METAPHORS: TOOLS FOR CRITICAL THINKING

STANLEY D. IVIE *Texas Woman's University*

ABSTRACT. There is a large body of literature about the importance of teaching critical thinking skills and many different approaches have been advanced for teaching it. Little attention, however, has been devoted to the use of metaphor as an analytical tool. The following article utilizes the theories advanced by Campbell, Jung, and Bruner as they relate to a general understanding of how metaphor shapes human thought. The utopian garden (Eden) has been selected as an example of what Jung calls an archetype. This particular archetype is traced through three different historical ages (Biblical, Enlightenment, and New Age psychotherapy) in order to illustrate how each age has reconstructed the archetype to reflect its own metaphors. The utopian garden archetype contains within itself two implicit questions: Why did humanity leave an ideal garden? And how can we find our way back?

RÉSUMÉ. Des très nombreuses études traitent de l'importance que revê l'enseignement de la pensée critique et des différentes approches proposées pour cet enseignement. Toutefois, peu de chercheurs se sont intéressés à la métaphore en tant qu'outil d'analyse. Cet article s'appuie sur les théories proposées par Campbell, Jung et Bruner dans la mesure où celles-ci se rapportent à une compréhension générale du rôle que la métaphore joue dans le façonnement de la pensée humaine. L'utopie du paradis terrestre y est utilisée pour illustrer ce que Jung appelle un archétype. Cet archétype particulier est examiné dans trois contextes historiques, à savoir l'époque biblique, le Siècle des lumières et la psychothérapie dite "du nouvel âge", afin d'illustrer comment chaque période reformule l'archétype en fonction de ses propres métaphores. L'archétype du paradis terrestre recouvre deux questions implicites: pourquoi l'humanité a-t-elle quitté ce lieu idéal? Comment faire pour retrouver ce paradis?

Much has been written about the importance of teaching critical thinking skills. Critical thinking is vital for the well-being of a democracy. Thomas Jefferson advised, "A democracy cannot survive unthinking citizens" (Beyer, 1995, p. 2). Many different approaches have been

advanced for teaching critical thinking, but little attention, however, has been devoted to the use of metaphor as an analytical tool. Metaphor is a powerful tool for unlocking abstract ideas. There is a simple metaphor lurking behind every complex theory. Each field of inquiry – history, science, politics, religion – nurtures its own stock of preferred metaphors. Metaphor can assist us in disclosing the meanings tucked away inside competing ideologies. The following article illustrates how metaphor can serve as a useful tool for advancing critical thinking skills.

CRITICAL THINKING, REFLECTIVE THINKING

What is critical thinking? Ennis (1987) offers the following definition: "Critical thinking is reasonable reflective thinking that is focused on deciding what to believe or do" (p. 10). Ennis' definition stresses the importance of reflective thought. What takes place in the mind when we think reflectively? John Locke describes reflective thinking in the following words: "That notice which the mind takes of its own operations and the manner of them" (Baldwin, 1960, p. 435). Reflection, in other words, is thinking "turning back" upon itself. There is a subtle metaphor contained in the word "reflection." The *Dictionary of Philosophy and Psychology* explains, "The metaphor implied in the term reflection is that of 'turning back' upon something" (Baldwin, 1960, p. 436). We think reflectively whenever we "turn back" upon or call into question the assumptions, premises, or presuppositions underlying our thought. The purpose of such thinking is to establish clear and logical connections between beginning premises, relevant facts, and warranted conclusions. The reflective thinker is someone who bases his or her opinions on sound logic and substantive information.

Critical thinking is reflective thinking. We think reflectively whenever we reach back and carefully examine the assumptions underlying our most cherished ideas. "Identifying and challenging the assumptions by which we live," says Brookfield (1987), "is central to thinking critically" (p. 89). The present article, for example, is based on three working assumptions: (1) that there is a mental activity that can be identified as critical thinking; (2) that cultivating such thinking is a worthwhile objective; and (3) that metaphor can be used as a tool for developing such thinking.

Howard Gardner (1993) questions whether skills developed in one domain of knowledge can be transferred into another. He believes critical thinking can only express itself within a particular domain of

knowledge. "The kind of thinking required to analyze a fugue is simply different from that involved in observing and categorizing different animal species, or scrutinizing a poem, or debugging a program, or choreographing and analyzing a new dance" (p. 44). Each domain of knowledge elicits its own individual style of thinking. The transfer of skills from one domain into another, Gardner believes, is narrowly limited. "There is little reason to think that training of critical thinking in one of these domains provides significant 'savings' when one enters another domain" (p. 44). Becoming a critical thinker is largely a matter of developing the habits of mind that have proven themselves useful within a particular domain. Gardner is willing to concede, however, that "if the lessons of critical thinking are deliberately revisited in each of the relevant classes or exercises" a more "reflective" quality of mind may emerge (p. 44).

