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· 管理开端 ·

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科学管理原理

The First Book on Management Science

*The Principles of
Scientific Management*

[美] 弗雷得里克·温斯洛·泰勒◎著

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泰 勒 传

Biography of Frederick Winslow Taylor

肖 刚

Xiao Gang

弗雷得里克·温斯洛·泰勒,简称F·W·泰勒或泰勒,1856年出生于美国宾夕法尼亚州费城的一个律师家庭,1915年在费城逝世。由于其生前对“科学管理”的杰出贡献,人们在其墓碑上镌刻“科学管理之父F·W·泰勒”以示纪念。

泰勒是第一位对劳动进行细致而认真研究的人,同时也是第一位将管理当作一门科学来研究的人。1895年泰勒发表了他的第一篇论文《计件工资制》;1903年出版其著作《工厂管理》;1906年发表《论金属切削技术》;1911年出版了奠定人类管理科学的开山之作《科学管理原理》,从而使人类的管理从经验“管理”^①走向科学管理。

① 这里的“管理”是指名义上的管理,实质上不能称为管理。因为管理必须以任务(以科学为基础来确定的)为目标或标准,没有目标或标准就不会有管理。

Frederick Winslow Taylor (Frederick W. Taylor or Taylor for short) was born in a lawyer family in Philadelphia, Pennsylvania, USA in 1856 and passed away in Philadelphia in 1915. His tombstone was engraved with the words “F. W. Taylor, Father of Scientific Management” in memory of his outstanding contributions.

Taylor was a person who conducted meticulous and down-to-earth study of labor and probed into management as a discipline of science. Taylor published his first paper A Piece-rate System in 1895, and then Shop Management in 1903, On the Art of Cutting Metals in 1906 and The Principles of Scientific Management in 1911, which were his first works and papers on management science to mark that management began to develop from experience “management”^① to scientific management.

① “Management” here refers to management in the nominal sense and is not that in essence. Since management has to be based on tasks (to be determined on the basis of science) as the targets or standards. There will be no essential management without targets or standards.

科学管理是试图消除雇佣者与雇员之间对立的产物。从19世纪30年代开始,特别是从19世纪60年代开始,在马克思所创立的国际工人协会即第一国际的推动下,工人阶级(主要由雇员组成)作为一支独立的力量登上了历史舞台,并通过各种形式的工运开始要求从企业的盈余中获得更多的份额,即希望提高工资标准,缩短劳动时间,获得更高的工资;而雇佣者也想从企业的盈余中获得更多的份额,即希望降低工资标准,延长劳动时间,获得更多的利润。随着时间的推移,双方之间的冲突越来越激烈。如何解决这一矛盾以消除雇佣者与雇员之间的对立,成为了当时许多有识之士的当务之急,并由此带来了一场被史学家视为“效率运动”的企业变革运动,开始将管理技术视为与自然技术同样重要的东西。

但是,早期的“管理”却试图仅仅通过激励的方式来提高工人的积极性,从而达到增加产出的目的,他们将计日工资制改为以下几种形式:“收益增长分享计划”、“计件工资

Scientific management was a product attempting to eliminate the antagonism between employers and employees. Since the 1830s, especially the early 1860s, motivated by the International Working Men's Association, i. e. the First International set up by Karl Marx, the working class (mainly employees) had ascended the historical stage as an independent force to ask for a big share from earnings of enterprises through various forms of working class movements, i. e. to increase the wage standard, to cut working hours and get a higher pay, whereas employers also wanted to obtain a big share from earnings, i. e. to decrease the wage standard, to increase working hours and get more profits. With the elapse of the time, the conflicts between the two parties became increasingly tense and urgent for men of insight to reconcile contradictions to eliminate the confrontation between employers and employees, which triggered an enterprise change movement named as the “efficiency movement” by historians and the management technique was then taken as important as the natural technology.

