ELSEVIER

The Leadership Quarterly

Theoretical and practitioner letters

Leadership competency models ☆

George P. Hollenbeck [a], Morgan W. McCall Jr. [b],*, Robert F. Silzer [c]

[a] *Hollenbeck Associates, 109 Whippoorwill Drive, Livingston, TX 77351, USA*
[b] *University of Southern California, Marshall School of Business, University Park, Bridge Hall 308, Los Angeles, CA 90089, USA*
[c] *Human Resource Assessment and Development, 14 W 11th Street, New York, NY 10011, USA*

Abstract

In this exchange of letters, Hollenbeck, McCall, and Silzer exchange views on the value of leadership competency models. Hollenbeck and McCall argue that the assumptions behind competency models are problematic and that the field's uncritical acceptance of this technique has negative consequences, including a return to the "great person" view of leadership and a disregard for "great results." Silzer counters with an examination of the benefits of leadership competency models for individuals and organizations. In his view, the developers and users of competency models do not succumb to an overly simplistic view of leadership effectiveness, and the way forward is a more comprehensive model of effectiveness.
© 2006 Elsevier Inc. All rights reserved.

Letter 1

Robert Silzer
Managing Director
Human Resource Assessment and Development
14 W 11th Street
New York, NY 10011

Dear Rob,

Our debate on the value of leadership competency models at the 2003 SIOP conference raised a number of issues, but the sound and the fury of the debate did not provide for the kind of reasoned discussion that the issues deserve. An exchange of letters should allow us to share our views on the pluses and minuses of the widespread use of leadership competency models. In this first letter, we lay out our belief that the competency movement is based on a set of questionable assumptions, and that

using competency models as the foundation for human resource (HR) systems means that those systems are built on sand. We argue that the wholesale adoption of competency-based HR practices has hindered more than it has helped the advancement of leadership development. And, perhaps worse than shaky systems and processes, the most dangerous impact of competencies is that their very popularity has prevented the search for more useful alternatives.

With the commitment to competencies of so many in our profession today, we risk being seen as the enemy of *competence*. Nothing could be further from the truth. The heresy we propose is that the enchanting song of the competency sirens has lured us into dangerous rocks. It is time to put wax in our ears and seek a better route.

Our field seems to become enchanted with techniques and methods from time to time, from sensitivity training to management by objectives (MBO). Marv Dunnette in his 1966 classic "Fads, Fashions, and Folderol" called these fads–"those practices and concepts characterized by capriciousness and intense, but short-lived interest–such things as brainstorming, Q technique, level of aspiration, role playing, need theory, grids of various types, adjective checklists, two factor theory, Theory X and Theory Y, social desirability, response sets and response styles, need hierarchies, and so on and so on." If Marv were writing his article today, his list most certainly would include competency models. But while the folly of enchantments has been portrayed in literature for centuries, our ability to recognize them and subsequently break their spell apparently has not improved.

1. Underlying assumptions of leadership competency models

What is wrong with leadership competency models? For starters, they are a "best practice" that defies logic, experience, and data. Looking first at the logic, the assumptions on which competency models are used do not hold up under analytic scrutiny, nor are they consistent with simple observation of leaders. It seems to us that there are at least four basic and problematic underlying assumptions of leadership competency models:

1. A single set of characteristics adequately describes effective leaders (and consequently, those characteristics predict behavior which in turn predicts effectiveness);
2. Each of these characteristics is independent of the others and of the context, therefore having more of each of these characteristics is independent of the others and of the context, therefore having more of each of these characteristics makes a person a better leader (that is, they are additive, and effective leaders are the simple sum of their parts);
3. Because senior management usually blesses competencies and sometimes even helps generate them, they are the most effective way to think about leader behavior;
4. When HR systems are based on competencies, these systems work effectively.

Assumption 1. A single set of characteristics adequately describes effective leaders.

As a descendant of the long-discredited "great man" theory, competency models raise again the specter of one set of traits, abilities, and behaviors (a.k.a. KSAs or knowledge, skills, and abilities) that make up *the* "great leader." One need not be a researcher to find fault with this assumption—everyday observation will suffice. Even a casual review of effective leaders demonstrates convincingly how different they are from each other. Effective leaders come in all sizes and shapes (Bennis & Nanus, 1985; Kotter, 1988) with tapestries of strengths and weaknesses that they apply in complex combinations to get the work of the organization done. No one set, whether 15 or 20 or 180, includes all the potentially useful competencies, and even if they did, no one person has them all.

Even the "contingency" competency models (i.e., ones that specify that competencies 1, 3, and 5 are required in situation A; and competencies 2, 4, and 6 are required in situation B) fail the common sense test. Even if one assumes that unique clusters of competencies are required to enact each specific strategy, the logic is defeated when more than one leadership strategy can be effective in a given contingent situation.

Assumption 2. Each of these characteristics is independent of the others and of the context, so therefore having more of each of these characteristics makes a person a better leader.

Effective leaders are not the sum of a set of competencies, however long or broad the list. Leaders, like the rest of us, are particular mixtures of pluses and minuses, the effectiveness of which changes over time and with the circumstances. Our derailment research (McCall, 1998; McCall & Hollenbeck, 2002) demonstrates all too well that strengths can become weaknesses (and therefore that every competence is also an incompetence), that effectiveness depends on how various *combinations* of strengths are used, and that different strengths and weaknesses come in

and out of focus at different times in different jobs. What matters is not a person's sum score on a set of competencies, but how well a person uses whatever talents he or she has to get the job done. Leaders do not come in neat, additive packages.

Assumption 3. Because senior management usually blesses competencies and sometimes even helps generate them, they are the most effective way to think about leader behavior.

The fact that senior management accepts and even supports competency models brings about a peculiar kind of circular logic: "They accept the model, so it is correct; the model is correct, thus they accept it." We are reminded here again of Dunnette's fads and fashions that seem to feed on themselves for some period of time, uncritically accepted because they are uncritically accepted. Even if they are not valid, the temptation is great to go with "the devil we know." The elegant applications of competencies have in many cases earned for HR the apparent respect and support of top management. This appreciation is so valued that, when we expressed some reservations about competency models, one HR development specialist exclaimed, "We finally have a tool that is getting lots of visibility and acceptance of senior management and you people start criticizing it."

Assumption 4. When HR systems are based on competencies, these systems actually work effectively.

