

## WISDOM DEVELOPMENT OF LEADERS: A CONSTRUCTIVE DEVELOPMENTAL PERSPECTIVE

John E. Barbuto, Jr.  
*California State University at Fullerton, USA*

Michele L. Millard  
*Creighton University, USA*

---

This paper proposes a framework linking constructive development theory and the development of wisdom in leaders. Kegan's (1982) theory of constructive development – consisting of five stages (Level 1 – Impulsive; Level 2 – Instrumental; Level 3 – Interpersonal; Level 4 – Institutional; Level 5 – Inter-individual) – is linked with the development of wisdom in leaders. A reciprocal relationship between constructive development and wisdom development is proposed. As leaders increase their capacity for constructive development, they will concurrently develop wisdom. Future research and potential implications of this proposed framework are also discussed.

---

The concept of wisdom has gained increased attention in the literature with attempts to define, operationalize and measure this complex and multidimensional construct (Webster, 2007; Sternberg, 2007). The concept of wisdom, explored from both explicit and implicit perspectives, has evolved from work in the conceptual realm as well as empirical research. Conceptual studies have explored wisdom using the constructs of compassion (Ardelt, 2004), procedural knowledge and life span contextualism (Baltes & Staudinger, 2000), mental attention and consciousness (Pascual-Leone, 2000), seeing through illusion (McKee & Barber, 1999) and ability to find deeper meanings (Sternberg, 2005a). Empirical studies have complemented this research by exploring constructs of moral reasoning (Pasupathi & Staudinger, 2001), life experience analysis (Bluck & Glück, 2004), integration and embodiment (Yang, 2008b), age and performance (Mickler & Staudinger, 2008), self-transcendence (Le, 2008), scale development (Greene & Brown, 2009), wisdom-related performance (Glück & Baltes, 2006), and age and culture (Takashashi & Overton, 2002). In spite of the increasing foci of wisdom in the literature, there was a lack of consensus of its origins, definitions and development.

Of particular interest is wisdom development, including the antecedents of wisdom as it may mirror development in other developmental models, including Kegan's (1982, 1994)

constructive developmental Social Orders of Consciousness and its impact on leadership development. Harris and Kuhnert (2008) extended a constructivistic developmental approach to leadership by determining effectiveness measured by how leaders construct meaning. As leaders move through the developmental process, there was an increased capacity for understanding personal and interpersonal worlds with more complex perspectives that enabled leaders' capacity to lead others (Strang & Kuhnert, 2009). However, in the many ways that wisdom had been conceptually explored as developmental, there was no empiricism to support these assertions. Even with the emphasis on cognition in wisdom literature, there have been no explicit links between cognitive development and the development of wisdom. This seems overdue as wisdom development is a focus within multiple disciplines. This paper explores the developmental nature of wisdom, employing Kegan's constructive developmental theory. We propose that constructive development will coincide with a progression in wisdom development.

### Wisdom

Wisdom has been described as a complex phenomenon of multiple constructs working together in a synergistic way (Webster, 2007). While many definitions of wisdom have been proposed, they have been categorized according to four perspectives (see Yang, 2008b): 1) composite of personality characteristics or competencies; 2) positive results of human development; 3) either end-state or capacities that emerge after higher levels of cognitive structures are developed; and 4) collective system of knowledge concerning the meaning and conduct of life. These perspectives differed in their approaches to operationalize wisdom, but most included cognitive, reflective, and affective elements (Ardelt, 2004).

A number of essential components of wisdom emerged from review of the literature. Personality characteristics such as openness, attempts to find creative solution strategies, and the ability to entertain discordant opinions and novel approaches were described as essential for wisdom emergence (Webster, 2007). Other components essential to wisdom were possession of factual knowledge, self-knowledge, and other-knowledge (Baltes & Kunzmann, 2004; Sternberg, 2007). Not only was it important to have expertise and factual knowledge, wisdom also required self-knowledge that entailed in-depth insight into self, strategies for self-management, incorporation of different self-domains, the ability to balance the values of others with those personally held, and management of life uncertainties (Mickler & Staudinger, 2008). Other-knowledge was also described as essential, which included understanding a wide variety of people in varying contexts, engaging them, and having a willingness to help them (Greene & Brown, 2009). Wisdom was viewed as developing in the context of compassionate relationships with others (Montgomery, Barber & McKee, 2002). Webster (2007) described wisdom development as a result of relationships that lead leaders to question old ways of understanding, expectations, habits, and automatic ways of responding; the result of such questioning was greater self-knowledge and wisdom. Wisdom growth and development were seen as a process that unfolded through relationships and interpersonal dynamics, resulting in self-transcendence and the ability to see human nature and problems with increased awareness and complexity (Le, 2005).

