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Japan and the Crisis in Cotton Mills in Interwar Bombay:  
The Role of Labor Institutions

Tirthankar Roy  
Gokhale Institute of Politics and Economics  
Pune 411004, India  
tirthankar\_roy@yahoo.co.in

Abstract

India and Japan were leading centers of cotton textile mill industry in the interwar world, competing successfully with the North American and British industries thanks to a significant wage advantage. Between them, a competition had developed, and mills in Bombay found it hard to withstand the competition until protective tariffs came to their rescue. Why was there a competition, and why did Bombay retreat? This question has inspired scholarship on comparative industrialization, and has relevance to discussions on 'divergence'. Several contemporaries and historians attributed the outcome to relative effort levels, or industriousness, in turn attributed to cultural or political contexts. In this paper, I discuss these views, and suggest that an economic history explanation of industriousness is possible. Efficiency in the mills in Bombay depended on modes of labor organization that tolerated, even depended on, workers hiring other workers. This system had created incentives for high labor turnover and under-training. Competition from Japanese textiles exposed the problem.

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## Japan and the Crisis in Cotton Mills in Interwar Bombay: The Role of Labor Institutions

### I

From 1890 to 1927, the cotton textile mills of Bombay faced increasing competition at home and abroad from first Japanese and then Chinese textile mills. Although some efficiency improvements occurred in Bombay in response to the competition, these were not enough. The two World Wars, and finally protective tariffs, provided partial relief. This episode in the history of world textiles has inspired important contributions in the economic history of comparative industrialization. There have been attempts to read lessons on divergence from this episode. Both Japan and India were labor surplus societies with low and comparable wages. Outcomes of competition between them could not have been driven by shifts in comparative advantage and changes in relative factor costs. The outcome must have been dictated by how well labor itself was utilized. In other words, in this episode, we may have the beginning of a divergence the source of which was efficient organization of resources rather than their costs.

One strand in the recent scholarship on this divergence analyzes managerial decisions regarding choice of technology.<sup>1</sup> Another emphasizes efficiency of labor, but leaves societal differences in effort level unexplained and implicitly a cultural factor.<sup>2</sup> Taking the efficiency argument further, Wolcott attributes the divergent experience to union resistance to productivity improvements in India.<sup>3</sup> However, even before the so-called standardization and rationalization efforts started in Bombay, indices of effort level were already relatively low. The rationalization move can be seen as a response to the problem, and not the cause. Gupta argues that the managers failed to see the existence of a virtuous circle between wage and efficiency, due to a peculiar division of managerial responsibility on the shop-floor.<sup>4</sup> The

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<sup>1</sup> K. Otsuka, G.Ranis and G.Saxonhouse, *Comparative Technology-Choice in Development: The Indian and Japanese Cotton Textile Industries*, London, 1988; Y. Kiyokawa, 'Technical Adaptations and Managerial Resources in India: A Study of the Experience of the Cotton Textile Industry from a Comparative Viewpoint', *Developing Economies*, 21(2), 1983.

<sup>2</sup> 'Why Isn't the Whole World Developed? Lessons from the Cotton Mills', *Journal of Economic History*, 47, 1987, pp. 141-73. Clark and R.C. Feenstra, 'Technology in the Great Divergence', in M. Bordo, A.M. Taylor, J.G. Williamson, eds., *Globalization in Historical Perspective*, The University of Chicago Press, Chicago and London, 2001.

<sup>3</sup> Susan Wolcott, 'Perils of Lifetime Employment Systems: Productivity Advance in the Indian and Japanese Textile Industries, 1920-1938', *Journal of Economic History*, 54 (2), 1994.

<sup>4</sup> Bishnupriya Gupta, 'Work and Efficiency in Cotton Mills: Did the Indian Entrepreneur Fail?', University of Warwick, 2003

efficiency wage thesis has antecedents, as we shall see. Wage-hikes were, however, rendered difficult by the competitive situation itself.

My point of departure in this paper is not any specific disputation with the current scholarship. It is rather the desire to revive and reinterpret a contemporary debate on the same question. The significance of the debate is that it recognized that the problem was not created by specific circumstances, but rather was a structural one. It had been rooted in the industry since well before the interwar period, and was exposed by competition from Japan. This literature not only deserves attention in its own right, but also contains, as I argue in this paper, a suggestion on the source of difference in labor efficiency. Indeed, the debate that had grown in response to the competition was an animated one. Major contributors to this debate discussed management failure, extent of discipline, and inadequate wage incentive, points that reappear in economic history discourse 70 years later. I discuss these views and restate some of the criticisms to which these views were subjected. I then take up one particular hypothesis, which held labor institutions responsible for the difference.

