



## University of Tennessee, Knoxville Trace: Tennessee Research and Creative Exchange

IACE Hall of Fame Repository

International Adult and Continuing Education Hall  
of Fame Repository

2016

# Self-Directed Learning [SDL] and Andragogy: My Take on Their Contrasting and Complementary Relationship

John A. Henschke EdD  
*Lindenwood University*, [jhenschke1@lindenwood.edu](mailto:jhenschke1@lindenwood.edu)

John A. Henschke EdD  
*Lindenwood University*

Follow this and additional works at: [http://trace.tennessee.edu/utk\\_IACE-browseall](http://trace.tennessee.edu/utk_IACE-browseall)

 Part of the [Community College Leadership Commons](#), [Curriculum and Instruction Commons](#), [Curriculum and Social Inquiry Commons](#), [Disability and Equity in Education Commons](#), [Educational Administration and Supervision Commons](#), [Educational Leadership Commons](#), [Educational Methods Commons](#), [Educational Psychology Commons](#), [Higher Education Commons](#), [Instructional Media Design Commons](#), [International and Comparative Education Commons](#), [Online and Distance Education Commons](#), [Other Education Commons](#), [Social and Philosophical Foundations of Education Commons](#), [Special Education and Teaching Commons](#), [Student Counseling and Personnel Services Commons](#), and the [Teacher Education and Professional Development Commons](#)

### Recommended Citation

Henschke, John A. EdD and Henschke, John A. EdD, "Self-Directed Learning [SDL] and Andragogy: My Take on Their Contrasting and Complementary Relationship" (2016). *IACE Hall of Fame Repository*.

This Presentation is brought to you for free and open access by the International Adult and Continuing Education Hall of Fame Repository at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in IACE Hall of Fame Repository by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

# Self-Directed Learning [SDL] and Andragogy: My Take on Their Contrasting and Complementary Relationship

*by John A. Henschke. Lindenwood University, St. Charles, MO*

## **ABSTRACT:**

*The author will present his perspective and experience on how SDL and Andragogy may complement and contrast with each other. Focus will be on: theoretical/practical, historically/currently implementing, strengths/weaknesses, foundational/personally engaging, comparing/contrasting; a case will be made for valuing each (SDL & Andragogy) for enhancing benefit to the constituencies we serve.*

## **OVERVIEW**

My take regarding how I needed to approach a presentation on Self-Directed Learning [SDL] and Andragogy focuses on a contrast between SDL and Andragogy and their complementary relationship. I will seek to articulate this as it is reflected in some of the published materials including my own.

The final decision came down to determining if the best course of action would be to pit research and writing on both SDL and andragogy against each other at most; or, at least to make a comparison of each with the other. I know of the numerous years that very extensive research has been conducted and presented at this International SDL Conference; and, I have been involved for 16 years in researching, writing and publishing in andragogy at the American Association for Adult and Continuing Education [AAACE] and for websites – two of my own and two on the University of Tennessee. I provide one here [www.trace.tennessee.edu](http://www.trace.tennessee.edu) When this opens, click on “Authors” in the left had column.

In contrast, I finally landed on presenting a personal story of my involvement with both andragogy and SDL in very beneficial ways – each different from the other. I was not interested in seeking to declare one better than or inferior to the other. This I chose to do in the same vein and manner as I did when asked by a publisher to write [at age 83] my story of living a long, healthy (and happy, I might add) life (Henschke, 2014a). That story, among other elements, combined wonderful aspects of both SDL and andragogy.

## **PURPOSE**

During my 16 years of word searching, writing and publishing on andragogy, I have seen a number of the more than 500 documents that popped-up/appeared, with a major heading of SDL instead of the major heading of andragogy. I have had the idea that someday I would analyze and write about the relationship between SDL and andragogy. However, this happens to be my beginning opportunity for an attempt in this direction. Many have written on the pros and cons of each. Nonetheless, this is the first time I am aware of any attempt for comparing the two to be brought together in a complementary way.

## **EARLY CONNECTIONS BETWEEN SDL AND ANDRAGOGY**

An early attempt at this comparison between andragogy and self-directed learning needs to include a historical look at the work of Dusan Savicevic [2008] in his panoramic articulation of ideas on the convergence and divergence of andragogy in various contexts. He goes back in this historical document into ancient times and brings the discussion to the

present time. In this work he mentions 'self-directed learning' three times; with each time it is within the context of other aspects of andragogy: mass media, a set of self-directed learning competencies, and the complex of different theories relating to various aspects of the education of children and various aspects of the education of adults.

### SDL and Mass-Media

Savicevic (2008) indicates that from the standpoint of learning of adults the mass-media is a special problem; the mass-media have a special role in adult education. It shows power and dispositions for the manipulation of information. Clearly, all of these problems are *reflections on* adult learning and education. This problem overlaps the contents of learning. The selection of contents is interconnected with philosophical questions: What to learn? Who makes decisions about it? Neither pedagogy, nor the traditional (inflexible) system of education offer satisfying answers. Supporting sustainability and expansion of *open, various, self-directed learning of adults* should make progress. It is impossible to build a free and democratic society without accomplished issues for adult education. Creating different possibilities enables adults to manage their own learning according to their needs and interests. Learning aim formulation, making decisions on place for learning and on learning resources are of special importance for carrying out the integral educational policy.

### SDL – A Set of Competencies

Savicevic (2008) asserted that until 2008, most of the education and learning decisions on mass-media were regulated by educational institutions which generated rejection of adult to participate in formally organized learning activities. The increased demands for adults created the need to develop a complex set of *competencies for self-direction in learning* such as: defining the learning goals with possibility for *evaluating* attained scope, planning of learning activities, predicting of consequences of (un)attained scopes and fulfilling of educational obligations, defining of criteria for self-evaluation in learning and reconsidering and reflection of the learning experience. The whole organization of learning should *encourage* and stimulate continued learning of adults after they finish an educational activity, not only in the field of personal and public interests, but wider than the educational institution promises. The *promotion* of continuing education among others, for the sake of learning outside educational institutions is expected from the individuals who accepted this philosophy. Because of that the learning and education of adults should be *heterogeneous*, differentiated, and decentralized to the level of a local community. The local community should become an *andragogical center*. Public (governmental) educational policy should identify and support all of the opportunities for learning of the least included, the least competent in planning, organization and evaluation in their own learning.

