

STUDIES IN THE THEORY OF MANAGEMENT

FAYOL AND TAYLOR

(Comparative View)

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"Throughout the whole field of management the military type of organization should be abandoned and what may be called the «functional type» substituted in its place."

(TAYLOR)
1911

"For any action whatsoever, employee should receive orders from one superior only... Should (unity of Command) be violated, authority is undetermined, discipline is in jeopardy, order disturbed, and stability threatened."

(FAYOL)
1916

March 20, 1856 is one of the greatest days in the history of business management ; that day witnessed the birth of a great man whose tomb, at German-town, Pennsylvania, bears the inscription "Father of Scientific Management ;" ¹ it was Frederick Winslow Taylor whose writings are considered the first most recognized attempt of formulating a theory of management with definite principles and rules. His work became so famous to the extent that some following management scholars commented on it by saying that "no man, born of woman, can do more." ²

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(1) Lyndall F. Urwick, *The Life and Work of Frederick Winslow Taylor* (London : Urwick, Orr and Partners, Ltd., p. 1.

(2) *Ibid.*, p. 12.

Despite this fact Taylor's ideas were not appreciated, in his time, in the United States, he was attacked by labor organizations and business leaders ; he was brought in front of a special House committee on January 25, 1912 to deliver a testimony of 287 pages to defend his ideas.

F. Taylor was a practical man and within just twelve years, starting as an ordinary laborer, he became the general manager of the Manufacturing Investment Company. ³

Contemporary to Taylor was another eminent student of management, Henry Fayol (1841-1952), whom many scholars consider as "the real father of modern management theory."⁴ Fayol, like Taylor, was an engineer. He had a very successful career ; when he was appointed as managing director of the Commentry-Fourchambault in 1888, it was on the verge of bankruptcy ; when he retired he left it with an unattainable financial position and an exceptional staff quality. ⁵ Fayol emphasized that the company's success was not due to any extraordinary personal qualities, but to the proper application of certain simple administrative principles. ⁶

Fayol and Taylor met each other, yet their ideas were almost identical. Some management authorities consider Fayol's book *Administration Industrielle et Générale* ⁷ which was published in 1916, the year following Taylor's death, as "the complement to Taylor's work." ⁸ However Fayol noticed that Taylor's ideas were not widely applied in France because "... their effective application required the

(3) *Ibid.*, p. 5.

(4) Harold Koontz and Cyril O'Donnell, *Principles of Management*, 4th ed. (McGraw Hill Book Company, 1968) p. 21.

(5) L. Urwick in his foreword to : Henry Fayol, *General and Industrial Management* (London : Sir Isaac Pitman and Sons, Ltd., 1949) p. vii.

(6) L. Urwick, *The Pattern of Management* (Minneapolis : University of Minnesota Press, 1956) p. 45.

(7) As can be noted in the above footnote the word "administration" that Fayol originally used has been translated into "management" and I do not see any necessity for such a change.

(8) Urwick, *The Pattern of Management*, op. cit., p. 45.

right combination of technical and administrative ability, and the latter ability was scarce." ⁹ But later on, Fayol began to appreciate and understand Taylor's work more and more to the extent that he, in 1925, described as false the efforts of some people who tried to prove that Taylor and Fayol works were conflicting. ¹⁰

Management consultant and scholar L. Urwick was once asked whether he considers that Fayol and Taylor were dealing with the same matter, and his answer was that "... they were working on the same principles from opposite ends of the hierarchy. Taylor started with the operator at his bench ; Fayol started with the president in his office." ¹¹

Through the following pages I will briefly compare both Fayol's and Taylor's ideas on :

1. Formulation of a theory of management.
2. Necessity and need for teaching management.
3. Functional organization and unity of command.

1. A theory of management :

Although some of the concepts of management may be as old as man is, there was no theory or collected body for the knowledge in management until Taylor and Fayol started working on that in the beginning of this century.

As a matter of fact Fayol spoke more systematically and more elaborately of a theory of management than Taylor did. This may be due in part to the suitable environments in which Fayol lived, if compared with bitter confrontation that Taylor's ideas faced in the United States.

(9) M. B. Brodie, *Fayol on Administration* (London Lyon, Grant and Greene, 1967) p. 8.

(10) L. Urwick, *The Golden Book of Management* (London Newman Neame Ltd., 1956) p. 22.

(11) School of Business Administration, University of California, Los Angeles, *Seminars in Management Theory and Policy : Transcripts of Discussions led by Lecturers in Business Administration* (Los Angeles ; Spring Semester 1953) p. viii-32.