The thesis proposed in this paper is a simple one. Most modern enterprises in India relied on the labor contractor for hiring. The mills in Bombay relied on the 'jobber'. Mills in Calcutta relied on the *sardar*. These figures began as outsiders and ended as supervisors, but through this change, retained the power to hire and fire a few people working under them. I argue that the power of the jobber, or more generally the practice of workers having the authority to hire and fire other workers, gave rise to moral hazard problems. In effect, it led mills in Bombay to hire more hands than necessary and hire poorly trained workers even when better quality of people were available. The mill-owners were indifferent to the problem until competition began to bite. With a few exceptions, mill-owners understood the share market and commodity market better than they did the labor market. The managers had a better sense of the problem. Both found the convention hard to break.

The rest of the paper has four sections. The first states the background to the debate. The next two sections deal with two mainstream and politically prevalent views on the efficiency question. The third elaborates on the mode of labor organization thesis. The last section concludes.

## II

In the first half of the 1920s, the cotton textile mills in Bombay experienced an unprecedented fall in profitability, after enjoying a decade-long boom. Average rate of dividend paid out by Bombay mills between 1917 and 1921 was 65 per cent, in 1922 58 per cent, and in the three years 1923-5, an unheard of 19 per cent.<sup>5</sup> In Ahmedabad, average dividend in 1917-22 was 49 per cent, and in 1923-5, 35 per cent.

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<sup>5</sup> Based on data published by *The Investor's India Year Book*.

These rates were directly proportional to rates of profit. In Sholapur, Indore, Madras, Central Provinces, Bangalore and Bengal likewise, profits and distributed profits fell, if by smaller magnitude than in Bombay. Almost all large mills in Bombay skipped paying anything at all to the shareholders in 1925 and 1926. Cotton mill shares in Bombay had increased in value fourfold between 1914 and 1922. In the next four years, the average value halved, a much sharper fall than that in industrial securities in general.

What worried the mill-owners the most about the crisis was that it derived only partly from world business conditions; and largely from a structural factor, the threat of Japanese – and Chinese - competition in certain grades of cloth in which Bombay found it impossible to match East Asian prices. A significant burst of import-substitution during the war had by then ended. And competition was beginning to increase, both inside India and in those overseas markets (especially Africa and West Asia) where Indian textiles had enjoyed a good run for the preceding twenty years. In 1913, Indian mills produced 1163 million yards of cotton cloth and 683 million lbs of cotton yarn. The figures for imports were, 3200 million yards and 44 million lbs respectively. Ten years later, Indian mills produced 1700 million yards of cloth and 609 million lbs of yarn. Import quantities were 1500 million yards of cloth and 45 million lbs of yarn. This was import-substitution on an impressive scale. However, thereafter, production stagnated, in Bombay Island the stagnation was particularly acute (Table 1). What is more, the composition of imports changed, in a manner that left both Bombay and Lancashire worried. In these 10 years, the share of Japan in cotton yarn import had increased from 2 to 46 per cent (in weight). And the share of Japan in cotton cloth import increased from 0.3 to 8.3 per cent.

In 1926, the Bombay Millowners Association made a representation before the Indian Tariff Board stating that competition from Japanese yarn and cloth was the principal factor responsible for the crisis. The mill-owners further argued that the competition from Japan was an unfair one, deriving from manipulation of exchange and poor labor standards in Japan. On this ground, tariff protection was demanded, and was eventually granted. The case made strategic sense, since Japan was directly responsible for a fall in the share of Lancashire in the Indian market. Lancashire was less opposed to tariffs for the first time in Indian fiscal history. What is more, there was an implicit agreement between the workers and the capitalists in Bombay on the nature of the threat from Japan. Both believed the competition from Japan was an unfair one; only the trade unions went beyond protection and demanded some degree of control of the mill management as well.

Poor labor standards or not, many believed that neither exchange rates nor wage rates played a critical role behind Bombay's problems. Exchange was a controversial issue (more on this below). By the mid-1920s, the average Japanese

weaver earned a wage about 10-15 per cent *higher* than that of the average Bombay weaver. And yet, whereas direct wage costs were about 25 per cent of the cost of production of 14s yarn in Japan, in Bombay the percentage was more than double that. The real difference was somewhere else, and it was a persistent one. In 1931, one weaver handled six looms in Japan, an average Bombay weaver handled two looms (see Table 2 for more details on performance indicators). At 1940, 450,000 workers in cotton textile mills in India processed 3.5 million bales of cotton. In Japan, 190,000 workers processed the same quantity of cotton in that year.<sup>6</sup> If labor standards explained anything, it had to explain this difference in performance indices.

