

# Forum/Tribune

## Change, Evolution, and Global Vision-Logic: A Gentle Challenge for Adult Development

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### ABSTRACT

As adult and continuing education practitioners, we encounter the challenges for change that arise from the dramatic shifts that our society and our globe are undergoing. How we respond to these challenges will shape our field and our society—either in the direction of increased harmony or further disorder. Adopting a wider perspective may allow us to take in more of what is happening, thereby offering a broader range of options for understanding and action. Such a wider, more complex, more coherent, and more integrative perspective on ourselves and the world is offered by vision-logic, a stage of consciousness beyond the rational. Drawing on the work of

### RÉSUMÉ

En tant qu'intervenants en éducation des adultes et en éducation permanente, nous rencontrons des changements redoutables survenant de changements radicaux que subissent notre société et notre planète. Les façons par lesquelles nous répondons à ces défis vont déterminer ce que deviendront notre domaine et notre société—soit qu'il y aura une plus grande harmonie, soit un plus grand désordre. L'adoption d'une perspective plus large nous permettra de tenir compte de ce qui se passe et donc d'offrir un plus grand choix d'options pour la compréhension et l'action. Une perspective plus large, plus complexe, plus cohérente et plus intégrale de soi et du monde est offerte par vision-logique, un niveau de conscience au-delà de la rationalité. Puisant sur le

Ken Wilber and other writers in psychology and philosophy, the author examines the qualities associated with vision-logic and the implications of vision-logic for our practice and our own psychological development.

travail de Ken Wilber et d'autres écrivains en psychologie et philosophie, l'auteur examine les qualités associées à vision-logique et ses conséquences sur notre utilisation et sur notre propre développement psychologique.

*As always, we have to make the future that is given to us.*

*Ken Wilber, 1995, p. 191*

We live in a time of dramatic shifts. Globalization, technology, and diversity are but signs of more profound, pervasive, and far-reaching changes. Organization theorist Tom Peters (1987) has characterized these changes as revolutions; transpersonal psychologist Ken Wilber (1995) views them as planetary transformations; adult educator Jerold Apps (1994) calls this time an “emerging age”—the dawning of a new social era imposing itself on the industrial age. We in adult and continuing education carry out our roles amidst these changes, and feel their impact from all directions and in all forms: the claims for cost recovery, the demands of a diverse population, the needs of business and industry, the pressures for access, and the lure of technology. And, in those moments when we allow ourselves to step back and consider what is happening, it might occur to us that perhaps not all of these changes are worthy of our support. We might wonder: Which changes are we to endorse and which are we to resist? Which are likely to take our society on the path of increased harmony, and which might place us on a path of disorder? These questions are worth asking. Adult educators are in a position now, as perhaps never before, to respond to and even guide these shifts towards positive societal outcomes, and that means that at least some of the future is in our hands.

The way we respond to these changes has as much to do with our attitudes and perspectives as it has to do with the shifts themselves. How we view these shifts, and how we evaluate them is reflective of our view of the world and ourselves and others in it. In McKenzie's words, “The world I view is partially the result of my world view and what I bring to the world being viewed” (1991, p. 5). To this I would add, that a narrow perspective limits our scope of understanding and range of response, whereas a wider perspective allows us to see more, hear more, and take in more, thus gaining a broader range of options for understanding and

action. It would follow that we are presented with the challenge to broaden our perspective, to widen our vision, to fashion a wider-angle lens. We are, in effect, being challenged to develop.

In this essay (a trial, an experiment) I will explore the nature of this wider perspective and its potential relationship to our development. In particular, I will focus on that wider perspective that arises through vision-logic, a stage of development that represents a way of relating to the world that is more inclusive, more integrated, and more complex than our traditional and prevailing “rational” view. Vision-logic is described in some detail by Ken Wilber (1977, 1995), a transpersonal psychologist. He writes in the tradition of other 20th-century thinkers such as Rogers, Maslow, Heidegger, Jung, and Teilhard de Chardin, all of whom have presented for at least a century an alternative perspective to the industrial/rational approach. Wilber’s conception of this stage will be foremost in this discussion; however, I will also draw upon other authors in relatively diverse fields who have described qualities of development in ways that are consistent with the attitude embodied in vision-logic.

