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**Deming Versus Performance Appraisal:
Is There a Resolution?**

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The major points that Deming and his colleagues have made against performance appraisal are described. The validity of each point is described. It is shown that performance appraisal practices are already developing to meet many of these points and that there is conflicting evidence about the validity of others. "Performance management", is described and put forth as an evolution of performance appraisal that is consistent with much of Deming's philosophy and therefore diffuses his complaints about appraisals.



**Deming Versus Performance Appraisal:
Is There a Resolution?**

Allan M. Mohrman Jr.

W. Edwards Deming has taken a strong stance against performance appraisal. His teachings about management have been very influential, especially in those companies embarking on total quality or continuous quality improvement efforts. Frequently, as the concepts and philosophies of total quality improvement take hold in a company, a conflict develops between the more fervent adherents to Deming's philosophy and those who use traditional performance appraisal practices. This paper investigates the issues underlying these conflicts and compares them with research and thought in the field of performance appraisal. It shows that each of Deming's problems with appraisal are also recognized by those who are associated with appraisals and that the trends in appraisal practice and thought are toward more compatibility with Deming's views of management. Finally, a broader approach called performance management is presented that fits with the Deming philosophy.

Deming's famous fourteen points (Deming, 1985; 1987) are really a program of organizational change (Gartner and Naughton, 1988). They start with "1. Create constancy of purpose toward improvement of product and service..." and "2. Adopt the new philosophy." They end with "13. Institute a vigorous program of education and retraining." and "14. Put everybody in the company to work in teams to accomplish the transformation." In between, Deming calls for the institution of several practices and the elimination of several others that he considers barriers to his theory of management. Pertinent to this paper are the following: "11. Eliminate numerical quotas for the work force and numerical goals of

management." "12. Remove barriers that rob people of pride of workmanship. Eliminate the annual rating or merit system." Dr. Deming's stance is that the changes he advocates are antithetical to the practice of performance appraisal and related practices such as merit pay.

American industry has had difficulty in following through on Deming's eleventh and twelfth points. Eliminating performance appraisal is one step in his program for change that organizations usually resist. Even the literature that supports Deming's stance on this issue has trouble offering cases of organizations actually following through with the elimination of performance appraisal. Those cases that are described (Walton, 1986; Scherkenbach, 1985) involve companies that start out to revise their appraisal systems to meet Deming's concerns and end up with systems that look very similar to many of the systems in use today, although the rhetoric around them may be different.

For instance, Ford Motor Company, approached the development of their new appraisal system with the Deming philosophy very much in mind and the rhetoric of the system's description was supportive of many of the Deming points (Scherkenbach, 1985). Nevertheless, the system ended up with a very standard sounding rating scale (exceeds requirements, fully meets requirements, partially meets requirements, and does not meet minimum requirements). This underscores the difficulty management has in discarding the more traditional approaches.

Is it possible that Deming's stance is too extreme, that there is a resolution between the Deming philosophy and the strongly ingrained notions of performance appraisal that permeate American industry? Deming and others (Scholtes, 1987) do not think so. Nevertheless, the task of this paper is

to search for this compatibility.

The Basis for Deming's Stance

What are the tenets on which Deming bases his objections to appraisal? Fundamentally his objections stem from his views about statistics. Statistics are important to Deming because of his observation that variability is natural to all phenomena and exists everywhere (Gartner and Naughton, 1988). In fact, his entire theory of management stems from his views of statistical practice (Gartner and Naughton, 1988; Tveite, 1988). At the core of these views lies Deming's distinction between enumerative and analytical studies.

Both enumerative and analytical studies are bases for action. Enumerative studies focus on enumerating the qualities and quantities of a set of tangible units of some type. This set Deming calls a "frame". The purpose of enumeration is to determine what actions are to be taken on the frame or the units in the frame (Tveite, 1988; Deming, 1983). For instance, it might be necessary to determine the value and quality of a shipment of goods in order to determine a price. Often it is prohibitive to completely describe all the contents of a frame so the task becomes to sample units from the frame in order to get a reasonably accurate description of the entire frame and perhaps assign a value to it. Thus one might sample randomly from the shipment of goods to get an idea of what the total shipment is like. For statisticians the issues of enumerative studies concern such things as how to sample from the frame, how various sampling approaches affect the precision of tests, and what the confidence intervals of statistical estimates are.