Competency models are very attractive to the HR practitioner. Selection, training, compensation, and other systems can be designed around a finite set of competencies, each of which can be dealt with as a separate 'whole' as well. We have become quite good at measuring competency 2, 13, and 167; and we have a number of techniques for developing each of them. The resulting HR processes can be designated, communicated, and integrated. On the surface they make sense. They look scientific and can be marketed as such.

In fact, competency models have been useful as the basis for selection and training for lower-level jobs where there is a tight coupling between worker characteristics and behaviors, and between those behaviors and subsequent results. Most would agree that mechanical jobs do require mechanical competencies, and that a single set of behaviors on a production line can produce a quality set of results. But the linkage of traits–behaviors–results breaks down as we go up the ranks, until we get to the senior leadership positions where success can come in seemingly infinite guises.

The sophistication and elegance of the competency-based HR processes is beguiling, and practitioners assume that they work. In the leadership ranks, however, that assumption flies in the face of the evidence around us. As we look across the business scene, we see little evidence that these systems, in place for years now, are producing more and better leaders in organizations. Walter Wriston's 1970 comment that it was easier to find $100 million than a competent executive was echoed more recently in a survey of U.S. Fortune 500 companies rated "competent global leader" ahead of all other business needs for the future with nearly all (85%) indicating that they did not have enough of them (Gregorson, Morrison, & Black, 1998). And not only are leaders in short supply the ones who have emerged have not met the test. Finkelstein (2003) declares "we are suffering an epidemic of leadership failure." Charan & Useem (2002) in an analysis of failures of 14 major U.S. companies find executive shortcomings behind the "ten big mistakes" that companies make and that "CEOs offer every excuse but the right one: their own errors."

We do not argue that competencies cannot be useful in a minimum standards approach to leadership development. Schein (1996) argues for just such an approach—that there are minimum competencies that any leader should have. But minimum standards are not what we seek in our leaders, nor can they explain what differentiates minimally effective leaders from the excellent ones. Most organizations at least aspire to leadership excellence.

Models that defy logic and common sense are not necessarily all bad if the results they produce in practice outweigh the costs. We argue that yes, competency models have been useful, but their uncritical acceptance has had consequences that outweigh the benefits. And even the visibility and acceptance of senior management so earnestly valued by HR professionals is an illusion. But before presenting our view of the unanticipated consequences of the competency model fad, we thought it might be useful to give you a chance to address the issues we have raised thus far.

Sincerely,
George P. Hollenbeck
Morgan W. McCall, Jr.

Letter 2

George Hollenbeck
Hollenbeck Associates
109 Whippoorwill Drive
Livingston, TX 77351
Morgan W. McCall, Jr.
University of Southern California
Marshall School of Business
University Park
Bridge Hall 308
Los Angeles, CA 90089

Dear George and Morgan,

Thank you for your recent letter. You certainly have stimulated my thinking, not only from our SIOP debate on whether competency models have helped or hindered leadership development but also from your past contributions to the field of leadership. I am looking forward to this exchange of letters exploring the usefulness of competency models and searching for some common ground or integration of our views.

2. Understanding historical foundations

Let me try to outline how I think we got to our present state regarding competency models. The field of Industrial and Organizational Psychology has historically placed a great deal of emphasis on understanding work behavior by focusing on job duties and tasks (Harvey, 1991). Organizations tended to develop leaders by moving people through predictable job positions and career paths. It was essentially development by job experience. This seemed to make some sense at the time because jobs, career ladders, and organizational structures were very stable and predictable over time. So being able to do the tasks in job A predicted being able to do the tasks in job B. Outside of cognitive abilities, we were not very good then at measuring individual differences that influenced work performance.

In the 1970s, as you know, things began to change when the results of the assessment center work at AT&T (Bray, Campbell, & Grant, 1974) began to influence the field. I clearly remember my consulting experience in the mid-1970s of helping to design and install assessment centers at Merrill Lynch where George was the human resources executive. Initially, assessment centers were a state-of-the-art tool that focused on measuring people against underlying job performance dimensions in order to select people into specific positions, but the emphasis soon switched to more person-centered variables, such as initiative and interpersonal skills, to select and develop leaders. This was the start of a more widespread focus on knowledge, skills, and abilities (KSA) dimensions and a diminishing interest in job dimensions.

Then in the 1980s, organizations and jobs started changing more rapidly and assessment centers evolved to select and develop people for a larger family of jobs such as management positions, and not just for a specific position. The dimensions became less job specific, more general, and more person centered. For example, we moved first to selecting subordinates for the more general "making decisions" and then to the person-centered "seasoned judgment." About the same time, selection initiatives switched from expensive and complex job analyses to a simpler process that skipped the job analysis and went directly to identifying the KSAs required to do the job. This not only was a more straightforward process but also encouraged the switch to person-centered variables for both selection and development. At the same time, we saw an emerging research focus on how personality and ability variables impact work performance. Given the rapidly changing business environment and the globalization of business, at the time it made sense to try to develop people independently of specific jobs since those jobs were often likely to be eliminated or drastically redesigned. There was little point in selecting and developing leaders for specific positions if those positions were unlikely to exist in a few years.

So in the 1990s there was a rush to design person-centered models initially referred to as "management models" of performance. Later this evolved to the more useful "leadership competency models." The intent was to look for fundamental KSAs that would identify fungible individuals who could be effective in a range of leadership positions.

However, there has been a long history of identifying person characteristics that are related to leadership success (Silzer, 2002a). Many well-known I/O psychologists over the years have identified the characteristics that they think are important to effectiveness although they have used different labels, such as attributes (Office of Strategic Services, 1948), executive dimensions (Dunnette, 1971; Hemphill, 1959), management dimensions (Bray et al., 1974), assessment dimensions (Thornton & Byham, 1982), competencies (McClelland, 1975), and global executive competencies (Kets de Vries, 1999; McCall & Hollenbeck, 2002). Many of these KSAs were carefully identified based on available research.

Initially, dimensions or competencies were developed for a specific organization and were carefully researched and designed. Typically, they were developed and cross-validated on different populations. However, as the competency approach gained acceptance and became "fashionable," the rigor of the design and development process was compromised or lost in many initiatives. Unfortunately, many consultants in and out of our field became self-declared experts (but with little expertise). This has led to deterioration in the quality of some competency models. But let us not throw out a useful tool because of some inept practitioners.

