

Andragogy and Motivation: An Examination of the Principles of Andragogy through Two Motivation Theories

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Andragogy, originally proposed by Malcolm Knowles, has been criticized as an atheoretical model. Validation of andragogy has been advocated by scholars, and this paper explores one method for that process. Current motivation theory, specifically socioemotional selectivity and self-determination theory correspond with aspects of andragogy. In conjunction, these two theories could be used to test and validate the model. This paper explains the correspondence of the motivation theories with andragogy and proposes a process for validation.

Keywords: Andragogy, Motivation, Adult Learner

Malcolm Knowles' principles of andragogy have been at the core of adult learning since the theory was put forward over 30 years ago. In that time, both strong detractors and strong supporters have emerged. Detractors often point out the inconsistencies in the model (e.g. Hartree, 1984) as a problem, while supporters recount the utility of the model as an overriding virtue. Knowles discusses andragogy in the context of psychological theory (Knowles, Holton & Swanson, 1998) but relies on older theories, such as ones from Abraham Maslow, Kurt Lewin and B.F. Skinner. Using these models as anchors fuels the detractors from the post-modern camp that claim that Knowles' model is an artifact from a mechanistic intellectual frame (e.g. Grace, 1996). Connecting andragogy to more recent psychological theories can resolve this concern.

Recent research in psychology has by necessity been developed with a certain resistance to post-modern critiques. Several factors contribute to this: thorough subject selection to avoid confounding results with race, age, gender or socioeconomic factors; an understanding of the post-modern principles of dialectic discourse and sometimes an application of those principles in development of theory; and a greater reliance on empirical research aided by more sophisticated statistics which enable difficult concepts to be analyzed. Although not making the research immune to criticism, these factors improve the robust nature of more recent psychological findings.

Andragogy, with its focus on the individual and a concern about learning, teaching and adult development has many parallels with psychology. These parallels need to be narrowed down in order to discern which theory is relevant. Because andragogy is concerned about learning, cognitive psychology is a relevant field. Given that the context of andragogy is the relationship between a learner and an educator, social psychological theories are relevant. The significance of adult learning contrasted with child- and adolescent learning makes developmental psychology relevant. However, one track of psychological research seems extremely pertinent to the andragogical model. This track has roots in cognitive psychology, social psychology and developmental psychology. The research track in question is motivation. The research in motivation corresponds to andragogy in many ways. Most directly, andragogy has motivation as one of its six principles. Upon deeper examination, motivation plays an implicit role in the other five principles as well. In particular, two current theories provide insight into andragogy and a potential for validating the model. Self-determination theory is a needs-based theory that proposes an inherent growth drive centering on three core needs. Autonomy, competence and relatedness are all relevant to andragogy. Socioemotional selectivity theory focuses on individuals' relationship with time, goals and emotions. The core of this theory centers around the impact of age on choosing between goals focused on knowledge and goals focused on regulating emotions. This distinction is directly relevant to andragogical principles. This paper will show that these two theories relate to andragogy in a way that will enable closer examination and validation of andragogy.

Before reviewing the literature and examining andragogy through the lens of that literature, a point about the nature of andragogy needs to be acknowledged. Andragogy is an atheoretical model and as such, is based on observation and experience, rather than logical postulates and/or empirical research. This is, indeed, part of the model's vulnerability to critics. The intent of this review is to use theoretical support from the motivation literature to strengthen andragogy. This can be seen as a first step in the process Davenport and Davenport (1985) suggest of resolving andragogy through empirical testing, as much of the theory to be discussed has been empirically researched. Moreover, combining Davis and Davis's (1998) opinion of the benefit of a more theoretical field of

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human resources development and Brookfield's (1986) opinion that andragogy is the most popular model in adult learning leads to the conclusion that connecting andragogy to theory is an endeavor that can further the field of Human Resources Development.

Theoretical Framework: Motivation Theories and Andragogy

Before looking at the individual principles of andragogy, one key facet of the model must be examined. Underpinning the model of andragogy is the idea that adult and children are different. This is a key supposition in dismissing pedagogy for andragogy. Socioemotional selectivity has a method for delineating adults and children that is relevant to andragogy.

Socioemotional selectivity is concerned with the choice between differing types of goals. The factor that mediates the choice of one type of goal over the other is an individual's perspective on whether future time is constrained or expansive. This future time perspective is seen to vary with age: as a person grows older, time becomes more constrained because the reality of death becomes increasingly imminent. Therefore, an individual in their adolescent years is likely to have an expansive future time perspective, while the same individual in their old age will have a more constrained future time perspective (Carstensen 1987, 1991). However, future time perspective is not seen to co-vary with age as "time from birth" but rather co-varies with age more appropriately as "proximity to death". A study by Carstensen and Fredrickson (1998) illustrate this principle: HIV positive individuals tended to react in the same manner as senior citizens.

