

Purpose

This paper presents a model of human behavior and performance that I find useful in thinking about, understanding and improving human performance in workplace settings. It is better than anything else I have encountered. If you like, you can think of this paper as a testimonial.

The model has its roots in William T. Powers' (1973) theory that behavior is the means whereby we control our perceptions. This theory, known as Perceptual Control Theory (PCT), is a closed-loop view of behavior that is consistent with the control theory of the engineering sciences. Indeed, PCT depicts human beings as "living control systems (Powers, 1989)." A view of people as living control systems is much more satisfying to me than a view of people as helpless pawns in the hands of behavior modification experts, as computers to be programmed by those who know how or as weak, spineless creatures who need to be empowered by management before they are capable of acting on and shaping the world about them. Beyond simply being more satisfying, the model provides a useful framework for integrating much of what we know about what works with respect to managing and improving other people's performance in the workplace. Powers' latest book (Powers, 1998) does an excellent job of setting forth PCT in an easy to read, understandable way and I will not attempt to duplicate that eloquent explanation here.

My aim in this paper is to set forth this "better model" in a way that facilitates its use in examining and intervening in human performance issues in the workplace. In this sense, the model serves as a guide to professional practice for those interested in establishing and maintaining particular kinds and specific levels of performance in workplace settings. It provides a theoretical framework on which to hang empirical findings. Karl Weick (1995) has made clear the importance of sense-making in organizations and the value of the model presented here is perhaps far greater to practitioners in helping them make sense out of what they already know than if it simply gave rise to a few new techniques.

But first, let's address the underlying construct: the very idea of human performance.

Human Performance: What is it?

When we talk about human performance, we are typically talking about two things: (1) people's behavior or actions and (2) the effects or outcomes of those actions (Nickols, 1977).

The effects of our actions are usually felt on other people, on information, on things and on "systems" (e.g., structured arrangements such as work flows, processes, methods, etc). Performance, from a behavior or action perspective, might involve leading a discussion, writing a report or a proposal, building a cabinet, redesigning a procedure and so on. The effects sought from these actions might include developing a shared understanding of an issue, communicating the results and recommendations of an analysis or of winning a new piece of business, expanding available storage space or realizing cost reductions through work simplification.

Performance in the workplace has many dimensions. Regarding a customer service representative (CSR), for example, we are as interested in the CSR's overall impact on the customer as we are in the extent to which the CSR efficiently handles the customer's order or complaint. We expect that most employees will comply with company policies and procedures; however, we also expect that many people will not just "do their jobs" and "behave themselves" but that they will also contribute above and beyond these basic expectations (e.g., by devising improvements to the work processes in which their own work is embedded). We expect to see certain patterns in behavior that are commonly summed up in labels such as "punctual," "reliable," "steady," "cooperative," "loyal" and "courteous." And we expect to see certain patterned behaviors that go by other names, namely, "skills" and "competencies" (e.g., proficiency displayed during the course of typing memos, coding programs, writing reports, leading meetings, solving problems and so on).

Human performance, then, is a rich, multi-faceted construct that encompasses behavior *and* its effects.

People As Living Control Systems

The model in Figure 1 depicts the main factors in a view of human beings as living control systems. This model encapsulates a theory which says people act in ways that result in their perceptions being congruent or aligned with their goals. More simply stated, we act in ways that get us what we want. A more detailed, somewhat personalized explanation follows.

I act purposefully, which is to say that I formulate, hold and pursue certain intentions. In a word, I can be said to have *goals*. My goals are related to certain *conditions* around me. My goals are actually reference specifications (i.e., ideal or desired states) for various aspects of the conditions around me.

I also have *perceptions* of myself, my actions, my surrounding conditions and the interactions between the two, especially the effects my actions have on my surrounding conditions and the implications those conditions portend for me.