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<sup>6</sup> For a discussion on the comparative data, see S.K. Batliwala, 'Problems of the Indian Mill Industry', *The Indian Textile Journal: 1890-1940 Jubilee Souvenir*, Bombay, 1940, pp. 26-9.

Table 1. Production of Yarn (million lbs) and Cloth (million yards) in Bombay, India, and Japan 1907-1925

	Bombay Island		India		Japan	
	Cloth	Yarn	Cloth	Yarn	Cloth	Yarn (thousand bales)
1907	472	353	808	638	135	983
1917	933	357	1614	661	595	1924
1925	871	262	1954	686	1031	2073

Table 2. Comparative capital-labour ratios, 1931

	Japan	China	Bombay
Looms/weaver	6	4	2
Wage per day (Rs.)	2.25	1	2
Labour cost per loom (India = 100)	37.5	25.0	100.0
Spindles/Ringsider	600	380	181
Wage per day (Rs.)	1.90	0.90	1
Labour cost per spindle (India = 100)	57.3	43.0	100.0

Source: Evidence by H.P. Mody, Manmohandas Ramji, S.D. Saklatvala, T. Maloney, of Bombay Mill-owners Association, before the Royal Commission on Labour in India, I(2), Bombay Presidency, Oral Evidence, 1931, p. 303. Derived from figures submitted by T. Sasakura to the Joint Strike Committee. These reflect approximate shop-floor practices. The source for these estimates believed individual efficiency levels varied as well, which variation, if any, is ignored here.

Given these differences, the idea that the competition from Japan was an unfair one was by no means generally accepted. Individuals with some knowledge of how production took place inside Bombay cotton mills usually rejected the view that labor standards were the fundamental cause of this discrepancy in performance. There was a strong current of opinion, among mill managers, economists, governments of major provinces that did not contain spinning-weaving mills, and of course, Japanese Chambers of Commerce and trade delegations themselves, that the real problem for Bombay was inefficient labor organization. Until 1920, the defect had been hidden by low wages compared to mills in North America and Britain. But Japan and China were also emerging low-wage textile producers, only more efficient, and beginning to give Bombay a difficult time in the 1920s.

What puzzled observers the more was that, whereas the average working life of a worker in Japan was three to five years, in Bombay it was twenty years. Why would a far more mature work-force be so far behind in basic performance indicators? Would a repressive labor regime explain all the difference? Were Bombay workers intrinsically inefficient, in the manner hinted at by Gregory Clark in an influential recent scholarship?<sup>7</sup> Contemporaries disagreed. Mill-owners did not fail to acknowledge 'the shrewdness and capability' of the ordinary worker, 'however illiterate he may be'.<sup>8</sup> What, then, accounted for the difference in basic indicators of efficiency?

An animated debate developed in the interwar period on efficiency or inefficiency of labor inside Indian mills. Positions in this debate, as indeed in many other contemporary debates, cannot be neatly slotted into 'imperialist' and 'nationalist' political boxes, the usual constructs historians employ to understand the interwar political economy. Rather, the positions cut across political sympathies. The pro-empire Lancashire was not against keeping Japan out from India. Indian mill managers believed the problem was a local one and not a matter of imperial policy.

### III

The mill-owners' representation made three points. First, the depreciation of the Yen since 1921 was the main reason behind a fall in the cost of Japanese textiles in India. Second, there was a difference in the levels of the costs, which owed to double shift and night employment of female and child [*Sic.*] workers in the mills in Japan, in partial violation of the Washington International Labour Conference, 1919. India ratified this convention, Japan did not, and that fact figured in the representation as 'the strongest complaint which the millowners of this country have to make against

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<sup>7</sup> See fn 2 above.

<sup>8</sup> Evidence by R. Blackwell, J. Parker, J.B. Green, Bombay European Textile Association, before the Royal Commission on Labour in India, I(2), Bombay Presidency, Oral Evidence, 1931, p. 333.

Japan'.<sup>9</sup> Third, the government helped capitalists in Japan, whereas in India the government did not. Many mill-owners repeated the third point, with slight variation in emphasis, in their evidence before the Tariff Board. But the precise nature of state aid did not emerge clearly in these discussions.<sup>10</sup> The mill-owners made the point that the China market was lost to Japan owing to low freightage for Japanese shipping whereas India needed to pay more for shipping. This was not an easily defensible ground for protection. Interest subsidy was also alleged.

Exchange was possibly overvalued in India and undervalued in Japan. At any rate, the Rupee-Yen ratio fell by almost half between the monsoon months of 1921 and winter of 1923. In the same period, Indian prices fell by 15 per cent, and Japanese prices remained the same, so that the real appreciation of the Rupee was somewhat smaller. Further, Japan produced yarn and cloth mainly using Indian cotton, which would have neutralized the exchange rate anomaly somewhat. The Yen, in any case, had begun to fall against the Rupee from early-1924, just when the crisis became acute for Bombay.