A theme that also emerged from the literature as an antecedent for wisdom development was the presence of critical life experiences that were morally ambiguous and multifaceted with no well-defined outcomes; in particular, negative events, critical transitions, and positive resolution of problems that engaged people with the demand for meaning-making. These events, however, did not contribute to wisdom development unless there was an element of reflectiveness about these events and the meaning constructed by those experiencing them (Webster, 2007). As leaders learned from their experiences, balanced perspectives on difficult life matters, honed a set of coping skills, and gained self-efficacy in the management of life events, wisdom emerged (LaBouvie-Vief & Diehl, 2000). Reflection on their past and present life allowed leaders to engage in identity formation and maintenance, self-understanding, problem-solving, and adaptive coping strategies (Webster, 2007).

Many theorists asserted that integration of perspectives resulting in complexity of thought was the essence of wisdom; wise people were able to integrate dual extremes and think dialectically as the mind integrated multiple dimensions, and increased in developmental complexities and adaptation abilities (Takahashi, 2000; Yang, 2008b). As the mind moved from conflicting thoughts and emotions to being more open, leaders progressed into higher stages of consciousness and ultimately toward wisdom (Pascual-Leonen, 2000). By looking at phenomena and events from many different perspectives and by engaging in self-examination, self-awareness and self-insight, leaders were gradually able to overcome subjectivity and gained a more thorough and sympathetic understanding of themselves and others (Ardelt, 2004).

Wisdom was also defined as contextual because it was seen as emerging in the midst of life decisions and management, and it was within these situational contexts that leaders attempted to “live the best life” or “transform negative events into positive outcomes” (Yang, 2008a). Baltes and Smith (1997) proposed that, as leaders navigated intra- and interpersonal relationships and life tasks, wisdom began to take shape and develop. The process of encountering a specific challenge was influenced by self-awareness of personality traits, identification of strengths and weaknesses, current developmental-stage worldview, and value systems. As leaders had a willingness to reflect, gain insight from contradictory life experiences, and to respond in a way that benefited both self and others they were seen as having developed wisdom.

Wisdom was described in the literature as a natural stage of adult development; one was not born a leader, nor was wisdom a gift that was granted at a certain stage of life. Sternberg (2007) described wisdom as a process of developing expertise that one can decide to use and develop, that included both skills-based and attitude-based components. Wisdom development was seen as intentional, a perspective that required effort and was viewed as a lifelong developmental process (Webster, 2007). The deliberate integration of different thinking modes, perspectives, roles, and interests at various levels as well as the ability to reflect on experiences created a wider angle and integrated perspectives of self and others (Yang, 2008b). Those who were open to new experiences were creative, thought about the how and why of an event, demonstrated more social intelligence or were oriented toward personal growth demonstrated greater wisdom (Pasupathi & Staudinger, 2001). Wisdom development was described as a real-life process that began when leaders cognitively integrated disparate elements that resulted in a positive result for self and others (Sternberg, 2005b). As a higher level of cognitive structure was developed, the anticipated result was wisdom (Yang, 2008). While it seemed that wisdom itself might be manifested differently in different life phases, full use of one’s wisdom appeared to be a developmental achievement (Bluck & Glück, 2004).

## Kegan's Developmental Theory of Social Consciousness

Kegan's theory of social orders of consciousness was described as a developmental model based on the following tenets: development was lifelong, was a process distinct from life tasks, was more than the accumulation of new information as it represented qualitative changes in the ways we know, was identified by an inherent mismatch between demands and capacities, and transpired through ongoing interaction between the person and the environment (Kegan, 1982). As a constructivistic theory, progressive changes were explored in how leaders constructed meaning, interpreted and understood their experiences, or how they "knew" epistemologically and are described as orders of the mind (Kegan, 1982, 1994). These orders or "balances" include affective, cognitive, and social elements, and impacts how these elements are organized (see Table 1). They were structured on the subject-object relationship; those experiences that were "subject" are those that "leaders were tied to, fused with or embedded in" and triggered automatic behavioral, cognitive, and emotional responses. Experiences that were "object," however, were those that leaders could reflect on, handle, look at, be responsible for, relate to each other, take control of, internalize, assimilate, or otherwise operate on (Kegan, 1982, 1994). Leaders were seen as having organizing principles around which they created a system of understanding their experiences and were identified by these developmental orders which included cognitive, affective, and social aspects (Grabinski, 2005).

