A Law of Diminishing Returns in Organizational Behavior?

KEITH DAVIS
Professor of Management
Center for Executive Development
College of Business Administration
Arizona State University
Tempe, Arizona

The concept of diminishing returns says that for any situation there is an optimum amount of a desirable practice, after which point, a decline in returns is experienced. This concept is explained as it applies to worker autonomy, employee security and specialization.

During the last thirty years there has been a deluge of articles, research studies, and books about behavior of people in organizations. Thousands of articles have been published and there have been hundreds of research studies and books. Some observations have been more sophisticated than others, but all have sought that elusive goal of understanding people at work. Individual managers cannot read all the materials; thus, there is a constant search for basic ideas that clarify a variety of different data. The need is to distill the essence of behavioral knowledge without losing the complex details and disclaimers.

One example of the kind mentioned is Maslow's need hierarchy which assesses information from different inputs; thus, it is of practical use to managers in actual situations. Another plan is Herzberg's motivation—maintenance model. Although some researchers question its general validity, it helps managers better understand the workplace. Because of their practical value, these ideas have been widely publicized.

Another idea seems to distill much information about organizational behavior, but it has received little publicity. That idea is the concept of *diminishing returns.* It has been well developed in economics, but has received little attention in the behavioral area. This plan distills a great deal of wisdom and applies to a wide variety of situations. Furthermore, *it is supported by extensive research.* With all these things in its favor, it deserves more publicity.

In economics the law of diminishing returns refers to the amount of extra output received when additional desirable input is added to an economic situation. It states that after a certain point the output from each unit of input added tends to become smaller. The added output eventually may reach zero and even decline when more units of input are added. For example, if a farmer has a laborer working on 20 acres of land, he could potentially double the output by adding another laborer. Similar results might occur by doubling the work force to four persons and then to eight, but soon a point would be reached where the increase in output from adding workers would be smaller and smaller. Eventually production would decline as the field became overcrowded with workers. Coordination deteriorated and crops were trampled by the crowd.

Diminishing returns in organizational behavior works in a similar way. The diminishing returns model states that at some point increments of a desirable practice produce declining returns, eventually zero returns and then negative returns as more increments are added. The concept implies that for any situation there is an optimum amount of a desirable practice. When that point is exceeded, there is a decline in returns. In other words, the fact that a practice is desirable does not mean that more of it is more desirable. At some point diminishing returns and then negative returns are reached. More of a good thing is not necessarily good.

Naturally diminishing returns does not apply to every behavioral situation; there are exceptions. But the idea is so widely applicable, that it is of general use. Furthermore, the exact point that an application becomes excess will vary with the circumstances; but an excess can be reached with nearly any variable. Diminishing returns in organizational behavior is so prevalent that real managers must deal with it frequently.

Why does the diminishing returns re-

About the Author: *Keith Davis* is a Professor of Management at Arizona State University. His business experience includes positions as a consultant, lecturer and personnel specialist. Dr. Davis is the author of over 125 articles and numerous books and is a contributor to many others. He received his Ph.D. degree from Ohio State University and his M.B.A. degree from the University of Texas.

Effective managerial practice is contingent upon an appropriate combination of the relevant variables in a particular situation.

lationship exist? Essentially, diminishing returns is a system concept. It applies because of the complex system relationships of many variables in organizational behavior. The facts state that when an excess of one variable develops, although that variable is desirable, it tends to restrict the operating benefits of other variables so substantially that net effectiveness declines. For example, too much autonomy results in too little coordination. This relationship shows that organizational effectiveness is achieved, not by maximizing one behavioral variable, but by working all variables together in a balanced way. In essence, this is the modern contingency management view. Effective managerial practice is contingent upon an appropriate combination of the relevant variables in a particular situation.

The diminishing returns model can be illustrated by applying it to selected situations. In these situations a single variable is plotted against organizational effectiveness to show how effectiveness declines when an excess of the variable is applied.