Writing this paper affords me the opportunity, as an adult educator, continuing education practitioner, and student of adult development to reflect upon the notion of adult development and its importance to us and for practice in our field. While it is not my intent to prescribe to my colleagues and readers what they ought to do, I would encourage practitioners to consider the possible relevance of lifelong development and learning, not only for their adult learners, but for themselves as well. Further, I am taking the opportunity to put into words my best up-to-now understanding of the potential for development towards higher stages of consciousness and the value this might hold for ourselves and others. I hope that this Forum piece will inspire an interest in and further conversation concerning this theme among my colleagues and students.

## BEYOND RATIONALITY TO VISION-LOGIC

*The capacity to go within and look at rationality results in a going beyond rationality, and the first stage of that going-beyond is vision-logic.*

*Ken Wilber, 1995, p. 258*

In a series of volumes spanning nearly 20 years, Wilber traces the evolution of human consciousness through its major stages of growth and develop-

ment. The following levels of human development, beginning with the earliest, are identified: the archaic, the magical, the mythic, the rational, the existential (vision-logic), and, beyond these, the psychic, the subtle, and the causal. Accordingly, in the course of development, each stage emerges through its previous stage, adds new elements, and integrates these into a more complex whole. Moving through each stage, the individual gains greater levels of inclusiveness, complexity, and integration of personality. Wilber's schema closely parallels those described by structural-developmental theorists Kohlberg (moral development), Loevinger (ego development), Kegan (meaning making), and Fowler (stages of faith). However, Wilber makes a unique contribution by synthesizing Western with Eastern perspectives and, in so doing, extending the range of developmental stages into further reaches of human consciousness—into the transpersonal realm and well beyond those normally identified by Western approaches. The stages of rationality and vision-logic represent, progressively, the high middle ranges of his developmental schema (suggesting that development to even further stages is always imminent).

According to Wilber, the rational stage is the one at which humanity became awakened to the freedom of reason, allowing us to move beyond the magical and mythical structures that governed our up-until-then view of the world. Distinguished by its analytical, objective, and scientific stance, this stage also encourages hypothesizing, self-reflection, and introspection. What it lacks, however, is both a well-developed global or planetary perspective and a well-developed mind-body integration (Wilber, 1995). As a consequence, rationality has not yet enabled us to recognize our commonness as human beings, nor to advance necessary changes of a global nature (Wilber, 1995). In this respect, rationality has not served us so well. But vision-logic, the next stage of development, has this capability, and Wilber introduces it in this way: "As rationality continues its quest for a truly universal or global or planetary outlook, noncoercive in nature, it eventually gives way to a type of cognition I call vision-logic or network-logic" (1995, p. 185).

The following lists portray some of the qualities of our traditional mode of rationality and the enlargement of these qualities as rationality opens up to vision-logic. Clearly, rationality in its mature form overlaps with many of the qualities of vision-logic, but, for purposes of comparison, I will allude to its more "limited" aspects.

<i>Rational Mode</i>	<i>Vision-logic Mode</i>
Objective, analytical	Connected, personal
Looks at "It"	Looks at "It" & "I" & "We"
Objects can be seen, observed	Objects must be interpreted
Examines surface	Explores surface and depth
Concern with form	Concern with consciousness
Concern for adaptation	Concern for transformation
Rational decision making	"Mindful" decision making
The mode of logos	Integrates mythos and logos
Promotes narrow individualism	Promotes authenticity
Gives many possible perspectives	Adds them up to a totality

### BEYOND THE "OUTSIDE" TO AN "INSIDE" VIEW

*Things have their within. I am convinced that the two points of view require to be brought into union, . . . Otherwise, so it seems to me, it is impossible to cover the totality of the cosmic phenomenon by one coherent explanation.*

*Pierre Teilhard de Chardin, 1961, p. 57*

In our history and tradition of dealing with problems and issues, we have relied heavily on our abilities as rational beings with a rational attitude—scientific, analytical, logical. Accordingly, we study phenomena, judge them, measure them, compare them, shift them, manipulate them, try to predict them, and hope to change them. In other words, we assume that we are dealing with an observable, external to ourselves, albeit dynamic and changing, but, nonetheless, graspable world.