Each order had both intrapersonal (self-concept) and interpersonal (relationship) dimensions which incorporated the earlier orders, resulting in a qualitatively different experience with a more complex and inclusive perspective than the previous order. Progression through the developmental orders involved a change in the subject-object relationship and, as constructive development evolved, thinking became more flexible, open, complex, and tolerant of differences. The result was increased constructive capacity that was generally more adaptive and incorporated more constructivistic options with a developed ability to relate to or see that in which leaders were formerly enmeshed (Eriksen, 2007). These 'orders,' numbered 0-5 as identified by Kegan (1982), spanned lifelong development. The initial order, 0 or "incorporative," occurs in infancy with innate needs of food and care met through parents. The first order, labeled as "impulsive," is usually navigated in early childhood, with the small child demanding fulfillment of needs and wants, requiring constant supervision, and beginning to learn rules. The first two stages (0-1) are generally navigated in childhood. For the purpose of this paper, we will focus on the Second, Third, Fourth and Fifth Orders of Consciousness.

## The Orders

The Second Order (Instrumental) is typically navigated by adolescents, ages 7-10, and yet may include some adults. Individuals within this stage discover that feelings and beliefs exist over time and become aware that others may also hold feelings and beliefs that differ from their own. This order presents with ego-centrism—that others are dichotomized by either helping us or preventing us from getting our needs met. For example, people in the Second Order of constructive development will follow rules only inasmuch as those rules are in their best interest

and will break them if doing so will help meet personal needs. Consequently, these individuals need clear boundaries and good supervision.

The Third Order (Socialized) was exemplified by leaders who were socialized, had the ability to take others into account, had the capacity for insight, thought before acting, exercised common sense, considered long-term consequences of their choices, had friends, and developed a meaningful life based on clear ideals (Kegan, 1982). People in this order present as embedded in the institutions of which they were a part, such as family or work, and identified themselves in relationship to these institutions. These leaders co-constructed their sense of meaning with others and sources in their environment but were not differentiated from them. The sense of self was based on a fusion of others' expectations and, while they coordinated others' points of view, they were limited in their ability to reflect on that shared reality and how they were influenced by it (Ignelzi, 2000; Kegan & Lahey, 1984). For example, people in the Third Order may have various roles with which they identify, which engender a sense of loyalty to others within their circles of family and institutions and especially those deemed as expert or authoritative.

Those in the Fourth Order (Self-authoring) were described as well-controlled, self-possessed, self-directed, had the ability to set boundaries, balanced their multiple roles, encouraged the development of others, had a defined sense of identity and created the "bigger" vision based on values while holding multiple perspectives and viewpoints (Kegan, 1982). They could internalize multiple points of view, reflect on them, and construct them into their own theory about themselves and their experience; because of this self-determination, they were able to retain a stable sense of self across contexts and relationships (Ignelzi, 2000; Kegan & Lahey, 1984). For example, people in the Fourth Order of constructive development have an active self-governing system, which can take others' views and perspectives into account without becoming embedded in them. People in this stage are often self-motivated and self-directed in their decision making while still being empathetic (rather than submissive) towards external references or authorities.

The Fifth Order (Self-transformational) was marked by openness, a sense of being incomplete, and an ability to tolerate emotional conflict and plurality within the sense of self. Fifth order adults realize the limits of their own inner system and are more likely to see the world in 'shades of gray.' In realizing that self-authorship was a disconnected and lonely stage, leaders in this stage tended to return to connectedness and pursued transforming conversations that included negative feedback, the challenge of differences, and welcomed paradox and contradictions as part of their developmental process (Kegan, 1994). For example, people in the fifth stage of constructive development present with the ability to mediate and facilitate between their current views and the circumstances that make their views inadequate. Open-mindedness and willingness to re-define, re-examine, and re-conceptualize even the most basic self-system beliefs are commonplace with people in this stage.