For managers there is a corresponding set of practices that assume the

use of enumerative studies. These practices include such things as setting numerical quotas and goals, using inspection to achieve quality, and awarding business on the basis of price (Tveite, 1988). In the special case of performance appraisal the enumerative approach underlies the use of measures of performance to award pay or to decide promotions. From an enumerative point of view many of the concerns with performance appraisal are with the accuracy of measurement, the appropriate sampling of performance to be measured, and the like.

Analytic studies are undertaken to guide action that is to be taken on the process, or cause and effect system, that produces the frame under study and that will continue to produce frames in the future (Tveite, 1988; Deming, 1983). Analytic studies provide problems for statisticians because statistics about the frame itself and the units in it do not take into account the particular set of dynamics that produced the frame in the first place. Statistics about one frame will therefore not necessarily predict statistics about another frame which may be produced by the same or similar system in the future. For example, measuring the qualities of a shipment of goods tells one nothing about the system that created those goods. If one wants to improve the system that produced the goods one must look at the system. Analytic studies therefore must look at the patterns that seem to relate aspects of the process/system to the particular statistics of a frame. The relationship between process and frame is less statistical and more judgmental, although guided by statistics.

In order to manage and improve phenomena it is necessary to understand them. Since variability is omnipresent the only way to achieve understanding is through statistical studies, analytic studies in particular. Deming exhorts management to constantly improve the service

and production systems using analytic studies. In the particular arena of performance appraisal the analytic approach means that appraisal should be done as a means to continually improve the processes used to achieve performance. This corresponds to using appraisal for developmental purposes. But it also means that it is the process or the system that is being analyzed, not necessarily an individual employee. From this point of view it is only when the individual embodies the process of production that it makes sense to appraise the individual, and even then only for developmental purposes. If the process or system of production/service involves more than the person then an analytic approach to appraisal would need to consider the person in her technological and organizational context. Continual improvement would require development of the context as well as the individual employee. If the process involves more than one employee then an analytic approach to appraisal would involve the group of employees and their context. Continual improvement could potentially involve development of individuals, the group, and their context.

Essentially, Deming claims that it is best to manage analytically, not enumeratively, that in the vast majority of situations managing enumeratively is not only inappropriate but destructive. The various problems with performance appraisal that are described below are examples of how that particular management practice can be destructive.

The distinctions that Deming draws between enumerative and analytic studies, however, seem to stem from intent. Many of the data that can be and are gathered for analytic purposes are also usable for enumerative purposes, and vice versa (Deming, 1983). Therein lies the problem for performance appraisal. Even when study of performance variability is

undertaken for analytical purposes it can appear to be enumerative in nature. Whenever management has erroneously used appraisal in an enumerative sense in the past there will be the fear of its continued use in that fashion in the future. It is not always possible to tell by the data collected whether it will be used enumeratively or analytically.

Deming and others (Walton, 1986; Scherkenbach, 1985) have described several serious shortcomings to performance appraisal: it confounds people with other resources and systems; it destroys teamwork; it fosters mediocrity; it increases variability; it focuses on the short term; and it destroys self esteem, demotivates, and builds fear. Each of these is discussed below.

It Confounds People with the System and Other Resources In many ways this complaint about appraisal is the most central to the Deming approach. Performance appraisal assumes that the person being evaluated is by and large responsible for results. This ignores a basic tenet of the total quality movement, that the system or process is the determinant of performance and the source of variation. The quality improvement approach is to find and correct the defects in the system/process that lead to poor quality at each step. The aim is to continuously improve productivity by decreasing the costs of quality by attending to the sources of these defects.

From the quality improvement perspective the problem with measuring the performance of individuals is that their performance is inseparable from the system and its processes (Scherkenbach, 1985). These systems are subject to changes and functioning beyond the awareness and prediction of any person and any assumption that system variability is low is liable to be erroneous (Scholtes, 1987). For these reasons any attempt to measure a

person's performance based on the output of the system would be unfair.

When one investigates existing appraisal systems that purport to measure employee performance based on system product (this is a common situation whenever evaluation is based on the achievement of quantitative goals, for instance) it is common to find that a formal or informal mechanism has evolved that allows for some "subjective" tailoring of the final appraisal to reflect the fact that the system not the performer accounts for much of the performance. This is the case when the system results are either high or low despite the employee's effort or lack of it. For instance, if a person's goals were all achieved at a high level the evaluation may still be low because it is felt that certain systemic events that resulted in the high performance occurred beyond the control of the employee.

Proponents of appraisal have long been aware of this problem. Appraisers and appraisal systems have often been accused of confusing performance deficiencies due to factors in the environment with deficiencies due to knowledge and skills (for example, Rumler, 1972). Goal setting, for instance, does not work if the system controls performance and the individual cannot make a difference (Latham and Wexley, 1981).