Consistent with a rational attitude, as adult educators we are inclined to look at phenomena as "out there" and external to ourselves—as "not us." In our practice settings, we tend to objectify issues of diversity, globalization, and scarcity; they are "its" to which we must adapt and accommodate. This detached, rational mode tends to define partners, providers, and participants in ways that emphasize our separateness and our distance from them. We ask: How do they function for us? How can we adapt to them? Students are the "other," and the work they do is the "it." We measure their work

and worth, not according to the nature of our shared and common experiences, values, and concerns, but according to their abilities to function and adapt, that is, to write papers, pay fees, pass examinations, and compete for grades.

In another context—the corporate arena—we are aware of the current trend towards personnel downsizing, and its impact on the workforce. If we were to investigate this issue, we could inform ourselves about corporate downsizing through scanning statistics and percentages of lay-offs and the corresponding shareholders' losses and gains. And we could then examine these through a template of related economic, social, or psychological theories. But the resulting knowledge would be limited to an external, surface view. We would not know what downsizing means to those who face the lay-offs, those who are sacrificed in the interests of commerce, because "whereas surfaces or exteriors can be seen, interiors must be interpreted" (Wilber, 1995, p. 127). That is to say, to know what another's interior is like, I must talk to her, interpret what she says, and examine the underlying intention; moreover, I must experience her not only empirically but also empathically. Vision-logic would encourage this "inside" internal view. Through it, we could be drawn to look more deeply into people, phenomena, and events.

As educators and trainers for career change and retraining in corporate settings, it could follow from the above that effective work with these adult learners would entail our willingness to experience them from the *inside*, not as mere consequences of economic and social changes, but as individuals with feelings and attitudes that call out to be appreciated and understood. This deepened perspective would be reflected in our program development on their behalf. The meanings that their present circumstances hold for them would be among the factors that guide our educational planning. Our curricula would not only include the requisite knowledge and skills for retraining, but would also provide possibilities for displaced workers to rebuild their hope and confidence in themselves and society.

### FROM "IT" TO "IT," "I," AND "WE"

*To be human means to participate. The essence of man is co-essence. The being of truly human existence is being-in-community. To be a person is not a given fact, it is a movement toward others.*

*Leon McKenzie, 1984, p. 87*

When dealing with another individual, an issue, or an event, we tend to take the attitude of other as the “it.” First, we assume an appropriate distance, next, we search for the facts or the evidence, and then, we consider how these correspond to our observations. Our rational attitude encourages this approach. However, a crucial distinction between rationality and vision-logic is the capacity of the latter to take in more of what has been left out (Wilber, 1995). Using vision-logic, we would consider the other not only from the factual “it” perspective, but also from the subjective “I” and the intersubjective “we” perspectives. To expand upon this idea, in the “I” attitude we would delve more deeply into our interpretations, our own history, and our feelings and attitudes concerning the individual or the matter before us. In the “we” attitude, we would widen our concern beyond ourselves to the larger social context. Accordingly, we might wonder about the effect of an event or situation on others or on the quality of their experience, and then we might even consider what we *ought* to do. Thus, in vision-logic we would integrate the three elements: the flatness of the “it” with the depth of the “I” and the community of the “we” (Wilber, 1995).