3. The action is in the interaction

As an extension of the historical trend outlined above, there has been considerable discussion about the importance and impact of person characteristics versus situational variables on leadership. You have wisely cited the drawbacks of a "great man" theory of leadership; there are equally serious shortcomings to the "great times" theory of leadership. I think we can agree that leadership effectiveness is influenced by both person and situational variables.

However, I would go further and underscore the importance of the interaction between these two sets of variables. As we have learned in the long-standing nature versus nurture debate in psychology, behavior is the product of not only person attributes and situational variables, but also the interaction between them, in that specific situations can provide the opportunity to express particular personal predispositions. For example, a socially extroverted person is more likely to demonstrate and leverage her interpersonal skills in a situation that involves extensive interaction with other people than by working alone.

I suspect that quite a bit of variance in leadership effectiveness is probably in the interaction of these variables. Learning ability probably interacts with new or challenging work situations to allow an individual to stretch himself and quickly grasp essential situational information in order to take effective action or as Fulkerson (2003) describes "delivering first time results in first time situations." I think the same reasoning holds for the interaction of competencies and leadership situations. To be effective, many leaders not only need to have some learning abilities but they also need to be put in situations where they can learn new things. Remember the Bray et al. (1974) finding that talented people who get stretch assignments early in their career are more likely to be successful higher in the organization. Neither the skills nor the stretch assignments alone produce this outcome.

4. Why competency models are helpful

Competency models have been helpful to both individuals and organizations in developing leadership skills. Competencies help individuals by:

- Summarizing the experience and insight of seasoned leaders,
- Specifying a range of useful leader behaviors,
- Providing a tool that individuals can use for their self-development, and
- Outlining a leadership framework that can be used to help select, develop, and understand leadership effectiveness.

Competencies, when properly designed, leverage the experience and seasoned insight of leadership incumbents in an organization. The personal experience of a large group of managers and executives gets summarized in a limited number of competencies. The list is intentionally kept to a manageable size of about 10–20 competencies, so people will find it useful and not burdensome or too complex. As a result, the competencies can provide clear guidance on the behaviors that seasoned incumbents think are related to effectiveness. They provide a tremendous educational tool to people trying to learn how to become more effective. I am sure you remember the days when you had to get lucky and

work under the right boss who not only had some leadership skills but who was also willing to take time to teach them to you. Competency models in fact serve as a partial backup for that hit or miss approach.

In addition, competencies help individuals understand how effective they and others are as leaders. People can take some personal responsibility and independent action on their own development. Competencies are equally valuable in teaching people how to observe and evaluate the leadership effectiveness of others. They have significantly raised the performance evaluation skills of managers in many organizations.

Organizations have also benefited from the use of competency models. Competencies help organizations by:

- Openly communicating which leader behaviors are important,
- Helping to discriminate the performance of individuals,
- Linking leader behaviors to the strategic directions and goals of the business, and
- Providing an integrative model of leadership that is relevant across many positions and leadership situations.

Competency models are a fairly egalitarian way to communicate broadly the leader behaviors that are important in a particular organization. It puts critical information into everyone's hands and reduces some of the secrecy that has plagued organizations and careers. Consequently as a result of this wide distribution of a competency model, individuals are expected to take an interest and some action in developing themselves. The degree to which individuals take some initiative helps organizations to differentiate people on career motivation.

In addition, leadership competencies can provide an integrative model of leadership that can be applied across a range of positions and leadership situations. It is a general map to leadership effectiveness, providing alternate ways of reaching a destination, but it is not a trip ticket that dictates very specific and rigid directions. It is a guiding framework and not an end in itself or an answer key. In one organization with which I have worked, the expected leader behaviors under a particular competency are modified for different leadership levels and contexts. In this case, job level and functional area represent a matrix of leadership situations in the organization, and different expected behaviors are identified for each situation. So different leader behaviors are associated with a level-four operations manager than for a level-two human resources director. Not only does this approach try to identify the interaction of KSAs with leadership situations, but it also outlines how the expected leadership behaviors change for different career paths. An individual can clearly see what new behaviors will be expected if he wants to move up a level or sideways to a different functional area.

However, the competencies should also reflect the leadership skills that are needed to accomplish the organization's strategic objectives. For example, an operations-driven company might emphasize a different set of leadership competencies than a marketing-driven company. An organization going through a transition can focus on those competencies that will be needed not just to get the organization through the transition but also those that will contribute to success in the new end state. For example, the telecommunications industry in the early 1990s began focusing on marketing and customer relations' skills and away from technical engineering and command and control leadership behaviors because of strategic changes in the industry.

5. Questionable assumptions

Now that I have rambled on a bit, I do want to respond more directly to your recent letter. I do question the assumptions that you cite for competency models. Instead of categorizing competency models as fads, I would suggest that they are better placed in the fashions category—"manners or modes of action taking on the character of habits and enforced by social or scientific norms defining what constitutes the thing to do" (Dunnette, 1966). Many sound, useful tools and approaches can be considered fashions (Marv includes null hypothesis testing and model building for example). Like assessment centers and behavioral interviewing, useful tools can be seen as "the right thing to do" and widely used. Competency models, even poorly designed ones, are not typically capricious as Marv characterizes fads. Many, if not most, competency efforts are thoughtfully considered, designed, and implemented.

Competency models do not make the assumption that a single set of characteristics adequately describes effective leaders. Supporters of leadership competency models would not argue that competency models are "the prescription" for effective leadership. They are simply an attempt to leverage the experience, lessons learned, and knowledge of seasoned leaders for the benefit of others and the organization. Everyone is aware that leaders face complex situations and challenges that require the use of a wide range of KSAs and that leaders often use a different set and mix of KSAs moment to moment in their work in order to be effective. In addition, the KSAs that might have been important in the

past may become less important in the present while other new KSAs emerge as important. In your letter you do not disagree with any of the KSAs that typically show up on these lists. Most of them do have a rational connection to leadership behavior—that is one reason why they have become fashionable: they make logical sense to the corporate managers and executives that develop and use them. It may also be why you have provided your own list of global executive competencies in your recent book (McCall & Hollenbeck, 2002). Surely your list was never intended to be a single comprehensive list of the KSAs that are needed.