This issue is one of the reasons that behaviorally based appraisals have become popular. Behaviors, presumably, can be evaluated in terms of how well they are adapted to the environmental contingencies. Furthermore behaviors are under the control of the performer. The concern managers have about measuring behaviors is the possibility that the means would replace the ends, that behaviors might look fine but in the end not accomplish the organizational task. In the past, management has tended to

appraise by results as a way of counteracting this potential problem. The total quality approach offers continuous improvement of the system as an alternative to management by results. In this instance the system/process is the behaviors, so that from a total quality perspective, instead of worrying that means would replace the ends, the focus would be to keep changing and improving the means so that the ends are also improved.

Much of Deming's concern with the person vs. the system stems from his assumption (always true to some extent) that the individual performs within a system over which she has no control. In many jobs and roles, however, the performer has considerable discretion about choosing behaviors and even technologies. In these cases evaluating the system for improvement is equivalent to evaluating the performance (as a process) of the individual.

Deming is correct to warn about inappropriately focussing on the individual when performance is a result of a system. But we must also not make the opposite mistake: focus on the system without considering the individual. Although we tend to think of appraisals as serving organizational purposes it is equally true that they can and do serve individual employee purposes. To avoid confounding the system and the individual we cannot artificially separate the system and the individual. Employees needs and desires must be considered in conjunction with where they fit in the system. These include wanting to know "where they stand" and "how they are doing", to improve their capabilities, to better contribute to the system and the organization, to know what kind of career they can expect and plan for, and to be fairly remunerated for their contributions. These issues are not separable from the system and organization in which they exist. Although some may claim that one does not need a performance appraisal system to handle these issues (Scholtes, 1987), the fact is that they still need to be dealt with. Even if an

organization should choose to create separate systems and processes to handle each issue or need, the systems will still have interdependencies among one another and will have to be linked together. Whether or not any of these systems is labeled "performance appraisal" is irrelevant. In addition, organizations must make decisions about individuals, such as what to pay them and what jobs to assign to them.

Three components are necessary to properly handle individual issues within organizational issues: 1) there must be a set of processes that are aimed at furthering organizational needs, 2) there must be a set of processes that are aimed at dealing with individual concerns, and 3) there must be a set of processes that balance the two sets of needs (in the best of situations the same processes may do all three).

It destroys teamwork. The logic behind this point is compelling. The vast majority of performance appraisal systems focus on the individual's personal performance as judged by the supervisor. Thus the structure of the process denies the relevance of the team. At best this can have only a neutral effect on teamwork (Mohrman, Mohrman, and Worley, 1988). The reasonable fear is that focus on individual dimensions of performance will drive out and replace those dimensions pertinent to group performance. This structural aspect of appraisals results in the passive undermining of teamwork simply because of the omission of team considerations.

When individual performance appraisal is combined with individual rewards and bonuses, teamwork is more actively undermined. This is especially true when a budgeted pool of money is doled out based on a relative ranking of employee performances. This practice puts employees directly in competition with one another so that they are more motivated to

perform better than one another than they are interested in performing with one another. The more tightly individual performance and rewards are linked then the greater this tendency will become.

Luckily, most merit pay systems are failures in this respect. Their motivational potential is almost zero for several reasons (Lawler, 1980). First, most companies make the amount of performance based rewards too small to matter to most employees. Second, the performance component of rewards is usually lumped together with, and therefore indistinguishable from, various general increases, such as cost of living or market adjustments. Finally, the correlations between performance and reward are effectively zero because managers routinely base merit increases and performance appraisals on many factors other than performance, such as the employee's potential and the market worth of the employee.

Of course, most American professionals and managers have a cultural expectation, exacerbated by the rhetoric of corporations, that they will be paid based on their performance. The failure of corporations to deliver pay for performance is an eternal sore point among their employees. There is therefore a constant pressure to strengthen pay for performance practices.

It is not altogether clear however that pay for individual performance is as categorically disruptive of teamwork as argued above. In some settings, when people believe they are payed for performance this is associated with more feedback among workgroup and team members which in turn contributes positively to teamwork (Mohrman, Mohrman and Worley, 1989). In other words, instead of discouraging working with others, pay for performance can actually encourage performance feedback among team

members. The reason for this might be because employees realize the degree to which their performance is interdependent with the performances of others. Rather than compete against their teammates they choose to cooperate as the more likely road to increased personal and team performance. This logic can only work, however, if people think that their performance is being measured and rewarded on some absolute scale and not in comparison with the performance of teammates.