Gardner will have no disagreement about the idea that critical thinking cannot be prepackaged and distributed wholesale. If we wish to think critically about science, literature, or art, we must first master the basic concepts and facts within each discipline. Expertise in one field of inquiry does not guarantee critical thinking within another. (Linus Pauling's crusade to promote massive doses of vitamin C is a case in point.) Though Gardner's interpretation of transfer is a parsimonious one (both Vygotsky and Bruner are more charitable), nevertheless, he does not close the door completely on the possibility of our developing "reflectiveness" as a habit of mind. "There is nothing in the inherent nature of habit," Dewey (1959) reminds us, "that prevents intelligent method from becoming itself habitual" (pp. 100-101). Reflective thinking revolves around the habit of critically examining the basic assumptions underlying a pattern of thought. Assumptions, in turn, are frequently expressed in the language of metaphor. (Newton's cosmology, for instance, is based on a mechanistic metaphor.) Metaphor offers us a reflective tool which can be used to analyze basic assumptions. Forming the habit of selectively evaluating metaphors is an important step in developing a reflective mind.

DEFINITIONS

A Texas billboard reads, "What is a metaphor?" The answer given, "A place for horses to graze." (Meadow for.) Webster (1964) offers a different definition: "A figure of speech denoting by a word or phrase usually one kind of object or idea in place of another to suggest a likeness or analogy between them" (p. 1420). Webster goes on to

explain that the concept of metaphor includes "a compressed simile that makes explicit an implied comparison." Metaphor, as it is used throughout this article, is consistent with Webster's definition. Similes, analogies, parables, fairy tales, jokes, cartoons, and other forms of symbolic and suggestive thinking all fall under the general rubric of metaphor.

Root metaphors

Stephen Pepper (1972) in his book, *World Hypotheses*, presents a per-suasive case for how root metaphors facilitate reflective thinking. There is a simple root metaphor lying at the heart of every complex system of thought. "A world hypothesis is determined by its root metaphor" (p. 96). Not all root metaphors, however, are of equal worth. Some are more fruitful, expansive than others. "These survive in comparison with the others and generate the relatively adequate world theories" (p. 2). Root metaphors are useful tools for analyzing abstract systems of thought. They are keys for "unlocking the doors of those cognitive closets which constitute the literature of structural hypotheses in phi-losophy and science" (p. 149). Being able to analyze root metaphors is an essential step in becoming a critical thinker.

Simple metaphors

Lakoff and Johnson (1980) have written extensively about the power of metaphor. They support the thesis that most thought is metaphorical. "Metaphor is pervasive in everyday life, not just in language but in thought and action" (p. 3). Simple metaphors are created whenever we speak of one thing as if it were another. General Sherman bequeathed to us a colorful metaphor, "War is hell!" His metaphor carries with it all of the mindlessness of a modern battlefield. Metaphor may reveal significant and surprising truths. Take, for example, Einstein's famous metaphor, "God does not play dice with the universe." The metaphor expresses Einstein's frustrations with the theory of quantum mechanics. He was not sure he wanted to exchange a stable and predictable universe for one based on statistical probabilities. Jesus advised, "No one puts new wine into old wineskins" (Mark 2:22, New Revised Standard Version). The fermenting wine will burst the skins. New ideas have similar effects on hard and frozen minds. Does this metaphor remind you of anyone you know? "If your only tool is a hammer, every problem looks like a nail." My father was a man of grim determination. All problems required a liberal application of cursing. The language of education is replete with metaphors. I have heard teachers say, "This school is a zoo." What is the metaphor telling us? If the school is a zoo,

then the children must be wild and untamed animals. The teachers, on the other hand, are animal trainers. They come to school armed with chairs and whips, protecting themselves from claw and fang while training the unfriendly little beasts. What an unpleasant thought. Perhaps we should entertain a more inviting metaphor.

Complex metaphor.

