I’d like to thank David Wile for his article “Why Doers Do” in the February issue of *Performance and Instruction* (Wile, 1996, pp. 30-35). Synthesizing the semantics and taxonomies of the human performance technology (HPT) models of five prolific HPT authors (Thomas F. Gilbert, Allison Rossett, Joe Harless, Dean Spitzer, and Robert F. Mager), Wile created and shared a new model of the factors that affect performance. Wile’s HPT model is depicted in Figure 1.

[Figure 1: Wile’s new HPT Model]

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By writing this article, Wile has exemplified what people in successful organizations of the future do – they share their mental models – the deeply ingrained assumptions, generalizations, pictures or images that influence how we understand the world and how to take action. My purpose in this article is to generate dialogue, share thoughts, and create some healthy sharing of ideas among the members of the International Society for Performance Improvement (ISPI) around the issue of our mental models of HPT.

Another HPT Model

Inspired by Wile, I would like to share an HPT model that I have been using for over 10 years. After discussing some of the factors in the model, I will address some questions that Wile raises concerning the ranking of elements based on the part they play in performance problems. I will also discuss how I have used the model. Finally I will reveal a dimension of human performance that I believe is typically not addressed in HPT practice. A dimension that I don’t believe many, if any, of us are considering as a key to human performance. And yet, without considering this dimension, we may be missing a critical component that could make our jobs and our lives more effective and more fulfilled. An overview of the HPT model that I have been using is shown in Figure 2.

Figure 2. Another HPT Model
While Wile divides the entire domain of human performance factors into those that are either external or internal to the performer, my model divides them according to those who have the most control or influence over the factors. In the past, those in control of various factors could easily be identified by organizational levels: Executive, Managerial, and Individual Performer. As organizations evolve and people assume varying roles within an organization, identifying those who control or influence the factors becomes more difficult. For example, some organizations have implemented processes whereby the entire organization (from lower level employees to top executives) are involved in defining the organization’s Direction (see *Real Time Strategic Change* by Robert Jacobs). Additionally, as initiatives such as individual and team empowerment transcend traditional models, we are discovering that the individual performer (employee) may well have more responsibility for factors that, in the past, were those of the manager.

The point of my discussion about who has the most control over the factors is not to underscore the inadequacy of the terms I use to label the levels of my model, nor to say that what was external to the performer may become internal. What the levels are labeled is not important. What is important is that someone (or some group) within the organization must be responsible for making sure that the factors are appropriate for enabling desired performance. For now, the conventional terms I use will suffice. As I briefly overview my model’s levels, notice that many of the factors are similar to those identified by Wile.

**Executive Factors.** When I first attended one of Tom Gilbert’s seminars on human performance, I was exposed to the basic model that subsequently served as the foundation for my understanding of human performance. Over time, I kept discovering factors that seemed to me to be missing both in my model and in models that I saw others using. My work with executives and upper level management opened my eyes to a number of factors that influence the performance of all individuals through the culture that those factors establish within an organization. Some of those factors (Vision, Mission, and Values) are currently the appropriate focus of attention in many organizational reengineering efforts (and of numerous management consultants). I have organized my HPT model, placing these factors at the top, to reflect their importance.

Traditionally, executives of the organization have had the most influence over such factors as the organization’s Direction, Organizational Systems, and Human Resource Systems. The performance of all people in the organization is affected by all of the factors within the row that executives can influence the most. By their actions and the systems that they knowingly (or unknowingly) promote/allow, executives set the framework for the organization’s culture. In Wile’s model these factors would be categorized as external to the performer.

**Managerial Factors.** The middle layer of factors is largely under the influence or control of the manager (direct supervisor) of the performer. In these times of organizational change, the manager of the performer may be called a supervisor, a manager, a team, or the individual her/himself! As discussed earlier, the term used to describe those who control the factors is not important. What is important is that someone must be responsible for making sure that the factors under Guidance, Resources, and Incentives are in place and appropriate. Wile categorizes these factors as external to the performer.

**Performer Factors.** The lower layer of my model consists of a set of factors over which the performer has the most influence. These include the Skills and Knowledge that s/he possesses, the Capabilities the person has and his/her Motives and Needs. I have found that the lack of Skills and Knowledge is typically, but not always, an ingredient in negatively affecting the performance of people. Wile categorizes these factors as internal to the performer.
How the Model has Been Used

There are a number of uses for the HPT model that I share. The model has been used to determine the factors that are causing performance problems for an individual within a job. This is typically done through the use of a set of questions directed to people in the organization asking them, “What gets in the way of doing your job as well as you would like?” It has been used to analyze a variety of jobs including sales representatives, customer service representatives, managers of 911 operations, service engineers, directors of emergency operations, etc. It has also been used to analyze the factors that cause performance problems across all jobs within an organization – one might call this application an organizational performance assessment.