In his response submitted to the Tariff Board, the Bombay Agent of the Japan Cotton Spinners' Association made a spirited attack on the Bombay Millowners Association view that labor standards and government protection made the difference between Bombay and Osaka.<sup>11</sup> He questioned the precise calculations of exchange and average costs and rejected the numbers presented by Bombay, pointed out that Japan was also an importer from India, and spent more than two-third of his first report questioning the relevance of the labor standard issue. Notwithstanding the Washington convention, was there a universally accepted international law against night-work and double-shift? 'As a matter of fact, Bombay mills tried [double shift] and failed' because the workers did not want it. The mill-owners' 'objection to female employment at night does not appear to be based as much on humanitarian as on business considerations'. Female employment in Japan, indeed, was a necessity because of 'the pressing population problem', much like conditions in prewar Germany, 'with this difference that whereas the doors of all countries were open to

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<sup>9</sup> Bombay Millowners' Association, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of the Bombay, Ahmedabad and Baroda Millowners' Associations), Bombay, 1927, p. 31.

<sup>10</sup> For example, one 'up-country' mill-owner said, '[i]t is clear that the Japanese Government ... render every monetary help and give protection, on account of which the mills in India have had to suffer a severe blow', note by Vithal Das Rathi, mill-owner, Beawar, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), p. 27.

<sup>11</sup> *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), pp. 177-200. See also Oral Evidence of T. Sasakura, Managing Director, Toyo Podar Cotton Mills Ltd., *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. I, pp. 274-98.

the German emigrant, they are .. shut to the Japanese. ... If there is not sufficient work to go around during the day, then they must toil at night’.

A significant minority among the Bombay mills argued that there was a difference in business organization, which translated into better utilization of economies of scale both in production and in marketing in Japan. ‘In Japan we found that the biggest reason for [competitive strength] was absolute vertical specialization. ..three firms purchase cotton upcountry in India and in America... These organizations have huge mills which make only one type of cloth, one warp, one weft and one mixing’.<sup>12</sup> Such integration economies were present also in the case of the Toyo Podar mill in Bombay, the only mill under Japanese management.

Some of the provincial governments made a strong case against imposition of tariffs on Japanese textiles and English yarn in India. They believed they represented the consumer and the handloom weaver. Some of them introduced a new element, quality, in the discussion. ‘Japanese goods are preferred mainly for better finish and lower price. Japanese mills have improved their products considerably in every direction, whereas Indian mills have not made any appreciable advance. Our Indian mill owners with few honourable exceptions do not take as much personal interest in improving the quality of fabrics as they take in increased production and profits.’<sup>13</sup>

For an entirely different set of reasons, the mill-owners’ Japan thesis was under attack from the trade unions. When invited by the Spinners’ Association in Japan to see for themselves what conditions of work were like in Japan, the mill-owners declined, displaying ‘a little unwillingness to go deep into the matter’, alleged one union leader.<sup>14</sup> The trade unions claimed a different understanding of working conditions in Japan, informed partly by reports from their counterparts in Japan.

#### IV

1926 saw the first Trade Union Act take shape. From some time before this date, Bombay was the site of two major trade unions that had already coordinated a few large-scale industrial actions, and whose presence was responsible for significant wage-hikes in the early-1920s. From the beginning, the Bombay Textile Labour Union maintained that ‘Japan is getting an advantage on account of the sweating of her workers’.<sup>15</sup> The Union did not deny that Japanese workers handled more machines per worker, but attributed it to repressive labor regimes. In the next four years, the

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<sup>12</sup> Mr. Stones, *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. II, p. 850.

<sup>13</sup> Government of Assam, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), p. 25.

<sup>14</sup> N.M. Joshi, *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. I, p. 44.

<sup>15</sup> Evidence by the union, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), p. 514.

sweatshop thesis acquired more color. During the Strike Enquiry Committee proceedings at the end of the decade, the labor leader S.A. Dange stated, in conversation with the mill-owner Sir Victor Sassoon, 'The point is to what reasons is the Japanese efficiency due. The question is whether it is the voluntary efficiency of the worker, or whether he [*Sic.*] is made to do it by an outside terrorist agency.'<sup>16</sup> Dange went on to 'point out' that the Japanese worker was not in fact taking this treatment lying down, but 'he [*Sic.*] was revolting'. The other side denied that the Japanese worker was revolting, and said they 'had no news about it'.<sup>17</sup> A heated conversation between N.M. Joshi and T. Sasakura, Managing Director of Toyo Podar, highlighted 'the [poor] contentment of the workers, .. [repression of] communists, and the police laws'. Sasakura stood his ground: 'You have spoken too much about exploitation of labour. I have heard this complaint from you, and not from the Japanese women workers'.<sup>18</sup>