Performance appraisal and pay for performance practices can also be responsive to the teamwork issue in a number of other ways. First, companies are increasingly appraising individuals on how well the employee works in teams. The problem with this practice is that it still assumes that the individual's performance is the correct focus and usually these judgments about teamwork are made by the supervisor who may not have good information. Nevertheless, appraising individuals on the basis of their teamwork is tacit acknowledgment that the individual's performance needs to be considered within a larger system.

Several other emerging practices reflect the group perspective more strongly. For one thing, companies are more frequently using peer (team member) appraisal (Latham and Wexley, 1981; McEvoy and Buller, 1987; Edwards and Sproull, 1985). A different approach is to shift from individual performance appraisal to group level appraisal in which it is the team's performance as a whole that is evaluated. Finally, there is an increase in practices that reward teams for their performance, such as special team awards and gainsharing.

Most of the above practices that take the team into account have been shown to have positive impacts on both individual and team performance and satisfaction (Latham and Wexley, 1981; McEvoy and Buller, 1987; Mohrman, Ledford and Demming, 1986; Mohrman, Mohrman and Worley, 1989).

Interestingly, whenever team performance is measured and rewarded in organizations it is not usually seen as an instance of performance appraisal, when in fact it is. The only difference being that it is the performance of the team that is being considered and not that of the individual.

The destruction of teamwork can therefore be combatted by managing the performance of the team. Instead of appraising and rewarding individual behavior, for instance, we can appraise and reward the performance of teams.

Fosters Mediocrity. The quality improvement adherents claim that using standards and goals as the basis for evaluation fosters mediocrity (Scherkenbach, 1985). Once specific standards are set, even though they may be high standards, they provide stable sign posts around which performance clusters. Since it is important that these standards are met (merit pay tends to heighten this importance) employees find themselves less inclined to take risks. The tried and true ways of achieving performance standards are relied upon. There is a reluctance to try something new that may not work and thereby threaten one's rating and reward. Such a dynamic is contrary to the principle of continuous improvement that is central to the total quality approach.

Also, when performance standards are described in terms of goals and objectives and when employees have some influence over those goals then there is an incentive for goals to be set at safe levels (Scherkenbach, 1985). People are going to make their goals as easily achieved as possible to assure the high rating and reward.

On the other hand, goal setting has had one of the strongest and most

consistent track records as a mechanism that encourages performance beyond mediocrity (Latham and Wexley, 1981). Goals provide challenge. They can motivate performance with nothing more than feedback to the performer about how he or she is doing. High yet attainable goals are the most motivating. Mediocrity arises only when goal attainment is the basis for evaluating and rewarding! When performance is evaluated on something other than goal attainment the performer will see the setting of high goals as useful for the achievement of high performance and mediocre goals will be seen as a guidepost toward mediocre performance. Participation by the employee in goal setting has been found to lead to higher goals being set than if goals are imposed (Latham and Wexley, 1981). The combination of setting high goals, providing frequent feedback, and discussing problems hampering the achievement of goals have all been found to lead to high performance and certainly not mediocrity.

Much of what we know about goal setting therefore seems compatible with the spirit of Deming's approach. Certainly goals are tools used constructively within total quality settings (Tribus, 1984). The major flaw in the use of goals in performance appraisal systems is the tendency to evaluate and reward on the achievement of the goals. This is the practice that leads to mediocrity. It is also an enumerative strategy. It is why Deming objects to the numerical goals set for management. Goals can also be used in an analytic way. To do so requires that goals be set and measured in order to plan, understand, and improve the system that leads to achieving those goals. This is precisely the way goal setting is used in some appraisal systems.

Measuring performance using numerical standards is equivalent to

measuring by goal attainment. Numerical standards are nothing more than goals set by someone on the basis of history or engineered expectations. Standards do not necessarily foster mediocrity if they are used as baselines against which improvement can be judged but sooner or later any standard will have a freezing effect on improvement when it is based on an assumption that the work will be done in a certain way. Standards are based on assumptions about what is possible given the known ways of performing tasks. Improvements that question these assumptions are often tacitly ruled out as possibilities because of the standards that exist. In the same way any appraisal approach that grounds its measures of performance in the job as defined runs the risk of ruling out ways of improving performance that require redefinition of the job. The antidote to these tendencies is to ground assessments of performance in the context of the overall mission of the organizational system and in the criteria by which the customers judge the output of the system. In other words, we should judge performance by how well it fits into its context rather than by how well it accomplishes predetermined standards.