You also say that competency models assume that the competencies are independent of each other and with the leadership context. In fact, most users of competency models understand that the KSAs are interactive. Who has not thought about the interactions and tradeoffs of thinking skills with interpersonal skills? We all are aware of the downsides of having only one of these skills without enough of the other. I agree that some strengths can be used in isolation, be over used or misused, and in fact can limit a leader's effectiveness in some situations where a different set or mix of skills may be more effective. However, it seems a little absurd to say "every competence is also an incompetence." I think you have taken a helpful idea and overplayed it. Leadership effectiveness is related to what competencies a person uses in different situations and how those competencies get balanced and integrated depending on the situational context. The action is in the interaction and balance of competencies, how the leader uses those competencies, and how appropriate they are in a specific situation. Every situation is different in some ways so a leader needs to quickly read the situation and then utilize the appropriate competencies.

Many competency models for leaders in management and executive positions were created by the incumbents in those positions and even cross-validated on another similar group. They are used by managers and executives because they make some logical sense. No one has ever said that it is "the answer" to thinking about leadership behavior. It is a tool that huge numbers of people have found useful. It would be great to have a model of leadership behavior that includes not only relevant KSAs, but also critical situational variables and the interactions between KSAs and situations. However, no one has produced such a comprehensive model beyond the attempts of Fiedler (1967), Vroom (2000), and a few others—which are too simplistic to accommodate the complexity of variables that a leader must consider. And of course if someone did produce such a model, no one would use it because it would be too complex. Keep in mind that while we can hypothesize about these complex interactions, leaders keep requiring tools and models to be simple and easy to use. And many of them have found competency models as a good start on a way to think about some fundamental leadership variables.

Finally, I think it is unlikely that HR practitioners assume that all HR systems built around competency models are automatically effective. Clearly, the way an HR system is implemented often has more impact on the system's effectiveness than the underlying model. Many leaders would certainly emphasize the importance of execution (Bossidy & Charan, 2002). A competency model can be a useful organizing framework for some HR systems just as MBO models have been for performance appraisal.

You also argue that there has been widespread leadership failure. I am not sure I agree. Do not forget that a leader can be effective in some situations and not others. So citing a few situations where failure of leadership was identified only means that a particular person in a particular situation was not effective. On the whole there has been an amazing number of effective leaders, particularly in the business world. But at any time an effective leader can face a situation that he cannot effectively handle. That does not make him an ineffective leader in general but only ineffective in that particular situation. So an executive or manager who has been effective in a leadership position for three years or more years probably is an effective leader even if in the fourth year he cannot rise to new leadership challenges. I hope you are not saying that in order to be an effective leader a person needs to be highly effective in every leadership situation. Only a few people have been seen as an effective leader for a broad range of situations. We already can identify people who are best suited for leadership positions that require the turnaround of a business while other people may be best suited for a staff leadership role. These are simple examples of matching a person's KSAs to a particular leadership context. We need to further pursue this direction more in order to get better at selecting and developing leaders.

Many companies that have well-developed competency models would strongly argue that the competency approach has significantly increased the leadership skills in the organization (Silzer & Douma, 1998). In many organizations competency approaches have raised the basic leadership skills of many managers and executives.

I do take issue with your statement that we should pursue "competence and not competencies." I think you are making a distinction without a difference. On a basic level, competency is defined as competence (Merriam-Webster's Collegiate Dictionary, 2002). What you may intend is to encourage people to focus on outcomes, such as demonstrating leadership behavior, and not on inputs. You may be thinking of KSAs in an academic sense like classic individual difference variables in psychology. However, I would suggest that well-designed competency models do focus on

behavioral outcomes. For example a leadership competency might be "to address and resolve all conflicts that occur in a group of direct reports." Surely someone who demonstrates this competency would be seen as competent in this area.

I was glad to see that you agree that competencies can be useful in identifying some leadership skills and that they can be useful in selection and training systems. Of course there are leadership positions and situations that require a more complex set and mix of KSAs, particularly at the top of an organization. Many executives might find a competency model too simplistic for them, and that is reasonable given that many executive positions are extraordinarily complex. In fact many of them are highly unique not only because they deal with a unique set of relationships, business challenges, and leadership situations but also because executives often change the position to better suit their own KSAs. Although, as you know, it is not uncommon to find that a key reason why many executives fail in senior positions is because they are ineffective at building relationships and influencing others—a basic competency found in many leadership competency models. So what you may dismiss as too basic for an executive can often be an important behavior that can help him be successful.

Leadership effectiveness is in some ways similar to the effectiveness of a home builder. A builder has to have a wide range of KSAs such as knowledge of building materials, skills in physically putting down foundations and putting up walls, and influencing skills. However, the builder must also be very aware of the specific situation surrounding each home such as the desires and personality of the client, the composition and layout of a particular piece of land, and the weather conditions. An understanding of the interactions between his own KSAs and the situational variables are often critical to building a home that succeeds. Competencies are a basic tool kit of a builder or a leader. Surely the world-renown builders, such as the architect Phillip Johnson, operate in a highly complex environment that requires much more sophisticated skills, but a more typical home builder probably gets by with not much more than the basic builder KSAs and a basic understanding of situational issues. Both may be seen as effective for the situations that they have to handle. Similarly leadership competencies are basic building blocks that help people become more effective leaders. I would caution us not to see leadership effectiveness solely through the lens of a senior executive.

Thanks again for helping me to see some of these issues more clearly. I look forward to hearing from you.

Sincerely,
Rob Silzer

Letter 3

Robert Silzer
Managing Director
Human Resource Assessment and Development
14 W 11th Street
New York, NY 10011

Dear Rob,

Your letter certainly made us sit up and take notice. In your articulate, declarative fashion you have laid out the case nicely that competencies have indeed been a boon, rather than a bane, to leadership development. We appreciate your vigor and enthusiasm in embracing competencies; we have found that your strong reaction is characteristic of those in the competency "establishment."

In fact, we have been a little surprised at how strongly our colleagues have reacted to any questioning of the competency approach. And, we have chuckled as they have suggested that as a result of our comments "you guys will never get work in this town again," or, if they agreed with us, their reluctance to be identified ("please don't mention my name but..."). Indeed the field seems to be enchanted. First, we will respond to some of your questions and comments, and then we will suggest some time-tested remedies for breaking a spell.

Your descriptions of the historical foundations of competencies helped us to understand your perspective and stimulated an important insight into how our views differ. We would add to those you credit with shaping the competency movement the strong influence of non-I/O psychologists, notably a "Boston group" that included David McClelland, Lyle Spencer, and Richard Boyatzis, as well as the heavy involvement of training and development professionals. We remember well the first of the Competency Conferences sponsored by Linkage and Lesley College

held in Boston in 1994. The overwhelming attendance (350 when 100 were expected), primarily from the training and development community, presaged the popularity that we see today. Your letter stimulated us to look back at the report of that conference; we found it to be a wonderful historical source document.