Table 1: Affective, Cognitive and Social Aspects of Constructive Development Stages in the Workplace

	<b>Stage 2 Instrumental</b>	<b>Stage 3 Socialized</b>	<b>Stage 4 Self-authoring</b>	<b>Stage 5 Self-transforming</b>
<b>Emotions</b>	Embedded in feelings, realizes that others have feelings, unable to experience empathy	Self-awareness of feelings, limited ability to reflect upon emotions, able to keep feelings covert	Able to view feelings as object, sees feelings as information in a complex system, can identify emotions and emotional conflict	Tolerates emotional conflict and emotional plurality
<b>Cognitions</b>	Embedded in worldview, realizes that others have differing views, needs rules	Holds viewpoints of others, more concrete, values fairness, focus on values	Holds multiple points of view, is able to reflect on self-knowledge, think abstractly, identify inner motivations	Welcomes paradoxes and contradictions, holds multiple viewpoints without judgment
<b>Social</b>	Others exist as helping or impeding needs getting met, manipulates others to meet needs	Co-construct meaning with others, relationships are important, they are fused with expectations of others	Construction that is related to, but differentiated from others, manages multiple roles	Returns back to interconnected-ness, but without fusion

While these orders are a hallmark of human development, the movements between them are marked by transitional points through which an individual progresses from one to another. Leaders may find themselves at some point in transition far more than within one of the orders. When life experiences create a dissonance or tension in leaders, they will begin the transition toward the next order. With additional experiences and understanding, the leader moves progressively out of one order into the next, experiencing some struggle and resistance in the process. These transition points may be viewed as a continuum until fully embedded within the new order (Kegan, 1994). Because leadership and wisdom development are defined as a focus on others, they usually do not emerge until the Third Order. As leaders transition from the Third Order and toward the Fourth, they will let go of their self-identity embedded within the institutions and frames of reference and begin to develop a sense of authorship as separate from institutional boundaries. As leaders begin to progress from the Fourth Order to the Fifth, they will begin to hold their independence from the expectations of others and the importance of multiple perspectives and value systems subject and begin to return to connectedness, embracing multiple perspectives and integrating paradoxes and contradictions into their worldview. As

leaders begin to hold object those elements that were previously subject, they develop greater freedom to understand self, respond more effectively to others, think in more complex ways, and act in ways that have been conceptually defined as “wise” (Figure 1).