### SDL and a Complex of Theories of Child and Adult Education

Savicevic (2008) undertakes some observations concerning a few theories of adult learning, all of them in the essence of andragogy, originated in the last decades of the twentieth century. It is necessary to be acquainted with them, in order to analyze and critically evaluate them. The abundant science production on *differences* between the education of children and the education of adults could be found in the last decades of the twentieth century. The research shows the complexity of these two phenomena; but differences exist not only between the education of children and the education of adults, but also within the conception of adult learning. A lot of external factors affect the learning of adults; especially the *convergence* of work and education, motivation and learning, teaching concepts in andragogy, the distinctive role of andragogical practitioners, the phenomenon of *self-directed learning*, as well as the future of adult learning.

## **ADULT LEARNER CHARACTERISTICS SERVED BY VARIOUS ADULT LEARNING THEORIES**

Not many may agree with Savicevic's arguments stated above, but this is only to illustrate the historical and contextual emergence of SDL coming into the wider educational discussions. Furthermore, regarding the section above on the issue of *mass-media and online learning*, Cercone (2008) adds to that part of Savicevic's discussion and has a very a startling comparison to make regarding the strength of a number of learning theories related to adult learning or 'andragogy' as she indicates. She focuses on the four most popular adult learning theories: Experiential Learning, Transformative Learning, Self-Directed Learning, and Andragogy. She makes the case for each of the four and their support of adult learner characteristics, but asserts that there is no one theory that explains all of how adults learn, just as there is no one theory that explains all human learning.

Existing theories provide frameworks or models which contribute something to our understanding of adults as learners. In light of the fact that learning is an internal process of the learner, the focus of theory is on what happens when real learning takes place. Adult learning theory helps faculty to understand their students and to design more meaningful learning experiences for them. There is not one adult learning theory that successfully applies to all adult learning environments. Learning is about change, and adult learning is also about change. Cercone (2008) developed a framework in which all four theories need to include the physical/bodily elements and learning style elements in the development and support of learning experiences, but they are givens of all human beings [or learners], not just unique to adult learners. However, there are 11 adult learner characteristics which Cercone (2008) recommends that need to be taken into account for mass-media and online adult learning course development.

- 1. Adults need to be actively involved in the learning process.**
- 2. Adults need scaffolding to be provided by the instructor. Scaffolding should promote self-reliance, and it should allow learners to perform activities they were unable to perform without this support.**
- 3. Adults have a pre-existing learning history and will need support to work in the new online learner-centered paradigm.**
- 4. Adults need the instructor acting as a facilitator.**
- 5. Adults need consideration of their prior experience. The instructor should acknowledge this prior experience. Adults need to connect new knowledge to past events.**
- 6. Adults need to see the link between what they are learning and how it will apply to their lives.**
- 7. Adults need to feel that learning focuses on issues that directly concern them and want to know what they are going to learn, how the learning will be conducted, and why it is important. The course should be learner-centered vs. teacher-centered.**
- 8. Adults need to test their learning as they go along, rather than receive background theory.**
- 9. Adult learning requires a climate that is collaborative, respectful, mutual, and informal.**
- 10. Adults need to self-reflect on the learning process and be given support for transformational learning.**
- 11. Adults need dialogue and social interaction must be provided. They need to collaborate with other learners.**

For each of the Adult Learner Characteristics listed above, Cercone includes numerous strategies and recommendations for implementing them [which I will not list here because of space limitations]. She identifies each theory with characteristics addressed along with the number of strategies/recommendations [SR] for implementing and supporting each. Experiential Learning [EL] - #s 5, 9, 10, 11 for a total of 4 Characteristics with 24 SR; Transformative Learning [TL] - #s 1, 2, 10 for a total of 3 Characteristics with 32 SR; Self-Directed Learning [SDL] - #s 1, 2, 5 for a total of 3 Characteristics with 34 SR; and, Andragogy [A] #s 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 for a total of 10 Characteristics with 68 SR. Consequently, all of this shows Andragogy to be the most comprehensive theory of adult learning and education, by comparison with Self-Directed Learning, Transformative Learning, and Experiential Learning. In fact, Cercone declares that the theories of Self-Directed Learning, Transformative Learning, and Experiential Learning are all encompassed within the theory of Andragogy.

Moreover, within this study, I am only including the calculating of Self-Directed Learning which has 3 Characteristics & 34 SR; and, the calculation of Andragogy which has 10 Characteristics & 68 SR. In light of this finding, all three adult learner characteristics and 34 SR included in the Theory of SDL are included in the ten adult learner characteristics and 68 SR of andragogy. This means that the Theory of Andragogy includes seven additional adult learner characteristics and 34 additional SR that the Theory of SDL does not include. This appears to support the contention that Andragogy would be foundational to both andragogy and SDL as well as Andragogy providing additional support for implementing adult learning.

#### **ERAS, THEMES AND OTHER BACKGROUNDS OF ANDRAGOGY**

During the 16 years that I have been researching, writing and publishing in andragogy, there are 17 major eras and Six [6] themes that I have discovered and articulated. These eras include more than 500 articles in the English language, thus covering a span of 183 years, from 1833 to 2016. Other backgrounds were included.

#### **Major Eras in the History and Philosophy of Andragogy Around the Globe**

1. Early Appearances of Andragogy 1833-1927;
2. Andragogy's Second American Appearance and its Foundation Being Established 1964-1970;
3. Movement Toward Applying Andragogy To Human Resource Development 1971-1973;
4. Emergence of Self-Directed Learning Skills As A Major Way to Implement Andragogy 1975-1981;
5. Strengthening the Numerous Uses of Andragogy Along With Growing Controversy and Resistance Toward It 1981-1984;
6. Identifying the Stronger European Base of Andragogy in Comparing it with the American Base 1985-1988;
7. The Foundation of Trust Undergirds Andragogical Learning Despite The Andragogy Debate 1989-1991;
8. Scientific Foundation of Andragogy Being Established Amid Skepticism and Misunderstanding 1992-1995;
9. Momentum Gained Against Andragogy While Counter Arguments Assert Its Value 1996-1997;

