

Introduction:

This paper is an overview of two important areas of management theory: the Hawthorne Works experiments and the human relations movement, and the Herzberg theories of satisfaction. It will provide a general description of each of these management theories, together with the conclusion that personal enthusiasm, group dynamics and the culture of an organization have profound effects on employee motivation.

Hawthorne Works Experiments:

The Hawthorne Works was a relay assembly area owned and operated by the Western Electric Company during the 1920s. In an effort to determine if environmental conditions such as improved lighting would increase the productivity of factory workers, experiments were undertaken by two company officials, Clarence Stoll and George Pennock, who sat directly opposite from and observed the six factory workers selected as experiment participants¹. The initial observations seemed to support the theory that improved lighting would indeed promote an increase in production -- until someone turned the lighting down to below baseline, whereupon output increased still further. When those experiments showed no clear correlation between light level and productivity the experimenters then started looking at other factors: rest breaks, no rest breaks, free meals, no free meals, more hours in the work-day / work-week, fewer hours in the work-day / work-week. The workers' productivity went up at each change. Finally the workers were put back to their original hours and conditions, and to the astonishment of the experimenters, set a productivity record (Roethlisberger, 1939).

One of the more simplistic interpretations for the phenomenon, termed the "Hawthorne Effect", is that people change their behavior when they think they are being watched. The usual "Hawthorne Effect" interpretation is certainly a real possibility, and whether or not the assertion is based on correct interpretation of the data, much subsequent writing shows a predisposition toward belief in the Hawthorne effect, such that the theory had a profound influence on subsequent management teachings and practicum.

However, additional studies at the Hawthorne Works, such as those conducted by Harvard University psychologists Elton Mayo and Fritz Roethlisberger from 1924 to 1932 (Dickson, 1973), failed to find evidence that merely being watched was the sole contributor to the effect, focusing instead on different environmental conditions, labor-management relations, and employee morale. The experiments established that there were large effects due to factors other than the simple physical ones the original experiments had been designed to study. For

example, Mayo's studies found that employees are not motivated solely by either environmental conditions or money (Kovach, 1987), but that employee behavior is partially linked to additional factors such as past experiences and preconceptions, attitudes, and the culture of the workplace (Dickson, 1973). Also, Mayo determined that the workers had become a team and that the social dynamics of the team were a stronger force on productivity than were environmental conditions. In addition, the workers did not always perform their work in a repetitive manner, but would vary their work methods to avoid boredom without harming overall productivity. Finally the group was not strongly supervised by management, but instead had a great deal of freedom.

Mayo's Conclusions (Mayo, 1933):

- "Work is a group activity.
- "The social world of the adult is primarily patterned about work activity.
- "The need for recognition, security and sense of belonging is more important in determining workers' morale and productivity than the physical conditions under which they work.
- "A complaint is not necessarily an objective recital of facts; it is commonly a symptom manifesting disturbance of an individual's status position.
- "The worker is a person whose attitudes and effectiveness are conditioned by social demands from both inside and outside the work plant.
- "Informal groups within the work plant exercise strong social controls over the work habits and attitudes of the individual worker.
- "The change from an established society in the home to an adaptive society in the work plant resulting from the use of new techniques tends continually to disrupt the social organization of a work plant and industry generally.
- "Group collaboration does not occur by accident; it must be planned and developed. If group collaboration is achieved the human relations within a work plant may reach a cohesion which resists the disrupting effects of adaptive society."

These results made it clear that the group dynamics and the cultural and social makeup of an organization were an extremely important force either for or against higher productivity, leading to greater participation for the workers, greater trust and openness in the working environment and a greater attention to teams and groups in the work place. Workers -- once considered just another input into the production of goods and services -- and bosses had equal stakes in the system, asserted Mayo, so that there should be a partnership between labor and capital. Mayo's

Hawthorne studies began the human relations approach to management, whereby the needs and motivation of employees become the primary focus of managers (Bedeian, 1993).

