

AUTHENTIC DEVELOPMENT: LEADERSHIP DEVELOPMENT LEVEL AND EXECUTIVE EFFECTIVENESS

Keith M. Eigel and Karl W. Kuhnert

ABSTRACT

Based on research with 21 top executives, we have identified a measurable characteristic that highly effective leaders have in common: Leadership Development Level (or LDL). LDLs are developmental levels of maturity that shape the mental and moral capacities of the leader. While the highest LDLs are associated with authentic leadership, the theory behind LDL focuses on the leader's developmental understanding of his or her world, and how that understanding differs at each LDL. In this way, LDL describes the process by which leaders become authentic leaders. In this chapter, we explain what LDL is, how it works, and its utility for understanding leadership development and leader effectiveness.

Over the past century we have struggled with how to accurately identify and develop future leaders. The truth is we often know effective leadership when we see it and most of us know from experience the impact of poor leadership

Authentic Leadership Theory and Practice: Origins, Effects and Development
Monographs in Leadership and Management, Volume 3, 357–385
Copyright © 2005 by Elsevier Ltd.
All rights of reproduction in any form reserved

on our organizations based on our personal experience with those leaders. The problem is not so much knowing who our effective leaders are; the problem is we are not good at predicting who will and will not be an effective leader, nor how to help them develop to a place of greater effectiveness. Much of what we know about leadership effectiveness comes from a long history of finding successful leaders and identifying the traits, behaviors, or situations that made them successful (Bass & Stogdill, 1990; Burns, 1978; Sternberg, 2003).

Identifying known leaders and describing their success has a long tradition in management research practice. The thick descriptions of successful leaders in many cases are accurate and often a source of inspiration to others. However, these descriptions often focus more on the characteristics of leader's behaviors once they are successful, but do not necessarily inform us as to how they became successful (Collins & Porras, 1994; Collins, 2001; Covey, 1989; Zaccaro, Rittman, & Marks, 2001). Notwithstanding the ample research findings that show relationships between leadership traits, attitudes, and performance, we are left with a formula for selecting and developing leaders that is unreliable and frustrating to utilize (Nadler & Nadler, 1998).

Recently, the concept of authentic leadership has been put forth by several authors (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Luthans & Avolio, 2003), and others from this book. It is proposed by these authors that authentic leadership is related to many different characteristics such as self-awareness, self-esteem, trustworthiness, integrity, respect for others, high emotional intelligence, transformational leadership, and other noble characteristics. This emphasis, we believe, is an encouraging shift in thinking as these characteristics are the destination of a developmental journey. What we hope to accomplish in the following pages is to describe this developmental journey, and to create an understanding of the process by which leaders achieve authentic leadership. The underlying rationale for the developmental theory we will posit is that leaders grow through an increasingly better understanding of who they are and how others see them. Our aim is to advance a *theory of the whole person* that helps lead to more authentic leadership. Thus, our goal is to help identify and develop leaders based on their capacities along a developmental continuum. In other words, we are emphasizing the *development* in leadership development.

Our hope is that this chapter offers a challenge to the existing way we think about leadership and leadership development. We believe leaders, as individuals, develop over the life course and do so in predictable ways

(Drath, 2001; Kegan, 1994; Loevenger, 1976; Slater, 2003). As such, we believe there are measurable differences between individuals and these differences account for differences in effective and ineffective leadership. By placing emphasis on development, we are looking not just at what leaders say and do (either as authentic or inauthentic), but where they say it from in their developmental journey.

A CLOSER LOOK AT DEVELOPMENT

Within the disciplines of developmental psychology, there have been many decades of research investigating individuals' capacities to respond to and make sense of the situations or demands that are placed upon them (Kegan, 1994; Kohlberg, 1981; Loevenger, 1976; Selman, 1980). Research on the capacity of people to respond effectively to complex circumstances has fallen under the general umbrella of *constructive developmental* theory or ego development (Kuhnert & Lewis, 1987; Manners, Durkin, & Nesdale, 2004; Rooke & Torbert, 1998). In applying constructive developmental theory to leadership in this chapter, we will refer to constructive developmental capacity as Leadership Development Level (or LDL). LDL is defined as the measurable capacity to understand ourselves, others, and our situations. Each LDL is the total of who we are; how we think about leading others, the way we see and solve problems, and what we know to be important and true. Our capacity to understand is more than the sum of *what* we know – it is *how* we know what we know that defines LDL. *What* we know is what we learn from our experiences. *How* we know, or the frame for our understanding, is how we understand or make sense of our experiences. LDL is the lens through which we filter our experiences (Kuhnert & Lewis, 1987). The way we differentiate levels of how we know is what determines our LDL.

LDL is an invariant, hierarchical, developmental progression that begins at least at birth and continues to evolve throughout the course of one's life. Fig. 1 shows the developmental progression of LDL and how it is characterized by alternating periods of stability and growth. The progression of this developmental capacity is more predictable in childhood than in adulthood for the reason that development is catalyzed by our experiences and the responses we have to those experiences, and those experiences are more predictable in early years. More specifically, when new experiences contradict our current ways of understanding ourselves, others and our situations, then those contradictory experiences become the fuel for development.

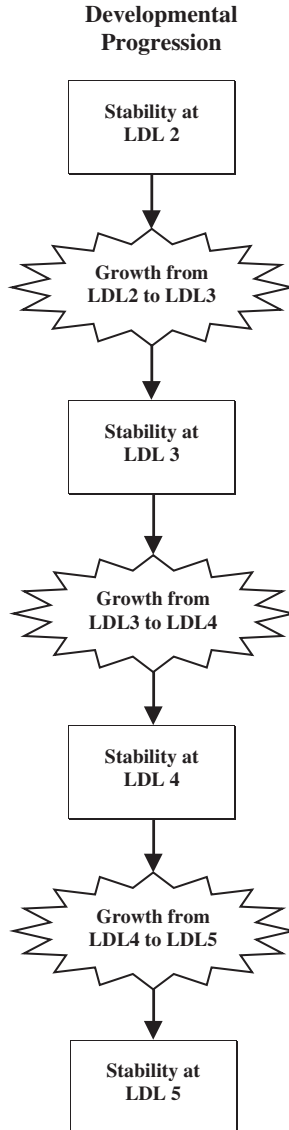


Fig. 1. The Developmental Progression.

Thus, responses to these contradictions help us to develop increasingly more effective ways of knowing, processing, deciding, and relating over the course of our lifetime.

As exposure to experiences that potentially contradict current ways of understanding varies more and more with age, a greater variety of LDLs are found in the 30–60-year age bracket than are seen in younger ages. In other words, the developmental trajectory of childhood and adolescence is generally more predictable than that of adulthood. This developmental phenomenon applied to leadership helps explain why not all leaders of the same chronological age and similar intelligence, personality, and educational background respond similarly to identical (or nearly identical) circumstances – *some, in fact, respond more effectively than others.*

To better understand the differences between the lower (or less developed) LDLs and the higher (more developed) LDLs, we will group the characteristics of the developmental progression around three general areas of experience: *intrapersonal*, *interpersonal*, and *cognitive* (Kegan, 1982, 1994). We will refer to these three areas from this point forward as knowing ourselves, others, and our worlds respectively, and these ways of knowing differ significantly at each LDL.