As to your point that lists of competencies do not presume to account for 100% of the variance in performance, the Conference Proceedings has a fascinating paper describing a study doing just that (Dubois, Karoly, & Doubs, 1994). The authors asked managers: "Thinking about the full range of competencies required by the first-level supervisor to be successful, what percent of job success is accounted for by being effective in the competencies of this course?" (p. 438). There were nine more-or-less standard leadership competencies: Interpersonal Skills, Communication Skills, Collaboration and Teamwork, Direction and Motivation of Others, Quality Centered, Resource Management, Problem Solving and Decision Making, Organizational/Occupational Knowledge, Ethics, Self-Direction and Motivation. Managers on average rated that 81% of the variance was accounted for by the competencies. Clearly, the goal in this state of the art presentation was to have a 100% list of competencies.

Looking back, the Conference Proceedings also provide a window on the hope that using competencies would substantially advance the success of organizations. However, the subsequent fate of the companies making competency presentations is noteworthy—some have failed, some no longer exist, and many have struggled to survive (e.g. AT&T, EDS, Tampa Electric, Aetna Life and Casualty, Bank One, Xerox, HP). Although we would not suggest that the advocacy of competencies by their HR people caused the problems the companies subsequently experienced, neither did the approach save them!

We share your lament that there has been some deterioration in the quality of competency models by "inept practitioners," but we want to make clear that our critique is not of the *quality* of the models or the practitioners, but of the implications and consequences of the WHOLE APPROACH of competency models. We do not believe that simply identifying best practice or dismissing worst practice wins the argument. We argue with the model itself and "common practice."

Your discussion of the importance of personal characteristics and situational variables in leadership stimulated us to reread an earlier set of *Leadership Quarterly* letters, the theoretical letters by Sternberg and Vroom on just that topic. Perhaps it was those letters that led us to see that old adages may apply to us, too: "where you get depends on where you start" and "where you stand depends on where you sit." Sternberg and Vroom ended up agreeing that both personal and situational are indeed important, "great person (nee man)" as well as the "great times" theories, as you call them. We would add to them a "great results" theory that is perhaps a beginning point for our critique of competencies. Before saying more about that, a word about the assumptions on which competencies are based.

6. The assumptions underlying competencies

We admit that our assumptions are drawn from our own observations and not the explicit statements of competency advocates. And, while we know of no research or references to suggest to you, we do not think that should disqualify our arguments. Getting beyond a widely held but fallacious view (e.g., the earth is the center of the universe) to an intuitively obscure but more useful perspective (e.g., the Sun is the center) seems to start with observations that beg us to examine assumptions. Without suggesting that a different view of competency models would be earthshaking, we do argue that examining assumptions is worth our time and effort. The points in your letter, in fact, fit nicely in our assumptions, so we will use them to build on and to clarify the thoughts we presented in our earlier letter.

Assumption 1. A single set of characteristics adequately describes effective leaders.

When you state that the experience of managers is "summarized in a limited number of competencies. The list is intentionally kept to a manageable size, of about 10–20 competencies," we see this as a statement of this assumption. But, without getting into a "he said, we said" exchange, our observation is that competency models strive for sufficiency, either explicitly or implicitly. We pointed out that in the previously referenced Conference Proceedings one of the papers described what percentage of the criterion was believed to be covered by the list of competencies (81%). Perhaps the assumption is an aspirational one rather than an explicit one, but the goal of competency modeling is to explain ALL the variance. Your words would seem to echo those implications:

"The competencies can provide clear guidance…"

"Openly communicating what leader behaviors are important"

"…provide an integrative model of leadership…"

"…is a guiding framework."

Equally implicit, if not explicit, are the popular grids that specify which competencies are required for which jobs or which job factors. Nobody seems to say out loud THESE are the ONLY competencies required, but the message is clear. Providing "integrative models," "guiding frameworks," or "important leader behaviors" all fit nicely the common practice that assumes more than casual legitimacy.

Assumption 2. Each of these characteristics is independent of the others and of the context, so therefore having more of each of these characteristics makes a person a better leader.

We would not repeat here our remarks about Assumption 1 that address situational independence. Competencies only become situational when additional lists are made for difference positions and levels. While common practice, this negates the "manageable" point you make about competency models. Competency models are not used like KSAs were, even when the lists get complicated, lengthy, and tailored to business units, levels, or functions. KSAs were traditionally tied to specific jobs that were thoroughly analyzed; competencies are not.

As for our assertion that competencies are assumed to be independent of one another, we do not see how your conceptual argument (that things obviously are situational) offsets the simple fact that there is no algorithm telling us how to combine or trade off competencies, much less to determine which ones are more important in which situations. In practical use, competencies are treated as if they are independent and additive. Even multiple lists of simple competencies distract us from understanding the subtlety documented in years of research on derailment.

People are complex tapestries of strengths and weaknesses, and what is a strength in one situation can be a weakness in another. Furthermore, when a strength becomes a weakness can be difficult to perceive, for example, when self-confidence edges into arrogance. Competency models as used suggest that a competency is always a competency. There is no room for considering that a "team player" may not be able to stand alone and go against the tide; that a "strategic thinker" may not be able to get anything done; or that someone with "high integrity" might become self righteous and dictatorial. Nor do the models take into account that specific *combinations* of qualities matter, not just the individual qualities. For example, autocrats can be quite successful if they surround themselves with capable people and listen to them; consensus managers can be quite unsuccessful if they empower ineffective or self-serving people.

Assumption 3. Because senior management usually blesses competencies, and sometimes even helps generate them, it means they are the most effective way to think about leader behavior.

Your retort to this assumption seems to be that competency models "are used by managers and executives because they make some logical sense." The implication is that there are no better alternatives that are equally logical, and, if there were, they would be too complex. You may be right. But we take issue with the "…are used by managers and executives." Although you may know of some organization where that is true, it may well be the exception that proves the rule. Our experience across a wide range of companies is that competency ratings are used by HR folks, not by line managers and executives making selection and placement decisions for key jobs. Nor does the absence of a simple alternative to competencies meant that competencies are adequate by default. In fact, we would counter, the theoretical elegance and usefulness to HR of competencies has shut down the search for alternatives. That executives do not use them but do superficially endorse them takes the pressure off exploring more viable alternatives.

Assumption 4. When HR systems are based on competencies, these systems actually work effectively.