Mythology is a rich source of metaphor. "A myth," according to *The Encyclopedia of Philosophy* (Edwards,1967), "can be roughly described as an extended metaphor, and its accompanying ritual as a dramatized figure of speech" (p. 288). Joseph Campbell has written eloquently about myth and ritual. His book, *The Hero with a Thousand Faces* (1968), argues that mythology furnishes the foundation for human thought. "Religions, philosophies, arts, the social forms of primitive and historic man, prime discoveries in science and technology, the very dreams that blister sleep, boil up from the basic, magic ring of myth" (p. 3). Mythology offers metaphorical explanations for the great mysteries of life. Myth, Campbell (1991) tells us, provides "a map or picture of the universe and allows us to see ourselves in relationship to nature" (p. 56). The problem with the modern world is we wish to interpret "spiritual mythological symbols as though they were references to historical events" (p. 172). A narrow literalism blinds us to the deeper meanings metaphor has to offer. "Heaven," for example, "is a symbol of the eternal life that is within you" (p. 76). All the heavens and all the hells, including their respective metaphors, are tucked away inside of ourselves.

Mythology reflects universal themes running through human experience. One of these themes revolves around the adventures of a cultural hero or heroine. The heroic figure, Campbell (1988) explains, is a person who is able to rise above the normal limitations of human experience. He or she gives his or her life over to something bigger than himself or herself. The heroic adventure begins with someone who has lost something or who is lacking some necessary quality in his or her life. Such a person takes "off on a series of adventures beyond the ordinary, either to recover what has been lost or to discover some life-giving elixir" (p. 123). The heroic adventure is symbolic of the human struggle in this world. The human infant is totally dependent upon others. "Childhood," Campbell (1988) reminds us, "is a condition of dependency under someone's protection and supervision" (p. 124). In order to declare our independence, we must assume the responsibility for our own lives. Independence requires an act of courage. The right

of passage from childhood to adulthood in primitive societies is symbolized by the puberty ritual. The old passes away in order to make room for the new. "That's the basic motif of the universal hero journey leaving one condition and finding the source of life to bring forth into a richer or mature condition" (p. 124). Life affords everyone the opportunity to make his or her own hero journey.

Archetypes and the structure of thought

Metaphors belong to the same class of psychic phenomena as myths, dreams, and parables. They all speak a common symbolic language. Carl Jung (1959) believes humanity shares in a mythopoeic level of mind. He calls this level the collective unconscious. The unconscious mind generates primeval images or archetypes. Jung's archetypes are similar to Plato's Forms. Both perform the function of providing the mind with an "a priori" structure. Archetypes are like flexible molds into which cultural experiences are poured, "not determined as regards their content, but only as regards their form and then only to a very limited degree" (p. 79). They furnish the themes underlying mythology – the exploits of a cultural hero, the redeeming powers of a virgin goddess, or the triumph of the forces of good over those of evil. Only a small fraction of human thought is ordered according to rational principles. The great bulk of the mind is preoccupied with dreams, myths, and fantasies. Jung contends that life is lived archetypically. Archetypes are primordial metaphors (or at least the shells for such metaphors). They furnish the underlying structure around which we organize our thinking.

Jerome S. Bruner (1965), like Campbell and Jung, is interested in discovering the structure of thought. Bruner believes each field of inquiry is composed of a handful of basic ideas, and that these basic ideas furnish the structural principles around which a field of knowledge is organized. "The basic ideas that lie at the heart of all science and mathematics and the basic themes that give form to life and literature are as simple as they are powerful" (pp. 12-13). Basic ideas permit us to condense factual information into generalized principles. The interesting thing about human perception is not that our senses tell us so much but that they tell us so little. Mind has the capacity for extrapolating a great deal of information from a few scraps of sense data. Humans are not only able to deal with the information at hand, but they are able to go far beyond the evidence given. "The testimony of the senses," says Bruner (1983), "seems less like the primary stuff of knowledge than like fodder for testing hypotheses that precede sense" (p. 66). Mind pos-

sesses its own rational powers for sorting and classifying experience, thus turning physical stimuli into knowledge.

Knowledge, Bruner (1979) contends, is a model we construct in our heads in order to give meaning and regularity to experience. Reality is never experienced face-to-face. The "real" is always filtered through a mind already programmed with organizing ideas. "We invent concepts such as force in physics, the bond in chemistry, motives in psychology, style in literature as means to the end of comprehension" (p. 120). Mind uses a variety of prosthetic devices as tools for thought. Among these, Bruner (1971) tells us, "are pictorial and diagrammatic conventions as well, theories, myths, modes of reckoning and ordering" (p. 7). Intellectual models are our guiding metaphors, devices for condensing and refining experience. Models permit us to predict and regulate the world around us. "We do the greater part of our work by manipulating our representations or models of reality rather than by acting directly on the world itself" (p. 7).