As leaders move from lower to higher LDLs, there is a transition in the knowing self realm (intrapersonal) from an externally defined understanding of self to an internally defined understanding of self, in the knowing others realm (interpersonal) from self-focus to other-focus, and in the knowing our world realm (cognitive) from simplicity to complexity. Thus, the lowest LDLs in adulthood can be described as cognitively simple or concrete, interpersonally self-centered, and intrapersonally defined by the immediacy of the moment. In contrast, the highest LDLs exhibit an ability to determine what is important in a situation and do so with an understanding that is complex, principled, inclusive, and stable. It is a more authentic way to lead because high LDL leaders better know who they are and how to make a significant contribution. Table 1 shows examples of this progression in the simplest of terms as it relates to each of these areas of experience.

Due to this aforementioned capacity to respond to the complex demands of the current environment, those individuals at higher LDLs tend to respond to life's dilemmas more adequately than those individuals at lower LDLs (Eigel, 1998; Kegan 1994). All other things being equal (traits, knowledge, skill, and ability), individuals who know, process, decide, and relate at the highest LDLs not only respond to life's dilemmas more effectively, but, as will be suggested by our model, have an increased capacity to lead more effectively as well. Therefore, the research and model presented

Table 1. Leadership Levels, Sources of Understanding, and the Areas of Experience.

Sources of understanding	LDL 2 (Understanding from without)	LDL 3	LDL 4 (Understanding from within)	LDL 5
Knowing what to do (cognitive)	Know and follow the rules	Look for help/ seek support	Figure it out	Explore options
Defining success (intrapersonal)	Did I win or did I lose?	Are we OK?	Did I achieve my goals?	Did I achieve a valued outcome?
Responding to conflict (interpersonal)	Win at all costs	Mend the relationship	Follow a process	Value and learn from the conflict

here posit that only the capacity to know the self, others, and the environment at the highest LDLs will produce sustainable and effective solutions in a complex environment.

WHAT ARE LEADERSHIP DEVELOPMENT LEVELS?

In order to evaluate the veracity of this assertion, it is important to understand more fully the defining characteristics of the different LDLs. In adulthood, LDL is a four-level developmental progression as shown in Fig. 1. We begin at LDL 2 rather than LDL 1 because there is a developmental level that actually precedes LDL 2 that is not relevant to adulthood, but only to childhood development. For more information on this developmental level see Piaget (1970) or Kegan (1982). Each LDL actually has definable and measurable sublevels and in its truest form, is a continuum of development with an infinite number of points along the developmental trajectory.

As the model implies, development is unidirectional and invariant, that is, one does not regress developmentally and levels cannot be skipped. What does vary from person to person, however, is the rate of development and where on the trajectory development stalls and for how long. Individuals at any given level have full access to the levels below it – or as Fowler states: “each new [level] builds on and integrates the operations of the previous [levels]” (Fowler, 1981, pp. 49–50). Nevertheless, they do not have access to the levels above their current developmental level. A metaphor we use for understanding the additive nature of the levels is the artist’s palate. The

number of colors on our palate defines our developmental level. Our ability to paint a more complete picture of our circumstances is limited by the number of colors we have at our disposal.

Leadership Development Level 2

In our model, the first, and least sophisticated adult LDL is Level 2. LDL 2 leaders understand themselves, others, and the world in essentially the same way as most adolescents. They have failed to develop at the minimum expected pace, and are essentially adults painting with the same two colors as an adolescent. Their picture is more sophisticated than a child's, but disturbingly unsophisticated for an adult leader.

LDL 2 leaders are characterized by an overly simplistic and concrete view of the world. The way that they make sense of their circumstances is very black-and-white, zero sum, win-lose. They are not yet able to consider possibilities or take the perspective of another person. Others' perspectives, if different from their own, are not understood or integrated into LDL 2 thinking – they are just out there and seen as opposing (and usually wrong) points of view. The reason these other points of view cannot be integrated into LDL 2 thinking is because these leaders have not developed an ability to weigh the importance of other opinions against their own – it is not a color on their palate with which they have to work. Consider the following excerpt taken from an interview with an LDL 2 leader:

You have to understand, I hate to lose. So to me it's a personal loss when I don't convince them that my way was better. Until then I assumed my way was right, or one of the right ways, you know, and we didn't choose it, someone else's way worked, so that's fine too. And that's self-preservation, you know, that way I'm never wrong.

It is easy to see why others experience LDL 2 leaders as self-centered, simplistic, and unbending. The world for them is a set of rules that you play by, and if you do not operate by that set of rules, there are negative consequences. If development to LDL 3 does not take place, and if the egocentric behaviors do not change, then there is a strong likelihood that sociopathic types of behaviors will characterize the LDL 2 leader. LDL 2 leaders, whose focus is exclusively on their own needs, and who are singularly committed to winning at the expense of others, are not usually trusted by others because they lack the capacity to forge and maintain relationships to get work done. They usually fail as leaders because others have difficulty working with them. The good news is that there are few LDL 2 leaders managing in

today's organizations – probably less than 10% (Eigel, 1998; Kegan, 1994; Torbert, 1991). Most people have grown beyond this way of understanding the world, at least in its most elementary form, by the time they are promoted to management positions.

Leadership Development Level 3

At LDL 3, a new color is added to the palate that is characterized by the ability to consider the perspectives and influence of others. Individuals at LDL 3 understand the weaknesses and limitations of LDL 2 sense making because they can take a perspective on their old LDL 2 understanding; they are more than their own agenda. It becomes clearer that not every situation is black and white, that not every rule is viable 100% of the time, and that you cannot and should not win at all cost. Others' opinions, or other ways of seeing a situation, are not just "out there" and left unconsidered as they are at LDL 2. Rather, these perspectives can be internalized, empathized with, and even adopted, as one's own if the source is trusted. In this way, LDL 3 leadership is much more effective than LDL 2 for leading in a complex environment; an environment with many factors and points of view that need to be acknowledged, synthesized, and represented fairly.

However, while LDL 3 leaders can be effective, often they are not. As stated in the previous paragraph, and represented in Table 1, the color that is added to their sense-making palate is one that still depends on input from outside sources. The reason these sources are defined as "outside" is because whatever that source is (whether a supervisor, friend, self-help book, or even a political ideology) it does not derive from within. Therefore, other people's opinions matter disproportionately. This is healthy and productive when individuals first develop into it – normally during their teenage years. The expression of this level in its purest form is epitomized by the adolescents who begin defining their world based on the input of peers, teachers, clubs, athletic teams, and hopefully even their parents.

We can all look back at our own lives and recognize these influences as we were growing up. Outside influences were necessary because as teenage and young adult "sense makers," we were unable to understand new complexities without the help of others. However, the dependence on outside sources becomes a liability when one is exposed to a novel situation beyond the scope of previous outside influence. The same holds true for leaders: there are critical times when leaders cannot rely on the counsel of others, the "company line," or "political winds" for that matter, but must turn inward

for answers. When LDL 3 leaders are pressed in any given situation, their limits are exposed; they cannot formulate a course of action independent of others' influence. Thus, they show the limited number of colors available on their sense-making palates.

As shown in Table 1, the way that the LDL 3 leader responds to conflict is by getting out of it as soon as possible. Kegan (1982) says that LDL 3 individuals do not have relationships; rather they are their relationships. What he is saying is that an LDL 3 leader has to have relationships in order to know who they are – in order to know they are OK. Notice how in the following LDL 3 interview excerpt, this leader explains her perspective on conflict situations:

Conflicted situations or having a conflict with anybody is just very uncomfortable and it just gets in the way of everything that you need to get done. In some ways it's almost like I'm conflict avoidant, but I don't avoid it. I just want it to be solved right away. Whatever it takes, I want to clean it up quickly so the next time I see them in the hall, it's okay.