Your statement that how well an HR system is implemented determines its effectiveness misses the point on two counts. First, our argument is that even when implemented effectively, competency-based systems have not worked. And second, your argument suggests that any HR system implemented well would be effective, which is clearly not the case. Your example of MBO is a good example of our point—it too was a theoretically elegant approach that, like competencies, fell apart in practice. Because things are simple, look logical, and are implemented effectively does not mean they work.

7. Great results, not great persons

Your description of how competencies started out being dimensions of the job and morphed back to personal characteristics triggered the realization for us that the problem is not that they looked at the job, rather than the person, but that they did not go far enough. Competencies have distracted us from a focus on results, getting things done. Competencies cause us to focus on people, their personal characteristics, and even their personal behaviors, rather than outcomes, what gets done. This has been devastating to HR to the point that some authors have even suggested that HR be disbanded, and outsourcing of HR functions has become commonplace.

Our point is that personal characteristics, behaviors, and outcomes may be loosely or tightly coupled. At the lowest job levels, say physical jobs at assembly line, there may well be one best way to do it. There is a reason why Taylorism worked—because there is a tight coupling for many of those jobs. But as we go up the ladder into leadership positions, the coupling grows quite loose and unpredictable; given business results may stem from a seemingly infinite array of behaviors derived from many and multiple personal characteristics. Taking the wrong-end focus–personal characteristics–leads us down an indeterminate path in leadership positions. A competency focus is a modern version of the great person theory—generalizable competencies simply raise the question of how great the person.

You give a great example of resolving all the conflicts in a department—the focus becomes not the business results required but the characteristics, behaviors, and processes. While that works at the assembly-line level, it fails at the higher levels. And not only are there hundreds of ways to proceed (as well as succeed), the process criterion (resolving all conflicts) may not even be desirable. And, clearly this competency can be a liability as well as a benefit.

8. Time to kiss a frog?

We began this letter with the observation that competencies are so pervasive that they have enchanted the HR community.[1] To "enchant" is a great example of an amphibole—a word that may have two, sometimes contradictory, meanings. On the one hand, it means "to sing into" (en-chant), to imbue with beauty and purpose and meaning, or to make something more than it is. On the other hand, it may mean to cast a spell for more nefarious or mischievous purposes that in fact diminishes it. In that vein, competency users have imbued the models with beauty and purpose and meaning, and at the same time made things seem simpler than they are. The approach makes understanding leadership and leadership development simpler than it can be. In this case we would be wise to remember Einstein's observation that we should strive to make things as simple as possible, but not simpler.

If competency models have indeed cast a spell, then what must be done to break the enchantment and open ourselves to a different approach? Mythologists tell us that spells can be broken in a number of ways, depending on the type of spell or the sorcerer casting it. Kissing something repulsive is a common theme. An alternative to the kiss is for a princess to throw the frog hard against a wall, the blow causing him to return to his princely state. We do not find an analog to kissing here, and our efforts to throw the frog against the wall seem to fall on deaf ears. And besides, as The Frog Prince warns us, "not all talking frogs are enchanted princes." So what option does that leave us?

Here we draw upon the legends of the Holy Grail. In those legends, the spell is caused when the keeper of the Grail, the Fisher King, is genitally wounded, rendering him and all his land impotent. This spell is broken when a fool (one pure in spirit and innocent of the implications of what he is doing) asks the right question: "Whom does the Grail serve?" Certainly we have been told we are foolish to take on competency models, although our innocence might be questioned. The content and tone of your letter indicates to us that the enchantment is complete. Would it not be interesting to think that the question of what and whom should be served might break the spell of competency models and restore perspective once again? After all, the purpose of this "holy grail" is to identify and develop competent executives who can get results (not develop competency models), acknowledging that there are many ways, not one, to be successful.

Sincerely,
George Hollenbeck
Morgan W. McCall, Jr.

---

[1] We are grateful to David Oldfield, Director of the Center for Creative Imagination in Washington, DC, for helping us understand enchantments and how the spell can be broken.

Letter 4

George Hollenbeck
Hollenbeck Associates
109 Whippoorwill Drive
Livingston, TX 77351

Morgan W. McCall, Jr.
University of Southern California
Marshall School of Business
University Park
Bridge Hall 308
Los Angeles, CA 90089

Dear George and Morgan,

Thank you for your recent letter in our discussion on the usefulness of competency models for leadership development. On the whole, we do have some shared views in a number of areas but disagree on a few critical points. In this letter, I will take a broad integrative view and discuss three key areas:

- In what areas do we agree?
- On what points do we disagree?
- What directions should we take in the future?

9. Areas of agreement

We actually seem to agree in several areas regarding competency models and leadership effectiveness. First, we both would like to see a more comprehensive approach to leadership effectiveness that takes into account not only person-centered competencies (or KSAs) and situational variables but also the interactions between them that leads to successful leadership outcomes. None of these alone is sufficient to adequately predict or account for all the variance in leadership effectiveness.

We agree that neither the great person theory or the great times theory goes far enough alone in predicting leadership effectiveness across a range of people and situations even though some people can cite specific, useful examples of each. For example, some leaders seem to be so broadly talented that they can effectively lead in a number of different situations; however, these people are likely to be selective in choosing those situations or to change the situations to better suit their own talents. Similarly some organizations seem to have strong processes and cultures that guide many different people with mixed KSAs to successful outcomes, but these organizations also carefully select people based on some specific KSAs for key positions in the culture. In both of these cases, there are critical interactions between people and situational variables that contribute to success.

We appear to agree that leadership effectiveness depends on various combinations of knowledge, skills, and abilities that come in and out of importance in different situations and as those situations vary over time. Most written competency models do not specifically identify the interactions between competencies or the interactions between competencies and situations.

However, more organizations are developing different, modified versions of competency models for different job levels, job functions, or job clusters. For example, one financial services company uses a behavioral competency model that identifies different effective behaviors for positions at different organizational levels and in different job functions across the organization. Other companies are now moving in this direction towards more situational specificity. However, because individual jobs continue to rapidly change, we are unlikely to institutionalize specific competencies for each position in the way that job descriptions in the past institutionalized specific job duties and as a result quickly became outdated.

Similarly in selection, development, performance management, and talent management discussions the interactions or tradeoffs between competencies are often discussed including their usefulness in various situations and roles. Because of the complexity of these interactions, it is very difficult to codify these interactions into a written model.