ROLE OF METAPHOR IN THOUGHT

Thus far this article has centered its attention on two general questions: (1) What is the nature of critical thinking? And (2) how does metaphor shape or influence thought? Having explored these questions, we need to turn to a third question: (3) What is the role of metaphor in promoting reflective thinking? In order to address this question, one archetype (the utopian garden) has been selected for metaphorical analysis. (The annals of thought offer many interesting archetypes: the cultural hero, Ulysses, Jesus, Lincoln; the redeeming powers of a virgin goddess, the Virgin Mary, Joan of Arc, Mother Theresa; and stories, such as *Cinderella*, the fairy-tale, *The Book of Esther*, and *The Bridges of Madison County*, only to mention a few.) The utopian garden archetype will be traced through three different historical ages: Biblical, Enlightenment, and New Age psychotherapy. By comparing the metaphors used in these three different ages, we will be able to see how assumptions become translated into complex patterns of thought. The ability to identify assumptions is an essential step in becoming a reflective thinker.

Biblical

The Bible is a wonderful source of metaphor. One of the most vivid and compelling stories is the one told about the garden of Eden. The story explains how given such a glorious beginning ("God saw everything that he had made, and indeed, it was very good") things so quickly went

wrong (Genesis 2:3). The problem began with Adam's and Eve's fall from grace. The first parents, though they were given free run of a utopian garden, were not able to obey one simple rule: "But of the tree of knowledge of good and evil you shall not eat, for in the day that you eat of it you shall die" (Genesis 2:17). The fruit on the tree in the center of the garden looked too delicious to pass by. With a little coaxing from the snake (Satan), Adam and Eve ate the fruit. God was displeased with their disobedience. Adam and Eve were banished from the garden. "Therefore the Lord God sent him (Adam) forth from the garden of Eden, to till the ground from which he was taken" (Genesis 3:23). Eve's lot was to suffer "pangs in child birth."

The first parents had committed the original sin. Humanity, through its foolishness, had alienated itself from God. Life in the perfect garden had been lost forever. How could humanity atone for its sins, restore itself to God's good graces, and return once more to living in a paradisiacal garden? Christian theology formulated an answer to this problem. Michael Grant (1992) in his book, *Jesus: An Historian's Review of the Gospels*, offers the thesis that Jesus' central teaching was the arrival of the Kingdom of God. Jesus believed his earthly mission was to initiate God's kingdom, here and now. Jesus' crucifixion raised many fundamental questions. One question was where is the Kingdom of God? Paul, through his ministry and letters, offered an answer to this question. For Paul the life and death of Jesus Christ was the central event in human history. Jesus' crucifixion had atoned for the sin of Adam and Eve. "Therefore just as one man's trespass led to condemnation for all, so one man's act of righteousness leads to justification and life for all" (Romans 5:18). Paul removed the Kingdom of God from the earthly realm and established it on a spiritual plane. "Flesh and blood cannot inherit the Kingdom of God, nor does the perishable inherit the imperishable" (I Corinthians 15:50). For Paul, only one road led to the Kingdom of God, the road mapped out by faith in Jesus Christ. "A person is justified not by the works of the law but through faith in Jesus Christ" (Galatians 2:15). Faith in Jesus Christ would return mankind to a spiritual garden.

Enlightenment

The utopian garden archetype was revisited by Jean Jacques Rousseau in his political discourses. Rousseau's (1974) *Social Contract* tells us about mankind's "fall from grace." Humanity once lived in a state of nature, a primeval utopia where things were simple and pure. There

were "no houses, huts, or property of any kind, so that everyone slept wherever he happened to be" (p. 157). The family was the only institution. There was universal freedom and equality. Why, then, if things were so perfect, did humanity leave the state of nature? Foolishness, pure and simple! One day a "non-reflective" savage decided to stake off a piece of property and build a fence. "The first man who, having enclosed a piece of land, took it into his head to say, 'This is mine,' and found people simple enough to believe him, was the true founder of civil society" (p. 173). The others, rather than rising up in indignation, went along with the hoax. "The human race would have been spared endless crimes, wars, murders, and horrors if someone had pulled up the stakes or filled in the ditch and cried out to his fellow men, 'do not listen to this impostor!' " (p. 173). Thus private property (original sin) caused humanity to leave the state of nature (Eden). To more completely utilize private property, humanity devised two complementary skills, metallurgy and agriculture. These skills "made men civilized and brought on the downfall of the human race" (p. 180).