However, “management” at the early stage attempted only to increase the initiative of workmen to increase output by means of incentives. At that time, the Day-wage System was turned into the following forms as the “Gain Sharing Plan”, the “Piece-rate System”, the “Bonus Wage System”, the “Differentiated Piece-rate

制”、“奖金工资制”、“差别计件工资制”、“奖金计划”等。但这些措施并没有达到提高效率的目的,相反却引起了工人更激烈的怠工,磨洋工的现象愈演愈烈。之所以出现这种情况,是因为这些措施及变革并没有触及管理的实质,即管理的科学化。而完成这一使命的却是美利坚合众国公民 F·W·泰勒。

泰勒在长期的实践中逐渐认识到:雇佣者与雇员的许多纠纷是由于盈余分配引起的。这里的盈余是指销售收入减去除工资以外的所有费用的余额。因此,泰勒认为:在这个盈余中,有一部分是雇佣者的利润,另一部分则是雇员或工人的工资。泰勒认为科学管理的实质是一场伟大的思想革命,其内容是:首先,雇佣者和雇员或工人都不把注意力放在盈余分配上,而是将注意力转向增加盈余的数量上;其次,要增加盈余的数量,就必须用科学知识来替代旧式的经验知识,即用科学方法来替代经验工作法。这也是科学管理的两个绝对需要具备的要素。

System”, the “Premium Plan” and other forms. However, these measures failed to raise efficiency. Instead, they resulted in more vehement underwork and soldiering of workmen, which was attributed to the fact that these measures and changes failed to probe into the essence of management, i. e. making management scientific. And the person who made management scientific was none other than F. W. Taylor, an American citizen.

During his long-term practice, Taylor came to realize that the conflicts between employers and employees mainly resulted from the distribution of surplus earnings. Here the surplus earnings referred to the balance from the sales income subtracting all the spending except wages. So, he believed that part of the surplus earnings was the profits of employers and the remaining surplus earnings were the wages of employees or workmen. He held that the essence of scientific management was a great ideological revolution. The contents of the revolution covered: Firstly, neither employers nor employees or workmen paid attention to the distribution of surplus earnings but to the increase of surplus earnings. Secondly, to increase surplus earnings, the old rule-of-thumb knowledge must be substituted by scientific knowledge, i. e. With the substitution of old rule-of-thumb working methods by a scientific method. They are the two factors absolutely indispensable for scientific management.

泰勒认为:在经验“管理”中,公认的通用的最佳“管理”模式就是:“积极性加激励”的模式。这种模式主要是通过给雇员或工人提供大量的各种奖励(如快速提升、某种奖金或红利、更短的劳动时间、更好的工作环境和条件、经理人员及上司对工人的直接关心体贴和友好交往等)以激励工人最充分地发挥其积极性来为雇佣者工作。这种“管理”模式实质上要解决的是采用某一特殊的付酬方案(诸如计件工、奖金计划或红利计划等)。然而,在科学管理下,被采用的特殊付酬方案仅仅是其从属的要素之一。泰勒认为,在“积极性加激励”的“管理”模式中,成功几乎完全依赖于赢得工人人们的“积极性”,然而即使在这种最好的老的“管理”模式中,能真正赢得工人人们的积极性的情况也是非常罕见的。而科学管理与此不同,它能够在更大的范围内以绝对的永恒性赢得工人人们的“积极性”。除此之外,科学管理与所有的旧的“管理”模式的区别在于:经理及其他管理人员要承担起过去想都没想过的新的责任。这些新责任可归纳为以下四个要点:

Taylor held that the finest type of ordinary “management” was the type of “initiative and incentive”. This type was mainly designed to motivate workmen to fully display their initiative to work for employers by granting them various rewards (e. g. rapid promotions, premium or bonus of some kind, shorter hours of labor, better working environment and conditions, managers and superiors’ personal consideration for and friendly contact with workmen). The “management” type was in essence an attempt to adopt a special scheme for paying men (e. g. the piece work, the premium plan or bonus plan, etc.). Under scientific management, however, the particular paying system adopted was merely one of the subordinate elements. Taylor believed that under the “management” type of “initiative and incentive”, success depended almost entirely upon getting the “initiative” of workmen, and it is indeed a rare case in which this initiative is really attained even in the finest type of old “management”. On the contrary, under scientific management, the “initiative” of workmen is obtained with absolute uniformity and to a greater extent than which is possible under the old system. In addition, the difference between the type of scientific management and the type of old “management” lied in the fact that managers and other management must assume the new responsibilities and never dreamed of in the past, which are grouped under four heads:

第一,管理人员将过去长期存在于工人头脑中的知识收集起来,然后,通过“动作研究”或“时间研究”制订工人工作的每个基本组成部分的科学方法,并用它来替代老的“经验工作法”的方法。