My perceptions occur via the five senses. If there is an unacceptable discrepancy (*d*) between some intended condition and what I perceive to be the case (i.e., a gap or an error), I take *action*, I intervene (*i*) in the situation. My action or intervention might be aimed at achieving some newly desired condition, at maintaining or preserving an existing condition, at eliminating an existing

condition or at avoiding some unwanted condition. In the language of perceptual control theory (PCT), I can be said to be “controlling” for certain reference conditions.

Although I am a living control system, my control over the world in which I live is far from perfect. The effects I produce are rarely attributable solely to my actions and, despite my best efforts, the outcomes I seek often elude me. As the poet Robert Burns pointed out, “The best laid schemes o’ mice and men gang aft a-gley.” The effects of my actions are tempered and even offset by other actors and factors. In a word, my efforts are subject to *disturbances*.

These disturbances include my physical surroundings as well as other people. I can make the same remark and it can produce an entirely different effect depending on the listener’s state of mind at the time. A comment I make on an Internet discussion list can have a vastly different effect than the same comment made in private correspondence. Although I can usually adapt to the circumstances at hand, I cannot overcome a complete lack of suitable tools or the unacceptably low quality of available materials. A faulty word processing system can preclude my prompt and proper preparation of a memo. Competing tasks can interfere with one another; the report I promised to deliver on Friday gives way to a problem that crops up on Thursday. A readily observed fact of life is that the desired effects of my actions can be supported or inhibited by other actors and factors in my surroundings.

Much of what I perceive relates to the *conditions* around me. The effects of my actions are reflected in changes in my perceptions of those conditions. Further, these are changes that I attribute to my actions. Although I seek to control these conditions, all I know of them is what I perceive. Therefore, it is accurate to say, as Powers does, that I act to control my perceptions. As Peter Drucker (1973) has noted, control is always against some standard. The standards against which I control my perceptions are the reference specifications as defined by my intentions or goals.

To recap: As a living control system I have or hold goals that define reference specifications or desired states for the conditions around or related to me. I also have perceptions of these same conditions. My perceptions define for me what appears to be the case (i.e., current or actual conditions). If I am bent on controlling some aspect or variable in the situation (i.e., if I really intend for some variable to be in a certain state) and if I perceive that it is not, I take action so as to bring my perception of this variable into alignment with my goal or reference specification for it. In short, I act to keep my perceptions aligned with my goals. My actions are mediated by other factors; for example, my physical surroundings and other people. My control is far from perfect; it is ever subject to disturbances.

Now, let’s move away from me and talk about us. If I am a living control system, so are you. If I act in ways that serve to keep my perceptions aligned with my goals, so do you. If your actions affect my actions, mine might affect yours. Your actions might affect mine in ways that buttress my actions or in ways that negate or diminish the effectiveness of my actions; ditto for mine in relation to yours. In short, your actions might disturb my efforts to control my perceptions and my actions might disturb your efforts to control yours. We find ourselves in conflict. And that brings us to the task of management.

The Task of Management

The fundamental task of management is to concentrate and channel organizational energy along productive lines. This entails setting goals and objectives, allocating resources, establishing priorities, monitoring accomplishments and so on. Managers are typically responsible for more work than they can do alone. The task of management extends to focusing and directing the activities of other people, of managing other people’s performance. In the course of influencing other people’s behavior and its effects on targeted conditions, managers can find themselves in conflict with the people who report to them. The balance of this paper touches on ways and means of managerially influencing behavior and performance in ways that are least likely to create disturbances to people’s efforts to control their perceptions and to a manager’s efforts to influence performance.