In 1903 and in 1911 F. W. Taylor published his *Shop Management and Principles of Scientific Management* respectively. In 1912 his *Testimony* was delivered before the special committee appointed by the House of Representatives to investigate his work.¹² Whenever the name of Taylor is mentioned, the term 'scientific management' jumps into one's mind. Despite this close relationship between the name and the terminology, Taylor was not the one who chose this term, but it was chosen by Taylor's supporters in a meeting that he himself did not attend ; but he agreed, of course, to the use of the slogan which "... was developed not as a term of art ... but rather ... (to) ... attract public attention."¹³

Speaking of scientific management, Taylor said that "... in its essence, scientific management involves a complete mental revolution on the part of the workingman ... and it involves the equally complete mental revolution on the part of those on the management's side."¹⁴ By this 'mental revolution' Taylor meant that scientific knowledge must replace the mere guess in the field of management.

Although Taylor had in mind some of the components of a theory of management they were not in the clear form that emerged in the writings of Henry Fayol. Taylor was always tied to the sphere of the workshop. Although we find him speaking of management "... to become more of an art, and that many of the elements which are now believed to be outside the field of exact knowledge will soon be standardized, tabulated, accepted, and used,"¹⁵ we find his comments in his testimony almost contradictory to what I just quoted. While clarifying his ideas through the testimony he spoke of scientific management saying that "... it is not a theory, but is the practical

(12) All of them are collected in one book : F. W. Taylor, *Scientific Management* (New York : Harper and Brothers, 1947). Except for the part containing the *Shop Management*, the volume is not indexed ; this applies also to the work of Fayol, and I hope that the Department of Management Theory at UCLA will take the lead in indexing the work of these great authors.

(13) School of Business Administration, UCLA, op. cit. p. viii-9.

(14) F. W. Taylor, op. cit., *Testimony*, p. 27.

(15) F. W. Taylor, op. cit., *Shop Management*, p. 63.

result of a long evolution." ¹⁶ This kind of dissonance in thinking can be justified in the light of the disappointment that Taylor felt because of the "... attempts made in his own country to 'debunk' Taylor, to minimize his reputation and to throw doubt upon his integrity." ¹⁷

The outlines of a clear management theory were very well expressed by Fayol in his book *Administration Industrielle et Générale*. Fayol divided his work into four parts : ¹⁸

1. Necessity and possibility of teaching of management.
2. Principles and elements of management.
3. Personal observations and experience.
4. Lessons of the war.

Fayol's book covered the first two parts ; parts three and four never appeared. ¹⁹ Fayol, in his book, differentiated between :

- (a) principles of management ; (b) elements of management ; and
(c) administrative duties :

- (a) *Principles of management* : under this title Fayol listed fourteen principles : ²⁰

- | | |
|--|--------------------------|
| 1. Division of work, | 8. Centralization, |
| 2. Authority and responsibility, | 9. Scalar chain, |
| 3. Discipline, | 10. Order, |
| 4. Unity of Command, | 11. Equity, |
| 5. Unity of direction, | 12. Stability of tenure, |
| 6. Subordination of individual interest to general interest, | of personnel |
| | 13. Initiative, |
| 7. Remuneration of personnel, | 14. Esprit de corps. |

¹⁶) F. W. Taylor, *op. cit.*, *Testimony*, p. 88.

¹⁷) Urwick, *The Life of F. W. Taylor*, *op. cit.*, p. 12

¹⁸) Henry Fayol, *op. cit.*, p. xxi.

¹⁹) *Ibid.*, Also M. B. Bodie, *op. cit.*, p. 6.

²⁰) Henry Fayol, *op. cit.*, Due to the size of this paper I just list the topics, although such brevity does not convey to the reader the full concept of these principles.

(b) *Elements of management* : under these elements Fayol listed

- | | |
|------------------|------------------|
| 1. Planning, | 4. Coordination, |
| 2. Organization, | 5. Control. |
| 3. Command, | |

(c) *Administrative duties* : Fayol listed fifteen administrative duties ; some of them are duplicated and overlapping with each other and with the administrative principles mentioned above ; these duties are : ²¹

- | | |
|---------------------------------|-----------------------------------|
| 1. Planning ; forecasting, | 9. Rewards and sanctions, |
| 2. Appropriateness, | 10. Interpretative functionalism, |
| 3. Command, | 11. Discipline, |
| 4. Authority, | 12. The general interest, |
| 5. Determinative functionalism, | 13. Authority, |
| 6. Appropriate staffing, | 14. Order, |
| 7. Functional definition, | 15. Control, |
| 8. Delegation, | |

2. Management teaching :

Both Fayol and Taylor believed in the necessity of teaching management as a distinguished body of knowledge. Both men believed that practical experience and theoretical preparation are both necessary for the creation of the successful administrator. But the degree in which they expressed this belief differed ; and here again Fayol's thinking on teaching management was expressed more clearly than Taylor's.