第二,管理人员科学地选择工人,然后对其进行训练、教育并使之成长。

第三,管理人员与工人之间进行亲密无间的个人合作,以保证所有的工作按照已制订的科学原则和科学方法来进行。

第四,管理人员和工人之间的工作几乎是均分的,管理人员应担负起那些自己比工人们更胜任的工作。

正是科学管理所具有的上述四个要点,才使得科学管理比所有老式的经验“管理”有效得多。而在所有的老式的经验“管理”中,首先,从事各种职业的工人都是按照各自的方法来工作,而这些方法都是采用学徒方式通过手和眼从师傅那里学来的,或者是通过自己摸索而获得的,很少是从书本上学来的。也就是说,从事每种职业的工人都是个别地通过口述将他们的经验法则或传统的知识传下去的。由于每

Firstly, the management should gather together all knowledge which in the past has been processed by workmen, develop a scientific method for each element of a man's work through “motion study” or “time study”, which replaces the old “rule-of-thumb” method.

Secondly, the management scientifically select, and then train, teach, and develop the workman.

Thirdly, the management should maintain close interpersonal cooperation with workmen so as to ensure all of the work being done in accordance with the scientific principles and methods which has been developed.

Fourthly, there is an almost equal division of the work between the management and the workmen. The management should take over all the work for which they are better fitted than the workmen.

It is the above-mentioned four heads of the scientific management that make scientific management so much more efficient than the old type of rule-of-thumb “management”. At first, under the old type of rule-of-thumb “management”, workmen of all trades used to work according to their own methods which they learnt from their master when they were apprentices or through self-learning. They seldom learnt from books. That is to say, workmen of all trades have handed over their rule-of-thumb or traditional knowledge to the

个人从事同一种职业或同一种工作的任何基本组成部分所采用的方法都不是一致的,这样就必然会造成从事同一种职业或同一种工作的任何基本组成部分所采用的方法有许多种,甚至有的多达50~100种,因此,这些经验法则或传统知识显然是零碎的、粗糙的、不系统的甚至是相互矛盾的,而且是不科学的。其次,在老式的经验“管理”中,所有的工作都由工人来承担,经理或工头要么是听任工人自己随意采用各种方法而不提供任何帮助,要么是用各种野蛮的手段驱使和强制工人去极其辛苦地工作,而且,工作的“责任”^①完全由工人们来承担,而经理或工头不承担任何责任。这样必然会使工人极其缓慢地工作,即尽量地磨洋工,结果造成效率极其低下。而科学管理通过让经理及其他管理人员来承担以上的新责任,这样不仅可以通过“动作研究”或“时间研究”消除不必要的、多余的动作,改进不合理的动作,从而找到更快更好的工作方法,而

next orally and individually. Since the methods adopted by each person for doing the same trade or doing every element of the same work are not exactly of uniformity, there must be a great variety of methods, even as many as 50 to 100 methods for doing the same trade or doing every element of the same work. As a result, these rule-of-thumb or traditional knowledge are obviously fragmentary, crude, unsystematic and even contradictory and therefore, unscientific. And then, under the old type of rule-of-thumb “management”, all work is undertaken by workmen. Managers or foremen either allow workmen to adopt the methods of their own free will without giving them any help, or drive or coerce workmen to work painstakingly by resorting to brutal means. In addition, all the “responsibilities”^① for work are fully borne by workmen, while managers or foremen do not bear any responsibility, which will inevitably cause workmen to underwork and soldiering, thus resulting in an extremely low work efficiency. In contrast, under scientific management, the management are required to bear the new responsibilities mentioned above, which can not only remove unnecessary and redundant motions through “motion study” or “time

①这里“责任”是指名义上的责任,没有科学化任务的确定,就不可能有责任的确定。

① “Responsibility” here refers to the responsibility in the nominal sense. Responsibility can't be determined without a definition of scientific tasks.

且在选择、训练、教育工人的同时和每个工人建立亲密无间的个人合作关系,而且更重要的一点是通过科学分析和研究确定了工人适宜的日工作量即工人的标准日工作量,这个标准的日工作量就构成了工人的任务。^①

正是由于任务的确定,才使得每个人的工作有了一种无形的压力。而这种无形的压力正是每个人取得进步及做好各项工作的驱动力或推动力。其实,任务观念绝对不是什么新鲜事物。我们每个人在中、小学时代都对此深有体会。老师每天都向学生布置明确而清晰的学习任务,并向学生讲明:他今天必须学会正好是这么多的内容,才能取得恰当而有步骤的进步。如果不给学生任务,只是告诉学生尽量地多学习,那么普通学生的进步将是非常缓慢的。同样地,当每天给予工人一项明确的要求他在给定时间完成的任务时,这个工人才会带着最大的满足既为自己又为他的雇佣者去工作。而且这也给工人提供了一个清晰的标准,

study”, correct unreasonable motions so as to find better and quicker working methods, but also enable managers or foremen to maintain close cooperation of personal relations with each workman when selecting, training and teaching them. What is more important is that a proper day's work for a workman, i. e. a standard day's work for a workman, is determined through scientific analysis and study. The standard day's work constitutes the task ^① for a workman.

