the immediate post-independence decades – from development to democratization. At the same time, however, it also found compelling parallels in the forms of thinking espoused by post-war American management education. At the IIMA, Sarabhai's thinking on horizontality dovetailed neatly with prevailing American approaches to 'democratizing' corporate leadership, foremost among which was the enterprise of T-group training. As these two agenda came into contact, American behavioural techniques like the T-group became key mechanisms through which Sarabhai and other IIMA leaders sought to propagate ideas about horizontal control.

1. Sarabhai, V. A., Science and National Goals. In *Science Policy and National Development* (ed. Kamla Chowdhry), Macmillan and Co, New Delhi, 1974, p. 5; Sarabhai, V. A., Organisation for Developmental Tasks: Atomic Energy Commission of India. In *Management for Development, Vikram Sarabhai, A Collection of Papers* (ed. Kamla Chowdhry), Vikas Publishing, Delhi, 1975, pp. 1–31; Bhabha, for his part, had modelled the AEC's approach from the Kaiser Wilhelm Society (later renamed the Max Plank Institute), a scientific research institute in Berlin, citing that organization's motto that 'the Kaiser Wilhelm Society shall not first built an institute for research and then seek out a suitable man, but shall first pick up an outstanding man and then build an institute for him'. Sreekantan, B. V., Singh, V. and Udgaonkar, B. M. (eds), *Homi Jehangir Bhabha: Collected Scientific Papers*, Tata Institute of Fundamental Research, 1985, p. 57.
2. *Ibid.*, p. 5.
3. Sarabhai, V. A., *Science and National Goals*, pp. 4–5.
4. For discussions on the concept of horizontal control see Sarabhai, V. A., Approaches to the administration of scientific organisations; and Sarabhai, V. A., Development through pace setting: horizontal and vertical control systems. In *Science Policy and National Development*.
5. Cited in Parikh, K., The 'Permissive' Leader. In *Vikram Sarabhai: The Man and the Vision* (ed. Joshi, P. K.), Mapin Publishing, Ahmedabad, 1992, p. 109.
6. Sarabhai, Development through pace setting: horizontal and vertical control systems, p. 41.
7. For Sarabhai, the overarching logic of most colonial institutions had been verticality, not horizontality. In large part this was because the focus of those institutions had been 'preservation' and 'control', rather than innovation, creativity and progress. See Sarabhai, *Preservation and Innovation: The Tasks of Government*, pp. 32–38.
8. In establishing the PRL, notes Robert S. Anderson, Sarabhai was building 'the home of his professional life as a physicist'. Anderson, R. S., *Nucleus and Nation: Scientists, International Networks, and Power in India*, University of Chicago Press, Chicago, 2010, p. 283.
9. Joshi, P. K., Dr. Vikram Sarabhai: A Study of Innovative Leadership and Institution Building, Unpublished Ph D dissertation, University of Gujarat, 1985, p. 136.
10. 'ATIRA – The Ahmedabad Textile Industry's Research Association, pamphlet issued on the occasion of the foundation stone laying ceremony of the ATIRA laboratories by the Hon'ble Sardar