Instances of this broadened perspective in continuing education might involve our relationship with other educational providers in the following way. In the “it” view, we would consider: Who are these providers? What are their goals? What resources do they hold? In the “I” mode, we would turn our focus inward to our own feelings, beliefs, and goals concerning them. What are my fears concerning this partnership? What experiences do I bring? What am I prepared to give up? Finally, in the “we” mode, our questions would take us beyond our immediate selves towards a wider context that includes us and them and even others. We might ask: What effect can this plan of action have on all of us? What value does it have for ourselves and our community? Who benefits and who suffers? In sum, through vision-logic, by including the “it,” “I,” and “we,” we would be able to see our fellow educational providers in a more complex light, not just as factors outside of ourselves, but as a part of our shared community and social world.

And, finally, vision-logic holds enticing implications for teaching and learning in adult and continuing education. Wilber (1995) suggests that the effect of integrating the “it,” “I,” and “we” is to bring the scientist (represented by “it”), the artist (“I”), and the philosopher (“we”) together *in each of us*. We can only imagine how the learning environment could be enriched

if we, as facilitators of adult education, could learn how to reach and draw upon the perspectives of the scientist, the artist, and the philosopher *within each learner*. Surely, a deeper, expanded, and more complex exploration of a problem, issue, or event could follow.

## OF LOGOS AND MYTHOS

*. . . the development of a strong logos orientation at best can form one component of healthy development. Ultimately, that orientation needs to be integrated with mythos knowing, allowing the individual to build a bridge between two modes of knowing.*

*Gisela Labouvie-Vief, 1994, p. 98*

In a recent book, Labouvie-Vief (1994) explores the developmental importance of integrating the different layers of the self, namely, logos and mythos. Logos, she explains, represents the layer of rationality (discussed above). Evolving historically in humans, it permits us to “disembed,” that is, to differentiate from our environment—self versus other, truth versus subjectivity—and to differentiate within ourselves—mind versus body. Over the centuries, truth became focused exclusively on rational, logos structures, so that logos became the primary mode of knowing, representing objectivity, reason, precision, and conceptual knowledge of the world (Labouvie-Vief, 1994; Wilber, 1995). As the logos mode became more valued, the mythos mode became less valued; over time, it became subordinated to and, finally, disassociated from logos (Labouvie-Vief, 1994).

The two respective modes can be illustrated, as in a recent class when I asked students to experiment with them. One student, observing a vase placed before him, described it in the logos mode: “It is approximately 18 inches tall, light brown, cracks running along the top, designed to hold solid matter such as water, grain, flowers . . . .” In the same exercise, another student, this time through the mythos mode, contemplated the vase and offered: “The bright, red, blood-type colour glistens as it appears to flow over the sides to escape from the confines of the prison walls of the vase. It represents growth beyond.” The contrasts in expression of these two modes—the precision versus the richness, the outer world experience versus the inner world experience—were, for many of us in the class, stunning.

Logos, as stated, implies intellect, analysis, abstraction, and distance, whereas mythos implies emotion, immersion, communion, and story. Up to

now, for the most part, these two modes—of the scientist and the artist—have been kept separate. However, according to Labouvie-Vief (1994), both modes are limited, each by itself permitting only a one-sided, fragmented, and, therefore, distorted view. Labouvie-Vief calls for a recovery of the language of mythos, then an *integration* and *balance* of logos and mythos, to bring forth a *new language* that encompasses both. An integration of logos with mythos could bring these together within each of us to represent the uniting of intelligence and affectivity—the tangible and measurable with our intuitive, deeper core. Our knowledge could become elaborate, deeper, and more encompassing. What might emerge if each student were to describe the vase by integrating both of these modes? We can only imagine the potential for depth of understanding and wisdom that resides in bridging these modes as we interact with learners, colleagues, and the community. What new guiding images for our practice might emerge? And finally, to the extent that the integration of mythos and logos brings together two previously dissociated aspects of ourselves, I would propose that they represent a developmental shift to a higher stage of consciousness, that is, to vision-logic, a stage that encompasses and integrates them both.