In summary then, we can overcome the tendencies of appraisal to foster mediocrity by doing a number of things. We can manage by goal setting rather than through goal attainment. We can set goals that call for continuing improvement and measures those things that indicate ways the system can improve. We can use criteria based on customer needs and the mission of the organizational system rather than standards based on the job as predefined.

Focuses on the Short Term. Quality improvement spokespeople have claimed that appraisal systems often encourage short term gains at the expense of long term planning (Walton, 1986). Presumably, once short term

gains are stressed or short term goals are formulated they will necessarily drive out consideration of the long term. This will clearly happen if long term goals are not made at all but could also tend to happen even if long term goals are present. People will simply attend most to the goal and reward that has the most immediacy.

On the face of it, the claim that a yearly appraisal leads to short term thinking seems questionable. Even though a year may not be long enough to properly evaluate long term accomplishments, for many jobs in an organization a year is much longer than the natural time span of the work cycle. But it is not the timing of appraisals that is the issue rather it is their focus. Whenever appraisals enumeratively look at a frame of performance they focus attention on that frame and the particular aspects of that frame that are measured. From this point of view the long term-short term distinction is just a special case of local vs. more general performance. Enumerative appraisal, by definition, focuses people on the local and immediate aspects of performance, the ones that are measured. This is a well known problem with appraisals.

The way to avoid the local, short term perspective, it would seem, is to not appraise performance enumeratively, to not set short term goals, and to not reward on performance. It is precisely on this point that American management stumbles. Everyone can agree that broader, longer term perspectives are necessary, but management is at a loss about how and what to manage unless there are measures of performance as indicators. To this Deming would reply that performance should be measured analytically, not to compare it to standards and evaluate it but to understand how to improve it. This means that performance must be understood and measured in the context and in terms of the long term mission of the organization.

Few managers are comfortable doing away with rewarding for performance and many employees seem to demand pay for performance. One type of practice that allows performance based pay and that keeps focus from being fixed on local and immediate performance is to base rewards on the performance of higher level units. This practice encourages the individual to subordinate his or her immediate interests to those of a larger system. Part of the problem is that individual goals tend to be shorter term than team or organizational goals because individual goal achievement is instrumental to achieving group goals. One way to counteract short term tendencies is to manage by group, system and organizational goals so performance is evaluated by its overall contribution to higher level results.

It Increases Variability. This is an interesting claim against appraisal because we often think of appraisals as control mechanisms that are meant to reduce variation and keep performance in line with what is desired (Eisenhardt, 1985; Lawler and Rhode, 1976; Taylor, Fisher and Ilgen, 1984). The quality literature describes several ways in which appraisals increase variability.

First, appraisals may tend to increase variability because they are overly precise, that is they tend to measure the performance of people using gradations that demand distinctions that cannot be operationally defined (Scherkenbach, 1985). Thus the number of levels of ratings creates variation that is not there. These inappropriately varying labels can have a pygmalion effect and function as a self-fulfilling prophecy of subsequent performance (Rosenthal and Jacobson, 1968; Eden, 1988): that is, if a person becomes labeled as a low (or high) performer then people will tend

to treat her or him, and show expectations of him or her, as a low (or high) performer. These expectations and treatments will eventually result in the person becoming a low (or high) performer. The same "pygmalion effect" is one of the reasons that setting high goals results in better performance (Eden, 1988).

Second, ranking and forced distribution approaches may set up a series of bizarre variations. Ranking, for instance, results in one-half of the performers being ranked in the lower half. At the same time 80 to 90% of people think of themselves in the top 50% (Hamner, 1975). Because of this there is built-in dissatisfaction with the results. Thirty to forty percent will be disappointed to be labeled "lower half". Some may react by giving up or scaling down their performance to match what they think the organization thinks of them. Others may begin to behave like those who they believe got the higher ratings; which would be desirable if, in fact, those with the higher ratings were actually better performers. That they are the better performers is by no means certain if we accept the earlier argument that the system (not the people) is accountable for a large variation in performance. All these dynamics may result in an increased variation in performance (Scherkenbach, 1985).

Third, there is variation that may sneak into the appraisal because of the differential biases and skills of the supervisors who do the evaluation (Walton, 1986).

Fourth, variation can crop up in the system because individuals will begin to use it as a mechanism for their further gain. They may change parts of the system to make themselves look better but worsen the quality and productivity of the system. They may resist changes in the system

because as presently constituted the system makes them look good. In neither case is the employee working for a collective gain by working to continuously improve the system.