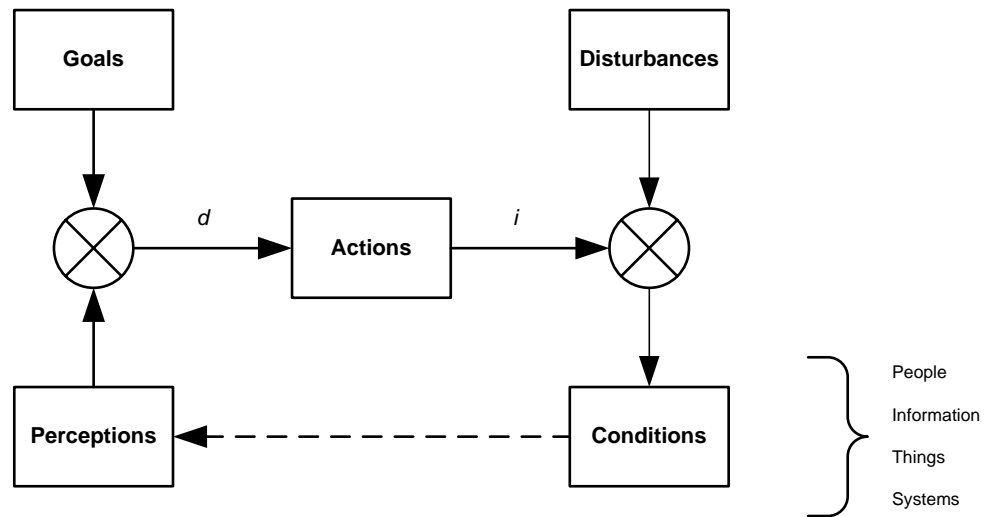


Figure 1 - A Model of Human Performance

Managing Someone Else's Performance

Short of coercion, a manager can't really control someone else's performance (i.e., the other person's behavior and the effects of that behavior); only the person in question can do that and then only with limits posed by those mediating factors we are here calling "disturbances." The best a manager can do is ensure that the conditions under which a given performance is to be achieved are as consistent with and supportive of the desired performance as they can be.

Figure 2 indicates some of the ways a manager can influence the performance of other people. The numbers of the factors discussed below correspond to the numbered circles in Figure 2.

1. Setting Appropriate Goals

If people behave so as to keep their perceptions aligned with their goals, it follows that effective management practice must aim at facilitating the establishment, by the performer, of an appropriate set of goals and at developing the performer's commitment to those goals. This is why setting work objectives and performance measures are so critical and why the manager's role as coach and mentor is equally important. Of particular importance is the development of a clear picture of the end state or results to be achieved. This picture enables the performer to vary behavior in response to circumstances yet stay focused on the intended outcome.

2. Improving Actions

Setting aside for the moment the matter of mediating factors, management must also ensure that the performer has or develops a relevant repertory of effective actions. This is commonly accomplished through such conventional means as recruiting and selection and training and development. Job aids, too, have a role to play in shaping actions.

3. Mitigating Disturbances

One of a manager's greatest leverage points lies in mitigating those factors that inhibit the desired performance and facilitating those that support it. This is an area that has occupied human performance technologists for many years and it is marked by human factors engineering, tool and equipment design, work simplification, job aids and so on.