10. Antecedents To an Historical Foundation of Andragogy Being Extended And Broadened 1998-1999;
11. Empirical Research Being Pressed for Investigating Andragogy's Value While Objection Remains 2000-2002;
12. Bringing European and American Andragogy Closer Together As Distance Education Emerges 2003-2004;
13. The Hesitation Concerning Andragogy Continues While Many Still Stand By Andragogy 2005-2006;
14. Knowles' Prominent Long Range Contribution to Andragogy's Continuance Into The Future 2007-2008;
15. Applying Andragogy Ideas and Learning Techniques Successfully in the USA, Foreign Countries and with Cutting-Edge Technology 2009-2011;
16. Clearer Emphasis on Congruence between Scholarship and Practice Accompanied by Contribution to the Shaking World Economy 2012-2015; and,
17. On the Cutting Edge of Additional Developments in 2016 and Beyond into the Future. (Henschke, 2015c)

### Major Themes of Andragogy

I have also discovered in these more than 500 English language documents, but arranged in a different way within this 183 year span, that there are Six [6] Themes of Andragogy encompassed as follows: 1. Evolution of the Term Andragogy; 2. Historical Antecedents Shaping the Concept of Andragogy; 3. Comparison of the American and European Understanding of Andragogy; 4. Popularizing and Sustaining the American and World-Wide Concept of Andragogy; 5. Practical Applications of Andragogy; and, 6. Theory, Research, and Definition of Andragogy (Henschke, 2015b). Although the eras and themes of andragogy date back to 1833, there are implications that andragogy predates this back into the 17<sup>th</sup> century, and perhaps as far back as ancient times.

### Comenius Ideas Declared as Basis to Consider Him Founder of Modern Andragogy

According to Savicevic (2008) Comenius, in the 17<sup>th</sup> century [*antecedent to the 1833 first published appearance of the term and description of 'Andragogy'*], was the first to draw the demarcation line between pedagogical and andragogical ideas; but he drew this line in the Panpedia, [Comenius, 1910 – *Translation of his Panpedia* by M. Keating] written at the end of his life, not in his earlier writings. He urged for distinctive 'schools' for adults, for distinctive contents, textbooks and teachers for learning and education of adults, who are prepared to function in these schools for adults. Andragogical ideas and practice (understood as a conception, institutions, new forms, means, methods) were created in the period of social, scientific and technological changes brought about by the industrial revolution; they were created under the wing of the workers' movement, constituted in England. Here he mentions that the andragogical ideas stated by Comenius are the constitutive foundation of andragogy as a science. The nature and importance of his thoughts about the possibilities, needs and organization of education and learning of adults are a basis to consider him as a founder of modern andragogy. In Panpedia, Comenius developed the philosophy of life-long education, and proclaimed equal frames for living and for learning; that it is not enough to say that it is never too late for learning; he emphasized that 'every period is dedicated for a life and for learning'.

### Savicevic Explores Antique Antecedents as Sources of Andragogy

Digging back into ancient times, Savicevic (2000) also explored various antecedents to and backgrounds of andragogy before the term came into publication in 1833. In this he added another component to the scientific foundation and design of andragogy in this book *which is in the Serb language, but he has provided a summary in English*]. The summary indicates this study as dedicated to search for the roots of andragogical ideas starting from the antique civilizations up to the present time. We understand the term andragogical ideas as thoughts and concepts of persons about education and learning of adults, system of andragogical institutions that appeared in certain civilizations, as well as andragogical practice in which such ideas were realized. The structure of the study is made of several chapters that interconnected and logically linked, and is divided into the following five parts. (a) Conceptual and methodological frames of research includes: The nature and characteristics of research of andragogical ideas; and, methodological frame of researches. (b) Searching for the roots of andragogical ideas of some authors, which includes: Adult learning before literacy; Ancient Greek civilization; activity of sophists; Socrates; Plato; Aristotle; diffusion of Greek culture and science; Ancient Rome; Jewish cultural heritage; Middle ages; and, reversal which brings New Century. (c) Andragogical ideas in the international context includes: The work of Jan Amos Komensky; ideas of Gruntvig and their practical realization, thoughts of E. N. Medinsky; view of E. C. Lindemann; Thorndike's comprehension; and, thoughts of Freire. (d) Andragogical ideas in Yugoslav frame and context includes: Practical realization in Yugoslav cultural space; social philosophy of Svetozar Markovic; Radovan Dragovic; Dimitrije Tucovic; Dusan Popovic; Filip Filipovic; activities of the Serbian social democrats in practice; and, thoughts of Vicentije Rakicc. (e) Andragogical comparisons and conclusions included a final general discussion.

### Henschke Cites Ancient Hebrew & Greek Languages as Sources and Other Items

Henschke (1998) asserted that long before the term andragogy appeared in published form in 1833, ancient Greek and Hebrew educators, if not others, used words that although they were antecedents to andragogy, included elements of the concept that has come to be understood as some of the various meanings and definitions of andragogy. He attempted a descriptive definition of andragogy that moved in the direction of calling it a scientific discipline of study. This he posed in contrast to what others considered to be a fading influence of andragogy. He went back earlier in history and claimed that the language of the Hebrew prophets, before and concurrent with the time of Jesus Christ, along with the meaning of various Hebrew words and their Greek counterparts -- learn, teach, instruct, guide, lead, and example/way/model -- provide an especially rich and fertile resource to interpret andragogy. He expected that by combining a probe of these words and elements with other writings, a more comprehensive definition of andragogy may evolve. So, he attempted a definition of andragogy, as follows: Andragogy is a scientific discipline for the study of the theory, processes, technology and anything else of value and benefit including learning, teaching, instructing, guiding, leading, & modeling/exemplifying a way of life, which would bring adults to their full degree of humaneness.

Henschke (2004) was inspired to adapt poem that depicts how andragogy caught hold of him and has maintained its grip. He also found deep involvement in andragogy, when he paraphrases Robert Frost's Poem [*Our Gift Outright*] delivered at the USA 1961 Presidential Inaugural Ceremonies of John Kennedy and Lyndon Johnson. The paraphrase follows:

Andragogy belonged to me before I belonged to Andragogy.  
Andragogy was my longing desire in living, teaching and

learning for a few decades  
Before I was her educator. Andragogy was mine  
In undergraduate school, in graduate school, in theological  
seminary, in clinical training, in parish ministry, in doctoral  
studies, in university faculty, in consulting with various  
organizations throughout society,  
But I belonged to Pedagogy, still captive,  
Possessing what I still was unpossessed by,  
Possessed by what I now no more possessed.  
Something I was withholding made me weak  
Until I found it was myself  
I was withholding from the dynamic, vibrant idea of Andragogy,  
And forthwith found new educational and living possibilities  
in surrender.  
Such as I was I gave myself outright  
(The deed of gift was many deeds of dialoguing with others about  
Andragogy)  
To Andragogy vaguely realizing a new idea embodying teaching,  
learning, and living,  
But still unstoried, artless, unenhanced,  
Such as Andragogy was, such as she will become.