It is the determination of tasks that makes each workman under an intangible pressure, which is none other than a driving force or an impetus that motivates workmen to do their work well. As a matter of fact, there is absolutely nothing new in the task idea. Each one of us experienced it in his/her school-boy days. Each day, a clear-cut task is set by the teacher before each scholar, stating that he/she must learn just so much that proper, systematic progress can be made by students. The average scholar would go very slowly if, instead of being given a task, he/she were told to do as much as he/she could. It is equally true that the workman will work with the greatest satisfaction, both to himself and his employer, when he is given each day a definite task which he is to perform in a given time.

^① 这里的任务是以科学为基础而不是以估计和经验为基础来确定的。

^① The task here refers to the task based on a scientific analysis rather than an estimation or the old rule-of-thumb type.

有了这标准,他就可以随时测量他工作的进展,而标准的实现即任务的完成则会给他带来最大的满足。而且只要他在规定的时间内完成了任务,就应及时地付给他奖金或酬金,就会使工人的积极性得到最大的发挥,使工人的工作不仅有推动力而且还有拉力。这样就会极大地提高工人的效率。因此,任务和奖金是构成科学管理机制的两个最重要的因素,它们的综合运用正是科学管理区别于老式的经验“管理”的本质所在,而在老式的经验“管理”中,则只有单纯的奖励这种拉力因素,却没有任务这种驱动力或推动力因素。

任务概念的提出和应用使得人类的管理从经验型“管理”向科学型管理转化,从而使得人类的活动特别是经营活动从粗放式向精细化方向发展,进而使得人类的效率得到极大的提高。为了确定任务,就必然要求进行“动作研究”和“时间研究”,使动作合理化、标准化,而动作的合理化、标准化又必然会带来对方法、工具的标准化和工作的程序化,从

This also furnishes the workman a clearcut standard by which he can measure his own progress at any moment, and the accomplishment of which, i. e., the task affords him the greatest satisfaction. Besides, he can display his greatest initiative if he is granted with a large bonus or premium, each time that he succeeds in doing his task in the given time. In this way, he can work not only with a pushing force but also with a pulling force so that his efficiency will increase considerably. As a result, the task and the bonus constitute two of the most important elements for the mechanism of scientific management. And the comprehensive use of these two elements is the very essence of difference between scientific management and the old type of rule-of-thumb “management”. Under the old type of rule-of-thumb “management”, there is only the bonus element as a pulling force but with no driving force or impetus one.

The putting forward and use of the task idea make human management change from the old rule-of-thumb “management” to scientific management and promote human activities, especially supermanagement activities, to develop from extensive management to intensive management so as to substantially increase efficiency. In addition, it is necessary to carry out “motion study” and “time study” to make motions reasonable and standardized which will in turn lead to the standardization of methods and tools and the work to proceed in a routine way so as to motivate people to improve tools, machines

而促使人们对工具、机器及工艺进行改进,并使批量化生产成为可能,这无疑会极大地提高人类生产力的水平。同时,为了确定任务,必然要求有一部分人从实际的作业中独立出来,专门从事此工作并将任务分配到各个岗位、每个工人头上,并控制工人完成其任务。这样就产生了专门的管理人员,这些管理人员的任务主要是按照科学规律对工作进行计划和组织并控制工人在规定的时间内完成任务。而在老的经验式“管理”中,每个工人必须承担从大体计划(根据其个人的经验来估计)、其工作的每个细节,直到在许多情况下将其完成的几乎全部的工作和“责任”。正是将计划工作及管理工作从每个工人的实际作业中分离出来了,才使得管理开始成为一门专门的职业和一门专门的学科,从而促使管理向科学化方向发展。

泰勒所发动的科学管理运动通过制定有科学依据的定额即任务和科学化的工作方法及将管理从实际作业中分离出来,不仅为工人提供了标准化的工作程序、方法及工具,而且更重要的是开始了对每项工

and technology, make mass production possible and in turn, improve the productivity of humanity. At the same time, in order to determine the task, it is necessary for some people to be free from practical operation and become persons to assign task to each position and each workman and control workmen to fulfill his/her work. In this way, special management makes its appearance under such circumstances. Their main tasks are to plan and organize work according to scientific laws and control workmen to fulfill their tasks within a given time. In contrast, in the old type of rule-of-thumb “management”, each workman had to undertake all the work and all the duties ranging from making a general plan (estimating according to their personal experience), arranging working details to the completion of tasks. It was a separation of planning and management work from the practical operations, which made management become a special profession and discipline and promoted management to develop in a scientific way.