Sasakura stressed that the only reason 'India has got behind in the matter of going ahead' was poor effort level. His mill had introduced practices that could reduce wastage of material and labor. A part of this attempt focused on 'loitering'. What was loitering? A Managing Agent defined loitering as 'sitting down, smoking and doing nothing'.<sup>19</sup> Most Indian mills in the 1920s did not have designated periods of rest. Workers took time off when they wanted to if the supervisors allowed them to go out. This practice, together with the somewhat larger-than-average numbers present in every department, made a certain degree of idling routine. In the spinning department of the mills, many men did this, so consistently that surprise checks by managers invariably surprised the managers. 'In Japan loitering of the kind allowed here is never allowed'. The Toyo Podar tried introducing designated breaks, but had to retreat. The mill was already caught up in disturbed industrial relations, and neither made money nor succeeded remarkably in raising effort levels.

The trade unions did not believe that Japan was all the reason behind Bombay's problems. They believed that the crisis was the mill-owners' own making to a large extent. They believed that the profits of the industry were under pressure because of faults of the managing agency system, and therefore, the solution was nationalization.<sup>20</sup>

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<sup>16</sup> *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. II, p. 877.

<sup>17</sup> *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. III, p. 1242.

<sup>18</sup> *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. I, pp. 291-2.

<sup>19</sup> Evidence of J.G. Anderson, *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. II, p. 753.

<sup>20</sup> Evidence of R.R. Bakhale, M.U. Rajab, M. Isakh, A. Rahim, D.H. Patil, A. Khan, Bombay Textile Labour Union, before the Royal Commission on Labour in India, I(2), Bombay Presidency, Oral Evidence, 1931, p. 265.

A yet third problem, again created by the management, was the low wage in Bombay. During the Strike Enquiry Committee, it was stated many times that 'workers would work better if they were contented'. More explicitly, '[w]e feel that unless the worker has sufficient stamina to do his work in the factories... there is no possibility of the workers' efficiency being increased'.<sup>21</sup> But were wages too low to act as performance incentive? Comparison with 'upcountry' Indian mill and Chinese mill wages with those in Bombay consistently showed that wages were not particularly low in Bombay. At 1925, the average wage of a mill worker in Bombay was in the range Rs. 25-30 per month or Rs. 300-360 annually. An agricultural laborer earned an income that did not exceed Rs. 100 anywhere in India. A peasant in the densely populated Gangetic plains would have earned an income, given the small size of holding most possessed, only 20-25 per cent higher than that of a laborer. When such a person came to Bombay and gained entry into a job that would have been lucrative by any contemporary standard, the efficiency effect ought to be very strong. The allegation that the Bombay worker reeled under low wage and poor efficiency incentive convinced few outside the union circles.

Could the Indians learn to become equally efficient? 'Why not' – the mill-owners answered, but had no specific plan to offer. I shall argue later that even those who knew what the real problem was could not possibly offer a solution to it. The trade unions believed 'nationalization' would solve the problem. The mill-owners were amused at the idea:

'Do you mean handing over all our mills to Government? I only hope they make a better job of it than they did of the Backbay Scheme'

'.. But you do not seem to have made a very good job of it either?'

'.. If we had a national government, our position would be very different'.<sup>22</sup>

For adequate protection would then be available. The mills' so-called solution was tariff wall for which a national government was needed.

Curiously, neither the unions nor the capitalists nor the governments touched the core issue of labor efficiency head on. When pressed, the trade unions denied the issue, or raised the efficiency wage thesis. The mills had nothing at all to say. Their representation, running into hundreds of pages, spent three pages on labor, and hardly a few words on efficiency. When pressed on the point, Sir N.N. Wadia, owner of one the leading mills of Bombay, offered his reflections on why the Indian operative could not manage more looms than at present:

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<sup>21</sup> B.R. Bakhale of Bombay Textile Labour Union, *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. III, p. 958.

<sup>22</sup> Evidence by H.P. Mody, Manmohandas Ramji, S.D. Saklatvala, T. Maloney, of Bombay Mill-owners Association, before the Royal Commission on Labour in India, I(2), Bombay Presidency, Oral Evidence, 1931, p. 304.

It is a remarkable thing that I have observed that a boy of 14 is smart, intelligent and up to the mark; but the moment he gets married, say in a year, he collapses and he becomes absolutely inefficient in another 12 months.<sup>23</sup>

But those who were rather more knowledgeable about the shop-floor came to, what I believe, was the heart of the problem. Such people included technical men, a few economists, and a small group of capitalists who were trying to take closer control of the shop-floor.