#### **KNOWLES' STRUCTURE FOR ANDRAGOGY AND CHANGES TOWARD SDL**

The main structure of Knowles' (1970, 1980, 1990) andragogical expression took the form of a process design instead of a content design, with assumptions and processes. The assumptions about adult learners at that time were: 1. They need to know a reason that makes sense to them as to why they should learn any particular subject matter content; 2. they are inclined toward and have a strong desire to be self-directing in their learning; 3. their experience is a learning resource for themselves and others; 4. their learning needs are focused on the developmental tasks of their social roles; 5. their time perspective is a need for one of immediate application; and, 6. their motivation is much more intrinsic [internal] rather than extrinsic [external]. The learning processes adults want to be actively and interactively involved in are: a. Preparation of the learners for what is coming in the andragogical learning experience; b. establishing a climate conducive to learning; c. cooperative and mutual planning; d. needing help in self-diagnosing their learning needs; e. setting objectives; f. designing the sequence of learning activities; g. mutually conducting the learning activities; and, h. learners evaluating their own learner progress.

#### **Transition From Andragogical Orientation Toward Including Self-Directed Learning.**

Knowles (1975) published his guidebook for learners and teachers on the topic of Self-Directed Learning. This was the first time that he labeled pedagogy as 'teacher-directed' learning and andragogy as 'self-directed' learning. Previously, pedagogy was for children and andragogy was for adults. Now his perspective was that where new, unfamiliar content was involved with children and adults, pedagogy was appropriate; and, where adults or children had some background in the content, andragogy was appropriate. He attached the term 'self-directed learning' to his six andragogical assumptions and his eight andragogical processes. Andragogy was the underlying and overarching philosophy, and self-directed



learning was the major way andragogy was to be implemented. He also presented a set of nine Competencies of Self-Directed Learning, as follows:

1. An understanding of the differences in assumptions about learners and the skills required for learning under teacher-directed learning and self-directed learning, and the ability to explain these differences to others.
2. A concept of myself as being a non-dependent and a self-directing person.
3. The ability to relate to peers collaboratively, to see them as resources for diagnosing needs, planning my learning, and learning; and to give help to them and receive help from them.
4. The ability to diagnose my own learning needs realistically, with help from teachers and peers.
5. The ability to translate learning needs into learning objectives in a form that makes it possible for their accomplishment to be assessed.
6. The ability to relate to teachers as facilitators, helpers, or consultants, and to take the initiative in making use of their resources.
7. The ability to identify human and material resources appropriate to different kinds of learning objectives.
8. The ability to select effective strategies for making use of learning resources and to perform these strategies skillfully and with initiative.
9. The ability to collect and validate evidence of the accomplishment of various kinds of learning objectives. (p. 61)

#### Research Combining A Charter for Andragogy with Ten Elements of SDL

Mezirow (1981), adding to the discussion on andragogy, developed a critical theory of adult learning and education, and laid the groundwork for what he called a charter for andragogy that included twelve core concepts that would help with an organized and sustained effort to assist adults to learn in a way that enhances their capability to function as self-directed learners. Suanmali (1981), a doctoral student of Mezirow, focused his dissertation research on the agreement he found that 174 adult educators, including professors and practitioners, had on ten of those twelve core concepts of Mezirow (1981) that all related to self-direction in learning. All items except numbers eight and twelve were included. The major theme that came out of his research was that to assist adults to enhance their capability to function as self-directed learners, the educator must: 1. decrease learner dependency; 2. help learners use learning resources; 3. help learners define his/her learning needs; 4. help learners take responsibility for learning; 5. organize learning that is relevant; 6. foster learner decision-making and choices; 7. encourage learner judgment and integration; 8. facilitate problem-posing and problem-solving; 9. provide a supportive learning climate; and, 10. emphasize experimental methods.

#### Developing Phases and Phase Transitions for Learning SDL in the Classroom

Taylor (1986) discovered the sequential and circular process of Learning for self-direction in the classroom and used Knowles' (1975) book on self-directed learning as foundational to her outline and implementation of learning for self-direction in the classroom. The results came as follows: The study reveals four different seasons or phases of the experience in learning. The phases occur in a consistent order and eventually display a thematic problem being worked on. For six of the eight participants the problem was how to behave and understand oneself as a self-directed learner in a professional educational setting where one expects to be directed and evaluated. For two of the learners it was the problem of how to be a helper to others' learning without having to be an infallible and *only* source of direction. In all cases, learners were

challenged to make a major reorientation in their assumptions and expectations about learning and teaching.

The four phases and the phase transition points through which this change of perspective occurred are briefly summarized as follows.

*Disconformation (Phase transition).* A major discrepancy between expectations and experience.

*Disorientation.* A period of intensive disorientation and confusion accompanied by a crisis of confidence and withdrawal from other persons who are associated with the source of confusion.

*Naming the problem (Phase transition).* Naming the problem without blaming self and others.

*Exploration.* Beginning with relaxation with an unresolved issue, an intuitively-guided, collaborative, and open-minded exploration with a gathering of insights, confidence and satisfaction.

*Reflection (Phase transition).* A private reflective review.

*Reorientation.* A major insight or synthesis experience simultaneous with a new approach to the learning (or teaching) task.

*Sharing the discovery (Phase transition).* Testing out the new understanding with others.

*Equilibrium.* A period of equilibrium in which the new perspective and approach is elaborated, refined and applied.

The sequence is most adequately represented as a cycle since the disorientation phase arises out of an experience of equilibrium similar to the final phase described here.