The scientific management movement launched by Taylor separated management from practical operations by working out scientific ration of each work (i. e. the task) and scientific working methods, which not only provided workmen with a standardized work process, methods and tools, but also started the scientific planning, organizing

作进行科学的计划、组织及控制,使得工人有了一种无形的压力或驱动力,这无疑会使增加盈余的目的得以实现,从而使雇佣者和雇员或工人双方都能获得更多的利益。然而,泰罗试图通过由重视盈余的分配向重视增加更多的盈余的转变(即将蛋糕做大)来消除雇佣者和雇员或工人之间的对立的企图是很难实现的。而这个问题的解决则有赖于伦理科学特别是经济制度科学的发展和成熟。而实际上,马克思早在19世纪60年代就为我们解决了这个问题,那就是实行生产资料的社会所有制即“在协作和对土地及靠劳动本身生产的生产资料的共同占有的基础上,重新建立个人所有制”。^①只有这样才能真正地调动劳动者的积极性,再通过职能的横向、纵向延伸及其科学化使管理学向经营科学转化,那么,人类的效率就将会获得压倒性的提高;也只有到那时,才能真正地实现所有社会成员的共同富裕。

① 马克思《资本论》第1卷,第832页,人民出版社1975年版。

and controlling of each work, so that workmen felt an intangible pressure or a driving force, which would undoubtedly increase surplus earnings and enable both employers and employees or workmen to get more benefits. However, it was difficult for Taylor to realize his attempt to eliminate conflicts between employers and employees or workmen by shifting the focus from distributing surplus earnings to increasing them (i. e. making a larger cake). The solution to the problem relied on the development and maturity of ethic science, especially the science of economic system. In fact, Karl Marx had solved the problem as early as in the 1860s, that was, to institute the social ownership of the means of production, i. e. to “establish personal ownership on the basis of collaboration and common ownership of land and the means of production”.^① Only by doing so, can the initiatives of laborers be brought into full play. Through horizontal and vertical extension of functions, the initiative of employees can be motivated effectively and management science developed to be supermanagement science. And then, human's efficiency will increase overwhelming by and only by then, can all social members have access to common prosperity.

① Karl Marx: Capital, P. 832, 1975 Edition, People Press, Volume 1.

从某种意义上说,人类的管理是从泰勒开始的。因为管理是从确定工作目标或标准开始的,没有工作目标或标准,管理就不复存在。对每个工作的人来说,这种工作目标或标准也就是其所要承担的责任,而每个人的责任都是由每个人科学化的任务分解而来的。而科学化的任务首先是泰勒提出来的。同时,责任意识^①是人类进步和发展的最终推动力和拉力。

所以,纵观人类的历史,泰勒对人类进步和发展所作出的贡献只有一人能够与他相媲美,那就是德国的马克思。正如马克思的唯物史观和剩余价值学说的两大发现使社会主义从空想变成了科学(即从空想的社会主义变成

① 在泰勒提出任务观念以前,不管是雇佣者还是雇员或工人特别是主权的垄断者及其统治下的臣民或教民都只一味着追求权力和利益,而不愿意承担责任,这是导致社会发展极其缓慢的根本原因。因此,只有建立责权利相统一的即经营权完整的政治组织和经济组织才能极大地提高整个社会的生产力及其经济力的发展水平。

One may say that human management begins from Taylor. Since management began with the determination of the working goal or the standard. Management makes no sense without working goal or the standard. For each workman, the working goal or the standard is the responsibilities he/she should bear, and the responsibility for each workman stems from the decomposition of scientific tasks, which was first put forward by Taylor. At the same time, the sense of responsibility^① is the ultimate driving force and pulling force for human progress and development.