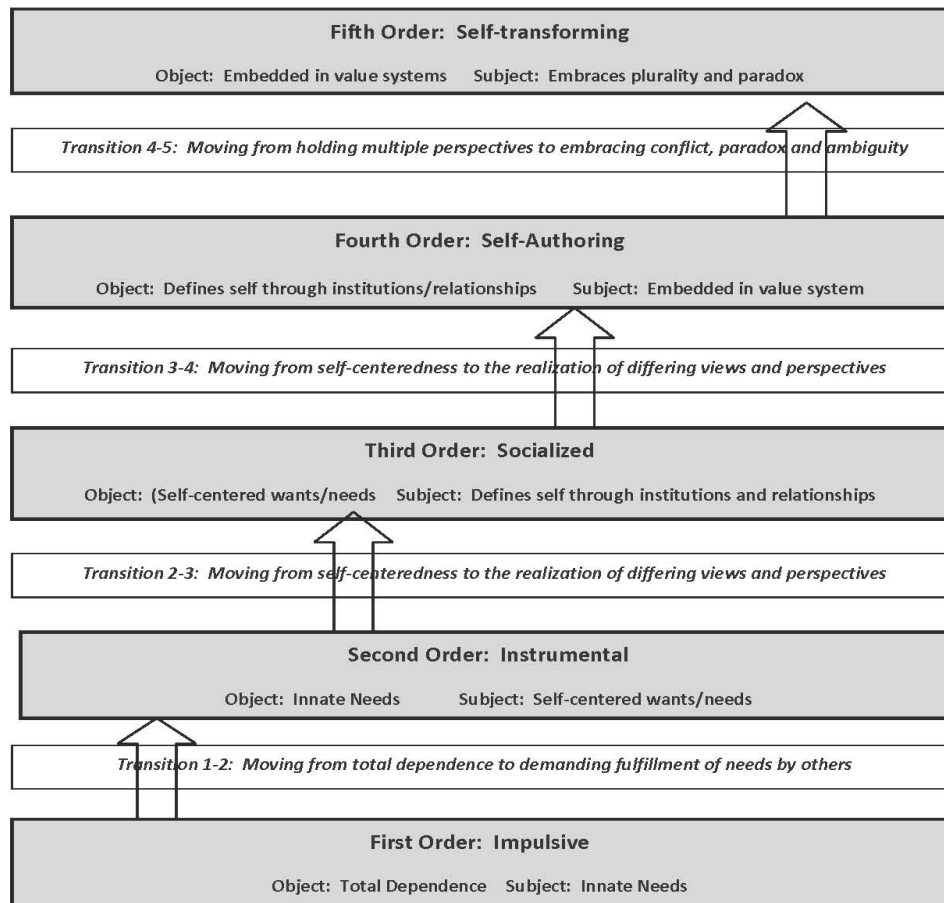


Figure 1. Progression through Kegan's Orders of Constructive Development

### Developmental Transitions

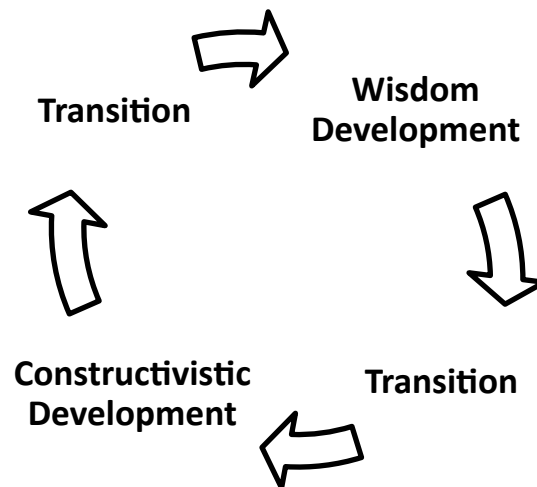
Because the models of Kegan's Social Orders of Consciousness and wisdom are both developmental in nature, it is important to explore progression through the developmental process. Prominent in Kegan's (1982, 1984, 1994) constructive development was the concept that human development continuously involved a tension between stagnation and movement within the cognitive, moral, and psychosocial arenas. Transition occurred when leaders' capacities were challenged by the demands of modern life, such as constant change and diversity. When leaders were confronted with the limits of their perspectives, imbalance was created along with motivation toward movement to the next stage (Duys & Hobson, 2004). Experiences that transformed and triggered development were those that included dilemmas, uncertainty, doubt, and crisis; these experiences that created feelings of disillusionment and fragmentation were 'pedagogical entry points' where the dilemma was engaged as a transformative experience

(Taylor, 2007). These same ‘pedagogical entry points’ were also found in literature describing wisdom development.

Pasupathi and Staudinger (2001) proposed a developmental model that viewed wisdom as emerging in those open to new experiences, those that were creative, and those that could view life events from multiple perspectives. Wisdom was the result of positive human development that emerged after a higher cognitive structure was developed through the positive resolution of exigencies of life and as a result of critical transitions (Yang, 2008b). Baltes and Smith (1997) described wisdom as emerging from the moment that leaders’ responses to a challenging situation were influenced by their ability to engage in life planning, reflection, and a willingness to examine unspoken assumptions and contradictory life experiences while transforming them. Leaders that were seen as wise were able to integrate different thinking modes, perspectives, roles and interests at various levels (Yang, 2008b).

Baltes and Smith (2008) described a framework for understanding wisdom as a complex and dynamic system of expertise in the fundamentals pragmatics of life. This domain of knowledge, or a way of understanding life, included life planning (future goals), life management (dealing with critical problems), and life review (making sense of past experiences), and was described in two levels (factual and procedural; lifespan contextualism). The first level consisted of factual and procedural knowledge, including both understanding of human nature and interpersonal issues and expertise in knowing how and when to apply that knowledge. The second level included lifespan contextualism with knowledge about sociocultural, historical, and biological factors on an individual’s life, value relativism with knowledge about differences in values, goals and priorities and the recognition and management of life uncertainties and complexities (Baltes & Smith, 2008).

Transitions into both the progressive orders described by Kegan (1982) and higher levels of wisdom as described by Baltes and Smith (1997) and Pasupathi and Staudinger (2001) are described as non-linear in a spiral conceptualization (Figure 2).