### *Experiences in SDL Early in Life and Combining with Andragogy in Later Times*

My two early experiences of Self-Directed Learning [SDL] took place before I knew there was such a thing as SDL. First, at three [3] years of age, I refused to say my piece during the church Christmas Program, although I had it definitely memorized to deliver. Second, I convinced a Theological Seminary Professor to allow me to take an Old Testament Book Study Course in place of taking an additional required semester course in Hebrew. I didn't realize until a few months ago that these two anecdotes exemplified SDL. However, our research instrumentation on this is based on more than just a couple of anecdotes. Guglielmino's (1978) study out of which was developed the Self-Directed Learning Readiness Scale [SDLRS] (later renamed "Learning Preference Assessment"); and, Henschke's (1989) andragogical Modified Instructional Perspectives Inventory [MIPI] are examples of our having researched in the respective areas of Self-Directed Learning and Andragogy. I believe that the SDLRS or LPA has been used in well into the hundreds of completed doctoral dissertations. The MIPI to the present in 2016 has been validated three times and used in 20 completed doctoral dissertations, as well as it is in progress of being currently used in at least 12 doctoral dissertations that are in the process of being completed. Copies of each may be considered for use in various research projects by contacting the author of each.

## Reciprocity Among Empathy, Trust, and Sensitivity Between Andragogues and Learners

Reciprocity of Empathy, Trust and Sensitivity. To be effective, an andragogue needs to combine the reciprocity of empathy, trust, and sensitivity in concert with the ability and potential of learners for the same, to understand the learning process and interact with facilitators effectively in making the right choices. This reciprocity takes the form of the facilitator initiating and maintaining the combination of three elements. Insensitivity may get in the way/block the process of modeling reciprocity of the three.

### Empathy- The andragogue:

- Feels fully prepared to teach;
- Notices and acknowledges to learners positive changes in them;
- Balances her/his efforts between learner content acquisition and motivation;
- Expresses appreciation to learners who actively participate; and,
- Promotes positive self-esteem in learners.

### Trust- The andragogue:

- Purposefully communicating to learners that they are each uniquely important;
- Believing learners know what their goals, dreams and realities are like;
- Expressing confidence that learners will develop the skills they need;
- Prizing the learners to learn what is needed;
- Feeling learners' need to be ware of and communicate their thoughts and feelings;
- Enabling learners to evaluate their own progress in learning;
- Hearing learners indicate what their learning needs are;
- Engaging learners in clarifying their own aspirations;
- Developing a supportive relationship with learners;
- Experiencing ill conditional positive regard for learners; and,
- Respecting the dignity and integrity of learners.

### Insensitivity- The insensitive educator (without reciprocity, leans toward insensitivity):

- Has difficulty understanding learner's point of view;
- Has difficulty getting her/his point across to learners;
- Feels impatient with learner's progress;
- Experiences frustration with learner apathy;
- Have difficulty with the amount of time learners need to grasp various concepts;
- Gets bored with the many questions learners ask; and,
- Feels irritation at learner inattentiveness in the learning setting.

### Sensitivity- The andragogue (with reciprocity, leans much more toward sensitivity):

- Makes certain to understand the learner's point of view
  - Takes pains and time to get her/his point across to learners
  - Exercises patience in helping all learner's progress
  - Overcomes any frustration with learner apathy
  - Will use whatever time learners need to grasp various concepts
  - Thoroughly allows learners to ask all questions they need addressed
  - Resists in her/himself any irritation at learner inattentiveness in the learning setting
- (Henschke, 1989; Henschke, 2014 b; Henschke, et al, 2015 b, c, d, & e).

### Dimensions of Maturing in Life

Henschke (2014a) at 83 years of age, includes both andragogy and SDL in developing his story on living a long, healthy life. He has used the following growth process in a self-directed way for a number of years. It follows a plan that Knowles developed for systematically functioning in life for adults and children at any stage of their maturing. Knowles (1959, 1970, 1980) contrasts what happens with learners in early stages and what happens with learners in the more maturing stages of life. The idea of maturity as a goal of healthy living within adult and community education and learning, needs to be divided into various dimensions, if it is to serve as a guide for facilitating continuous learning. Out of the psychological literature Knowles identified the notion that there are several dimensions of the maturing process in healthy living, each with its own unique cycle of development and growth. If the really critical dimensions of the maturing process could be listed, then adult and community education could have some yardsticks against which to measure the accomplishment of its mission which is to be accomplished in helping bring about healthy living. As a starting point, Knowles found the following fifteen dimensions of maturing provided in the list below which are nominated for consideration. (Note that these dimensions describe directions of growth, not absolute states of being to be achieved.). The movement of the learners on these dimensions would be:

From		Toward
Dependence	—————>	Autonomy
Passivity	—————>	Activity
Subjectivity	—————>	Objectivity
Ignorance	—————>	Enlightenment
Small abilities	—————>	Large abilities
Few responsibilities	—————>	Many responsibilities
Narrow interests	—————>	Broad interests
Selfishness	—————>	Altruism
Self-rejection	—————>	Self-acceptance
Amorphous self-identity	—————>	Integrated self-identity
Focus on particulars	—————>	Focus on principles
Superficial concerns	—————>	Deep Concerns
Imitation	—————>	Originality
Need for certainty	—————>	Tolerance for ambiguity
Impulsiveness	—————>	Rationality

Although no stage is completely fulfilled at any point in life, one would seek to move along the path of each dimension through SDL. Some educators would be more inclined to control and direct the person seeking a healthy and long life, thus seeking to maintain them in the earlier stage of each dimension. The andragogue (the adult educator who practices the art and science of facilitating adults in their learning for a healthy and long life) would be more inclined to support and encourage the person seeking to become more self-directed and creative in the solutions they are willing to experiment with and implement. Thus, they would be seeking to help each adult, and even each child, move forward through SDL toward the expanded enactment of an individual dimension or combination of dimensions in her/his maturing and developing healthy living. Of all the dimensions, most important with the author at this time centers in developing deep concerns within himself and doing it in a SDL way.