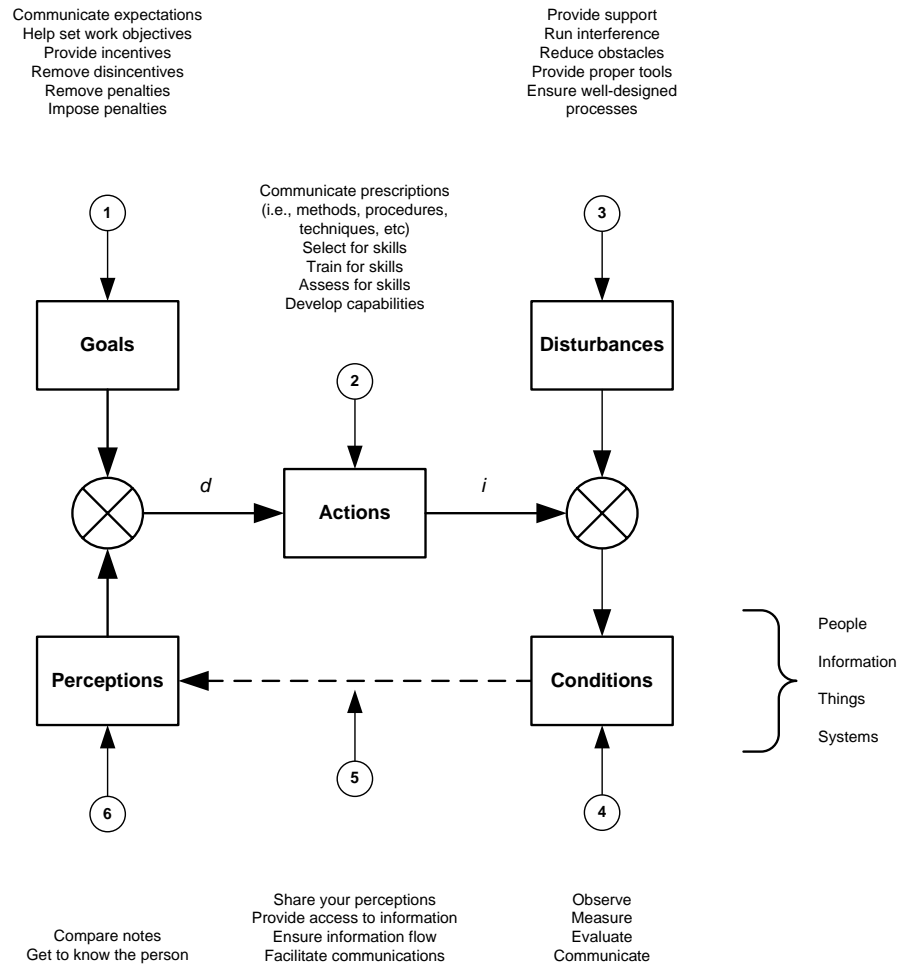


Figure 2 - Avenues of Influence

A Better Model of Human Performance

4. Assessing Performance

Observing, measuring and evaluating the performance in question through reliable and systematic means. This might take the form of direct supervision of behavior to ensure compliance but, more often than not, takes the form of assessing the extent to which the desired effects on conditions (i.e., results) were obtained.

5. Facilitating Feedback

Providing the performer with – or ensuring that the performer has access to – timely, useful information about actual performance in relation to expected or desired performance; what we often refer to as “feedback.” The aim here is to influence the performer’s perceptions of actual or realized conditions. It is worth noting that the more clearly the outcome is specified when formulating goals, the less need there is for “feedback” from managers (Nickols, 1995).

6. Checking Perceptions

Regularly sharing and cross-checking each other’s perceptions of behavior and actions, as well as perceptions of the effects and consequences of those actions.

Closing Comments

In the last analysis, we all manage our own behavior, our own performance, and each of us must take responsibility for that. Managers, however, are responsible for more work and results than they can accomplish on their own; they are responsible for the performance of others.

Managers are well served by adopting a view of the people who work for them as living control systems. As such, people act to counter perceived disturbances to those factors they are attempting to control. Consequently, managers who seek to influence the performance of employees who report to them and who do so in ways that disturb the employees’ control will encounter conflict between their efforts to influence employee behavior and the employees’ built-in control of their own behavior. This is particularly true if managers continually seek to control both the ends employees are expected to achieve and the means used to achieve them because the primary means of achieving those ends is the employee’s behavior.

Managers have an obligation to do what they can to encourage, support and facilitate the performance of the people for whose performance they are accountable but, if they wish to succeed, they must find ways that do not rely on heavy-handed coercion or micro-management because resorting to these practices leads inevitably to conflict between the manager and the employee — a contest for control of the employee’s behavior — and that is a contest the employee will always win. Fortunately, much of management practice is consistent with a view of people as living control systems.

The model presented in this paper is intended as a framework that can be used to make sense out of problems of human performance and to better integrate the methods and techniques of management practice and the improvement of human performance.

References

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