*Figure 2.* Constructive Development and Concurrent Wisdom Development



### Connecting Kegan's Constructivistic Development and Wisdom Development

A review of Kegan's constructive developmental theory and wisdom development leads several similar themes: 1) the inclusion of cognitive, affective, and social elements, 2) the developmental nature of both constructs, 3) the increased ability to deal with complexity, 4) the ability to be self-aware and reflective, and 5) the impact of challenging situations and dissonant events to trigger further development. As higher orders develop, so do subsequent levels of wisdom, concurrently—as a consequence of critical transition points. While it is expected that wisdom develops concurrently with constructive development, this work does not explicate which may precede the other. Development within Kegan's Orders and concurrent wisdom development is illustrated (See Table 2). As leaders transition to more complex thinking, self-reflection, and increased capacities of dealing with the world, they experience concurrent progression in both constructive development and wisdom development.

Table 2: Kegan's Orders of Constructive Development and Concurrent Wisdom Development

SOCIAL ORDERS OF CONSCIOUSNESS		WISDOM DEVELOPMENT	
<b>Stage 1: Impulsive</b>	Young Children—durable objects, concrete information	No Wisdom Possible – focus is entirely on wants and needs with no concern for consequence or processes for obtaining	Who, when, where? Concrete information
<b>Stage 2: Instrumental</b>	Adolescents: Sees consequences, others are means to an end, rule-bound, self-centered	Procedural Knowledge – wisdom reflects an understanding of what is necessary to get desired outcomes, how to maximize returns, how to beat the system	Strategies of information search, decision making and advice giving, monitoring of emotional reactions, cost-benefit analysis, means-ends analysis
<b>Stage 3: Socialized</b>	Older adolescents/majority of adults—subordinate needs to include the needs of others, internalizes needs of others, guided by institutions (school, religion, etc), think abstractly self-reflective on own and others actions, self is defined as relationships	Life-span Contextualism – wisdom reflects appreciation and acceptance of external norms and standards, wisdom comes from experts, references, professionals, friends, family, mentors, and other external cues and indicators.	Age-graded contexts (issues of adolescence), culturally graded contexts (changes in norms), idiosyncratic contexts across time/life domains (terminal illness), interrelations, tensions, priorities of life domains
<b>Stage 4: Self-Authoring</b>	Some adults—internal judgments about social environment, personal authority to evaluate, development of empathy, self-motivated, self-directed	Relativism – wisdom reflects an understanding and tolerance of differing external indicators and references, but is not bound by any one of them; wisdom comes from a balance of internal processes and priorities weighed against these external authorities.	Religious and personal preferences, current vs. future values, historical period, cultural relativism

<b>Stage 5: Self-Transforming</b>	Few adults—limits to own inner system, sees shades of gray and complexity of issues, interindividual, makes unlikely connections between groups, individuals an ideas	Uncertainty – wisdom reflects an awareness of the limitations of self-views; wisdom comes from the openness to re-examine, re-define, and re-evaluate views and the creation of a lucid perspective, and adaptation to changing contexts	No perfect solution, optimization of gain vs. loss, future not fully predictable, backup solutions
---------------------------------------	---	--	--

Proposition: *Leaders' constructive development will coincide with their wisdom development.*

### Discussion

This paper presents a framework linking the constructs of constructive developmental theory and wisdom. Progression in constructive development and wisdom development are proposed to occur concurrently. As leaders develop their capacity for constructing more complex world views, subsequent proportional increases in wisdom development are expected, just as wisdom development will present with constructive development.

While it is difficult to determine if development in one area predicts development in the other, what may be purported is the concurrent development processes where progression in one area is also reflected in progression of the other. For example, individuals who are in the Third Order may be embedded within their institutions and relationships—for them, wisdom will be found within the reliance on those relationships—"I know something about life because this is what the experts/friends/parents/supervisors have imparted to me about life."

For individuals in the Fourth Order, they may have realized the limits of the wisdom imparted by those individuals in their lives and while considering that wisdom, realize the importance of their own value and belief system—"I am aware of multiple views about life, but my view does not come from those of others."

For individuals in the Fifth Order who hold multiple views and perspectives, wisdom is found in the complexity and diversity of multiple systems—"I have realized that the views I took today about life don't reflect the experiences and contexts that tomorrow's bring and when the tomorrows come, my views from today may be have become obsolete."

Recognizing the connection between constructive development and wisdom could have profound implications for leadership development within multiple disciplines. If relationships exist between leaders' constructive development and their wisdom, strategies to foster the developmental processes can become central to development of leadership initiatives. Additionally, leaders' constructive development may foster wisdom development in followers.