## FROM INDIVIDUALISM TO AUTHENTICITY

*There is a certain way of being human that is my way. I am called upon to live my life in this way, and not in imitation of anyone else's. But this gives a new importance to being true to myself. If I am not, I miss the point of my life, I miss what being human is for me.*

*Charles Taylor, 1992, pp. 28–29*

Efficiency, instrumentality, accountability, and competition dominate our daily work life. We note their presence in the priority setting of our government, and we witness their influence in corporate decisions on hiring and firings, with little thought to their human consequence (Sloan, 1996). In the eyes of some, these efforts to expand and compete nationally and globally appear to be warranted and necessary features of our economic times. However, Taylor (1992) presents a more sobering response to these actions, as he outlines their consequences to society. Among these is a resulting sense of loss of purpose and meaning, which leaves us caught in our work, but no longer able to see the goal behind what we do nor its connectedness to a larger whole. In defence, we distance ourselves, close our eyes, and leave the decisions to those in authority and in control of resources. In so doing, however, we further risk the loss of our power and freedom.

What Taylor is describing of society generally can be equally noted in adult and continuing education organizations, specifically, which, according to Apps, “in many respects have followed the organizational patterns and leadership strategies of the business world” (1994, p. 160). What is apparent to me, and in my view not unrelated to the above, is the dispirited morale among many of the staff and professionals in continuing higher education. In every unit across every province we are dogged by the pressures and threats of cost recovery, competition, scarcity of resources, centralization, and, then again, decentralization. On a daily basis our sense of ourselves as educators and pursuers of knowledge competes with pressure to be entrepreneurs and pursuers of profit. The risks to us specifically, as Taylor depicts more generally, are a sense of ennui and hopelessness and the tendency to attend to more personally gratifying activities. The result is that we begin to treat our work like a job, rather than the vocation it was for many of us when we first began.

The solution, according to Taylor, is not to become less efficient, but rather to engage in the endeavour of defining who we are—of becoming authentic. To be authentic is to be true to our origins, to define for ourselves our purpose, our orientation, and what gives our life and work meaning. Moreover, and most importantly, says Taylor, our values must not be held solely as though on a flatbed, wherein *any* value is equally desirable; rather, we must look to *wider* horizons to determine what *higher* values we hold, which values have *greater significance* for us, and which can thereby offer *more appropriate guides* to our practice. He goes on to stress the imperative of our doing the work of defining these values for ourselves.

While Taylor speaks of individuals’ coming to know themselves and articulating their values, it would follow that institutions could do the same, especially adult and continuing education institutions. Sixty years ago, Ortega y Gasset (1992) called for institutions of higher learning to become authentic, that is, to clarify for themselves what they are about, what their mission is, and what they are in fact capable of doing. It would seem that our field also could benefit from being true to itself. Indeed, when continuing education units across our country come together to engage in the collaborative act of formulating mission and vision statements, they are striving for precisely that. However, having participated in such an exercise on a Friday, what matters most is how we actualize that mission in the face of the challenges of the following Monday.

## EVOLUTION, COMPLEXITY, AND THE CALL TO DEVELOP

*Our natural tendency to move toward new perspectives which appear to us more inclusive, discriminating and integrative of experience . . . may be explained as a quest for meaning by which to better understand ourselves and to anticipate events.*

*Jack Mezirow, 1984, p. 125*

Throughout this exploration of vision-logic and its associated qualities, I have emphasized, as does Mezirow, above, its affordance of greater depth, meaning, integration, complexity, and coherence. These qualities represent a widening of our lens, taking in more of what has previously been left out, and moving *beyond* a limited rationality (not away from it), thereby gaining higher levels of consciousness. These processes are consistent with the principles of evolutionary theory, which conceptualizes development in this same way, that is to say, as the growth of complexity. According to the theory, all living systems—simple organisms, human beings, organizations, societies—share the tendency and inclination to move from lower levels of complexity to greater ones. From Prigogine and Stengers (1984), especially, we have learned that living systems not only show a tendency to maintain themselves in their state of dynamic balance, but also show the complementary tendency to transcend themselves by reaching out creatively beyond their boundaries to generate new structures and new forms of organization.