Writing about this subject F. Taylor said :

“Unfortunately there is no school of management.

(21) L. Urwick, *The Elements of Administration* (New York : Harper and Brothers Publishers, pp. 119-129.

There is no single establishment where a relatively large part of the details of management can be seen ... " 22

But Taylor did not make any suggestions as to what can be done to fill this gap.

As for Henry Fayol, he devoted one of the two parts of his book *Administration Industrielle et Générale* to the subject of management teaching. He spoke half a century ago about what we actually need and try to do now :

"It is a case of setting it going ... That is what I am trying to do by publishing this survey, and I hope that a theory will emanate from it. This done, there is the question of teaching to be solved ... in the home, in affairs of the state ... there should be some generalized teaching of management ; elementary in the primary school, somewhat wider in the post-primary schools, and quite advanced in higher educational establishments." 23

What Fayol actually outlined fifty years ago is still far from the attention of the nations of our contemporary world (except for a few of them) practically at least.

3. Functional organization :

This is the most prickly point to handle when comparing the viewpoints of Fayol and Taylor. I will try to discuss it in the following sequence :

- (a) The nature of functional organization.
- (b) Taylor's 'functional management'.
- (c) How functional organization concepts must be looked upon.

(22) F. w. Taylor, *op. cit.*, *Shop Management*, pp. 200-201.

(23) Henry Fayol, *op. cit.*, pp. 14-16.

(A) *Functional organization :*

Management writers distinguish between three types of relationships. The British management scholar L. Urwick summarized the nature and extent of these relations into the following matrix : ²⁴

FIGURE (1)

	Relation	Authority	Responsibility
(1)	Line	Direct	General
(2)	Functional	Indirect	Specialized
(8)	Staff	Representative	Advisory

From among these relations our concern will be with the 'functional' type. Functional organization is an application of the principle of specialization. Whenever a specialist is given a kind of supervision, in his area of specialization, on people in other departments a type of functional relation exists.

Functional organization usually deals with the matters of 'how' and may be 'when' something is to be done ; but it is rarely involved in the matters of 'where' the thing is to be done, 'what' is to be done, or 'who' does it. ²⁵

(B) *Taylor's functional management :*

Taylor's idea of functional organization came from the fact that on one man can be a 'well rounded man,' as Taylor put it. For a man to do his work efficiently, Taylor required him to have about nine qualities (e.g., be a good machinist, be able to read drawings readily

(24) L. Urwick, *Notes on the Theory of Organization* (New York : American Management Association, 1952) p. 75.

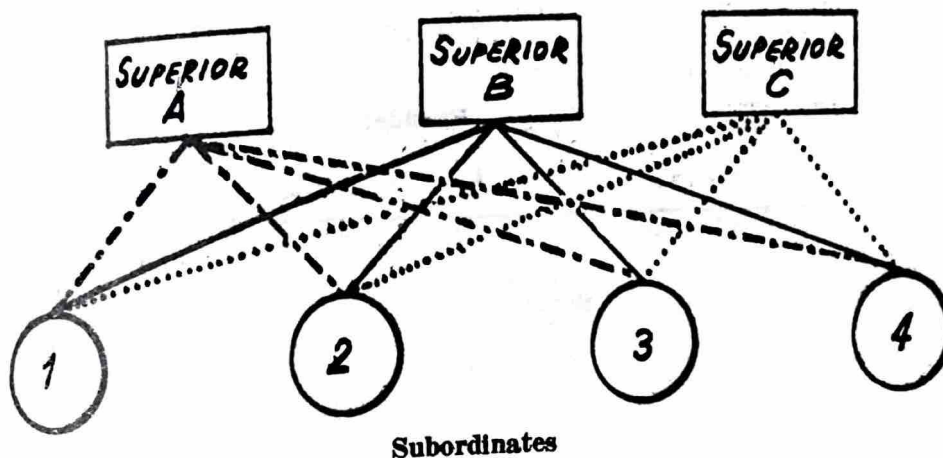
(25) Koontz and O'Donnell, *op. cit.*, p. 305.