## V

These observant individuals close to the production site noticed two important differences between India and Japan. First, whereas the factory was a site of instruction, both general and technical, in the latter, Bombay was notoriously indifferent to any form of instruction and training. Second, the Indian mill had made it a practice to keep surplus labor, a practice they found extremely difficult to get rid of even as competition increased.

A leading textile merchant commented in response to a question posed by a Tariff Board member, that the

Indian labour as compared with the Japanese ... in the textile industry is decidedly inefficient and inferior. .. The Indian mill-owner has not cared to educate the Indian labourer even in spheres of activities closely connected with the textile industry. He has always worked on the principle that any intellectual betterment .. of the labouring class in matters industrious would be antagonistic to his own interests as mill-owner. The result is that the Indian labourer has hardly any incentive to give of his best to his master and hardly any interest in the well-being of the industry.<sup>24</sup>

The problem was often posed in cultural terms or in terms of the quality of 'patriotism'. 'In Japan ... the owners of the mills as well as the poor labourers are kith and kin. They talk to them and go with them, take them to excursions and please them in every possible way. Here they do not. The *burra sahibs* never care for the labourers and they never sympathise with what they lose or gain.'<sup>25</sup> There is some truth in this picture. But the problem of class distance was itself not wholly a cultural one.

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<sup>23</sup> *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of the Bombay, Ahmedabad and Baroda Millowners' Associations), p. 222.

<sup>24</sup> Shriram Khushaldas, Moolji jetha Cloth Market, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. IV (Evidence of Individual Witnesses), p. 312. On difference in education levels of textile workers, G. Findlay Shirras, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. IV (Evidence of Individual Witnesses), p. 331.

<sup>25</sup> B.N. Karanjia, cotton exporter, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. IV (Evidence of Individual Witnesses), p. 240.

The person in charge of communication with the workers, and in charge of training, was not the mill-owner, nor the manager, but the 'jobber'. The jobber was a senior worker who began as a labor contractor, evolved into a supervisor or head of work-teams, and throughout, was given over significant powers to hire casual laborers and fire them as well, on a token permission from the immediate superior. Unlike the manager, the jobber was 'one of the workers', a counterpart of the master artisan. In one view, the jobber became necessary because of a class and cultural distance between the technical men and the raw laborers.<sup>26</sup> However, the jobber was only one instance of a whole class of labor agents that supplied workers to the modern large-scale enterprises since the mid-nineteenth century, suggesting that search costs and supervision costs were also important factors behind the universal need for the agent.<sup>27</sup>

The managers and owners could wash their hands off training and education precisely because the jobber was in principle in charge of these functions. 'People speak of the inefficiency of labour' in Bombay mills, a Tariff Board member pointed out to Mr. G.W. Burley, head of the largest technical training institute in India at that time. Is it possible for the mill managers 'to organize some kind of instruction for them'? No, was his answer. 'The matter is entirely in the hands of the jobber. He is a jobber because he can bring labour into the mill... They bring in people who know nothing at all about textile work, and instruction appears to be largely in the hands of the jobber.'<sup>28</sup> Many jobbers themselves were poorly trained, but even when they were in full command of the machinery, they preferred not to teach too much, for reasons we shall see. The result was, if a loom broke down, production stopped. The weaver went to the jobber, 'who will only attend to him when the jobber is free'.<sup>29</sup>

The Royal Commission hinted at a horizontal divide within the working class: the workmen and the supervisors were distinguished by possession or otherwise of literacy.<sup>30</sup> In England, the distinction did not exist, permitting workmen to graduate into supervisors. In India, literacy and unbridgeable class difference acted as a

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<sup>26</sup> M.D. Morris, 'The Recruitment of an Industrial Labor Force in India, with British and American Comparisons', *Comparative Studies in Society and History*, 2(3), 1960, pp. 305-28

<sup>27</sup> For discussions on the jobber, see M.D. Morris, *The Emergence of an Industrial Labor Force in India*, University of California Press, Berkeley and Los Angeles, 1965, pp. 129-142; D. Kooiman, *Bombay Textile Labour: Managers, Trade Unionists and Officials*, Manohar, Delhi, 1989, pp. 21-28; D. Mazumdar, 'Labour Supply in Early Industrialization: The Case of the Bombay Textile Industry', *Economic History Review*, 26(3), 1973, pp. 477-96; and R. Chandavarkar, *The Origins of Industrial Capitalism in India: Business Strategies and Working Classes in Bombay, 1900-1940*, Cambridge, 1994, pp. 195-207.

<sup>28</sup> Witness was Acting Principal of Victoria Jubilee Technical Institute, Bombay, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), p. 156.

<sup>29</sup> Ardeshir Aderjina, Weaving Master and Manager, Simplex Mills, *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. II, p. 799.

