Focusing on influential individuals, business organizations that ranged in size from a few hundred to several thousand employees, and comparatively brief periods in the decades after 1915, the essays in this volume cannot supply definitive judgments about the fate of scientific management after Taylor's death or about the evolution of managerial technique in the twentieth century. Yet because the activities of Richard Feiss, the Gilbreths, Edwin Gay, Mary Van Kleeck, Charles Piez, Charles Bedaux, Peter Drucker and Joseph & Feiss, Link-Belt, and Du Pont managers were notable parts of the post-1915 history of scientific management in the United States, these essays help to illuminate the larger picture.

They show, for example, that Taylor's death did not halt the evolution of scientific management and may, in fact, have accelerated the pace of innovation. Just as Taylor did not invent scientific management, his death did not leave it in a final or definitive form. The movement that Taylor inspired retained its vitality through the 1920s and probably later. The reconciliation of the Taylor society veterans and the Gilbreths led to the emergence of a more sophisticated conception of time study and more powerful analytical tools, precisely the kinds of innovations Taylor had in mind when he initially subsidized Sanford Thompson's time study research. The potent synthesis of industrial engineering and personnel work, anticipated at Joseph & Feiss, and common at such firms as Link-Belt by the 1940s, was another notable instance of this process. Additional research would presumably supply other
examples. In terms of managerial technique, then, Taylor's successors had transcended his work by the 1920s. Taylor remained an important and provocative historical figure, but his works were no longer a relevant or reliable guide to industrial practice. As Edward Eyre Hunt wrote in 1924, the progress of scientific management since his death had been "sure and swift."1 Certainly the broader implications of scientific management became clearer after Taylor's death. In 1915, Taylor's work was largely discussed and debated in terms of industrial production. A decade later, no one would have suggested that scientific management was "just" industrial engineering or even that its most important impact was on the operation of the factory. World War I was the most immediate stimulus to a larger perspective, but the conversion of substantial groups of academics and intellectuals to the cause of scientific management and the continued growth of large organizations with extensive administrative bureaucracies committed to management as a self-conscious activity were also significant contributing factors. The possibilities of improving the performance of nonbusiness institutions also help explain the popularity of the principles of scientific management. Comparatively few Americans went as far as Mary Van Kleek, but there was widespread recognition of the possibilities of economic and social planning.

Ironically, in view of this apparent influence, the impact of scientific management on the shop floor, and on the worker and working conditions, is difficult to summarize. In the 1940s, as in the 1910s, the manager's conception of the challenge of production management and the consequent need for change and improvement varied widely. Richard Feiss, Charles Piez, and the Du Pont and Bedaux engineers were all devoted to scientific management, but that fact provides only the most general guide to their activities and to the experiences of employees they managed. If someone had convened a meeting of Link-Belt, Du Pont and Bedaux client employees in 1940, the workers could have discussed at length their employers' commitments to cost cutting and anti-unionism, but it is not clear what other concerns they would have had in common. Judging from these accounts, a history of scientific management "from the bottom up" would be no more conclusive about the impact of managerial initiatives in the middle decades of the century than studies examining scientific
management and labor during Taylor's lifetime. The addition of evidence from the service sector would likely introduce even more variations.

Thus, while scientific managers were unquestionably interested in work, they were preoccupied with details. The executives who appear in these essays were only rarely concerned with the distribution of skills or with distinctions between planning and implementation of policy. They took the existing system of production as a given and tried to perfect the fine points. The experiences of the Du Pont and Bedaux companies suggest that there were many details to attend to, and that such attention paid substantial dividends. When scientific management was used to the workers' disadvantage, as it was at some of the Du Pont plants and in many of the Bedaux installations, it was usually applied in a traditional way to reduce wage rates and to increase, not decrease, the worker's responsibilities.

Nevertheless, Taylor reemerged in the 1940s as an apostle of narrow, specialized tasks and the removal of decision making from the shop floor. This Taylor was the figure that Drucker rebelled against and the straw man of other social scientists' accounts. That their antidotes, like MBO, did not represent a meaningful break with existing practices is hardly surprising. What was surprising was their disregard for the part of Taylor's message that was as relevant in 1955 as it was in 1915. As the real Taylor had emphasized, scientific management was "not any of the devices which the average man calls to mind when scientific management is spoken of. . . ." It was a commitment to knowledge, reason, and continuous attention to detail that was equally antithetical to old-fashioned empiricism and to new-fashioned panaceas.

These essays suggest, then, that the ideas that Taylor and his allies promoted in the early years of the century have continuing value for understanding the operation of the business firm and for many efforts to organize and direct other activities in the half century after Taylor's death. They provide no evidence of centralized direction, uniform goals, or predictable results. Scientific management encompassed diverse and often contradictory activities. It was not an automatic or inevitable consequence of economic development; Taylor, his followers, and his critics did matter. But they were less important for their specific contributions than for their role in creating an intellectual milieu that
encouraged contemporaries to think about organizations and the principles of organized activity, and to act accordingly. If Taylor had returned in the 1940s, he might well have concluded that his call for a mental revolution had been answered.

NOTES

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