LDL 3 leaders can make effective decisions when pressed, but those decisions will not be self-authored or owned in the same way as an LDL 4 or LDL 5 leader. If the picture being painted is a reproduction, they will be able to paint it well. But when the scene demands their own authentic expression, or creativity, LDL 3 palates are shown to be inadequate. For example, an LDL 3 leader who has to make the tough choice of promoting just one of several people will have difficulty because to select one person could potentially harm the interpersonal relationships the LDL 3 leader has fostered with others.

Is the picture that the LDL 3 leader paints more adequate than the picture that the LDL 2 leader paints? Of course, LDL 3 leaders have a new color to paint with and are much more proficient at knowing when and how to use the main color of the LDL 2 artist – concrete rules and ways of acting. They have a perspective on when concrete rules and ways of acting are appropriate, when they are weak, and when their experiences show them to be negotiable or “gray” as opposed to black and white. It was, in fact, seeing the limitations of the LDL 2 palate (the lack of grayness and the virtue of trusting relationships) that promoted development to LDL 3.

What should become clear now is that, as each new color is added to the palate, the colors of the previous levels are still available to the leader. The colors that have been there the longest (from the earlier stages) are the ones that can be used most effectively. The newest color is used in the least sophisticated way and therefore somewhat less effectively (there is not yet

enough experience to know fully how to use the new color). This means that when concrete, dogmatic, LDL 2 leadership style is required, those at levels higher than LDL 2 can still use them because the previous ways of knowing oneself, others, and world do not go away, but rather are integrated into a more comprehensive understanding. One reviewer of this chapter asked, “might not a concrete, dogmatic, egocentric person be more effective in some settings, with some types of people?” The answer is, possibly yes. But when that style of leadership defines a leader’s capacity rather than a choice he or she makes to address a certain situation, it is easier to see why leaders become increasingly more effective at each LDL. That said, the newest or most current LDL is not only the one that defines current capacity, it is the one that is used the most. It is the newest color on the palate and the one that cannot yet be taken in perspective, but rather the one from which the leader uses the other colors. As stated earlier, the characteristics of the current level are the lens through which leaders understand the world they are painting – a lens to which they are too close to take in perspective.

Leadership Development Level 4

As development moves to LDL 4, a fourth color is added to the palate, and for the first time enough colors are available to paint a picture without imitating the style of others. As Table 1 shows, the source of understanding now originates from within rather from without as well. The LDL 4 leader can, with this more expansive palate, paint a much more realistic, accurate and multidimensional picture than can be painted at either LDL 2 or LDL 3. The newest color added to the leader’s sense-making palette is characterized by independence.

By independence we mean that there is no longer a dependence on outside sources to help the leader make sense of self, others and situations. At LDL 4, input from outside sources can be evaluated objectively because the sources *can* be taken into perspective – they become sources that are factored effectively into the sense-making equation. Outside opinions do matter; however, they do not define or determine the leader’s decisions. Therefore, LDL 4 leaders have to use all of the past colors in forming their independent views. Consider the following excerpt from an LDL 4 leader as he addresses his understanding of conflict situations:

First of all, all of us like to get along with one another, but we can have conflict and still go out that evening and have dinner together. That’s the best way I can describe it. The real key is making sure that you are totally objective when resolving conflict. Understand

the other, but look at the facts and make decisions based on the facts. They might not always agree with my decision, but they know that I will get rid of the biases that I might have, and that I won't take it personally.

The “we can have conflict and still go out that evening and have dinner together” statement in this excerpt illustrates this independent and self-authored (as opposed to outside-source authored) LDL 4 development well. There is now, for the first time at LDL 4, a separation between business “facts” and personal “feelings.” Having the use of all of these former ways of understanding means that traditional rules and laws, winning and losing, the perspectives of others, the input from outside sources, etc. can all be taken into account in the formation of this more complex ability to understand the world. In fact, these past experiences are what allow LDL 4 leaders to author their own point of view. Moreover, this confident independence (“doing the right thing”) is also the reason that LDL 4 leaders inspire confidence and are easier to follow.

It is at LDL 4 that we see the first possibility of leading from an authentic place, a place that is of one's own making. Understanding the self, others, and world solely under the influence of outside sources (i. e., LDLs 2 and 3) is not as authentic. Full self-awareness does not emerge until LDL 4. Likewise, Gardner et al. (2005), propose that levels of internalization and integration (Deci & Ryan, 1995) are related to authentic leadership. *External* and *introjected* regulation mechanisms are descriptive of less authentic leadership styles. These types of feedback mechanisms are also characteristic of LDLs 2 and 3, respectively. *Identified* and *integrated* regulation mechanisms are proposed to be related to more authentic leadership, and are similarly characteristic of LDLs 4 and 5.

LDL 3 leadership is more adequate than LDL 2, but truly effective leadership does not begin until LDL 4. LDL 4 leaders are more successful in generating followers because followers recognize that the LDL 4 picture of the world is a much more complete picture than those painted by leaders at the lower levels. In short, at LDL 4, leading is more authentic than at earlier levels. LDL 4 leaders have use of the colors of the previous levels as well as the ability to use those colors more effectively.

LDL 4 leaders know that the world does not revolve around them and are therefore not beholden to their circumstances for their well being. They know they have needs and an agenda, but that alone will not create an effective team or create value for the company. LDL 4 leaders also know that they can effectively and appropriately use the color of relationships and input from outside sources, which adds drama, life and emotion to the painting, but they also know the limits of an outside authored “paint by the

numbers” way of understanding. Finally, LDL 4 leaders add their own technique, their “sense-making palate” to make their art distinguishable, identifiable, unique and potentially more valuable. In the end, like all great works of art, the painting reflects the artist at LDL 4. This aspect, more than anything else, separates LDL 4 art from the creations of those at previous LDLs.

Leadership Development Level 5

LDL 4 is not, however, the be all and end all of leadership effectiveness. If LDL 4 leaders can be characterized as effective, authentic artists, LDL 5 leaders are the master painters capable of using many colors simultaneously. In terms of making sense of their environments, LDL 5 leaders have more colors at their disposal to utilize in effectively understanding and responding to whatever scene they are painting – i.e., leadership situations in which they find themselves. They have all of the colors of the previous levels plus a new color that we will explain in the next few paragraphs. However, we should note that LDL 5 leaders are as interesting as they are rare. In the general population only about 5–8% of adults between the ages of 40 and 60 would be considered LDL 5 (Eigel, 1998; Kegan, 1994; Torbert, 1991; Van Velsor & Drath, 2004).

We believe that it is easier to understand the characteristics of LDL 5 when we juxtapose it to the concept of a *paradigm*. Oxford English Dictionary defines paradigm as “a case or instance to be regarded as representative or typical” (Burchfield, 1987). A paradigm, then, is one’s understanding of something that is stereotypical of its nature. By extension, a leader’s paradigm is his/her stereotypical way of seeing things. Thus, the popular phrase “paradigm shift” has addressed the idea of changing the stereotypical way that one sees things – a new and different way of understanding the world.

LDL 4 leaders are the authors of their own paradigms. This is another way of talking about the independence that we detailed in the LDL 4 section above – having a way, or paradigm, that identifies the self, both to the self as well as to others. This way, or paradigm, is something that LDL 4 leaders cannot take a perspective on, or, in other words, evaluate objectively. The paradigm is the newest color that dominates the way the LDL 4 leader sees the world. Just as LDL 2 leaders cannot step away from, get a perspective on, and evaluate objectively the rules and order that define who they are, and LDL 3 leaders cannot step away from, get a perspective on, and

evaluate objectively the influence of relationships and other external factors that define who they are, LDL 4 leaders have their limitations as well. They cannot step away from the paradigms that shape their understanding of the world – this same understanding that helps them decide how to respond, and even how to lead.