How can humanity find its way back to the perfect garden? Rousseau's (1979) answer is contained in his classic work on education, *Emile*. The story of Emile centers around the ideal, though hypothetical, education of a little boy. Emile is reared in the countryside away from the corrupting influences of civilized life. "Civil man is born, lives, and dies in slavery" (p. 42). Only one person is allowed to come into contact with Emile, his tutor. The tutor's role is very simple, that is, seeing that Emile does not come into contact with anything bad. Emile, like a natural savage, is allowed to learn everything from his own personal experiences. Emile studies what he desires to know when he desires to know it. When Emile is ready to learn geometry, he teaches it to himself. The tutor never instructs Emile in anything. The whole of education is guided by the child's nature. "In choosing objects to imitate," declares Rousseau (1979), "I would always take nature as my model" (p. 345). This is because "childhood has its ways of seeing, thinking, and feeling which are proper to it" (p. 90). For the first twenty years of life, Emile lives happily in his country home. He shows little interest in other people. At the age of twenty, however, Emile enters into manhood. (Rousseau refers to Emile as a savage who is equipped to live in civil society.) Emile is now ready to seek a mate. As luck would have it, there is a young woman, Sophie, who lives not far from where Emile has grown up. Sophie's father is a simple innkeeper. Sophie has been reared according to the principles of little girl rearing, which, incidentally, are different from those of little boy rearing. Sophie's

talents and abilities complement perfectly those possessed by Emile. The two young people are made for one another. Emile and Sophie marry and rear their children as they themselves were reared, following nature. Thus humanity, through education, atones for its sin (private property) and returns to the utopian garden, nature.

New Age

Marianne Williamson's (1994) best selling book, *A Return to Love*, provides us with a modern version of the utopian garden archetype. The story is told in the language of New Age (spiritual) psychotherapy. Williamson divides the life of the individual into three distinct stages: childhood, adolescence, and adulthood. Each stage has its overarching theme. Childhood is the first stage. "When we were born," says Williamson, "we were programmed perfectly. We had a natural tendency to focus on love" (p. 14). Childhood is a happy time of life. Children, metaphorically, are living in "the garden of Eden." They have a holistic view of life. The world is filled with wonder and magic. Each day brings forth the discovery of something exciting and wonderful. (Williamson's characterization of childhood as a time of happiness may more nearly reflect her own experiences than those of other children around the world.) This happy world, unfortunately, ends all too soon.

The child's world is swept away by the second stage of development, adolescence. "Why is it," asks Williamson (1994), "that we reached a certain age, looked around, and the enchantment was gone" (p. 14)? We learned to think unnaturally. We were taught the concepts of "competition, struggle, sickness, finite resources, limitations, guilt, bad, death, scarcity, and loss" (p. 14). We learn we are "not quite good enough the way we are" (p. 20). Adolescence is a time of dissatisfaction with ourselves and with others. This negative energy frequently follows us into our adult years. "By my mid-twenties," Williamson confesses, "I was a total mess" (p. 13). The adolescent, without realizing it, has wandered out of the garden.

How can we find our way back into the metaphorical garden? The answer lies in the third stage. The adult seeks to rediscover the "spiritual centredness" he or she knew as a child. Williamson (1994) found her way back into the garden by studying *A Course in Miracles* (which is a spiritual, self-help book that combines Christian concepts, eastern mysticism, and modern psychotherapy [1992, pp. 7-13])."I felt I had come home" (Williamson, 1994, p. 15). *A Course in Miracles* was not just another book. "This was my personal teacher, my path out of hell" (p. 15). What was the lesson Williamson learned? Love, pure and simple! "Love is what we were born with. Fear is what we have learned

here. The spiritual journey is the relinquishing or unlearning of fear and the acceptance of love back into our hearts" (p. 20). The road to healing is one of rediscovering the child who lives inside. We have to return to the "enchanted realm that we knew as children. Our childlike self is the deepest level of our being. It is who we really are" (p. 22). When we wandered out of the garden, we "strayed from God, or wandered away from love" (p. 22). *A Course in Miracles* provided Williamson with a way of returning to love. Where is the mystical garden – the loving place of our childhood years? Right where it has always been, tucked away inside ourselves. The utopian garden can be ours if only we have the courage to take the journey of love.