### **On Becoming and Continuing to Be A Winner in Life**

**From my background, I have had a tendency in my life to be a bit pessimistic. So, to overcome this inclination, I have developed the Self-Directed Learning habit to practice consistently some of what Waitley (circa, 1988) suggests, a system for living which he calls qualities of a total winner – he has ten of them. It all has to do with the ‘self’ of the person who would be a winner in life. These qualities are all involved with growth/learning, which when combined with the self, could be aspects of self-direction in learning, or ‘self-directed learning’. In one adopting attitudes and implementing actions, there is learning that takes place on the part of the person in adopting or implementing. Since Knowles (1970) suggests that learning is an internal process, it is and has to be chosen by the person internally and not dictated or governed by someone other than the self-the person. So, Waitley’s ten qualities are paired with five personal attitudes, which lead into five personal actions. *First*, the **attitude of self-expectancy** is expressed as: ‘I was good today; I’ll be better tomorrow’. *Second*, this attitude leads to the **action of self-motivation** and is expressed as: ‘want to...and I can’! *Third*, the **attitude of self-image** is expressed as: ‘I see myself changing, growing, achieving, and winning’. *Fourth*, this attitude leads to the **action of self-direction** and is expressed as: ‘I have a plan to make it happen; and, I’ll do what is necessary to get what I want’. *Fifth*, the **attitude of self-control** is expressed as: ‘I’ll take the credit or the blame for my performance’. *Sixth*, this attitude leads to the **action of self-discipline** and is expressed as: ‘of course I can do it; I’ve practiced it mentally a thousand times’. *Seventh*, the **attitude of self-esteem** is expressed as: ‘I do things well because I’m that kind of person’. *Eighth*, this attitude leads to the **action of self-dimension** and is expressed as: ‘I live every moment, enjoying as much, relating as much, doing as much, giving as much as I possibly can’. *Ninth*, the **attitude of self-awareness** is expressed as ‘I know who I am, where I am coming from and where I am going’. *Tenth*, this attitude leads to the **action of self-projection** and is expressed as: ‘tell me what you want, maybe we can work on it together’. This frame takes constant concentration and attention. One reason is that as human beings, it is too easy to slip into the negative side and think we can’t do anything correctly. Nonetheless, as this frame becomes habitual, we move ourselves forward quite positively. Besides, the connection of attitudes leading to actions, serves to strengthen self-directed learning. It is not only surprising, but also encouraging to experience the positive results of speaking winning ideas into one’s life.**

### **Using an Andragogical Self-Directed Learning Model with Medical Education**

**Ramnarayan and Hande (2005) indicate that Self-directed learning (SDL) has been identified as an important skill for medical graduates. To meet the challenges in today's healthcare environment, self-directed learning is most essential. Several health care institutions have made SDLs a part of the curriculum. In self-directed learning, learners take the initiative in making use of resources rather than simply react to transmissions from resources, thus helping learners to learn more and learn better. The main purpose of education must now be to develop the skills of inquiry, and more importantly to go on acquiring new knowledge easily and skillfully the rest of his or her life.**

**The concept of self-directedness in learning was first discussed in educational literature as early as 1926 (Lindenman). From this writing, a preliminary description of self-directed learning emerged. Self-directed learning, in its broadest meaning, describes a process in which individuals take the initiative with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing and implementing learning strategies and evaluating learning outcomes (Knowles, 1975). It is no longer practical to define the purpose of education as transmitting what is known. In a world in which the half-life of many facts and skills may be ten years**

or less, half of what a person has acquired at the age of twenty may be obsolete by the time the person is thirty.

One may ask a question such as: Why Self-Directed Learning? One reason is that there is convincing evidence that people who take the initiative in learning, learn more things and learn better than people who sit at the feet of teachers passively waiting to be taught. The second reason is that self-directed learning is more in tune with our natural processes of psychological development; an essential aspect of maturing is developing the ability to take increasing responsibility of our own lives to become increasingly self-directed. The third reason is that many of the new developments in education put a heavy responsibility on the learners to take a good deal of initiative in their own learning. To meet the challenges in today's healthcare environment, self-directed learning is most essential.

Thus it is important to attain new knowledge easily and skillfully the rest of his or her life. Lifelong, These folks use the andragogical approach for Self-Directed Learning originally designed by Knowles (1975), which carries with it the six assumptions and eight processes originally formulated in Knowles' conception of andragogy. Self-directed learning (SDL) has been identified as an important ability for medical graduates (Harvey, 2003).

**Providing the Forward to the Italian Translation of Malcolm's Self-Directed Learning Book**

It is a high honor and privilege to be asked to provide the 'forward' to the Italian translation of Malcolm's Self-Directed Learning Book. It took extensive thought to make certain I would do it justice. Here is a part of it (Henschke, 2014).

**SELF-DIRECTED LEARNING: A GUIDE FOR LEARNERS AND TEACHERS**

**By Malcolm S. Knowles**

**Introduction to the Italian Translation of the Book to be published**

**by John A. Henschke**

*Malcolm S. Knowles stands as a giant catalyst at the juncture – past, present, and future – of andragogy (the art and science of helping adults learn) and self-directed learning (taking increased responsibility for one's learning) within the field of Adult Education and Human Resource Development. \*Note: Malcolm considered andragogy to be his overarching concept of adult learning and self-directed learning as the strategy for implementing andragogy. I began learning with Malcolm more than 47 years ago at this writing in 2014, and in many ways have continued even to the present day. I anticipate that my learning with him will continue for many years to come. Though decades have passed, I can recall my first learning experiences with Malcolm S. Knowles as if it occurred yesterday. (He always liked everyone to call him Malcolm.) I remain captivated by each of my experiences of learning with Malcolm for a variety of compelling reasons.*

For more than 50 years until his death in 1997, Malcolm devoted his personal and professional life to exemplifying the theory and practice of andragogy and self-directed learning: as a speaker to audiences of 10,000 or less; as a university professor with a multiplicity of adult learners (his students); as a consultant to numerous institutions and corporations in countries around the world; as a writer of 19 books and 225 articles; and, as a very caring human being for any person with whom he happened to be meeting. I observed him being sought out at national conferences, studied with him in my doctoral program, and worked with him in various educational settings. Malcolm was just Malcolm

through and through. Eight successfully defended doctoral dissertations have been written about various aspects of Malcolm's work in andragogy. I believe Dusan Savicevic, a University Professor from Belgrade (from whom Malcolm received the concept of andragogy) is right when he said that the world-wide history of andragogy will put Knowles on a meritorious place in the development of this scientific discipline.

### **My Personal Experience of Learning Andragogy & Self-Directed Learning with Malcolm**

My personal and professional learning relationship with Malcolm that blossomed and came to flower over the years started in 1967. During the summer of that year I made preparations to move in September, half way across the USA from Jacksonville, Illinois, to Boston, Massachusetts with my pregnant wife, Carol, and two daughters in our automobile pulling a U-haul trailer. Also during the summer of 1967, Malcolm convened an impromptu doctoral admittance committee meeting and approved my application for officially starting in the program that fall semester. From that beginning, I was the beneficiary of a series of actions by Malcolm who consistently expressed a caring attitude toward students. Such caring was a miracle to me and I was deeply touched. I was learning in the core of my being.