The defining characteristic of LDL 5 leaders, on the other hand, is their ability to step away from, take perspective on, and evaluate objectively the paradigms that defined them at the previous stage of development (LDL 4). LDL 5 leaders are open to the influence of others' paradigms. They are able to be their own critics in assessing the value of the paradigm that they may choose to employ in a given situation. They have the rare capacity to see into a situation *and* themselves at the same time. As such, LDL 5 leaders are open and responsive to internal reports on their performance, their likes and dislikes, their impact on others, and their changing needs. One LDL 5 leader describes his understanding of conflict this way:

I think conflict is a very positive, very desirable, component of a corporate culture. When you're focused on the things that will result in achieving success, opinions will vary, and the functions that different leaders represent will inherently be in conflict with one another – which is a very healthy thing. I try to create an environment where people are comfortable and don't feel there is any risk in conflict or in disagreeing, but are all committed to the success of the enterprise.

This excerpt is an excellent example of a leader who is grounded in his values while still being open to the experience and opinions that others represent. The LDL 5 leader has the “capacity to meet others of any station in their life in their full height and depth” (Torbert, 1994, p. 186). It is this openness and vulnerability to others and the constant self-transformation that makes LDL 5 leaders so effective at leading others.

LDL 5 leadership is suited for turbulent times because of its ability to reflect, the welcoming of contradictions and paradoxes, and acceptance of incompleteness. LDL 5 leaders have the capacity to weigh differing paradigms against a higher-order core set of values or principles that they hold to be true. In this way, they essentially have a system of paradigms which allows a much more complete understanding of themselves, others, and their situations. The higher-order values and principles that hold this system together are the defining essence of the newest color on their palate (and also the thing from which they cannot step away and take in perspective). It is the tension between others' higher-order values and the possibility of their own transformation that makes the LDL 5 leader so effective. For the very first time, they can fully walk in someone else's shoes.

If we go back to our metaphor of the artist's palate, we would classify the LDL 5 artists as the great masters. This new color that we call "the ability to manage multiple paradigms" allows them to employ the appropriate means to create a picture that makes their followers understand the values that they hold true. This capacity for creating a complete and often brilliant picture evokes something in the admirer, follower if you will, that moves them to action. In the area of art, it may move them to see the world differently, but in the area of leadership, it often moves them to action, growth, or effectiveness.

Our understanding of authentic leadership, as presented by Avolio and his colleagues (e.g., Avolio et al., 2004; Gardner et al., 2005), and others is very closely associated with the characteristics we see in LDL 5 leaders. This higher order of development, higher order of knowing oneself, others, and the world is consistent with the descriptions of authenticity presented by these authors. Authentic characteristics like self-awareness, self-esteem, relational integrity, etc., are the byproduct of development. They come about through the hard work of remaking meaning making systems over the course of one's life. One cannot go from inauthentic to authentic without wrestling with the tough questions about who we are, who we want to be, and how to contribute uniquely to the world. We believe it is possible that individuals can engage in authentic behavior at LDL 3 and 4, but living authentically is actually achieved at LDL5.

DEVELOPMENT VS. DEVELOPING

Understanding the measurable differences between the levels of development is different than understanding what causes development. How one gets to the next level is a different topic than what it means to be at a given level. Over the course of one's life, levels of intelligence and certain attributes remain relatively constant (e.g., Bono & Judge, 2004; Jenkins & Oatley, 1996). That is, for the most part our personalities and intelligence are known and do not dramatically change in adulthood. However, even as these factors stabilize, development does not cease. Instead, there are periods of equilibrium or balance when one functions at a given LDL rather easily for a period of time (Piaget, 1970).

The catalyst for development on the trajectory usually comes from a shake up or challenge to the existing developmental position. Then, depending on the response to the challenge, a new, more effective level can emerge – one that accounts for and incorporates the new experiences. It is in

this way that development occurs: experiences contradict the existing or current LDL, which destabilizes the equilibrium of that level. The challenged individual can then choose to reconstruct a new understanding, one that incorporates the new information about the world that is learned from the challenge, or they can choose to shut down and allow the current understanding to account for the experience in an oversimplified way. The former promotes development while the latter tends to arrest it.

Because it takes time to accumulate the kinds of significant experiences that challenge the current level of development, as well as to develop coherent responses to those experiences, it is rare to find individuals at the highest *LDLs* prior to their mid-30s. This is not to say that there are not mechanisms for accelerating development toward a more authentic level, however methods for promoting development are outside the scope of this presentation.

As we have stated throughout the course of this chapter, we believe, and our research shows, that LDL determines leader effectiveness. The propositions by those currently defining authentic leaders add further support to our assertions. In the following paragraphs we will detail some of the research that supports this idea. Thus, we will turn our attention to the relationship between LDLs and leader effectiveness.

LEADERSHIP DEVELOPMENT LEVELS AND EFFECTIVENESS

We believe there is a strong and important relationship between LDLs and leadership effectiveness. We also believe, and there is empirical evidence, that leaders are not even able to be effective in novel leadership situations until they are at LDL 4 or higher in the developmental progression (Rooke & Torbert, 1998). In order to test the hypothesis that LDL is one of the key determinants of a leader's effectiveness, we compared two measures of effectiveness to LDL – one related to position in the organization and the other to a traditional rating scale completed by subject matter experts. The first measure of effectiveness is positional. Twenty-one board-elected executive officers (CEOs, CFOs, COOs, and presidents) of public companies were compared to midlevel managers who were seen as effective but not expected to move into executive level positions in the immediate future.

Because executive effectiveness can be difficult to quantify, and since we were relying on the efficacy of relating leader effectiveness to those

performing well in executive leadership positions, we made two assumptions that we felt would control and put some bounds on the artistic nature of determining effectiveness. The first was that a group of individuals with something at stake – the board of directors of publicly held companies – would have a vested and accountable interest in selecting the most effective executive available to them at that time. We believe this to be true in spite of the well-documented exceptions recently revealed in public and corporate America. Additionally, in order to control for other obvious explanations, we eliminated second-generation family businesses that had gone public with the family still in control, short tenure (less than 2 years) executives, and founding entrepreneurs who may have been successful because they were in the right place at the right time more than they were good leaders.

In order to control for industry effects, the 21 CEOs were from industries as diverse as manufacturing, technology, software, banking, distribution, textiles, insurance, and finance. In addition, the organizations that the CEOs were leading were all performing at the top of their industries, if not leading them, and the average gross annual revenue was \$5.6 billion. Indeed, when one examines the caliber of the executives and the companies they lead, it is difficult to argue that this is not a group of individuals that are highly effective by most people's standards.

The measurement of LDL is a cognitively demanding and a labor intensive process. Each participant engages in a 60–90 min semistructured clinical interview with an interviewer certified at training workshop in Boston, Massachusetts. The object of the interview was to probe and understand, using hypothesis testing, the participant's experience in a way that identified how or why the participant constructed meaning about a particular experience. This meant that probing for information about the content of the person's experience (e.g., conflict) was not part of the process – the goal was probing for an epistemological construction of the given event (e.g., what does conflict mean). The interviewer wanted to know *how* the person thinks not *what* she thinks (Lahey, Souvaine, Kegan, Goodman, & Felix, 1988).

All of the leaders, in our sample, were assessed using the interview. The interviews were transcribed and scored to 20 distinct scores (five distinctions for each of the four LDLs we have referred to in this chapter). Interrater reliabilities of the interview range from 67 to 89% for exact agreement, and from 82 to 100% for agreement within a one-fifth distinction. In other words, we scored each individual to one of the 20 distinctions mentioned above and interrater reliability was based on that scoring, rather than on the four LDLs (of which each LDL includes 5 distinctions) that we have used to describe LDL throughout this chapter. Construct validity for this interview

technique has been established over decades of research (Colby & Kohlberg, 1987; Lahey, 1988).