Finally, variation can be increased by a feedback loop that amplifies deviations (Weick, 1979). This can happen when individuals are given feedback that they had not performed well. This can deject or demotivate so that performance worsens, resulting in even lower ratings and worse subsequent dejection. This can also happen when an individual is praised for something. The result will be to reinforce the praised behavior which may not have been an important behavior (Scherkerbach, 1985) especially if the system and not the behavior is responsible for the ultimate performance. Managers often offer inappropriate praise just to counteract the negativity of other feedback or to keep from stirring up trouble.

The solution sometimes offered by Deming and others to remove these contributors to variability stems from the notion of the system discussed above. All ratings should be based on the performance attributable to the system, whatever it is. All systems can be expected to exhibit a variation in performance. People working within the system will show these variations in what appears to be their performance. Because their performance is largely due to the system and as long as their performances are within the limits expected from the system there should be no further attempt to measure the performances of people. They are "within the system" and any variation among their performances cannot be further defined into what part is due to the system and what part is due to their personal performance. It is possible that the performances of some few people will be "outside the system". Those outside on the high side should

be considered special talents and handled accordingly. Of special interest are the procedures they use to achieve their outstanding results. Those who perform outside the system on the poor side should be attended to immediately and constructively through developmental efforts, career counseling and so forth (Deming, 1987; Scherkenbach, 1985).

Some students of appraisal independent of the quality movement have come to similar conclusions about measuring performance (Fox, 1987-88), as have some companies who have recently revised their appraisal processes. The rationale set forth by these people is based entirely on measurement theory and the notion of a normal distribution of performance and talent. The bulk of people, this argument goes, will occupy the central regions of this distribution where it is hardest to get reliable measures. The most reliable measures are of the few who occupy the tails of the distribution, therefore it is only these that we can hope to reliably measure. This is an enumerative approach. It seems to arrive at the same point as Deming would but for the wrong reasons. Deming considers the nonreliability of measures of the central group to be a function of the work system. Thus he puts the issue into an analytic framework. For him the issue is not a matter of describing the normal distribution of individual abilities and picking out the highs and the lows; rather it is a matter of statistically determining the high and low limits of the system in which people work and finding those that for some reason perform at a level that is not explained by the nature of the system.

It Destroys Self-esteem, Demotivates, Builds Fear, Lowers Productivity. As noted above, these kind of reactions can be serious results of appraisal and merit pay processes. Rewards often carry messages that one is above or below average because average merit raises are often

published or otherwise known in an organization. Merit raises always seem too low to many because 90% consider themselves to be in the top half of performers (Hamner, 1975). Whenever a person receives feedback that falls short of expectation the result can be such reactions as demotivation, lower self-esteem, etc. These reactions can also come when one is punished for not meeting goals. Criticism is usually received with defensiveness (Latham and Wexley, 1981) and rationalization (Klein and Mohrman, 1987) and rarely results in a constructive response (Meyer, Kay and French, 1965). For these reasons many call for the abolition of appraisals.

On the other hand, there are indications that despite the above, appraisal and merit pay can be turned to positive results. Rewarding good performance can lead to good performers feeling valued. Not having a system for rewarding good performance can lead to good performers feeling undervalued (Latham and Wexley, 1981). Also it has long been believed that evaluating performance for pay purposes interferes with using the appraisal feedback session to constructively discuss and plan developmental activities for the employee (Meyer, Kay, and French, 1965). This is entirely consistent with Deming's stance against enumerative approaches and in favor of analytic approaches. More recent evidence (Landy, Barnes and Murphy, 1978; Prince and Lawler, 1986) has indicated just the opposite: that discussing how appraisal will affect salary actually facilitates discussion of development. The reason for this may stem from the fact that in most organizations in our society most people (especially nonhourlies) expect to be paid for performance. Performance appraisal therefore raises subordinate expectations about its consequences for pay. If the supervisor attempts to avoid talking about the pay issue and focus only on development

needs, this actually impedes the developmental discussion because the subordinate is waiting for the pay message. In short, it is often the appraisee that forces appraisals to be used in an enumerative way. Research suggests that doing so actually contributes to appraisals being used in an analytic way also. This is an example of a point made earlier, that appraisal needs to serve individual purposes as well as system purposes. Appraisal systems work best when they serve both sets of purposes.

In another study, we have found that the constructiveness of the appraisal process can be quite independent of the rating. Deming and others tend to assume that low ratings will lead to the various negative outcomes listed at the beginning of this section. This is true when the appraisal is held for the sole purpose of delivering the rating message. Our research shows that regardless of the rating, an appraisal discussion can be quite constructive. The determinant of whether or not the outcomes are constructive is not the appraisal message but the process used. In general, participative processes that involve a mutuality between the supervisor and employee result in higher job involvement, trust and satisfaction and result in increased performance (Mohrman, 1983).