..., etc.).²⁶ But as we can find men who have only some and not all of these qualities.

"... the work of management should be so subdivided that the various positions can be filled by men of this caliber ... This can be ... best accomplished by *abandoning the military type of organization* ... and what may be called the 'functional type' substituted in place."²⁷

If we have three superiors and four subordinates, for example, their relations with each other according to Taylor's functional management will appear as follows :

FIGURE (2)



Just one glance at Figure (2) shows us how difficult it is for the subordinates to respond to this complex of order lines especially when orders conflict with each other.

This was the major point of disagreement between Fayol and Taylor. Fayol did not agree to this Taylorian concept because he (Fayol) believes in the necessity of the 'military type' of organization

(26) For the listing of these qualities, see F. W. Taylor, *op. cit.*, *Shop Management*, pp. 26-98.

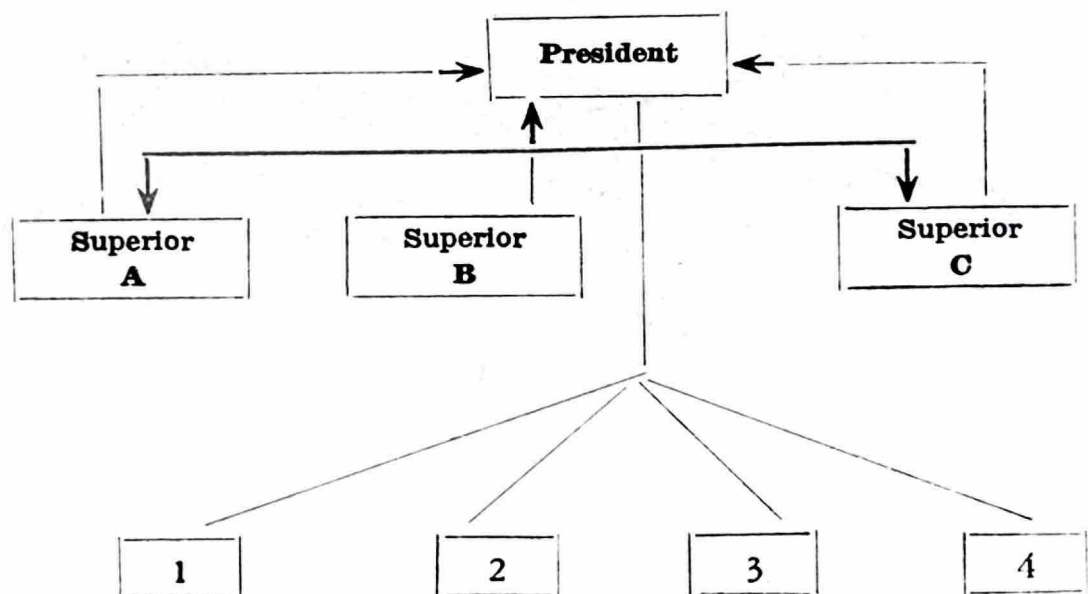
(27) F. W. Taylor, *op. cit.*, *Shop Management*, pp. 98 - 99.

which Taylor asked to have abandoned. Fayol dissected Taylor's concept into two parts :

- (a) The idea of staff to help the supervisor.
- (b) Negation of the principle of the Unity of Command.

Fayol commented on the first one as "to be good," and on the second to be "unsound and dangerous," and he insisted that the principle of Unity of Command must be adhered to "... until things change !" ²⁸ By applying Fayol's above mentioned splitting of Taylor's ideas, and by letting the ideas of superiors A, B, and C pass through another person who filters them, coordinates them, and transfers them to the subordinates, the lines of authority, in Figure (2) can be clear and easy to follow as shown in Figure (3).

FIGURE (3)



Fayol was not the only eminent management scholar who criticized Taylor's idea of functional organization in its raw form. Luther Gulick described this Taylorian system as being an "error." ²⁹

(28) Henry Fayol, *op. cit.*, p. 68.

(29) Luther Gulick and Lyndall Urwick (ed.), *Papers on the Science of Administration* (New York : Institute of Public Administration, 1937) p. 9.