Herzberg's Satisfaction Theories

While it is unclear what, if any, influence Mayo's studies might have had on the later work of Frederick Herzberg, there certainly appears to be at least a tacit link between Mayo's worker humanization concepts and Herzberg's theories, in that they both advocate that needs have to be satisfied for the employee to be motivated. Herzberg's studies included interviews in which employees were asked what pleased and displeased them about their work. The interviews suggested that satisfaction and dissatisfaction at work nearly always arose from different factors, and were not simply opposing reactions to the same factors. His book, 'The Motivation to Work', written with research colleagues B Mausner and B Snyderman in 1959, showed that certain factors truly motivate ('motivators'), whereas others tended to lead to dissatisfaction ('hygiene factors').

According to Herzberg, Man has two sets of needs; one as an animal to avoid pain, and two as a human being to grow psychologically. Herzberg's research advocated that people will strive to achieve hygiene needs because they are unhappy without them, but once satisfied the effect soon wears off - satisfaction is temporary.

Examples of hygiene needs (or maintenance factors) in the workplace are (Chapman, 2006):

- policy
- relationship with supervisor
- work conditions
- salary
- company car
- status
- security
- relationship with subordinates
- personal life

True motivators, according to Herzberg, were found to be other completely different factors, such as:

- achievement
- recognition
- work itself

- responsibility
- advancement
- personal growth

According to Herzberg, management should focus on rearranging work so that motivator factors can take effect. He suggested three ways in which this could be done:

- Job enlargement
- Job rotation
- Job enrichment

From his work it can be concluded that the factors that determine whether there is dissatisfaction or no dissatisfaction are not part of the work itself, but rather, are external factors. Critics of Herzberg's theory argue that the two-factor result is observed because it is natural for people to take credit for satisfaction and to blame dissatisfaction on external factors. Furthermore, job satisfaction does not necessarily imply a high level of motivation or productivity (NetMBA, 2005). Despite the possible weakness of the theory, its enduring value is that it recognizes that true motivation comes from within a person and not from incentives or threat of punishment.

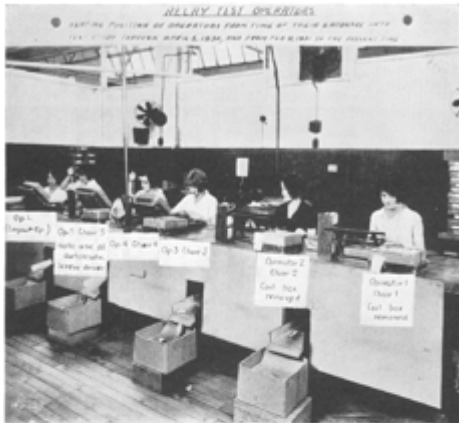
Conclusion:

The contributions toward organization behavior of Mayo & Herzberg had profound influence on subsequent generations of management theory and group relations research, which sought to determine additional methods to gain willing cooperation. Flexible specialization, individual negotiation of wages, and the creation of an environment in which identification with management's goals add up to employee commitment are part of the legacy of the early researchers whose works remain highly influential in the business world, and are becoming more important in the global economy as people with diverse backgrounds and cultural values have to work together effectively and efficiently.

Notes

1. The Hawthorne studies were carried out in the relay assembly Test Room. Six experienced workers were moved into the area constructed for the illumination experiments in April 1927: five to work on assembly and the sixth to keep them supplied with parts. The young women worked in a row (Figure 1) and each completed relay was dropped into a chute and automatically recorded by a hole punched in a tape. The supervisor sat at a desk directly opposite with his assistants in a row beside him; in further emphasis of the social divide, the clerical and administrative staff entered and left the room by a different door.