We agree that situations and contextual variables can be complex. Certainly others have explored and tried to identify key situational and contextual variables (Borman & Motowidlo, 1993; Fiedler, 1967; Gerstein & Reisman, 1983; Hersey, 1984; Vroom, 2000). The types of situational variables that can have an impact are numerous (Silzer, 2002b) and include:

- job variables (e.g., responsibilities, performance expectations),
- interpersonal dynamics (e.g., moment-to-moment interactions),
- team context variables (e.g., boss, peers, direct reports),
- organizational culture variables (e.g., norms, history, strategies), and
- country culture variables (e.g., use of power, individualism, respect for others).

Some companies have a reputation for developing effective leaders by paying attention to the situational variables relevant to key management roles. In selecting and developing leaders, executives often pay attention to the job, team, organizational culture, and even the country culture. They have some understanding of which competencies are needed to be effective in different executive roles and situations, such as a general manager running a complex, highly matrixed, and geographically dispersed business who shares control over processes and decisions with other peers.

Written competency models typically do not outline the interactions between competencies and between competencies and situations. However, more sophisticated companies explore and discuss these interactions when making placement and development decisions. On the surface, competency models do appear to "make things seem simpler than they are." However these models can be used and applied in complex ways. We agree that it might be helpful to explicitly state some of these interactions in writing so they can be verified and learned by others. Unfortunately, our current knowledge and theories of situations may not be extensive enough to build a strong general model of situations much less one that can specify the most effective interactions between person and situational variables.

Finally, we seem to agree that competency models "have in fact been useful for selection and training" and can provide a useful foundation for developing those KSAs that frequently are relevant to effective leadership in a range of situations. However, you restrict this usefulness to lower-level positions "where there is tight coupling between characteristics–behavior–results" while I believe that competencies can be useful in selection and training at all levels in an organization. Certainly, higher-level positions are more complex and a greater number of person and situational variables need to be considered in selection and development, but some competencies, such as influencing skills, are widely seen as important to leadership effectiveness in executive positions.

10. Points of disagreement

We agree that "what you see depends on where you stand." My views on leadership competency models are based on my experiences working in many organizations as they design and use these models. I have also found that as managers gain experience using competency models, they become more positive and enthusiastic about their benefits. It isn't clear from your letter whether you actually have any first hand experience developing or implementing a leadership competency model in an organization. Based on our different places of standing, we see several key issues differently.

10.1. The value and useful application of competency models

Based on my experiences, I know that leadership competency models can be applied in very useful ways in an organization. Here are a few applications that take competency models beyond just a simple list of KSAs:

- One major telecommunications company has annually realigned the executive competency model to reflect current strategic objectives. That is, the competencies that will be needed to fully achieve the business strategies are identified and included in the model. This includes the competencies needed in the short term and in the longer term to achieve company strategies. These competencies are then used in performance and talent management reviews to insure that they are being widely used to select and develop executive leaders.

- A major financial services company has mapped out the competencies against the company wide organizational structure (job levels vs. key functions) in order to build a career planning and development system. This allows employees to see which competencies are important for each job cluster to which they aspire and encourages individuals to take responsibility for developing the skills necessary to move along their chosen career path.
- Another financial services company tailors each executive selection process around the critical competencies that are needed. Discussions with senior officers identify the key KSAs that are needed in the position given the job context and situational issues. These competencies are often, in part, borrowed from the company's executive leadership model, but other job and situation specific competencies are also included. A selection process and interviewing guides are designed to help fully evaluate each candidate on these competencies. Sometimes behaviorally anchored scales are also created to insure that there is some consistent and reliable way to evaluate candidates. The executives are significantly involved in the process of collecting data on the critical competencies, discussing and rating the competencies, and then using the competencies to make selection decisions.
- A major manufacturing company has used a leadership competency model as a jumping off point for talent management reviews. The reviews not only focus on discussing and identifying the critical competencies needed for particular roles and situations but also explore competency interactions and tradeoffs. The candidates are then matched to these critical competencies to determine their likelihood of succeeding or surviving in the role. Frequently candidates that are not a perfect match are placed in positions for developmental reasons so they can learn new competencies.

These best practice applications demonstrate the broad usefulness of competency models beyond the basic models presented at conferences. However, even the more "common practice" use of competency models has the power to identify and educate people on leadership effectiveness. While we might all find that some of our dearly held views about leadership effectiveness are not adequately incorporated into a particular model, that does not render the model useless. You obviously would be surprised about how widely used and accepted competency models are in major corporations. Let us not let the "pursuit of perfect" prevent the "recognition of useful."

10.2. The nature of leadership competencies

We may also disagree on the nature of leadership competencies. You say that leaders are a unique mix of strengths and weaknesses and that strengths can become weaknesses. While those are both possibilities, I do not find that they are often true.

Over the last 30 years as I have observed and worked closely with hundreds of business leaders, it is evident to me that people may not be particularly unique. There are common behaviors and skills across different people. In a given situation, leaders with similar competencies handle situations in similar ways; the ways of dealing with a particular situation are not endless. There seems to be types of leaders and within each type there are some similar behavioral patterns. This has become apparent by observing hundreds of participants go through the exact same management assessment center exercises and by also assessing thousands of managers and executives over the years. It is not difficult to see these common KSAs and behavioral patterns that capture most of the behavioral variance that people show in a situation. Some leadership competency models are an attempt to capture these frequently occurring behavioral patterns that contribute to successful outcomes. In fact there have been a number of factor analytic studies of leadership behavior that identify consistent and reliable leadership dimensions across people and situations. These dimensions can get captured in competency models as you have tried to do in your own global executive competency model (McCall & Hollenbeck, 2002).

In addition, we disagree about the popular idea that a person's strength frequently becomes a weakness. Let us use your example: a team player may not be able to stand alone or go against the tide. The likely problem is not that the person has good team player skills but that he lacks the other competencies, such as independence or decisiveness that are needed in the situation. To help a person with strong team player skills successfully handle the new situation, you would not have him unlearn team skills but rather you would teach him the additional KSAs related to independence and decision making that he needs to balance out his team skills. In this situation team skills are not a weakness; the weakness is the lack of other skills needed to effectively handle the situation. The suggestion that strengths become weaknesses is often a canard that overlooks some other shortcoming in the person.