Performance Problem Priorities

Wile asks the question, “If you were to rank the seven elements of this new model (Wile’s model) according to how often they are part of the performance problem, how would the prioritized list look?” I have found that the factors that are most often deficient and are therefore frequently the biggest causes of performance problems include …

• Information
• Measurements
• Processes
• Information and Communication Systems
• Values
• Skill and Knowledge
• Decision Authority

The top two factors most often indicated by my data as presenting obstacles to performance are Measurements and Information.

Measurement Mismatch. I have found that the measurements or standards that individual performers or groups of performers must meet (to be considered successful performers) have a tremendous impact on their performance. Further, this factor is one that is most often out-of-whack. Very frequently organizations or managers are measuring one thing while expecting people to perform to another set of measurements. Let me give you an example.

When I was working for a large appliance manufacturer, we enlisted the help of one of the most respected performance guru’s in the world to assist us in the development of a criterion referenced performance based training program for service technicians. The training program did a wonderful job of teaching technicians exactly what we wanted them to be able to do at a very high level of competence. You can imagine how excited I was to make some follow-up calls a month after the first pilot test to see how the technicians were performing back on the job. When I called the supervisor of one of the technicians, he told me that the technician wasn’t doing a good job. In fact, he said he didn’t think our training program was very good. “Say what?!! Why do you say that?” “Well, because the number of calls that Larry makes is down from 8 per day average to about 6 calls per day now – after your training program.” “What do you mean, his calls are down?” “Well, each technician should make an average of 8 calls a day, and since he came back from the training his call rate is down to between 6 and 7 calls a day.” “So, Vince, what you’re telling me is that you measure Larry, and in fact all of the technicians, based on the average number of calls he makes to customers’ homes per day, not on the number of appliances that he fixes correctly the first time?!” “Well, yea.” “And his performance review and yours are based on that measurement?!” “Yea.”
Measurement Mismatch (continued). If your performance appraisal and that of your direct supervisor were based on the original measurement, you can see the pressure this would place on making calls -vs.- correcting problems the first time.

The Problem with Information. Another factor that I have found that has a tremendous impact on keeping people from performing has to do with information, or more accurately, inadequacies related to information that people need to do their jobs: the wrong information, not knowing where to get the information, out of date information, too much information, inadequately detailed or unclear information, etc. Here’s an example.

One performance assessment we conducted was for the position of Field Sales Manager (FSM). I was interviewing an FSM that had been on the job for about six months. Considering her short time on the job, her manager felt that she was performing well. I asked her if there were any problems she was having with getting the information she needed to do her job. She said no, in fact, she said she got tons of information, and pointed to the corner of her office. Stacked up in the corner was a pile of paper about 18 inches high. She told me that there was more information in a file cabinet and that every week she got a set of reports from corporate headquarters that was about an inch thick. When she started the job she didn’t have time to go through all of the reports, but she knew that they must be important because they came from corporate headquarters, so she saved them. As a result of the assessment, the relevant information was identified and the reports sent to the FSM’s went from one inch thick to two pages. A job aid was developed for FSM’s to explain why the information was important and how to use it in making decisions on their job.

What Have I Been Missing?

Now Wile and I have shared some extremely powerful HPT models with similar characteristics and factors. But, I have to admit that applying my model to assess performance and correct deficient performance factors hasn’t always resulted in the dramatic performance improvement expected. Needless to say, this has bothered me a great deal. How can I address all of the deficiencies identified in the model and not have dramatic improvements in performance? “Well,” you might say, “maybe your model is flawed!” Yes, I think, actually, I feel, you are correct!

ISPI Strengths. One of the characteristics of ISPI that I was drawn to back in 1978 when I joined was how organized and rational we are. Having worked in large organizations with some departments and functions that seemed to fly by the seat of their pants, it was very refreshing for me to become involved with people who performed analysis and worked hard to find appropriate solutions using organized and rational methods. Most recently we have, as a society, encouraged the members to look outside to other disciplines such as Anthropology, Sociology, Architecture, etc. to see what we are missing and how those disciplines might help us in our work with Human Performance Technology. I support this initiative and hope that we continue to look for other avenues that might help us help others.
A New Dimension

Have you ever been downsized? What do you feel when asked this question? Fear, anxiety, panic, frustration, relief? If you have been involved in the current trend to reduce costs, you know how easily these emotions can flood through you. Emotions – could that be a factor that all of us, we rational analyzers, have not paid enough attention to as a key factor affecting performance? I believe it is!