The structural-developmental theorists, among them Piaget, Kohlberg, Kegan, Loevinger, and Wilber, similarly conceive of development as the evolution of structures. Accordingly, at each stage of development new capabilities and new cognitive structures are added. Each new development involves a process of differentiating from the present stage, negating it for its partialness, and then integrating aspects of that stage to a newer, wider whole or holon (Wilber, 1995). Like moving the contents of an apartment from a lower level to a higher one, each move adds new contents and rearranges them, and each higher level permits a wider, more encompassing view. (I believe the analogy would serve us better if we could imagine the building widening with each level, like a trellis, to convey the widening of perspective.) Vision-logic, it needs to be stressed, is more than horizontal expansionism or a sum of previous parts; rather, it involves vertical and creative transformation (Wilber, 1995).

Vertical expansion, however, is not an easy matter. According to Wilber and other developmental-stage theorists, rationality is the stage at which

most of our society operates—not only the majority of its individuals, but its institutions and organizations, too. So, observes Wilber, “If you want to go beyond the rational, you’re on your own. You have to fight, and work, and struggle mightily” (1989, p. 15). Thus, we are faced, on the one hand, with the urging to embark upon such a move for its more encompassing, coherent, and integrative outlook, and, on the other hand, with the formidable obstacles to that development.

As Wilber stressed, “The space of vision-logic is available for any who wish to continue their growth and development” (1995, p. 258). Nevertheless, there appears to be no way other than transformation (relinquishing one stage and moving to the other) to arrive at the stage of vision-logic. Crisis events—illness, sudden losses, and disabilities—have been documented as major openings for transformation to higher levels of consciousness (Jung, 1954). Those episodes in our life when we hit the wall, when we are cast adrift, when our assumptions are revealed and we see how false they are can by their nature prompt us to negate our current ways and embrace other, novel ways. Those of us who have lived through the trauma of life-shattering experiences can readily identify with these processes and the widening of perspective that can follow.

Fortunately, we have available other avenues to transformation, less momentous but perhaps more accessible than the above. In fact, our own field has yielded understandings of opportunities for development in this way. Jack Mezirow (1984, 1991) has offered “perspective transformation” as that domain of learning amply suited to adults and to their “natural tendency to move toward perspectives which appear to us more inclusive, discriminating and integrative of experience . . .” (1984, p. 125). Leon McKenzie (1991) introduces “worldview construction,” the continued growth of our understanding of our personal and social world through conversation, adult group discussion, and “participation (experiential) training.” Stephen Brookfield (1995) encourages us to become critically self-reflective as teachers, through scrutinizing the assumptions, prejudices, and beliefs that undergird our work. And earlier in this century, Lindeman (1989) called us to learn through engaging in conscious analysis—first, of our inner situation, then, our outer situation, and, finally, the situation-as-a-whole. Each of these authors emphasizes the central role of critical reflectivity concerning both oneself and others. Although none of these authors specifically tie their approach to developmental-stage theory, in my analysis, they do describe the processes by which individuals can clarify the distortions of the (primarily) rational stage in order to permit them to become more open to the ideas, values, and attitudes of vision-logic.

Finally, Wilber (1995) points out, as did Prigogine and Stengers (1984) and Csikszentmihalyi (1993), that when we change our behaviour in the direction of complexity, we embark on the path of transformative change. That is to say, it is not necessary to *be* in the stage of vision-logic in order to *behave* in a vision-logic way. It appears that when one part of our self begins to behave in a novel and more complex way, then in time, if we persist in that direction, the rest of our self will follow. Prigogine and Stengers (1984) described in detail this gradual evolutionary process by which a living system changes one part of itself and then “enslaves” the rest of the system to its new, more complex form. Human beings, too, may be able to accomplish this sort of transformation—but in psychological terms. Wilber (1995) reminds us that as we *perceive* through vision-logic, we are prompted to *act* through vision-logic. It could follow that as we begin to look beyond the exterior of people and events, as we include not only the “it” but also the “I” and the “we,” as we integrate our logos with our mythos, and as we strive to be authentic, we embark upon the process of our own transformative change and, with it, the possibility of reaching a higher stage of development.