The proposed framework has the potential for leadership qualities to be enhanced through increased understanding of the connections between constructive development and wisdom. These developmental processes could be enhanced through transformational learning that include encouragement of reflection, the development of relationships that support and challenge, opportunities to think critically, exposure to diversity, and experiential learning (Ignelzi, 2000 & Taylor, 2007). Kegan (1984, 1992) proposed that constructive development can be initiated by learning about self; hence, wisdom development may be developed from self-awareness of social

orders of consciousness. Leaders' self-awareness may lead to constructive developmental progression, which in turn could lead to enhanced wisdom development.

There is a need for research testing the connections between Kegan's constructive developmental theory and wisdom development. One challenge for this endeavor is empirically testing the relations of these constructs necessary to assess constructive developmental levels. The process most commonly used involves extensive interview, transcription, and coding that is both time-consuming and cost-prohibitive (Lahey, Souvaine, Negan, Goodman, & Felix, 1988). Funded projects or those that combine teaching with research may offset some of these financial issues. Another promising undertaking for researchers will be to develop and validate a psychometric representation of the levels of construction articulated in Kegan's Social Orders of Consciousness. Such a measure will alleviate the financial obstacles and provide countless opportunities for studying the antecedents and impacts of constructive development progression.

This work proposed a framework to explain the relationships between constructive development and wisdom development. With increased attention to the impacts of constructive development as well as increased attention paid to the antecedents of wisdom development, scholars can guide substantive contributions in the organizational behavior field.

---

### About the Authors

John E. (Jay) Barbuto, Jr., is an associate professor of management and director of the Center for Leadership in the Mihaylo College of Business and Economics at Cal State Fullerton. Dr. Barbuto earned his Ph.D. from Rhode Island and his MBA from Bentley University. His areas of research include constructive development, servant leadership, work motivation, power/influence, and dramaturgical teaching.  
Email: jbarbuto@fullerton.edu

Michele L. Millard is an academic success consultant in the Creighton University School of Medicine in Omaha, NE. Dr. Millard earned her Ph.D. from the University of Nebraska-Lincoln and her M.S. from Texas Christian University. Her research interests include constructive development, psychological capital, emotional intelligence, and leadership development.  
Email: mmillard@creighton.edu

---

### References

- Ardelt, M. (2004). Where can wisdom be found? *Human Development*, (0018716X), 47(5), 304-307.
- Baltes, P. B., & Kunzmann, U. (2004). The two faces of wisdom: Wisdom as a general theory of knowledge and judgment about excellence in mind and virtue vs. wisdom as everyday realization in people and products. *Human Development* (0018716X), 47(5), 290-299.
- Baltes, P. B., & Smith, J. (1997). A systemic-holistic view of psychological functioning in very old age: Introduction to a collection of articles from the Berlin aging study. *Psychology & Aging*, 12(3), 395-409.