The second night after my arriving at Boston University [BU], Malcolm invited all the Adult Education students to an informal gathering to talk and share. He asked each of the approximately 25 people present to tell about his/her background, how he/she came to BU, what each hoped to gain from the program and anything else each wished to share. When it came my turn to share, one aspect of myself I indicated was that I was taught in my Christian upbringing that the days of miracles had passed immediately after the generation that Jesus Christ and the Apostles lived on earth. Nevertheless, I already experienced the miraculous when Malcolm's efforts led to my becoming a doctoral student at BU. Here I was, not as yet in a formal class with Malcolm, and I had already experienced learning with him. Katz and Lazarsfeld (1955) explained this in their research suggesting that it is the personal relationship that teaches.

### **Three Anecdotes that Bolster My View of the Complement Between Andragogy & SDL**

Combs (1966) fosters a movement toward self-direction in learners by outlining four things that are needed: 1. We need to believe this is important, 2. We need to trust the human organism to be able and willing to self-direct, 3. We need to adopt an experimental attitude toward supporting them as they learn [and make some mistakes as well as successes] to and grow in self-directing, and, 4. We need to provide the opportunity to practice and become very competent in self-direction.

Niebuhr's (1981) paradigm shift leans very much toward what he asserts Coherence – a balanced way of life – is a species requirement. However, he cautions that the agencies that once provided it have been disintegrating. Nonetheless, he identifies some promising strategies and ventures: Two Constructs, and Three Tasks are necessary in order to improve the human learning system paradigm. First, the Two Constructs: 1. It is time to conceptualize, comprehend, and make the human learning system an object of policy and program. 2. It is also time to conceptualize, comprehend, and specify in broader yet more explicit terms the individual's role and responsibility within the human learning system. He proposes that *self-directed development* be used to describe the individual's learning tasks in achieving a coherent and balanced strategy or theory of living. To this he adds that the construct of the human learning system is a useful reminder to: a. all the institutions and professions in the system that they are part of a larger societal process; and, b. individuals of their personal responsibility in the process of constructing and living their lives. Second, the Three Tasks which flow from the two constructs: 1. Educating the citizenry on self-directed development; 2. Adjusting institutional processes to support self-directed

development; and, 3. Developing institutional coalitions to synergize the process at the local level.

Savicevic (2008), although he disagreed at an earlier time with Knowles' take on Andragogy, later he made this telling statement: "Forty years in development of a science is not a long nor ignorable period. I met Professor Knowles four decades ago and argued on terms and on concept of andragogy. Since then, the term and the concept of andragogy have enlarged and become rooted in the American professional literature. There is no doubt that Knowles contributed to it, not only by his texts, but with his spoken word and lectures. He was a 'masovik', i.e. a lecturer at mass events. He told me that he lectured at 10,000 visitor stadiums. As if he was inspired by an ancient agonistic spirituality! His contribution to dissemination of andragogical ideas throughout the USA is huge. The history of andragogy will put him on a meritorious place in the development of this scientific discipline."

### CONCLUSIONS

Savicevic (2008) puts forward a sweeping, panoramic view of the foundation and history of andragogy, which he traces back to ancient times before the common era [BCE], or as some call it, times before Christ [BC]. Henschke (2014b, and 2015b) extensively addresses 17 eras of the history, philosophy and six major themes of andragogy, which stems back to ancient BCE times. Other things have been included in this review and analysis. Moreover, I could continue on extensively by bringing in the comparisons and complementary relationship between Andragogy and Self-Directed Learning. Time and pace will not permit us to do it here. Nonetheless, I will continue this venture for some time to come. This is my first attempt; but it will not be my last. I am firmly planted in both Andragogy and SDL. For that I am extremely grateful and privileged to do this work.

Savicevic (2012) asserts that research in andragogy can't be reduced to research techniques. He suggests, rather almost insists, that the theoretical and philosophical need to undergird research techniques, methods and procedures – such as spiritual values, aims of education, learning, conceptions of an adult person, andragogical ethical reflection of theory and practice. My research on andragogy exemplifies this. I am not aware if SDL has proposed such a point of view. I offer that as someone who has worked in both, and Malcolm S. Knowles, one of the major movers and shakers in both, I agree with Malcolm's proposing that andragogy is the overarching concept related to adult learning; and, that SDL is the most important way of enacting andragogy – a complementary relationship between the two – Self-Directed Learning and Andragogy.