(C) What 'functionalism' should be :

The idea of functional organization, though confusing in the form Taylor introduced, can be of great importance to the organization theory provided that the following points are borne in mind :

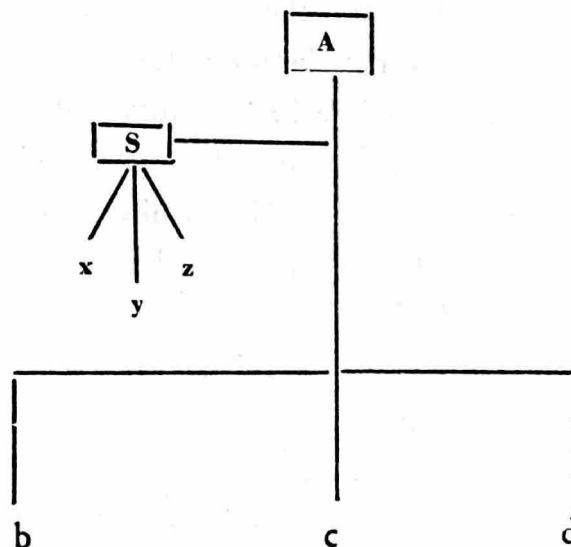
1. That a person with a functional authority has no line authority on other departments unless he is delegated some authority by the person who originally holds the 'line' authority. Such delegated authority is still done in the name of the delegator and he is still held responsible for the results.

2. There must be coordinate relations between persons with functional authorities in other departments. Good results can be achieved only by co-operation and elaboration of interlacing activities.

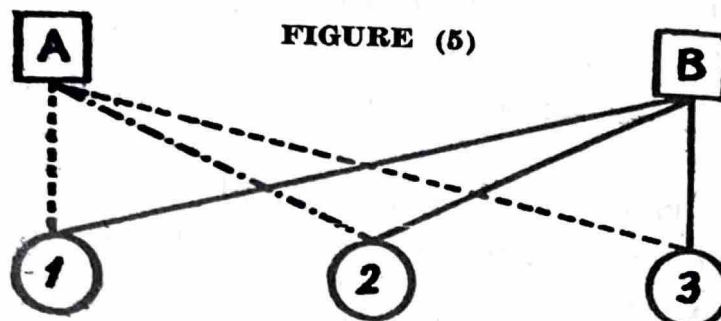
3. That staff service exists to help *its* boss perform *his* managerial functions. As seen from Figure (4),² the person in position (S) works as a functional advisor to the person in position (A). Person (S) has no line authority except when he has immediate subordinates in his department (i.e., x, y, z).

4. A person like (C) for example, can solicit advice from the staff person (S) but on a more *personal* basis. If (C) commits a mistake as a result of the advice, he is the one to be held responsible before (A).

FIGURE (4)

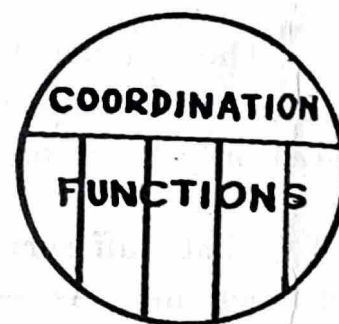


5. Whenever a person comes under the supervision of more than one functional boss the line of orders issued to him must be very clear (red line in Figure 5) :



6. Whenever there is more than one functional authority, a person or persons among those with *line* authority must play the role of coordinating the activities of the different functional departments so as to avoid friction and grievances among both function specialists and subordinates (Figure 6) :

FIGURE (6)



Leaving us a tremendous and invaluable heritage of work which illuminated the road to the modern thinking in the field of management, Taylor died in 1915, and Fayol ten years later. Though both of them stand today atop the list of management geniuses, and though there was great similarity between their thinking as I mentioned earlier, there was a difference in the surroundings of their life ends. Taylor "died a discouraged man, if anyone with his high heart could ever be discouraged." ³⁰ Meanwhile Henry Fayol spent the last days of his life as "still young, upright, smiling, with a penetrating and direct glance ... " ³¹

Both men were as great as one can ever imagine, and they did whatever they could for the field of management knowledge.

(30) Edward H. Hunt (ed.), *Scientific Management Since Taylor* (New York McGraw-Hill Book Co., Inc., 1924) p. xi.

(31) L. Urwick's forward to Fayol's book *General and Industrial Management*, op. cit., p. viii.

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(*) H. Merrill, in his book *Classics in Management*, mentioned that Taylor's book *Shop Management* was published in 1910 ; meanwhile L. Urwick mentioned in his book about the life and work of Taylor that *Shop Management* was published in 1903. Urwick's date is the correct one as it agrees with what Taylor himself said.