10.3. The assumptions of competency models

It seems evident that we disagree about the assumptions underlying competency models. The assumptions you attribute to competency models are not widely shared by users of these models. You argue that these assumptions are implicit and "no one says them out loud." It seems to me that you are declaring your own straw man so you can criticize it. Those in the field generally agree with you that a short list of competencies are inadequate for capturing all the variance in leadership effectiveness, that the competencies are not independent, and that competencies may not be the only way to think about leader behavior. However, there is evidence in a number of organizations that competency-driven HR systems can be useful and effective.

10.4. Future directions

We both have expressed the importance of finding a more comprehensive, integrated model of leadership effectiveness that encompasses leadership behaviors, situations, and outcomes. However, you have made few suggestions on alternative approaches to leadership effectiveness. Here are a few ideas to consider.

- A model of leadership situations. We could actively explore and develop a separate model that focuses only on leadership situations. We need a broad theory and model of situations that includes the important situational variables such as those related to job responsibilities, interpersonal dynamics, team influences, organizational cultures, country cultures, etc. We need a language for describing specific leadership situations and similarities across situations beyond the simple models that have been developed. We could then better understand the impact of a leader on a situation. We might also be able to identify which different types of leaders can be equally effective in a specific situation. So far this part of the leadership framework has been poorly developed.
- A model of leadership outcomes. We could do a better job of defining the criterion or the outcomes that we expect leaders to achieve. Surely there are numerous, desired leadership outcomes that can be identified beyond financial results and quarterly earnings.
- A model of the interactions between competencies, situations, and outcomes.
- Expansion of current competency models. Another alternative is to continue to expand the current leadership competency models to include leadership situations and outcomes. One possibility is to specify and record the mix and interactions of competencies for the most critical management roles and situations in an organization. For example, an organization might start by identifying 5–10 of the most important leadership roles in that organization and design a leadership model for each role that specifies the mix and interactions of the competencies that are most likely to lead to success in that role. This would be an expansion of the earlier work by Gerstein & Reisman (1983). The desired leadership outcomes for that role might also be identified. Another possibility would be to outline the most common interactions between leadership competencies, for example the known interactions between interpersonal skills and a strong drive for results. The idea here is to build on and expand the current leadership models in order to account for situational and outcome variables.

My point here is that effective leaders have a broad range of competencies, accurately read the differences between situations, and use the appropriate competencies that will lead to successful outcomes. Competency models are a useful attempt to help leaders learn a broader range of competencies and, in the process, learn how to use them differentially and effectively across different situations.

If our field has taught us anything it is that we need to take logical approaches to building and testing models and systems that work. Rather than "kissing a frog" and hoping that magic will produce a prince, I think it might be wiser to biologically re-engineer the frog to build a prince with the desired qualities. By successive approximations, like evolution itself, we should be able to build a frog prince and then maybe a prince. My bet is on a more scientific approach rather than one that relies on spells and enchantments.

Sincerely,
Rob Silzer

References

Bennis, W., & Nanus, B. (1985). *Leaders: The strategies of taking charge.* New York: Harper & Row.

Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt, & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 71−98). San Francisco: Jossey-Bass.

Bossidy, L., & Charan, R. (2002). *Execution: The discipline of getting things done.* New York: Crown.

Bray, D., Campbell, R., & Grant, D. (1974). *Formative years in business: A long term AT&T study of managerial lives.* New York: Wiley.

Charan, R., & Useem, J. (2002, May 27). Why companies fail. *Fortune*, 50−62.

Dubois, D., Karoly, E., & Doubs, A. (1994). Evaluating the ROI and effectiveness of competency-based training and development programs. *Competency conference proceedings* Boston: Linkage Inc.

Dunnette, M. (1966). Fads, fashions, and folderol in psychology. *American Psychologist*, *21*, 343−352.

Dunnette, M. (1971). The assessment of managerial talent. In P. McReynolds (Ed.), *Advances in psychological assessment*, *Vol. 2*. Palo Alto: Science and Behavior Books.

Fiedler, F. (1967). *A theory of leadership effectiveness.* New York: McGraw Hill.

Finkelstein, S. (2003). *Why smart executive fail.* New York: Penguin.

Fulkerson, J. (2003, December). Developing global high potential executives. *A presentation at the meeting of the New York Metropolitan Applied Psychology Association.* New York City.

Gerstein, M., & Reisman, H. (1983). Strategic selection: Matching executives to business conditions. *Sloan Management Review*, *24*(2), 33−49.

Gregorson, A. J., Morrison, A. J., & Black, J. S. (1998). Developing leaders for the global frontier. *Sloan Management Review*, *40*(1), 21−32.

Harvey, R. (1991). Job analysis. In M. Dunnette & L. Hough (Eds.), *Handbook of industrial and organizational psychology*, *Vol. 2*. Palo Alto: Consulting Psychologists Press.

Hemphill, J. (1959). Job descriptions for executives. *Harvard Business Review*, *37*(5), 55−67.

Hersey, P. (1984). *The situational leader.* Escondido CA: Center for Leadership Studies.

Kets de Vries, M. (1999). *The new global leaders.* San Francisco: Jossey-Bass.

Kotter, J. P. (1988). *The leadership challenge.* New York: Free Press.

McCall, M. W. (1998). *High flyers: Developing the next generation of leaders.* Boston: Harvard Business School Press.

McCall, M. W., & Hollenbeck, G. P. (2002). *Developing global executives: The lessons of international experience.* Boston: Harvard Business School Press.

McClelland, D. (1975). *Power: The inner experience.* New York: Irvington.

Merriam-Webster's Collegiate Dictionary. (2002).Springfield, MA: Merriam-Webster.

Office of Strategic Services (1948). *The assessment of men.* New York: Rinehart.

Schein, E. (1996). Three cultures of management: The key to organizational learning. *Sloan Management Review*, *38*(1), 9−20.

Silzer, R. (2002a). *The 21st century executive: Innovative practices for building leadership at the top.* San Francisco, CA: Jossey-Bass.

Silzer, R. (2002b). Selecting leaders at the top: Exploring the complexity of executive fit. In R. Silzer (Ed.), *The 21st century executive: Innovative practices for building leadership at the top*. San Francisco, CA: Jossey-Bass.

Silzer, R., & Douma, R. (1998, April). Partnership on strategic selection and development: Building a high growth, high technology Generation X company. *A presentation at the Annual Conference of the Society of Industrial and Organizational Psychology, Dallas.*

Thornton, G., & Byham, W. (1982). *Assessment centers and managerial performance.* Orlando: Academic Press.

Vroom, V. (2000). Leadership and the decision making process. *Organizational Dynamics*, *28*(4), 82−94.