- Vallbbhbai Patel, 1 November 1950', File Number 4(8).46, Vol. IV, Records of the Ministry of Education, Government of India, National Archives of India. See also Sarabhai, V. A., Ahmedabad textile industry's research association. *Nature*, 1954, **174**, 578–580.
11. Joshi, P. K., Dr. Vikram Sarabhai: A Study of Innovative Leadership and Institution Building, Unpublished Ph D dissertation, University of Gujarat, 1985, p. 116.
  12. The researcher in question was Kamla Chowdhry, about which more will be said in the third section of this article. Chowdhry, K., Institution building and social change: The Ahmedabad Textile Industry's Research Association. *Indian J. Public Admin.*, 1968, **XIV**(4), 956.
  13. Sarabhai, V. A., Approaches to the Administration of Scientific Organisations, p. 23.
  14. Nadkarni, N. R., Dr. Sarabhai – the Industrialist. *Electronics Today*, 1972, pp. 95–98.
  15. Badami, J. S., Dr. Vikram Sarabhai: My Student, Employer and Friend. *Electronics Today*, 1972, p. 48.
  16. On the founding of the IIMA and Sarabhai's leading role see Anubhai, P., *The IIMA Story: The DNA of an Institution*, Random House, New Delhi, 2011; Ram Mohan, T. T., *Brick by Red Brick: Ravi Matthai and the Making of IIM Ahmedabad*, Rupa and Co, Kolkata, 2011.
  17. Paul, S., Building on a solid foundation. In *Institution Building: The IIMA Experience – Vol. I: The Early Years* (eds Matthai, R. J. et al.), Indian Institute of Management Ahmedabad, Ahmedabad, 1993, p. 93. As one former faculty member has noted, the ability of the IIMA to secure such concessions from the government owed no small debt to the esteem and influence of its leading figures, including Sarabhai. Bhattacharya, S. K., The early years of institutional development. In *Institution Building: The IIMA Experience* (eds Matthai, R. J. et al.), p. 17.
  18. *IIMA: The First Decade, 1962–1972*, Indian Institute of Management, Ahmedabad, 1973, pp. 19–20.
  19. Mohan, *Brick by Red Brick*, p. 76.
  20. *Ibid.*, pp. 65–80.
  21. *Ibid.*, p. 117.
  22. *IIMA: India's Management Athenaeum (1961–2011)*, Indian Institute of Management Ahmedabad, Ahmedabad, 2010, p. 32.
  23. *Ibid.*, p. 69.
  24. T-group training formed the core feature of a branch of the IIMA's early management education referred to as 'Organisational Behaviour'.
  25. For more on the original Iowa experiments see White, R. K. and Lippitt, R., *Autocracy and Democracy: An Experimental Inquiry*, Harper, New York, 1976; Lewin, K., Lippitt, R. and White, R. K., Patterns of aggressive behaviour in experimentally created social climates. *J. Social Psychol.*, 1939, **10**(2), 269–299; Lippitt, R. and White, R. K., An experimental study of authoritarian and group atmospheres. In *Studies in Topological and Vector Psychology*, University of Iowa Studies in Child Welfare, 1940, vol. 16, no. 3, pp. 45–193; Lewin, K. et al., Patterns of aggressive behavior in experimentally created social climates, pp. 269–299.
  26. For a historical account of the emergence of the T-group see Alden, J. F., Bottom-up management: participative philosophy and humanistic psychology in American organizational culture, 1930–1970, unpublished Ph D Dissertation, Columbia University, 2012, chapters 1, 4 and 7.
  27. On this transition see *Ibid.*, ch. 7.
  28. As the T-group concept found a foothold amongst the horizontalist leadership of the IIMA, it also took root elsewhere. In Calcutta, for instance, leaders at the IIMC would also espouse the virtues of T-group training. Here, in fact, social scientists would go one step further, creating a new exportable model of T-group training geared not just towards individuals attending management training courses, but for organisations as well. On the enterprise of T-group training at the IIMC see Sinha, D. P., *T-Group Team Building and Organisational Development*, Indian Society of Applied Behavioural Science, New Delhi, 1986; Sinha, D. P., *Learning from Life*, Excel Books, New Delhi, 2007, pp. 107–116.
  29. The trainer was Rolf P. Lynton, a prominent exponent of T-group training in India. Based at the Small Industries Extension Training Institute in Hyderabad, Lynton would also lead T-groups at IIMA during the early years. Lynton, R. P., Laboratory training for organizational development, Report 009233, Catalogued Reports 6262-9268 (FA739C) Box 383, Ford Foundation Archives, Tarrytown, NY, p. 2.
  30. For examples of this thinking see Chowdhry, K., Institution building: Two approaches in contrast. In *Institution-building in Education and Research* (eds Matthai, R., Pareek, U. and Rao, T. V.), All India Management Association, New Delhi, 1977, pp. 12–18; Chowdhry, K., Organization and administration of scientific institutions: A case study of Atira. *Manage. Int. Rev.*, 1969, **9**(6), 97–104; Chowdhry, K., Organizational innovation in universities: Relevance of industrial Experience. *Econ. Polit. Wkly*, IV, 35, M97–M100; Chowdhry, K., Developing administrators for tomorrow. *Indian J. Public Admin.*, 1969, **15**(2), 221–227.
  31. Kamla Chowdhry to Harry Hansen, 7 October 1964, File: Chowdhry, Dr Kamla, 1964-5, Box 2, Indian Institute of Management Records, Special Collections, Baker Library, Harvard Business School, Cambridge, MA.

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