The second measure of effectiveness was instituted in order to mitigate the explanation that it is really position and not leader effectiveness that is related to higher LDLs. Positional references were removed from 150 excerpts taken from over 2000 pages of LDL interviews. These 150 excerpts were of varying LDLs and were rated by subject matter experts (SMEs) as to their effectiveness in a given area (such as conflict management, visioning, success, participation, etc.). The SMEs had an average tenure of 14 years of doctoral-level work in academia and/or business in the area of leader effectiveness. The SMEs were asked to “rate the effectiveness of the responses on a six-point scale – 1) atrocious, 2) ineffective, 3) somewhat effective, 4) effective, 5) very effective, and 6) exceptional.” In blind review, two different, independent SMEs, scored each of the excerpts for the LDL the excerpts would represent if the entire interview were consistent with the excerpt. These two measures were then used as effectiveness measures in comparison to LDL.

The hypotheses that LDLs were positively related to leader effectiveness was confirmed on both the positional (or board-elected executive) measure of effectiveness as well as on the effectiveness ratings measure. That is, as LDL increases, leader effectiveness increases.

The first analysis correlates LDL with the position of board-elected executive. As explained in the previous section, we contend that being a board-elected executive (henceforth referred to as the executive group) is an indicator of effectiveness as determined by the more holistic approach of board selection. If individuals who are viewed as effective by a group of stakeholders are, in fact, effective, and if LDL is positively correlated with (or related to) effectiveness, then we should see significantly higher scores in the board-elected executive population than we would in a comparable population of individuals not necessarily seen as effective leaders.

In order to illustrate the data, we have included in Fig. 2 the distribution of LDL scores from 764 highly educated professionals in the same age demographic as the executive group. We have labeled this group “The General Leadership Population.” The normative sample was created by combining three data sources: Kegan (1994), Torbert (1991), and our own LDL scores of the comparison group of the 20 upper-level managers from the same organization as our executive group. As Fig. 2 illustrates, the distribution of scores generally fits the normal distribution.

It follows that if LDL was not related to leader effectiveness, we would expect to see a similar distribution of scores with the executive group – one

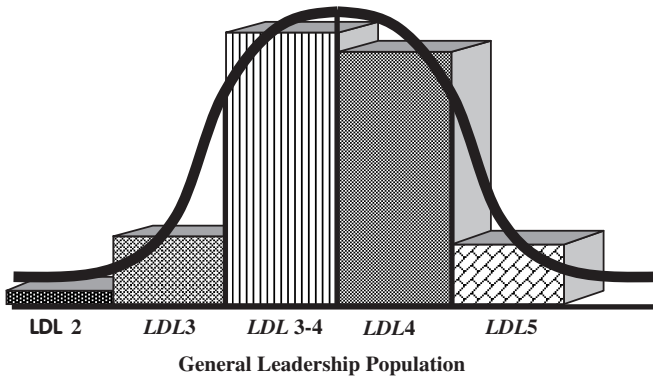


Fig. 2. The Distribution of *LDL* Scores for the General Leadership Population.

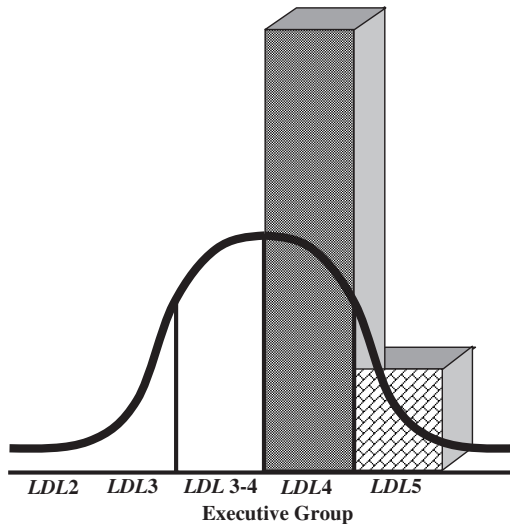


Fig. 3. Distribution of *LDL* Scores for the Executive Group.

that approximates the normal distribution, just as the General Leadership Population and the comparison group did. However, as can be seen from the dramatic results presented in Fig. 3, the distribution of scores from the executive group far from approximates the normal distribution. It is remarkable, and in fact exceeded what we expected to find, that none of the

scores from the executive group were even below LDL 4. Needless to say the results are statistically significant: the χ^2 analysis of the differences between the executive group and the highly educated professional group yielded an asymptotic significance of $p < 0.000$, while the Mann–Whitney U and Moses (SPSS, 1996) yielded significance values of the comparison between the executive and comparison groups of $p < 0.001$ and $p < 0.000$, respectively. This relationship between LDL and effectiveness emphasizes what we have said from the beginning of this chapter – it is not necessarily what you do, but rather, from where you do it that determines your effectiveness.

Whereas we have just illustrated the relationship between position and LDL, we now want to look at the relationship between effectiveness ratings and LDL. We hypothesized that LDL would also be related to measures of effectiveness independent of position – Fig. 4 shows the results of the relationship between LDL scores on 150 excerpts and leader effectiveness scores for the same excerpts. As seen, when the LDL score of an excerpt increases, the corresponding effectiveness rating for that score increases as well. Interestingly, and similar to the previous finding, it is not until the LDL scores approach LDL 4 that the leaders are really seen as effective at all. As in the previous hypothesis, the test of significance for this comparison of effectiveness scores and LDL scores yielded a significant difference on the Spearman Rank-Order correlation of $p < 0.000$.

Just as Fig. 3 shows that leader effectiveness really begins at LDL 4, Fig. 4 shows that response effectiveness begins at LDL 4 as well. We find that examples of responses at various LDLs can help illustrate this relationship. The following excerpt was taken from an interview and rated for its

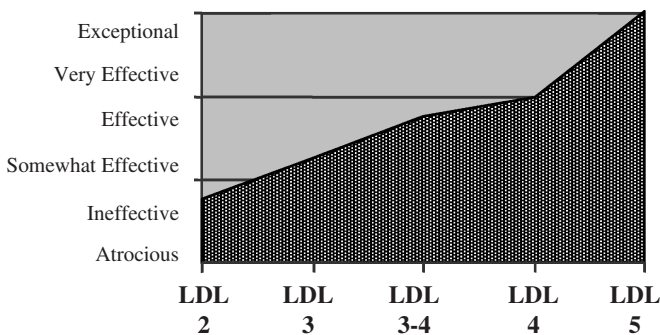


Fig. 4. The Relationship between *LDL* Scores and Leadership Effectiveness Ratings.

effectiveness as a response to the question, “how do you know the right thing to do?” It was rated as an ineffective response. It was also rated LDL 2 as can be seen by the inability to hold opposing view points simultaneously, and because of the black and white, concrete nature of the understanding that is displayed.

I like to preach that there is always more than one right answer and they are both equally good, it's the question of which one you choose.

INTERVIEWER: Do you practice that actively, the idea of seeking multiple right answers?

Multiple right answers come from having multiple opinions. I suppose all of us sometimes think I don't know if I should do A or B. I can usually wrestle that one to the ground or close my eyes and guess. It will tend to be if I feel strongly about something and a peer feels strongly about something else, then somebody has got to make the call and that's why there is another level.

INTERVIEWER: How do you know when you're wrong?