Summary

Critical thinking highlights the importance of reflective thought. We think reflectively whenever we carefully examine the assumptions underlying our beliefs. Assumptions, in turn, are frequently expressed in the language of metaphor, hence metaphor offers us a useful tool for analyzing complex systems of thought. (Stephen Pepper refers to this as the root metaphor method.) Forming the habit of analyzing metaphors is an essential step in becoming a reflective thinker. Both Campbell (mythology) and Jung (archetypes) agree there is an "a priori" structure underlying the reoccurring themes in human experience. Bruner makes similar claims for the structure of knowledge. He believes all knowledge is organized around a handful of unifying ideas. These ideas provide a field of knowledge with its distinctive structure, hence, if we wish to think critically, we must come to grips with the key ideas underlying the structure of knowledge. Campbell's, Jung's, and Bruner's theories all make abundant use of metaphor. Metaphor is the measure of mind! In order to illustrate how metaphor may be used as a tool for unlocking complex ideas, the utopian garden archetype has been examined reflectively in three different intellectual ages: Biblical, Enlightenment, and New Age psychotherapy. Each age has recast the perfect garden archetype in the language of its own metaphors. These metaphors explain why mankind left an ideal garden and what humanity must do if it wishes to rediscover its utopian beginnings.

REFERENCES

A course in miracles. (1992). Mill Valley, CA: Foundation for Inner Peace.

Baldwin, J. M. (Ed.). (1960). Reflection. In *Dictionary of philosophy and psychology* (Vol. 2, pp. 435-436). Gloucester, MA: Peter Smith.

Beyer, B.K. (1995). *Critical thinking*. Bloomington, IN: Phi Delta Kappa Educational Foundation

Brookfield, S. D. (1987). *Developing critical thinkers*. San Francisco: Jossey-Bass.

Bruner, J. S. (1965). *The process of education*. Cambridge, MA: Harvard University Press.

Bruner, J. S. (1971). *The relevance of education*. New York: Norton.

Bruner, J. S. (1979). *On knowing: Essays of the left hand*. Cambridge, MA: Belknap.

Bruner, J. S. (1983). *In search of mind: Essays in autobiography*. New York: Harper and Row.

Campbell, J. (1968). *The hero with a thousand faces*. Princeton, NJ: Princeton University Press.

Campbell, J. (1988). *The power of myth*. New York: Doubleday.

Campbell, J. (1991). *Reflections on the art of living*. (D. K. Osbon, Ed.). New York: Harper-Collins.

Dewey, J. (1959). *Experience and education* (23rd ed.). New York: Macmillan.

Edwards, P. (Ed.). (1967) Metaphor. In *The encyclopedia of philosophy* (Vol. 5, pp. 284-288). New York: Macmillan.

Ennis, R. H. (1987). A taxonomy of critical thinking dispositions and abilities. In J. B. Baron, & R. J. Sternberg (Eds.), *Teaching thinking skills: Theory and practice* (pp. 9-26). New York: W. H. Freeman.

Gardner, H. (1993). *Multiple intelligence: The theory in practice*. New York: Basic Books.

Grant, M. (1992). *Jesus: A historian's review of the gospels*. New York: Macmillian.

Jung, C. G. (1959). *The collected works of C. G. Jung*. (H. Read, M. Fordham, & G. Adler, Eds.; R. F. C. Hall, Trans.). (Vol. 9, Part l). New York: Pantheon Books.

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: The University of Chicago Press.

Pepper, S. C. (1972). *World hypotheses: A study in evidence* (7th ed.). Berkeley: University of California Press.

Rousseau, J. J. (1974). *The essential Rousseau* (L. Bair, Trans.). New York: New American Library.

Rousseau, J. J. (1979). *Emile (or On education)* (A. Bloom, Trans.). New Haven: Yale University Press.

Webster's third new international dictionary of the English language, unabridged. (1964). Springfield, MA: Merrriam-Webster.

Williamson, M. (1994). *A return to love*. New York: Harper.

STANLEY D. IVIE is Professor of Educational Leadership at Texas Woman's University. He has published widely in national and international journals. His special area of interest is the history of educational thought.

STANLEY D. IVIE est professeur de leadership pédagogique à la *Texas Woman's University*. Il a publié de nombreux articles dans des revues de niveau national et international. Il s'intéresse particulièrement à l'histoire de la pensée éducationnelle.