Over the past year I have explored my emotions and how emotions affect human performance. I submit a new model of the factors that affect Human Performance for your consideration (see Figure 3). This new model contains my previous model but adds a whole new dimension – the dimension of Emotion. Wile and I both include emotion as a factor affecting performance in the models presented earlier (listed as emotional ability under internal in Wile’s model; implied under intelligence and traits and characteristics in my model).

![Figure 3. A New Dimensional Model](image_url)

However, scientific research indicates that emotions play a much more important role than the other factors. In fact, every sensory input we receive is processed through our emotional center first. When that occurs, an emotional meaning or flavor is attached to each input before it is sent on and processed in our rational mind, the neocortex (Goleman, 1995, pp. 13-29). So our emotional center is the gatekeeper for every response to every input that we receive. Our emotional center attaches an emotional meaning to the job aids we are provided (or not provided), the workload we are given, the noise and lighting in our physical work environment, the information (or lack of information) that we have to do the job, etc.

What I’m suggesting is that emotions can have a much greater effect on performance than that represented in the models presented earlier. I believe that our emotions are a third dimension that bring our rational, logical, dry existence’s to life. I’m suggesting that our emotions affect our perceptions of all of the other factors that affect performance. These perceptions determine how we respond/react to the factors, and, in turn, this response/reaction directly affects our performance (positively or negatively).
As I said earlier, one of the characteristics that drew me to ISPI was our rational approach. Not surprising for someone with an engineering background – orderly, organized, straightforward – no mushy edges. I suggest that we are complex. Not only do all of those “Head” factors affect our performance, but our emotions can negatively or positively affect our physical energy, our mental clarity, and our productivity. Just think of how people feel when the initial announcement of a downsizing is released. The vast majority of people perceive the announcement negatively and the result is a decrease in quality, productivity and morale by the vast majority of employees. On the other hand, how do you feel and what happens to you when you are given an honest compliment on your work, when you are genuinely appreciated. Doesn’t that give you an energy boost? Aren’t you more likely to do a little bit more than normal?

**A Deeper View of the New Dimensional Model**

The Emotional dimension of the model could be viewed as a continuum. On one end of the emotional continuum is Fear; on the other end – dare I say it – is Love. (I can hear it now, “Byron’s gone off the deep end.”) Before forming a firm opinion, ask yourself how well people perform when they are anxious, frustrated, fearful, or angry. My personal experience is that I sure don’t perform well. And my observation is that most people don’t either. On the other hand, if a person truly feels cared for and appreciated, then those positive emotions facilitate performance. I contend that this is what each of us secretly wants. We want to be appreciated for our contributions, we want to feel that people care about us. We don’t want to act like we can check our emotions at the door in the morning when we come in to work and pick them up again when we go home. We have our emotions – our hearts – with us all of the time. So the new model might be more accurately represented as shown in Figure 4.

![Figure 4. A More Detailed View of the New Dimensional Model](image-url)
Emotional Intelligence

“Well,” you say, “you may be on to something here Byron. But if negative emotions like fear, anxiety and frustration do negatively affect performance, how in the world do we help people with that? I’m not a psychologist you know.”

In his new best selling book Emotional Intelligence - Why it can matter more than IQ, Daniel Goleman shares research that suggests that our emotional intelligence may be more important to our success in life than our IQ. He suggests that there are five cornerstones to emotional intelligence:

- Self Awareness
- Motivating Oneself
- Managing Emotions
- Managing Relationships
- Changing Moods

Goleman cites research that presents convincing arguments that negative emotions like fear, anxiety, frustration and anger do have a negative impact on our ability to think clearly, to solve problems, and to communicate effectively. Unfortunately, he doesn’t share any specific methods or techniques to help people manage those negative emotions and move along the continuum from fear to care and appreciation.

The Institute of HeartMath, a unique, non-profit research and education organization founded by author and researcher Doc Lew Childre, has developed simple proven techniques that people can use to manage their negative emotions in-the-moment. I have been using the techniques for the past year and can attest to their ability to help me identify my moods and emotions intelligently, manage my negative emotions, change moods, and motivate myself to perform more effectively. Notice that those are four of the five emotional cornerstones that Goleman cites in his book. Being able to do this has allowed me to manage my relationships more effectively. I cannot tell you that I am an expert at being able to do these things, but I can tell you that I am improving, and that I’m feeling better about myself, my work, and my relationships with a variety of people. And, I am more productive.