Well, if you are working with the right people, you are never wrong because they just picked another right way and your way was right, you just didn't get chosen. You're wrong when you get to the end of the game and it didn't work. And I'm wrong every day. There are a lot of things we try that don't work, but that's not a reason not to try, you know, to me, that's losing again if my way didn't work. But you don't know until you try it. Until then I assumed my way was right or one of the right ways, you know, and we didn't chose it, someone else's way worked, so that's fine too. And that's self-preservation, you know, that way I'm never wrong.

Fortunately, there are not many LDL 2 responses coming from leaders in most organizations. Nonetheless, it is easy to imagine the frustration one must feel when attempting to follow this type of leader. The unreconciled contradiction between simple points of view, the win-lose perspective on who was right and wrong, and the utter simplicity of this LDL 2 response make it easy to see why it was rated as ineffective.

In Fig. 5, we have extended the Developmental Progression illustrated in Fig. 1 to include the environments and ways that those at each LDL are effective. As can be seen, we do believe there are few if any environments where LDL 2 leaders are effective. In fact, we would contend that most LDL 2 leaders are ultimately destructive to any environment in which they lead. While strategies that are concrete and rule driven may be appropriate in some extraordinary environments, we do not believe that LDL 2 strategies performed at LDL 2 understanding lead to effective outcomes in most organizations.

As leaders stabilize at LDL 3, there are some limited environments in which they can be moderately effective. These environments are routine, known, and stable. In such environments, learned strategies in a specific content area can be employed with some degree of effectiveness. Whereas

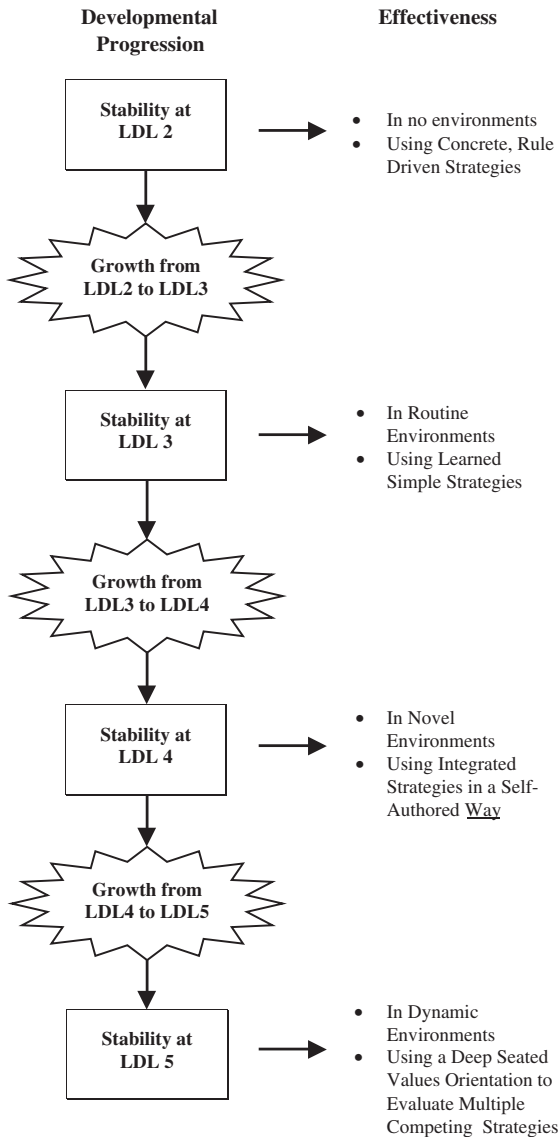


Fig. 5. The Developmental Progression and Effectiveness.

there are few LDL 2 leaders in most organizations, there are many more LDL 3 leaders. However, as the following excerpt illustrates, while an LDL 3 response may be less offensive, and even more likeable, it is nonetheless often ineffective. This LDL 3 response to the “how do you know the right thing to do?” question is characterized by uncertainty and a need to get outside input on how well things are going. The interdependent nature of LDL 3 is also evident.

I think it's important to get input from others because one person can't have all the ideas. I like to think that there is this broad objective that we are all trying to get to. And I have a little slice of it that kind of comes down and if I do my little piece and everybody else does theirs, it all works. I can't be successful unless I'm going in the same direction as the others. And I can't know if I'm going in the same direction unless somebody over here is telling me, “you're off track;” “don't do that;” or “that's a good idea, but don't do it because we are trying to go that way.”

As Fig. 4 illustrates, LDL 3 responses to leadership situations are at best rated only as somewhat effective by our SMEs. In the preceding excerpt, it is understood that interdependence and common goals are needed. However, there is no ownership of the situation outside of what is immediately known without the input of outside sources. In fact, there is little ability, if any, shown that would indicate that this leader is even able to rate his own performance in pursuit of a known outcome. However, when leaders develop to LDL 4, they are able to own or take responsibility for the outcome of a situation. Responsibility, or ownership, is not to be confused with worrying about the outcome, behavior characteristic of LDL 3. Both LDL 3 and LDL 4 leaders would feel that they are taking responsibility, but what responsibility means to them would be very different at the different levels. It is worth noting that LDL 3 leaders can and often do make excellent employees but because so much of their self-esteem is derived from and through others they do not make effective leaders.

At LDL 4 we see, for the first time, consistently effective responses to leadership situations. LDL 4 leaders can respond effectively in novel environments where self-authored, integrated strategies are required. In the following LDL 4 excerpt, you can hear that there is a way that is owned; a way that integrates various perspectives, exuding a confidence others will more readily follow.

Well, I think you often get better ideas for heading in the right direction from a structured brainstorming, thinking out loud, pushing against each other session than any one individual could come up with standing alone. Very quickly then, once we've gotten our alternatives laid out, we begin to identify what are the potential weaknesses in each one of the models...and so then we narrow it down. So, one, you get a better idea, but just as

importantly, you've gotten a consensus built with some of the key opinion shapers in the organization; you've created a group of disciples that are going to go out and help you then implement and sell and create understanding around what it is that you are going to do.

In this excerpt, it is easy to see the integration of perspectives and ideas, the confidence in the way the leader responds, and how he could transfer this way to many novel leadership situations. While LDL 3 leaders are looking for outside input to *de-fine* themselves, LDL 4 leaders look for input to *re-fine* themselves. It is from this LDL 4 position that leaders can begin to lead others effectively. That said, where we really begin to see highly effective responses that are able to meet the challenges of today's dynamic environments is at LDL 5. It is from LDL 5 that leaders are most authentic in who they are and what they have to offer. In the following LDL 5 excerpt, the response to the question "how do you know the right thing to do?" is given an effectiveness rating of exceptional by both SMEs. Note the openness to, and synthesis of, contradictory options as well as the strong values orientation.

If we had an unlimited amount of time, I could probably find pieces from many different places and times, but one of the things that still stays with me today is from my sociology class and one of the philosophers, maybe Socrates, who said "the unexamined life is not worth living," so that it's important to continue to reevaluate what you believe. It doesn't necessarily mean that you change your beliefs, but you leave them open. You sort of leave them exposed...and I think too many people don't do that. You know, they form their beliefs and their opinions, but they're not open to evaluating them. But if you think about them, there's less to think about when you need to use them...And so decisions [about the right thing to do], I think, become easier as opposed to harder.

As we relate this LDL 5 way of understanding the world and how this LDL 5 response addresses decision making, it is easier to see the relationship between LDL and effectiveness. As Fig. 5 shows, LDL 5 leaders have the ability to go beyond LDL 4 leaders to evaluate multiple LDL 4 ways or strategies and, simultaneously be open to change, whereas the LDL 4 leaders are limited to the effective use of their own way or strategy.