<sup>30</sup> India, *Report of the Royal Commission on Labour in India*, Calcutta, 1931, p. 31.

barrier to this progression. There were two apparent consequences of this problem. First, the supervisory positions, occupied by Europeans initially, were later 'Indianized' with people who did not rise from the ranks, but were products of polytechnics. Second, an intermediate layer of supervisors rose from the ranks to monitor workers. Training-on-the-job was a responsibility of the latter. But in this case, training became a part of the commercial and hierarchical transactions that tied these 'jobbers' with the workers. In other words, formal apprenticeship never had a chance to develop in the Indian textile industry. At the same time, the distance between the managers and the workers deepened rather than was bridged, thanks to the jobber.

In the end, it turned out that 'this is the only country where the mill-owner deliberately ignores all industrial training.'<sup>31</sup> The following exchange at the Royal Commission illustrates especially well the extreme hands-off policy with respect to training:

Q. Would you tell us about the organization of the mill with which you are concerned; have you an assistant manager?

A. I have no assistant manager; I have one spinning master, one weaving master and one engineer.

Q. Who comes under the weaving master?

A. The weaving head jobbers and the line jobbers.

Q. Has there been any attempt in your mill to train any of the weavers in the weaving shed with regard to the handling of the machinery?

A. You get a boy; when he comes to the mill he works with an old weaver and learns which way to do it.

..

Q. Is that the way they learn the trade?

A. That is the custom of the country.

Q. Is that the way to get efficiency?

A. That is the custom of the country.<sup>32</sup>

So far so good. But why wouldn't the jobber train the raw workers under him well? The reason was that there was a contradiction between the training and the recruitment functions, both vested in the jobber. The jobber, or equivalent senior workers in charge of training, was also given the power to hire and fire workers under them. In the depressed trade situation of the 1920s, and a large pool of migrant workers available at the mill gate at the same time, the jobbers could earn a comfortable commission from those thus hired. The commission was higher for less

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<sup>31</sup> 'The Textile Operative in Bombay', *Indian Textile Journal*, April 1917, 27, 195-6.

<sup>32</sup> Evidence by R. Blackwell, J. Parker, J.B. Green, Bombay European Textile Association, before the Royal Commission on Labour in India, I(2), Bombay Presidency, Oral Evidence, 1931, p. 335.

skilled workers, because they would find it harder to get a job. The return from creating a really skilled worker would accrue to the mill. The return from recruiting raw hands accrued to the jobber. There was incentive, therefore, to under-train. This was the background to the syndrome that the cloth merchant Khushaldas expressed so bluntly: 'Indian labour as compared with the Japanese ... in the textile industry is decidedly inefficient and inferior'.

Mills in Bombay always kept many more people on the rolls than were needed. The mill-owners' standard complaint was high levels of 'absenteeism'. But they did not investigate why there were high levels of absenteeism. By and large, the owners did not seem to have a close knowledge of what went on inside the mill, or to have an informed view of the subject. Morris observes correctly that the jobber had an incentive to hire larger numbers than were needed if the workers were sufficiently experienced.<sup>33</sup> The managers tolerated this practice as long as the jobber took care of training, and as long as wages were low enough to withstand foreign competition. In the end, the result was a mill shop-floor with more workers than needed and a number of poorly trained hands. Increasingly in the interwar period, these hands were selected as *badlis* from crowds gathered at the mill gate. The jobber, who usually kept a subsidiary muster of his own, did the selection. Any senior or skilled worker could also hire substitutes, and enjoyed some of the powers that the jobber did. Once the managers agreed to take in a large number of *badlis* to meet a shortfall, the jobbers said: 'They will create trouble ... go on strike ... the best men will leave the mill unless a certain proportion of the men are allowed to work, at least for half the month or something like that'.<sup>34</sup> However, who would stay and who had to leave was a decision that depended on the price of job security in the internal labor market.

Mill-owners, when criticized on efficiency, put the blame on absenteeism and high rates of labor turnover. They did agree that the casual labor component was a hurdle to creating good workers. But they believed that casual labor was a necessary evil because of absenteeism. 'Unfortunately', they wrote in their representation, '[the budli system] has to be adopted to fill up the gaps caused by wholesale absenteeism'.<sup>35</sup> This link between absenteeism and casual labor hiring, of course, left absenteeism the unexplained variable, implicitly attributed to cultural characteristics of the work-force. The subsequent interviews of the mill-owners conducted by the Tariff Board members revealed this attitude more clearly. It would be much better, of

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<sup>33</sup> This syndrome was widely discussed in late-interwar Bombay. See Bombay, *Report of the Textile Labour Inquiry Committee*, Volume II (Final Report), Bombay, 1940, p. 338. See also Morris, *Emergence of an Industrial Labor Force*, pp. 129-30.