These findings are not inconsistent with Deming's goals. Deming also wants involvement, trust, satisfaction and increased performance. He feels, however, they are not achievable as long as evaluation is allowed to exist as a barrier, that is: when evaluation is used in an enumerative way. Our findings indicate that the fact that low performance evaluations have a tendency to lead to negative responses from the evaluatee does not necessarily mean that they will. Indeed, the appropriate processes, such as increasing the mutuality and participativeness of the appraisal experience,

can successfully preempt this tendency. Put another way, unlike Deming's assumptions, it does appear possible to simultaneously use appraisals enumeratively and analytically. In fact, a mutual process allows this to happen and helps both approaches to coexist.

Performance appraisal is not the only practice that can create negative consequences. The team concept and the total quality process itself, with its focus on continuous improvement, have also been accused of putting workers into a pressure cooker and fear inducing environment (Parker and Slaughter, 1988). The reasons why some total quality approaches have these negative consequences may be because they are implemented in a way more congruent with traditional management than with, say, Deming's fourteen points. Certainly it is not fair to judge all total quality efforts on the basis of problem implementations. Likewise it is unwise to throw out all performance appraisal or performance management practices because of their label. Unfortunately this is the stance often taken by those who interpret Deming too literally.

Conflicting Paradigms or a Search for a New Paradigm?

It seems unarguable that the total quality movement represents a major shift in management style (Cole, 1986). Deming certainly agrees (Deming, 1985). Characterizations of major shifts in management style are coming from several quarters these days: the information society, quality of work life, sociotechnical systems, high involvement work organizations, world class organizations, as well as the total quality movement. Sometimes these transitions in management style have themselves been called paradigm shifts but it seems more likely that they are the piecemeal beginnings of an overall shift in management paradigm (Mohrman and Lawler, 1985). It is only a matter of time until each of these will begin to

intersect with the others. Inconsistencies and differences among them will need to be confronted and worked out. This monograph is a case in point.

Even the total quality movement has its inconsistencies. Deming is not the only spokesman for the quality movement. There are many others. American industry has generally made it a habit to meld the various approaches (Cole, 1986). The adoption of a total quality approach in any organization has its own idiosyncratic look and feel, because organizational change is not simply a matter of imposing a new worldview in an organization. It is a more complex matter of seeking a resolution of the differences between that new worldview and the organizational status quo. It is also a matter of building a new view of management that is successful. Performance appraisal is one arena in which the changes demanded by the total quality movement are working toward a resolution of their inconsistencies with established organizational practice.

But the quality movement is not the sole source of change in performance appraisal. Deming's case against performance appraisal is aimed at a set of practices and underlying philosophies that, while still dominant, are already undergoing major transition. While criticisms from the quality framework often add unique wrinkles and insights, these same points have been frequently made against appraisals and merit pay from other quarters. At the present time innumerable organizations are for many of these same reasons questioning their appraisal practices. New appraisal practices are being experimented with. New philosophies are being formed. Old assumptions are being questioned (Mohrman, Morhman, and Worley, 1988; Bernardin, 1986; Mohrman, Resnick-West and Lawler, 1989).

A Performance Management Response

As this paper has considered each of the claims against performance appraisal it has also suggested practices that respond to these claims. Table 1 summarizes these responses. Rather than use the value laden term "performance appraisal", which does not begin to capture the breadth of emerging practices, we use the term "performance management".

While table 1 summarizes the performance management response to each of Deming's problems with performance appraisal, Table 2 describes what the elements of a new performance management system might be and compares and contrasts them to the elements of the more traditional performance appraisal systems to which Deming so strenuously objects. The most fundamental aspect of emerging performance management systems is that they recognize that individuals are not the only organizational entities capable of performance. Performance can and should be managed at the individual, team, and system (process) levels. These performers are not just appraisees but active participants in the entire performance management process. Those who manage performance do more than just appraise performance and are not just supervisors but also the performers themselves and others, such as customers, who are significant parts of the performer's environment. Performance management is not just based on preestablished job criteria, goals and other standards. The basis for performance management starts with organizational goals, the mission of group or team, the needs of customers, and includes the nature of the system employed and the roles of the group and individual within it. Whereas traditional appraisal focusses on one-way reviews of past performance based on predetermined measures of performance, performance management is a mutual process involving several people that focusses on negotiating a reality through defining what performance should be, developing skills and

resources to accomplish performance and reviewing performance so that it can be redefined and developed accordingly. Performance appraisals are typically annual or semiannual, driven by administrative necessities, such as pay decisions. Performance management needs to be frequent, with a periodicity driven by the natural performance cycles of the situation. It should be able to be initiated by performers to meet their needs as well as fit with the administrative purposes that are connected with it. Finally, the new performance management recognizes that there are a number of purposes that people and organizations have for it. Some are enumerative in nature, such as pay decisions, and some are analytic. It is not possible to rule out one type of purpose nor is it true that one purpose necessarily is served at the expense of the other. Performance management systems must balance the various purposes and make sure its participants understand them in their right context.