- Baltes, P. B., & Smith, J. (2008). The fascination of wisdom: Its nature, ontogeny, and function. *Perspectives on Psychological Science* 3, 56-64.
- Baltes, P. B., & Staudinger, U. M. (1993). The search for a psychology of wisdom. *Current Directions in Psychological Science*, 2(3), 75-80.
- Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue towards excellence. *American Psychologist*, 55(1), 122-136.
- Bluck, S., & Glück, J. (2004). Making things better and learning a lesson: Experiencing wisdom across the lifespan. *Journal of Personality*, 72(3), 543-572.
- Bugenhagen, M. J., & Barbuto, J. E. (2012). Testing the developmental nature of work motivation using Kegan's constructive-development theory. *Journal of Leadership & Organizational Studies*, 19(1), 35-45.
- Duys, D., & Hobson, S. (2004, Fall). Reconceptualizing self-esteem: Implications of Kegan's Constructive-Developmental Model for school counselors. *Journal of Humanistic Counseling, Education and Development*, 43, 152-162.
- Eriksen, K. (2007). Counseling the "imperial" client: Translating Robert Kegan. *Family Journal*, 15(2), 174-182.
- Glück, J., & Baltes, P. B. (2006). Using the concept of wisdom to enhance the expression of wisdom knowledge: Not the philosopher's dream but differential effects of developmental preparedness. *Psychology & Aging*, 21(4), 679-690.
- Glück, J., Bluck, S., Baron, J., & McAdams, D. P. (2005). The wisdom of experience: Autobiographical narratives across adulthood. *International Journal of Behavioral Development*, 29(3), 197-208.
- Grabinski, C. J. (2005). Environments for development. *New Directions for Adult & Continuing Education*, (108), 79-89.
- Greene, J. A., & Brown, S. C. (2009). The wisdom development scale: Further validity investigations. *International Journal of Aging & Human Development*, 68(4), 289-320.
- Harris, L., & Kuhnert, K. (2008). Looking through the lens of leadership: A constructive developmental approach. *Leadership and Organizational Development Journal*, 29(1), 47-67.
- Ignelzi, M. (2000). Meaning-making in the learning and teaching process. *New Directions for Teaching & Learning*, (82), 5-14.
- Kegan, R. (1982). *The evolving self: Problem and process in human adult development*, Harvard University Press, Cambridge, MA.
- Kegan, R. (1994). *In over our heads: The mental demands of modern life*, 2<sup>nd</sup> ed., Harvard University Press, Cambridge, MA.
- Kegan, R., & Lahey, L. L. (1984). Adult leadership and adult development: A constructivist view, in B. Kellerman, (Ed). *Leadership: Multidisciplinary perspectives* (pp. 199-230). Prentice-Hall, Englewood Cliffs, NJ.

- Labouvie-Vief, G., & Diehl, M. (2000). Cognitive complexity and cognitive-affective integration: Related or separate domains of adult development? *Psychology & Aging, 15*(3), 490-504.
- Lahey, 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 Interview Group, Harvard Graduate School of Education.
- Le, T. N. (2008). Cultural values, life experiences, and wisdom. *International Journal of Aging & Human Development, 66*(4), 259-281.
- Le, T. N., & Levenson, M. R. (2005). Wisdom as self-transcendence: What's love (& individualism) got to do with it? *Journal of Research in Personality, 39*(4), 443-457.
- McKee, P., & Barber, C. (1999). On defining wisdom. *International Journal of Aging & Human Development, 49*(2), 149-164.
- Mickler, C., & Staudinger, U. M. (2008). Personal wisdom: Validation and age-related differences of a performance measure. *Psychology & Aging, 23*(4), 787-799.
- Montgomery, A., Barber, C., & McKee, P. (2002). A phenomenological study of wisdom in later life. *International Journal of Aging & Human Development, 54*(2), 139-157.
- Pascual-Leone, J. (2000). Mental attention, consciousness, and the progressive emergence of wisdom. *Journal of Adult Development, 7*(4), 241-254.
- Pasupathi, M., & Staudinger, U. M. (2001). Do advanced moral reasoners also show wisdom? Linking moral reasoning and wisdom-related knowledge and judgment. *International Journal of Behavioral Development, 25*(5), 401-415.
- Sternberg, R. J. (2005a). A model of educational leadership: Wisdom, intelligence, and creativity, synthesized. *International Journal of Leadership in Education, 8*(4), 347-364.
- Sternberg, R. J. (2005b). Older but not wiser? The relationship between age and wisdom. *Ageing International, 30*(1), 5-26.
- Sternberg, R. J. (2007). A systems model of leadership. *American Psychologist, 62*(1), 34-42.
- Strang, S., & Kuhnert, K. W. (2009). Personality and leadership development levels as predictors of leader performance. *Leadership Quarterly, 10*, 421-433.
- Takahashi, M. (2000). Toward a culturally inclusive understanding of wisdom: Historical roots in the east and west. *International Journal of Aging & Human Development, 51*(3), 217.
- Takahashi, M., & Overton, W. F. (2002). Wisdom: A culturally inclusive developmental perspective. *International Journal of Behavioral Development, 26*(3), 269-277.
- Taylor, E. (2007). An update of transformative learning theory: A critical review of the empirical research (1999-2005). *International Journal of Lifelong Education, 26*(2), 173-191.
- Webster, J. D. (2007). Measuring the character strength of wisdom. *International Journal of Aging & Human Development, 65*(2), 163-183.
- Yang, S. (2008a). A process view of wisdom. *Journal of Adult Development, 15*(2), 62-75.
- Yang, S. (2008b). Real-life contextual manifestations of wisdom. *International Journal of Aging & Human Development, 67*(4), 273-303.