Interesting – But Where’s Your Data? Oh yes, I knew you’d ask about that. The Institute of HeartMath has been researching and using these emotional management techniques and tools for about fifteen years. A recent documentation of the results demonstrates the power and the importance of considering emotions in organizations. In 1995, a pilot of the Institute's Inner Quality Management® (IQM) Program was conducted with a Fortune 100 organization. Participants were taught simple emotional management techniques. Three groups of participants were involved: a group of executives and managers, an intact software engineering team, and a group of workers on the assembly line. Participants attended either a one or two day version of IQM, and follow-up implementation reinforcement sessions at one, two, and six months. Pre and post physiological measurements were taken and psychological surveys were administered. Productivity and quality data were monitored by the company. Figures 5, 6, and 7 show the data collected at the end of six months. Personal comments from participants support the data: “I feel happier with myself. I perform better with my job. I communicate more - without being afraid,” “I have learned to get along with co-workers – when I see someone who doesn’t care, I pitch in and help. Before I sat there and waited on them. Now we get more work done,” “My number of patent (applications) per month literally doubled.” What is not shown in the bar graphs is the fact that 26% of the management and engineering group entered the training with high blood pressure. After six months, ALL of them had normal blood pressure, without any additional intervention such as diet or exercise! Overall, a 93% improvement in health factors along with a 36% reduction in stress symptoms was reported.

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Figure 5. Improvements in Productivity, Quality and the Bottom Line

Figure 6. Improvements in Participant Attitudes

Figure 7. Improvements in Health

Source: Institute of HeartMath
The Need for A New Approach is Evident Everywhere

Robert Wright in his *Time* article “The Evolution of Despair” states, “The rates of depression have been doubling in some industrial countries roughly every 10 years. Suicide is the third most common cause of death among young adults in North America, after car wrecks and homicides. Fifteen percent of Americans have had a clinical anxiety disorder. In some modern societies, ‘battered-child syndrome’ bruises can be found on more than 1 in 20 children who die between the ages of one and four.” Julie Connelly in her *Fortune* article notes, “Executives surveyed by Accountemps spent over 13% of their time resolving conflicts between workers, up from 9% in 1986.” And from the Institute of HeartMath, “Of the top 10 selling prescription drugs which accounted for $9.2 billion in sales in 1994, 8 of them are for stress related problems.” We’ve all heard statistics similar to these. What is important is that public and private organizations are starting to recognize the impact these problems are having on their people and the organization’s ability to compete.

Some recent informal market research I conducted supports these statistics. My research was aimed at helping me identify subjects and topics that were of the most interest and concern to people. In my research I asked several of my friends and colleagues what bothers people – what problems are people having in organizations. Overwhelmingly, I kept hearing that people are scared to death. They are worried about their jobs. They’re worried about being able to pay their bills. They are frustrated because they are spending more time at work and not spending enough time with their families. They are told that they have to work with the team, but the team is never around. They’ve been given 2, 3, or even 4 jobs to perform. And they don’t know what to do about it. The anxiety, frustration, and fear that people are experiencing is at an all time high. We are swimming in a sea of stress – a numbing environment where people can’t realistically be expected to improve their efficiency, productivity, and performance.

The Search Is On For New Approaches

Individuals and organizations are recognizing that what worked yesterday to bring success is not working today. Have you noticed the kinds of books that are pointing in a new direction for achieving personal and organization success? *The Heart Aroused - Poetry and the Preservation of the Soul in Corporate America* by David Whyte, *The 7 Habits of Highly Effective People* by Stephen Covey, *Leading with Soul - An Uncommon Journey of Spirit* by Lee Bolman and Terrence Deal, *Enlightened Leadership - Getting to the Heart of Change* by Ed Oakley and Doug Krug, *Leadership and the New Science* by Margaret Wheatley, *Changing the Essence* by Richard Beckhard and Wendy Pritchard, *The Trust Factor* by John Whitney, and others, all tell us to examine non-traditional areas for help. It is interesting how many of them talk about the importance of bringing heart, soul, and spirit into the workplace. Maybe it’s time to balance our rational “Head Intelligence” and our emotional “Heart Wisdom.”

The Conclusion I’ve Reached

It’s disquieting to me to think that I’ve spent so much of my time on my two-dimensional rational “head” model. I’m not saying that those factors aren’t important. Obviously they are. But the dramatic results achieved by implementing simple emotional management techniques in the Inner Quality Management program tells me that I must actively use the “Head/Heart” model in analysis, design, and development of interventions to help improve people’s performance. My own personal experience using the HeartMath tools (and my own heart) tells me that I want to keep using them myself.
Your Thoughts

As I said when I started this article, I think it’s important for us to share our mental models so that we can improve the organization (ISPI) and help ourselves and those we work with be more effective and productive. I would like to hear from you. What is your experience? Does this concept make sense? What’s missing? Do you have any stories you’d be willing to share about the impact of emotions in organizations? You can reach me by phone at (616) 429-1833, or by fax at (616) 429-4594. Or if you wish, you can e-mail me at byronstock@byronstock.com. I look forward to our conversations.

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