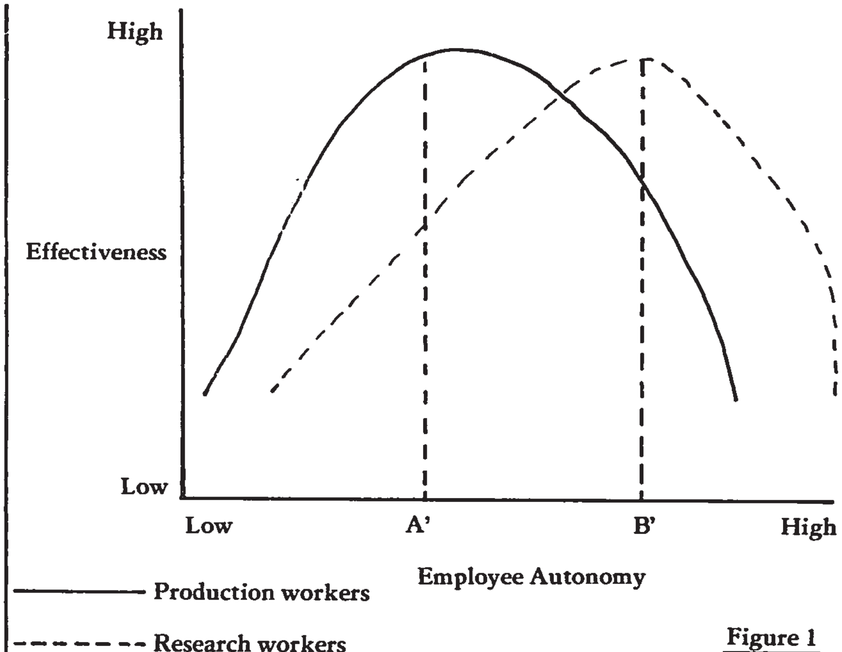

Figure 1

Worker Autonomy

Worker autonomy is a higher-order need frequently emphasized by organizational behavior specialists. Some observers speak of autonomy as an ideal, implying that if organizational members could have complete autonomy then the ideal state would be achieved. But this kind of reasoning ignores the law of diminishing returns. As shown in Figure 1, effectiveness declines when additional increments of autonomy are added, because an excess of autonomy prevents coordination toward central goals. An integration of activities is lacking, so the organization cannot function effectively and the labor of the people is wasted.

At the other end of the continuum, the lack of autonomy is also ineffective. Although autonomy is considered a desirable practice, if its use declines below an appropriate level, the organization will become less and less effective, because it fails to develop and use the talents of employees. The result, as shown in Figure 1, is that effectiveness in a desirable behavioral practice, declines with both excessive use and miserly use. Most success is achieved in the broad middle ground of use. This relationship produces a humpback curve for behavioral practices when they are charted with effectiveness.

The location of the humpback curve on the autonomy continuum may vary somewhat with different situations and the slope may vary, but the basic curve persists in organizational relationships. Figure 1 shows a curve with a solid line as it might exist for a group of production workers. Line A-A' shows the amount of autonomy that produces maximum effectiveness. The curve with the dotted line shows how diminishing returns might apply to workers in a research unit in the same organization Line B-B' shows that much more autonomy can be provided the research workers before a point of maximum effectiveness is reached. Ten years from now the curves for both might be in different locations because of different conditions. This kind of contingent relationship, by which the most effective point of autonomy is dependent on other variables, is the essence of modern contingency management. However, whatever the situation, the humpback curve persists and a point of diminishing returns is reached.

The curve of diminishing returns serves as a warning to management that, although increased autonomy can be beneficial, an excess of it will be counterproductive. When management is aware

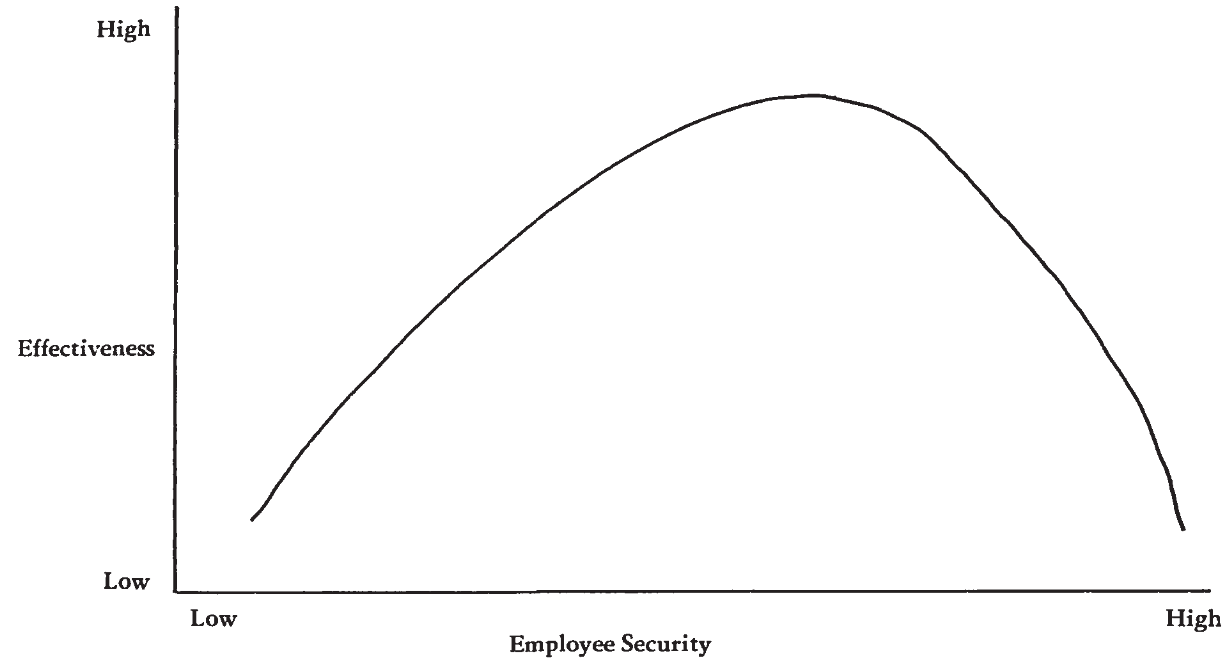

Figure 2

of this kind of relationship, it can more wisely develop autonomy for employees in organizations.