So, there is only one person that is in parallel with Taylor for his contributions to human progress and development in human history and that is Karl Marx. Just like the two discoveries of Karl Marx, Materialistic Conception of History and the Theory of Surplus Value, which turned socialism from utopian into science

① Before Taylor put forward his task idea, employers, employees or workmen, especially sovereignty holders and the ordinary people or religious believers under their rule all went out pursuing power and profits and avoided bearing responsibilities. That was the fundamental reason why social development was so slow. Therefore, only by establishing a unified political organization and economic organization that integrates responsibilities, rights and profits, i. e. with complete supermanagement power, can social productivity and economic strength as a whole be improved tremendously.

了科学的社会主义)一样,泰勒的任务观念和责任意识的两大发现使管理从空想变成了科学(即从空想的管理变成了科学的管理)。这应当是对泰勒最恰当的评价。

(i. e. a turn from utopian socialism to scientific socialism), the two discoveries of Taylor, the task idea and the sense of responsibility, turned utopian management into science (i. e. a turn from utopian management to scientific management). It should be the most proper evaluation of Taylor.

INTRODUCTION

引言

PRESIDENT ROOSEVELT, in his address to the Governors at the White House, prophetically remarked that “The conservation of our national resources is only preliminary to the larger question of national efficiency.”

The whole country at once recognized the importance of conserving our material resources and a large movement has been started which will be effective in accomplishing this object. As yet, however, we have but vaguely appreciated the importance of “the larger question of increasing our national efficiency.”

We can see our forests vanishing, our water-powers going to waste, our soil being carried by floods into the sea; and the end of our coal and our iron is in sight. But our larger wastes of human effort, which go on every day through such of our acts as are blundering, ill-directed, or inefficient, and which Mr. Roosevelt refers to as a lack of “national efficiency,” are less visible, less tangible, and are but vaguely appreciated.

罗斯福总统在白宫向各州长讲话时曾预言性地指出：“保护我们国家的资源，只是解决全国性效率这一更重大问题的前奏。”

全国立即认识到了保护我们物质资源的重要性，并为了有效地实现这一目标，开始进行一场大规模的运动。然而，直到现在，我们依然未清楚地意识到“提高我们全国性效率这一更重大问题”的重要性。

我们可以看到，我们的森林正在消失，我们的水力正在浪费，我们的土壤正在被洪水冲刷到大海里去了，我们的煤和铁的枯竭也已经在望了。但是，由于我们行动上的重大失误、管理不当或效率低下所造成的日复一日的人力上更大的浪费，不正是罗斯福先生所指出的“全国性效率”不足吗？人们对这一更大的浪费却关注和考虑得很少，即使有所觉察也是模糊不清的。

We can see and feel the waste of material things. Awkward, inefficient, or ill-directed movements of men, however, leave nothing visible or tangible behind them. Their appreciation calls for an act of memory, an effort of the imagination. And for this reason, even though our daily loss from this source is greater than from our waste of material things, the one has stirred us deeply, while the other has moved us but little.

As yet there has been no public agitation for “greater national efficiency,” no meetings have been called to consider how this is to be brought about. And still there are signs that the need for greater efficiency is widely felt.

The search for better, for more competent men, from the presidents of our great companies down to our household servants, was never more vigorous than it is now. And more than ever before is the demand for competent men in excess of the supply.

What we are all looking for, however, is the ready-made, competent man; the man whom some one else has trained. It is only when we fully realize that our duty, as well as our opportunity, lies in systematically cooperating to train and to make this competent man, instead of in hunting for a man whom some one else has trained, that we shall be on the road to national efficiency.

我们能够看到和感觉到物质的浪费，可是，却对人们的制作粗劣、效率低下或管理不当的行动从不关注或觉察不到。要弄懂这些，就需要肯动脑筋并努力发挥想象力。也正是这样的原因，尽管来自人力资源方面的日常损失要比来自物质方面的浪费大，但我们对来自物质方面的浪费极为关注，而对人力资源方面的日常损失却无动于衷。

到目前为止，还不曾对“提高全国性效率”进行过公开的宣传鼓动，而且也不曾召开过会议来商讨如何实施。不过，有迹象显示人们已普遍感觉到了提高效率的必要性。

寻求更优秀、更有能力的人（从大公司的总裁直到家庭佣人），从来没有像现在这样活跃。而且对供不应求的有能力的人的需求比以前任何时候都迫切。

然而，我们都在寻求的是别人训练出来的、现成的、有能力的人。而只有当我们充分认识到我们的责任及良机在于系统地联合训练并造就这样有能力的人，而不是去猎取别人所训练出来的人时，我们才算是走上了提高全国性效率的道路。