## CONCLUSION

*Let us not forget that ecological, economic and financial factors all rest ultimately on a correlative transformation in human consciousness; the global embrace, and its pluralistic world-federation, can only be seen and understood, and implemented by individuals with a universal and global vision-logic. . . .*

*Ken Wilber, 1995, p. 201*

While putting together the ideas for this essay, I was enlivened by the notion that the demands and changes facing adult and continuing education and, in turn, our society, indicate not so much a future ready made but rather a future-in-the-making. These demands and changes are, as it were, points along the way in our evolution as a field and as a society. On this basis, how adult educators view these changes and how they react to them will have consequences in shaping our society—in the direction of greater or lesser harmony. The extent to which we are able to understand and cope with the complexities around us will affect and steer these situations for better or for worse. And at this crucial juncture in our history, when problems are complex and solutions opaque, we need a more encompassing, more coherent, and more integrative outlook. Vision-logic, in my view,

is an emerging consciousness that offers this broadened view of self and the world, and presents us with both a grand developmental challenge and a bounteous opportunity.

## REFERENCES

- Apps, J.W. (1994). *Leadership for the emerging age: Transforming practice in adult and continuing education*. San Francisco: Jossey-Bass.
- Brookfield, S.D. (1995). *Becoming a critically reflective teacher*. San Francisco: Jossey-Bass.
- Capra, F. (1983). *The turning point*. New York: Bantam Books.
- Csikszentmihalyi, M. (1993). *The evolving self: A psychology for the third millennium*. New York: HarperCollins.
- Jantsch, E. (1981). Unifying principles of evolution. In E. Jantsch (Ed.), *The evolutionary vision: Toward a unifying paradigm of physical, biological, and sociocultural evolution* (pp. 83–113). Boulder, CO: Westview Press, Inc.
- Jung, C.G. (1954). The development of personality. In C.G. Jung, *Collected works, The development of personality* (Vol. 17). (pp. 165–186). Princeton: Princeton University Press.
- Labouvie-Vief, G. (1994). *Psyche and eros: Mind and gender in the life course*. Cambridge: Cambridge University Press.
- Lindeman, E.C. (1989). *The meaning of adult education* (4th printing). Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education.
- McKenzie, L. (1984). Adult education and the burden of the future. In S.B. Merriam (Ed.), *Selected writings on philosophy and adult education* (pp. 79–90). Malabar, FL: Robert E. Krieger.
- McKenzie, L. (1991). *Adult education and worldview construction*. Malabar, FL: Krieger Publishing Company.
- Mezirow, J. (1984). A critical theory of adult learning and education. In S.B. Merriam (Ed.), *Selected writings on philosophy and adult education* (pp. 123–139). Malabar, FL: Robert E. Krieger.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

- Ortega y Gasset, J. (1992). *Mission of the university*. New Brunswick, NJ: Transaction Publishers.
- Peters, T. (1987). *Thriving on chaos: Handbook for a management revolution*. New York: Harper & Row.
- Prigogine, I., & Stengers, I. (1984). *Order out of chaos: Man's new dialogue with nature*. New York: Bantam Books.
- Sloan, A. (1996, February 26). The hit men. *Newsweek*, pp. 44–48.
- Taylor, C. (1992). *The ethics of authenticity*. Cambridge, MA: Harvard University Press.
- Teilhard de Chardin, P. (1961). *The phenomenon of man*. New York: Harper Torchbooks.
- Wilber, K. (1977). *The spectrum of consciousness*. Wheaton, IL: Theosophical Publishing House.
- Wilber, K. (1989). Paradigm wars. *The Quest, Spring 1989*, pp. 6–19.
- Wilber, K. (1995). *Sex, ecology, spirituality: The spirit of evolution*. Boston: Shambhala.

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