The various levels at which performance management takes place are directly interrelated (Table 3). For instance, business strategies and plans are a way of defining performance at the organizational level. Once defined, these provide a context in which various organizational units and groups can define their own missions, set goals and plan performance strategies. Similarly, the goals and responsibilities of individuals within the group are a natural and necessary part of group level planning.

At each level of performance management (organization, group, individual) the same stages of the performance management process apply. Not only can performance be defined at each level but performance can be developed at each level, reviewed at each level, and rewarded at each level.

All of this is much more compatible with the tenets of total quality

than the traditional appraisal.

Conclusion

Yes, there are major differences between the quality movement as exemplified by Deming and the traditional practice of performance appraisal. But appraisal practices are already changing, and the change is toward many of Deming's points. The final resolution will not be a compromise between the two as we tend to see developing now but rather a quite different paradigm of performance management.

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Table 1

Deming's Problems with Performance Appraisal
and
The Performance Management Resolution

<u>Problems with PA</u>	<u>Performance Management Responses</u>
Confounds People w/ System	Manage performance of system and team, not individual, unless appropriate. Focus on behaviors of individual to improve system. Attend to needs of individual also. Mutually work out individual and organizational needs.
Destroys Teamwork	Manage performance of system and the team that works within it and manages it. Reward for team/system performance.
Fosters Mediocrity	Manage through goal setting not goal attainment. Use measures that indicate ways system can be improved. Do not use numerical standards, nor job defined criteria. Use customer and mission related criteria.
Short Term not Long Term (local not general)	Make purposes of performance constant improvement within long term mission. Define criteria in terms of business, mission, customer, situation.
Increases Variability	Make only gross comparative judgments about individual performance, i.e. within system or out. Establish consensus about performance management. Work to continually improve system.
Decreases Self Esteem, Increases Fear, Reduces Productivity and Motivation	Use a mutual, open, participative process. Consider employee needs and purposes. Balance multiple purposes.

Table 2

THE NEW PERFORMANCE MANAGEMENT

	From Performance Appraisal	To Performance Management
Appraisees/ Performers	Individual	Individual, Group/Team, system
Appraisers/ Performance Managers	Supervisor	Performer, Supervisor, Coworkers, Team, Customers, Others
Basis	Job defined criteria Goals and Standards	Nature and strategy of performance defined by business, Team mission, Customers, Situation, Nature of system and roles
Process	Validated measurement of "objective performance" (enumerative)	Negotiation of "subjective" reality based on multiple judgments (analytic)
	Focus on review of past performance	Focus on entire performance management process: defining developing and reviewing
	One-way	Mutual
	Training of rater	Training of all participants
Timing	Annual, Administratively driven	Initiated by performers, Periodic, Driven by natural performance cycles as well as administrative purposes
Purposes	Separate systems for a few purposes: pay, development, Human resource planning, etc.	Balancing of multiple purposes: individual, team organizational (often conflicting)

Table 3

Levels of Performance Management

<u>Organization</u>	<u>Group</u>	<u>Individual</u>
D E F I N I N G P E R F O R M A N C E		
Strategy, Business Plan	Mission, Goal Setting, Performance Strategies	Goals, Responsibilities, Work Planning
D E V E L O P I N G P E R F O R M A N C E		
Organizational Design and Development	Group Development Team Building Communication, Coordination, and Adjustment	Development of Skills and Understanding Feedback and Adjustment
R E V I E W I N G P E R F O R M A N C E		
Review	Review, Analyze, and Evaluate	Review, Analyze, Evaluate
R E W A R D I N G P E R F O R M A N C E		
Financial organizational performance	Team rewards commensurate with value of organizational performance and team contribution	Rewards commensurate with value of organizational and team performance and individual contribution
R E D E F I N I N G P E R F O R M A N C E		
Strategic Planning	Improvement Strategies	Goals, Responsibilities and Work Planning