MOVING FORWARD

It is our hope that the research and thinking presented here has put some structure to your ability to know why you know effective leadership when you see it and what leadership development looks like from a theory of the person. Our primary goal in this chapter was to present a descriptive

analysis of our findings that all of the high-performing leaders in our sample are LDL 4 or 5, and to provide a theoretical basis (grounded in four decades of research in human development) for why this might be. This is a first step in the process of understanding the ramifications of LDL on leader effectiveness, not the last. There remain many implications for future research that emerge from our discussion.

First, we did not investigate many of the possible relations between LDL and authenticity as is recently presented by Gardner et al. (2005). There seem to be a great number of factors they propose to be related to authenticity that we believe are specifically characteristic of LDL 5. If, as proposed by other authors in this book, there is a connection between authenticity and effectiveness, and we can establish a direct connection between LDL 5 and authenticity, both constructs would be strengthened through further research.

Another application that we have explored with our clients, but not researched fully, is the viability of LDL assessment for selection purposes. Knowing a leader's LDL, given relevant knowledge, skills and abilities for a particular role, would give us potential insight into his or her ability to function effectively in leadership roles. Similarly, assessment of LDL could be a useful tool for mapping developmental strategies for individual leaders as well as helping to determine meaningful training interventions.

A potential weakness of the research presented here is that we did not directly deal with the leadership context. Gardner et al. (2005) propose that organizational context will influence the organization's readiness for and likelihood for the emergence and efficacy of authentic leadership. We agree. In our research, we made every effort to not be context specific in terms of type of industry, but made no measurement of the cultural aspects of context within a given organization. We believe context does matter but what matters more is the LDL at which the environment is experienced; we see the world not as it is, but rather from where we are. For researchers, this means that the person and environment are mutually defined and should not be considered independent of one another. Future leadership research would focus on leader-in-environment rather than examining the independent effects of the leader *and* environment. If we are correct, critical aspects of the leadership context will matter more or less depending on the leader's LDL.

Furthermore, we do not really understand what the "triggers" are for development. There is significant research on the life experiences of leaders (Douglas, 2003; McCall, Lombardo, & Morrison, 1988; Moxley & Pulley, 2004), but we also know experience alone does not facilitate development (Velsor & Drath, 2004). We also know that formal leadership interventions

(e.g., 360-degree feedback, job assignments) fuel development, but developmental results are “frustratingly individual” (Barrett & Beeson, 2002; Hollenbeck & McCall, 1999). From the standpoint of LDL, we believe that triggers for development will be those that have meaning for the individual at their LDL and that the transition from one level to the next will be dependent on the leader’s readiness and willingness for development. In Fig. 6, we highlight what we believe are the fundamental growth challenges for leaders at each LDL. At each LDL, leaders use this challenge to fuel their own development. Going forward it would be beneficial for practitioners and researcher to find ways to utilize methods and techniques that would “trigger” these growth challenges in leaders.

Additionally, we did not investigate or propose anything about the developmental implications on followers as it relates to LDL. Our practice in working with high LDL leaders suggests anecdotally that higher LDL leaders (i.e., more authentic leaders) are more intentional in the development of their direct reports – they raise other’s aspirations of who they are. LDL 5 leaders know that to grow the organization they have to grow the people around them. This is consistent with the propositions advanced by Gardner et al. (2005). Likewise, we do not really know the impact of lower-level leaders on higher-level subordinates even though there is some evidence that developmental level can be promoted in adults (Hurt, 1990; MacPhail, 1989; White, 1985). Exploring LDL dyads and team LDL member composition is a rich area for future research and consistent with Schriesheim, Castro, and Cogliser’s (1999) call for improved theorizing about leader–member exchanges.

Finally, the viability of analyzing the relationship between LDL and self-esteem, self-awareness, self-acceptance, unbiased processing, relational openness, or other measures of authenticity is important for establishing what behaviors and characteristics may facilitate development and which may tend to arrest it. While there is preliminary research linking levels of development with moral and ethical development (Avolio & Locke, 2002; Kegan & Lahey, 1984; Lucius & Kuhnert, 1999), clearly more research is needed. Correlating developmental level with behavioral measures of performance (e.g., multisource ratings) is necessary to validate our theory of leadership development. As we have discussed earlier, defining leader effectiveness is difficult and highly idiosyncratic to researcher interest and what data are available to the researcher at the time. Understanding better the relationship between measures of effectiveness like follower behavior, follower satisfaction and how they interface with LDL should be pursued.

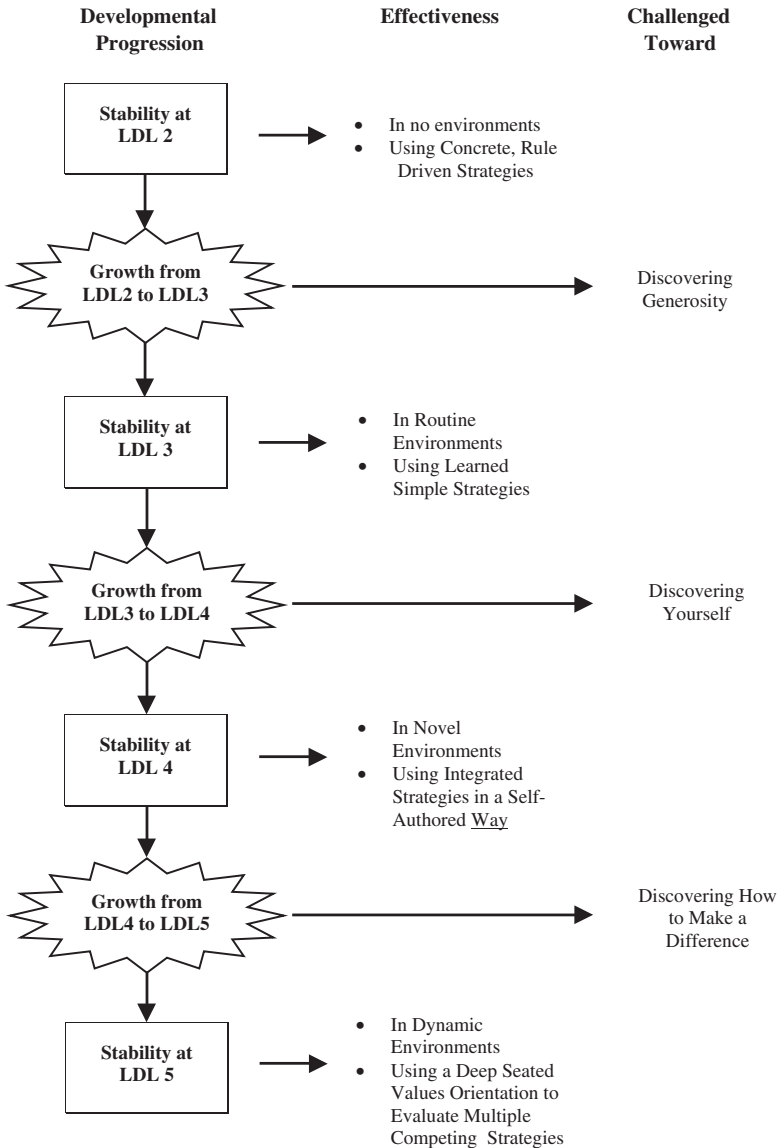


Fig. 6. The Developmental Progression, Effectiveness, and Growth Challenges.