## REFERENCES

- Cercone, K. (2008). Characteristics of Adult Learners with Implications for Online Learning Design. *Association for the Advancement of Computing in Education (AAACE) Journal*, 16(2), 137-159.
- Combs, A. W. (1966). Fostering Self-Direction. *Educational Leadership*. 23, 373-387.
- Comenius, J. A. (1910). *The Great Didactic* 2<sup>nd</sup> edn. (M. Keating trans) (London: A & C Black.
- Guglielmino, L. M. (1978). Development of the *Self-Directed Learning Readiness Scale*. (Doctoral dissertation, University of Georgia, 1977). *Dissertation Abstracts International*, 38, 6467A.
- Harvey, B. J.; Rothman, A. I.; and Frecker, R. C. (2003). Effect of An Undergraduate Medical Curriculum on Student's Self-Directed Learning. *Academic Medicine*, 78(12): 1259-1265.
- Henschke, J. A. (1989). Identifying Appropriate Adult Educator Practices: Beliefs, Feelings and Behaviors." *Proceedings of the Eighth Annual Midwest Research-To-Practice Conference in Adult, Continuing and Community Education*. St. Louis, MO: University of Missouri, 1989.
- Henschke, J. A. (1998). Historical Antecedents Shaping Concepts of Andragogy: A Comparison of Sources and Roots. *Paper Presented to the Third International Conference on Research in Comparative Andragogy*. Bled, Radlovjica, Slovenia, 1998.
- Henschke, J. A. (2004). How to Teach Adults. *Presentation to Small Business Development Center Specialists, University of Missouri Outreach/Extension, Jefferson City, MO, February, 2004*.
- Henschke, J. A. (2014). Introduction to the Italian translation of *Self-Directed Learning: A Guide for Learners and Teachers* by Malcolm S. Knowles. *Introduction by John A. Henschke from page 21-31*. (2014). Translation from English into Italian by Mario Giampaolo. FrancoAngeli s.r.l. Milano, Italy.
- Henschke, J. A. (2014a). A Personal Perspective and Learning Experience on Living a Long, Healthy Life. Chapter 20: 368-388. DOI: 10.4018/978-1-4666-6260-5. Ch-20. *Ed. Vol. by VCX Wang*.
- Henschke, J. A. (2014b). Extensive Recent Discoveries in the 2014 Update of Global Historical and Philosophical Andragogical Perspectives. *An Unpublished Paper Presented at the Commission of Professors of Adult Education [CPAE] Conference, Charleston, SC. 141 Pages*.
- Henschke, J. A. (2015a). Introduction to the Italian Translation of Knowles' Book [Entitled '*Self-Directed Learning: A Guide for Learners and Teachers*'] Published in Italy under the auspices of University of Padua.
- Henschke, J. A. (2015b). Focusing on the Six Major Themes in the Global Perspective of Andragogy: A June 2015 Update. *An Unpublished Paper*. St. Charles, Missouri: Lindenwood University. 132 Pages.
- Henschke, J. A. (2015c). Andragogy – Growing in Strength and Expanding its Reach into New Territory: A 2015 Update.” (Co-Authored with Dr. Susan Isenberg and Ms. Somanita Kheang.) *Unpublished paper as a Presentation to the Commission of Professors of Adult Education [CPAE] Conference. Oklanoma City, OK: 11/20/15. (158 pages)*.
- Henschke, J. A. (2015d). The Evolving, Revolutionizing Influence of Linking Organizational Learning with Trust, Empathy, Sensitivity in the Workplace: An Andragogical Approach. *Co-Presentation Made with Somanita Kheang at the 2015 American Association for Adult and Continuing Education Conference. Oklahoma City, OK. 11/20/15*.

- Henschke, J. A. (2014e). *Andragogical Curriculum for Equipping Successful Facilitators of Andragogy in Numerous Contexts*. [Eds.] Victor C.X. Wang and Valerie C. Bryan. *Andragogical and Pedagogical Methods for Curriculum and Program Development*. Hershey, PA: IGI Global –Disseminator of Knowledge since 1988, Chapter 8. March, 2014, Pp. 142-168.
- Katz, E., and Lazarsfeld, P. (1955). *Personal Influence*. New York: The MacMillan Co.
- Knowles, M. S. (1959 & 1961). *Maturation as a Guide to Learning: A Multi-Dimensional Approach to Liberal Education\** [\*NOTE: Paper given before Council of National Organizations, Trainers' Consultation, November 23, 1959, New York City, Reprinted with Permission of the Author.] *Leadership in Voluntary Enterprise* [Ed. Charles W. Merrifield]. New York: Oceana Publications, Inc. (1961).
- Knowles, M. S. (1970). *The Modern Practice of Adult Education: Andragogy vs. Pedagogy*. New York City: Association Press.
- Knowles, M. S. (1975). *Self-Directed Learning: A Guide for Learners and Teachers*. Chicago: Follett Publishers.
- Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy (Revised Edition)*. Englewood Cliffs, NJ: Cambridge Book Company.
- Knowles, M. S. (1990). *Making of An Adult Educator: An Autobiographical Journey*. San Francisco: Jossey-Bass Publishers.
- Lindenman, E. C. (November, 1926). *Andragogik: The Method of Teaching Adults. Workers Education*. 4, 38.
- Mezirow, J. (1981, Fall). *A Critical Theory of Adult Learning and Education. Adult Education*, 32(1). 3-24.
- Niebuhr, H. Jr. (1981, January). *Teaching and Learning in the Eighties: The Paradigm Shifts*. Phi Delta Kappan.
- Ramnarayan, K.; and Hande, S. (2005). *School of Education at Johns Hopkins University – Thoughts on Self-Directed Learning in Medical Schools: Making Students More Responsible*. *New Horizons for Learning*. September, 2005
- Savicevic, D. (2000). *Koreni I Razvoj Andragaskih Ideja (Beograd: Institut za pedagogiju i andragogiju)*.
- Savicevic, D. (2008). *Convergence or Divergence of Ideas on Andragogy in Different Countries. International Journal of Lifelong Education*, Vol. 27, NO. 4 (July-August 2008). 361-378.
- Savicevic, D. (2012). *Research Problems in Andragogy: Comparative Considerations*. In (Eds. Bron Jr, M., and Reischmann, J.). *Proceedings of the International Society of Comparative Adult Education (ISCAE) Conference; Las Vegas, NV 2012*, 203-211.
- Suanmali, C. (1981). *The Core Concepts of Andragogy. (Unpublished Doctoral Dissertation)*. Columbia University Teachers College, New York City, Dissertation Abstracts International. University Microfilms no 8207343.
- Taylor, M. (1986). *Learning for Self-Direction in the Classroom: The Pattern of a Transition Process. Studies in Higher Education*, Vol. 11, No. 1, 1986, pp. 55-72.
- Waitley, D. (circa, 1988). *The Psychology of Winning: Ten Qualities of a Total Winner*. Phoenix, AZ: The Waitley Institute. \_\_\_\_\_

-----

[Paper Presented to the 2016 Symposium of the International Association for Self-Directed Learning, Cocoa, FL, February, 2016.]

**John A. Henschke Ed. D.**  
**Past Chair, 2016 Board of Directors - International Adult and Continuing Education Hall of Fame (IACEHOF)**

-- MORE --

**Associate Professor of Education, Chair of the Andragogy Doctoral Emphasis Specialty  
Instructional Leadership Doctoral (Ed.D.) Program School of Education  
Lindenwood University Warner Hall -- Upper Level,  
209 South Kingshighway, St. Charles, MO 63301 - 1695 USA**

**Phone: 636-949-4590 (o); 314-651-9897 (c); Fax: 636-949-4739 E-**

**Mail: [jhenschke1@lindenwood.edu](mailto:jhenschke1@lindenwood.edu)**

**Andragogy Websites:**

**<http://www.lindenwood.edu/education/andragogy> <http://www.umsl.edu/~henschke>**

**John's Research Publication Websites at:**

**[http://works.bepress.com/john\\_henschke](http://works.bepress.com/john_henschke)**

**<http://trace.tennessee.edu/cgi/myaccount.cgi?context=>**