Employee Security

Security is a basic human need shown at the second level of priority on the Maslow need hierarchy. Employees need it in order to free their minds from obsessive worry so that they can concentrate on teamwork and organizational goals. When there is insecurity, turnover and absenteeism increase, and employees are unable to concentrate on their work. Lack of security is clearly dysfunctional in an organization. On the other hand, as shown in Figure 2, an excess of security is also dysfunctional. Employees become complacent and unwilling to respond to necessary change. They desire to protect their status quo rather than to grow and develop. Very quickly a point of diminishing returns is reached where more security is either not worth its cost or is even dysfunctional to the organization. Managers need to be able to recognize the point of diminishing returns so that they do not waste organizational resources providing more security than is necessary. Again the relationship holds: The fact that some security is wise does not mean that more security is wiser.

Employee Specialization

One of the great ideas of civilization has been specialization of labor. Throughout history people have benefited from its application, and Adam Smith in 1776 made it a key principle in his economic model. Following the work of Fredrick W. Taylor around the 1900's in the United States, American management embraced specialization as a key to productivity. As so often happens with a good idea, specialization was pursued to excess, rendering it dysfunctional. Workers grew bored and alienated, and their work became almost meaningless as they performed smaller and smaller pieces of the whole job. A point of diminishing returns had been reached and exceeded. This relationship is shown in Figure 3. If management in the 1920's to the 1960's had better understood the law of diminishing returns as it applied to specialization, much alienation and productivity loss could have been prevented.

Manager's Concern for People

The law of diminishing returns applies throughout an organization, including management levels. An example is a manager's concern for people, also known as employee orientation. It is well established that concern for people is a significant variable for improving managerial performance. If a manager lacks concern for people, the work group is likely to be ineffective. Employees will not respond to the manager's leadership, and teamwork will not develop. Clearly, in this kind of deficient situation, more increments of employee concern are needed to improve group effectiveness.

When too many increments of employee concern are added, then a manager tends to forget other significant variables in the situation, and the law of diminishing returns applies as shown in Figure 4. A manager has only a certain amount of time available, and if he spends it relating to people, then he is unable to spend it working on production, social responsibility, long-range planning or some other important variable. He becomes what is often called a country-club manager, keeping his people happy but accomplishing little else. His concern for people, at one point highly desirable, has become dysfunctional as more increments are added. Again the relationship holds: The fact that some concern for people is wise does not mean that more concern for people is wiser.

The law of diminishing returns applies

Figure 3

throughout much of the organizational behavior as well as in economics. Essentially it states that moderation is required in all desirable practices. There can be too much of a good thing just as there can be too little of it. An excess of one variable disturbs system relationships so drastically that diminishing and eventually dysfunctional results occur. The middle ground before the laws of diminishing returns applies is the most effective area of operations. It is the high point on the humpback curve of effectiveness.

The message to managers is clear. They should beware of becoming so enamored with one practice that they overextend it beyond its proper relationship with other variables in the situation. Management is not a place for managers obsessed with building employee autonomy and little else, or specializing labor to the ultimate possible, or creating the most possible employee security. Moderation is required to avoid the law of diminishing returns and relate each desired variable to other variables in the complex situation. Each situation is different. In certain kinds of situations more of one variable can be used than in others. That is the essence of contingency management. PJ

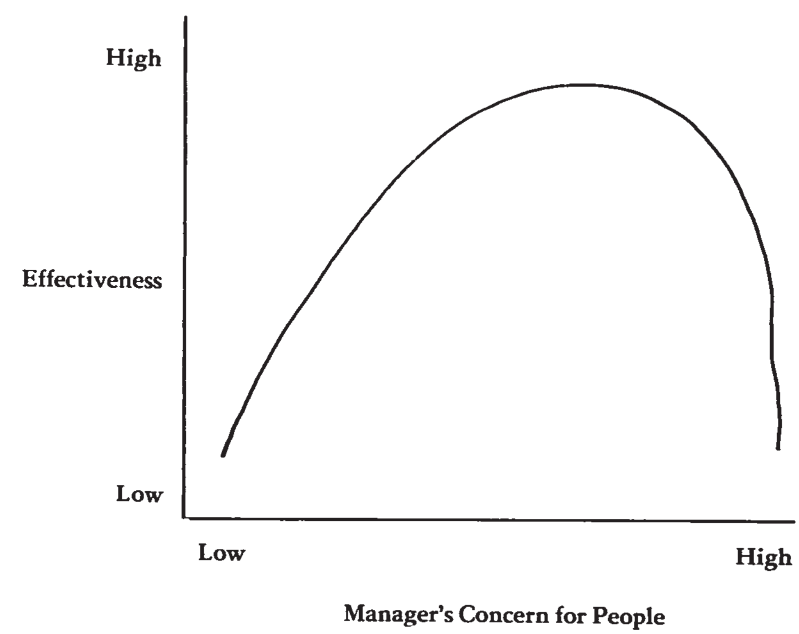

Figure 4