It seems clear that there is an endless list of techniques, strategies, styles, methods, and “irrefutable laws” that leaders can employ in their quest for effectiveness. However, we believe that without understanding the underlying framework of how people develop to a place of greater effectiveness, the selection and development of leaders will continue in the piecemeal ways of the past. Leaders will do their best to respond to and make sense of the experiences, perhaps gaining confidence from the exercise, but not strength toward an intentional developmental challenge related to LDL.

We believe until we target the goals of a leadership development program to the leader’s developmental capacity to lead, we will not equip companies to meet the demands of this new century. The intellectual giant of the 20th century, Albert Einstein, stated the problem succinctly: *Today’s problems cannot be solved by thinking the way we thought when we created them.* We conclude that leadership effectiveness is not gained simply by piling more skills onto the same level, or by increasing the capacity to recite company leadership competencies. It is gained by fundamentally changing the way we address leadership development – it is not just what you know, but where you know it from that matters. The future of our organizations depends on successfully identifying and developing all leaders to higher LDLs – to a place of greater authenticity – so that they can respond effectively to the increasingly complex demands of our times.

REFERENCES

- Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, 15, 801–823.
- Avolio, B. J., & Locke, E. A. (2002). Contrasting different philosophies of leader motivation: Altruism versus egoism. *The Leadership Quarterly*, 13, 169–191.
- Barrett, A., & Beeson, J. (2002). *Developing business leaders for 2010*. New York: Conference Board.
- Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill’s handbook of leadership: Theory, research, and managerial implications* (3rd ed.). New York: The Free Press.
- Bono, J. E., & Judge, T. A. (2004). Personality and transformational leadership: A meta-analysis. *Journal of Applied Psychology*, 89, 901–910.
- Burchfield, R. W. (Ed.). (1987). *The compact edition of the Oxford English dictionary* (Volume III). USA: Oxford University Press.
- Burns, J. M. (1978). WICS: A model of leadership in organizations. *Academy of Management Learning and Education*, 2, 386–401.
- Colby, A., & Kohlberg, L. (1987). *The measure of moral judgment* (Vol. 1). Cambridge, MA: Cambridge University Press.

- Collins, J. C. (2001). *Good to great: Why some companies make the leap...and others don't*. New York: Harper Collins.
- Collins, J. C., & Porras, J. I. (1994). *Built to last: Successful habits of visionary companies*. New York: Harper Business.
- Covey, S. R. (1989). *The seven habits of highly effective people: Restoring the character ethic*. New York: Fireside.
- Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In: M. H. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp.31–49). New York: Plenum Press.
- Douglas, C. A., (2003). *Key events and lessons for managers in a diverse workforce: A report on research and findings*, Greensboro, NC: CCL Press.
- Drath, W. H. (2001). *The deep blue sea: Rethinking the source of leadership*. San Francisco: Jossey-Bass.
- Eigel, K. M. (1998). *Leadership effectiveness: A constructive developmental view and investigation*. Unpublished doctoral dissertation, University of Georgia, Athens.
- Fowler, J. W. (1981). *Stages of faith: The psychology of human development and the quest for meaning*. New York: Harper Collins.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. O. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16, 373–394.
- Hollenbeck, G. P., & McCall Jr., M. W. (1999). Leadership development: Contemporary practices. In: A. Kraut, & A. Korman (Eds), *Evolving practices in human resource management*. San Francisco: Jossey-Bass.
- Hurt, B. L. (1990). Psychological education for teacher-education students: A cognitive-developmental curriculum. In: V. L. Erickson & J. M. Whitely (Eds), *Developmental counseling and teaching* (pp. 339–347). Monterey, CA: Brooks/Cole.
- Jenkins, J. M., & Oatley, K. (1996). Emotional episodes and emotionality through the life span. In: C. Magai & S. H. McFadden (Eds), *Handbook of emotion, adult development, and aging* (pp. 421–442). London: Academic Press.
- Kegan, R. (1982). *The evolving self: Problem and process in human development*. Cambridge, MA: Harvard University Press.
- Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.
- Kegan, R., & Lahey, L. L. (1984). Adult leadership and adult development: A constructivist view. In: B. Kellerman (Ed.), *Leadership: Multidisciplinary perspectives*. Englewood Cliffs, NJ: Prentice Hall.
- Kohlberg, L. (1981). *The philosophy of moral development: Moral stages and the idea of justice*. New York: Harper & Row.
- Kuhnert, K. W., & Lewis, P. (1987). Transactional and transformational leadership: A constructive/developmental analysis. *Academy of Management Review*, 12, 648–657.
- Lahey, L. L., Souvaine, E., Kegan, R., Goodman, R., & Felix, S. (1988). *A guide to the subject-object interview: Its administration and interpretation*. Cambridge, MA: The Subject-Object Research Group.
- Loevenger, J. (1976). *Ego development: Conceptions and theories*. San Francisco: Jossey-Bass.
- Lucius, R. H., & Kuhnert, K. W. (1999). Adult development and the transformational leader. *The Journal of Leadership Studies*, 6(1), 73–85.
- MacPhail, D. D. (1989). The moral education approach in treating adult inmates. *Criminal Justice and Behavior*, 16, 81–97.

- McCall, Jr., M. W., Lombardo, M.M., & Morrison, A. M. (1988). *The lessons of experience: How successful executives develop on the job*. San Francisco: New Lexington Press.
- Manners, J., Durkin, K., & Nesdale, A. (2004). Promoting advanced ego development among adults. *Journal of Adult Development, 11*, 19–27.
- Moxley, R. S., & Pulley, M. L. (2004). Hardships. In: C. D. McCauley & E. Van Velsor (Eds), *Handbook of leadership development* (pp. 183–203). Center for Creative Leadership, San Francisco: Jossey-Bass
- Nadler, D. A., & Nadler, M. B. (1998). *Champions of change: How CEOs and their companies are mastering the skills of radical change*. San Francisco: Jossey-Bass.
- Piaget, J. (1970). *The principles of genetic epistemology*. London, UK: Routledge & Kegan Paul.
- Rooke, D., & Torbert, W. R. (1998). Organizational transformation as a function of CEO's developmental stage. *Organization Development Journal, 16*, 11–28.
- Schriesheim, C. A., Castro, S. L., & Cogliser, C. C. (1999). Leader-member exchange (LMX) research: A comprehensive review of theory, measurement, and data-analytic practices. *The Leadership Quarterly, 10*, 63–113.
- Selman, R. L. (1980). *The growth of interpersonal understanding: Developmental and clinical analyses*. New York: Academic Press.
- Slater, C. L. (2003). Generativity versus stagnation: An elaboration of Erickson's adult stage of human development. *Journal of Adult Development, 10*, 53–65.
- SPSS (1996). *Base 7.0 for windows user's guide*. Chicago: SPSS Inc.
- Sternberg, R. J. (2003). WICS: A model of leadership in organizations. *Academy of Management Learning and Education, 2*, 386–401.
- Torbert, W. R. (1991). *The power of balance: Transforming self, society, and scientific inquiry*. Newbury Park: Sage.
- Torbert, W. R. (1994). Cultivating post-formal development: Higher stages and contrasting interventions. In: M. Miller & S. Cook-Greuter (Eds), *Transcendence and mature thought in adulthood* (pp. 186–201). Lanham, MD: Rowman & Littlefield.
- Van Velsor, E., & Drath, W. H. (2004). A lifelong developmental perspective on leader development. In: C. D. McCauley & E. Van Velsor (Eds), *Handbook of leadership development* (pp. 183–203), San Francisco: Jossey-Bass.
- White, M.S. (1985). Ego development in adult women. *Journal of Personality, 53*, 561–574.
- Zaccaro S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly, 12*, 451–483.