<sup>34</sup> N.G. Hunt of Greaves Cotton, *Proceedings of the Bombay Strike Enquiry Committee*, Vol. III, Bombay, 1928, p. 1071.

<sup>35</sup> Bombay Millowners' Association, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of the Bombay, Ahmedabad and Baroda Millowners' Associations), p. 138.

course, if we could explain why absenteeism rates were so high in the first place. In my view, absenteeism was high *because of* the privilege that the jobbers enjoyed in respect of hiring of casual workers. It was a reflection of the jobber power to hire and fire. *Badli* was not the effect of absenteeism, but its cause.

Absenteeism and surplus labor followed from a microeconomic logic connected with the workers' power to hire other workers. When a senior worker wished to be absent, and sent in a substitute, it was the former who received the wages of the substitute.<sup>36</sup> Depending on the status of the substitute in the work-force, a commission was deducted before the money was paid to the actual worker on that day. Conversely, '[i]f the amount of pay that he [a senior worker] earns is sufficient he stops working .. and sends in a *badli*'.<sup>37</sup> And again: 'I have discovered this characteristic of the Indian labourer: if he can meet his monthly obligations by working 20 days, he will certainly not work 21.'<sup>38</sup>

This was a widely observed practice, and needs a convincing explanation. The one offered by the same speaker in the next line, 'he is not interested in earning more than Rs. 45 a month', does not quite amount to a convincing explanation. I believe that the propensity to remain absent can be explained by the practice of workers having the power to hire workers. Consider the case where a worker attains seniority, which would mean attaining the power to hire casual laborers, and get the expenses reimbursed by the manager. From each casual laborer the senior worker extracts a bribe. In other words, by working, a senior worker gets his own wage, and by not working, the senior worker gets a portion of the substitute's wage. This situation would simply make leisure more attractive than before. Preferences remaining the same, the worker is likely to supply lesser hours than before, and install a substitute. This state of affairs would benefit everyone, especially if the rate of pay for casual workers was lower, which was usually the case. The senior worker could in principle maintain income and yet enjoy longer leisure, the employer get additional hours at smaller rate, and the casual worker would get a job.

Not only did the jobber find it profitable to hire more than the mill needed, the jobber tried to fire senior workers more often than would be the case with centralized hiring. For, the jobber lived on commissions, and any worker who believed he had the prospect of getting a job elsewhere refused to pay the commission demanded.<sup>39</sup> A

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<sup>36</sup> Director of Information and Labour, Government of Bombay, *Report of the Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), p. 61.

<sup>37</sup> Evidence by R. Blackwell, J. Parker, J.B. Green, Bombay European Textile Association, before the Royal Commission on Labour in India, I(2), Bombay Presidency, Oral Evidence, 1931, pp. 333-4.

<sup>38</sup> J. Addyman, Bombay Woollen Mills, *Proceedings of the Bombay Strike Enquiry Committee*, Bombay, 1928, Vol. III, p. 1100.

<sup>39</sup> The most detailed description of commissions, including these practices, is available in the representation of the trade unions. See, in particular, Bombay Textile Labour Union, *Report of the*

great deal of these abuses was publicized by the Bombay Textile Labour Union. However, the Union strongly resisted any suggestion that the *badli* system harmed efficiency of labour.<sup>40</sup> They more or less brushed off the training and quality issue.

While this reasoning explains relatively low output-labor ratio, it does not explain high proportion of wage cost in total cost, which also characterized the mills in Bombay. After all, the absentees might remain in the rolls, they but did not get paid. The cost-inefficiency problem was more a reflection of the quality of labor, in turn a reflection of the incentive and training problems that I have already commented on.

## VI

I propose in this paper that the problem of labor inefficiency in the mills in Bombay was a structural one, and derived from modes of labor organization that tolerated, even depended on, workers hiring other workers. The system offered incentive for high labor turnover and under-training. Competition from Japan exposed the problem, and the series of labor enquiries in the 1920s supplied the forums where the syndrome could be discussed more openly than before. In the end, however, the political orthodoxy prevailed, and the mills got what they wanted, namely, protection. But then, in the post-Depression years, Bombay had to contend with yet another threat that could not be met with tariffs, competition from low-wage mills within India. Efficiency now became an issue that demanded action, which, to many managers and owner, meant getting rid of the labor intermediary. Attempts to do so led to a fresh burst of disturbed industrial relations, but that is another story.

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*Indian Tariff Board (Cotton Textile Industry Enquiry) 1927*, vol. III (Evidence of Local Governments, etc.), p. 438-9.

<sup>40</sup> *Ibid.*, p. 467.