SKETCH 2



The Test Room in 1931. From left to right (upper panel), layout operator, Anna Haug, Wanda Blasejak, Theresa Layman, Jennie Sirchio, Mary Volango.²

SKETCH 3



Jennie Sirchio, known as Operator 2, was born of Italian immigrants, she dreamed as a child of working in an office, but left high school early because her family needed the wages. When her mother died, she became the housekeeper, main breadwinner, and financial manager for her father and three brothers, breaking off with her long-established boyfriend to do so. Her fierce loyalty to her family was soon matched by her loyalty to the Test Room, not least because to her the wage of \$30 per week (1 cent per relay at group rates) appeared astronomical. Her arrival changed the course of the experiment. She rapidly became the centre of the group, and discipline was no longer a problem. The girls would laugh and talk, sometimes even sing together, but the focus was now firmly on output.

On her left was Mary Volango. Eighteen and born of Polish parents, she aspired to look and behave as much like an American as possible; ‘motion pictures were her chief diversion, and if given the opportunity she talked about them incessantly’. On her right was Theresa Layman, who had lied about her age and was only 15, also with Polish parents. Her mother dominated her husband and six children, and the three wage-earners were obliged to hand over their wage-packets unopened; she was allowed no regular spending money, despite her longing for clothes. Wanda Blasejak, also Polish, lived in a six-room bungalow with her grandmother, parents and six siblings, forming a thrifty, close-knit family group. Her parents ordered her to break off with a boyfriend because he was not Polish. The odd one out was Anna Haug, a 29-year-old from Norway who came to Chicago on her own at the age of 25, and who by some amazing chance ran into her childhood sweetheart at a party. They married while the study was in progress, and planned to save enough money to return to Norway (Roethlisberger, 1939; Gillespie, 1991; Whitehead, 1939). None of the five spoke English at home, but they adopted American customs which, much to the scandal of their families, included serial boyfriends. During the boom they would buy a new outfit of hat, dress, artificial silk stockings and shoes (at a cost of \$10–15)

every few weeks; the style would be set by the latest movies and the outfit would be discarded rather than cleaned. For one observer these clothes were symbolic of 'their desire for another and largely imaginary world peopled by wealthy young men and 'smart' women such as could be seen in any movie, where social obligations and routines of behavior are conspicuous by their absence' (Whitehead, 1938).

It was noted too, that each girl had her own technique of putting the component parts of the relay together - sometimes she varied this technique in order to avoid monotony and it was found that the more intelligent the girl, the greater was the number of variations. The experimental group had considerable freedom of movement. They were not pushed around or bossed by anyone. Under these conditions they developed an increased sense of responsibility and instead of discipline from higher authority being imposed, it came from within the group itself.

What happened was that six individuals became a team and the team gave itself wholeheartedly and spontaneously to co-operation in the experiment. The consequence was that they felt themselves to be participating freely and without afterthought and were happy in the knowledge that they were working without coercion from above or limitation from below. They felt that they were working under less pressure than ever before. In fact regular medical checks showed no signs of cumulative fatigue and absence from work declined by 80 per cent.

Jennie Sirchio and Wanda Blazejak had become the fastest relay assemblers of all time, each with a distinctive style; Sirchio appeared quite leisurely from across the room, but up close her hands became a blur. Meanwhile, their world was beginning to fall apart. AT&T had more than 15 million telephones in operation in 1929, and became the first company ever to gross \$1 billion. The boom ended when Wall Street crashed on Black Thursday, 24 October, and one in ten US phones was disconnected in 1932. Western Electric's takings fell from \$411 million in 1929 to \$70 million in 1933, and 80% of the workforce lost their jobs (Brooks, 1976). Exploring the intimate feelings of employees was no longer on the company's agenda. The Test Room women received their notice in 1932. An exception was made for Jennie Sirchio, who achieved her ambition of working in an office for a few brief months, before she too was sacked. They tracked her down two years later, earning a bare living as a shop assistant. There was one final question. The phenomenal output of the Test Room girls had fallen for the first time when they were given their notice, although logic dictated that they should have worked flat out to maximize their income over the final weeks. Asked why this happened, Jennie said 'we lost our pride' (Whitehead, 1938).

2. Figure retrieved 31 July 2006 from
<http://qjmed.oxfordjournals.org/cgi/content/full/97/7/BIB2#BIB2>

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