Socioemotional selectivity and self-determination theory each lend perspective core principles of the model of andragogy. Currently, there are six core principles of andragogy expressed by Knowles, et al. (1998). Four were originally proposed and the other two were added more recently in 1980 and 1999. The principles of andragogy are described as important "assumptions about adult learners" (Knowles, 1980). As mentioned earlier, one of these principles refers directly to the motivation of adult learners. Although the principles are consistently presented in a precise order, with one of the newer principles added to the beginning of the list and one added to the end, no explicit reason for the order is given, and the principles each have an internal integrity that suggest they can stand in any order and not lose their intended meaning. With this in mind, the examination of andragogy will start with the principle of motivation, as motivation theory is most clearly pertinent to it. Afterwards, the conventional order as presented by Knowles, et al. (1998) will be followed. Due to the confusion and potential misinterpretation that can accompany one-line summations of the principles of andragogy, (as discussed in Swanson and Holton, 2001) From this point, the principles will be referred to by either the number or italicized reference for them in Knowles, et al. (1999).

Motivation

The sixth principle of andragogy relates to motivation. The assumption about adult learners in this principle is that "while adults are responsive to some external motivators (better jobs, promotions, higher salaries, and the like) the most potent motivators are internal pressures (the desire for increased job satisfaction, self-esteem, quality of life, and the like)." (Knowles, et al., 1998, p. 68) This straightforward assumption is readily supported by self-determination theory. Self-determination theory has been developed by Deci and Ryan as a model for understanding human motivation (1985, 1991, 2000; Ryan, 1993, 1995). Self-determination theory states that individuals have a basic drive toward growth as humans and that the needs for autonomy, relatedness, and competence are at the core of this drive. These three basic human needs of self-determination theory are intrinsic needs. Reviews of intrinsic motivation research (Deci & Ryan, 1985; Koestner & McClelland, 1990) articulate some general principles regarding the facilitation of internally motivated behaviors. Numerous studies have shown that these behaviors are most likely to occur under conditions that support perceived competence, such as challenging contexts and positive feedback, as well as those that support perceived autonomy, such as opportunities for choice and the absence of external rewards or controls. Hence, autonomy and competence are need drivers. The final drive, relatedness, is a drive to feel satisfied with involvement with other people. This need is based on social involvement, independent of task success or failure (Reis, et al. 2000) and can even occur when an individual is isolated and only perceives themselves as related (Ryan and Deci 2000).

Self-determination theory gives support to adults being motivated by internal urges. However, one aspect of self-determination theory conflicts with an important premise of andragogy. It is that self-determination theory asserts that intrinsic motivations are more effective motivators for all humans, including children. Although Knowles (1984) acknowledges the potential for andragogy to apply to some children as well as most adults, a clear understanding of when andragogy is appropriate, rather than pedagogy, is not provided by examining the motivation principle through the lens of self-determination theory.

Socioemotional selectivity theory speaks to the problem of differentiating adults and children, but does not resolve this problem in the context of motivation completely. Socioemotional selectivity focuses on an individual's relationship with time, goals, emotion and social networks. Carstensen (1987, 1991, 1992, 1993, 1995; Carstensen, Isaacowitz & Charles, 1999) originally proposed socioemotional selectivity in the context of understanding social networks in old age. The theory has expanded to include concepts of time perspective, the nature of goals and differentiation through the lifespan. Intrinsic motivation, at least its existence, is a core principle of socioemotional selectivity theory (Carstensen, et. al., 1999). Socioemotional selectivity also asserts that as an individual ages, they are more motivated by emotional regulating needs than knowledge related needs. Unfortunately, this distinction, while it suggests different impact of different motivators for adult and children, does not discriminate between intrinsic and extrinsic motivations but between two different types of intrinsic motivations. Thus, while socioemotional selectivity theory does provide a ground to think of adults and children differently which is useful in some of the other principles of andragogy, its utility does not fully extend to this principle.

They Need to Know

The first principle of andragogy, following the conventional listing, is *they need to know*. "Adults need to know why they need to learn something before undertaking it." (Knowles, et. al., 1998, p. 64) An adult, when learning on their own, spends a large amount of energy and time trying to understand the value of the new learning; either the benefit from learning or the consequence of not learning. The adult learner needs either to be told or, even better, to be led to discover why certain knowledge is worth learning.

The role of motivation in this principle is simply stated. Not knowing why learning something is important is associated with a state of low or no motivation. This relationship of motivation and understanding the consequences of an action, in this case learning, is also considered in self-determination theory. In the continuum of motivations, where intrinsic motivation is the most autonomous, amotivation is the least autonomous. Amotivation is characterized as acting either without intention (i.e. accidents) or with barely enough intention to perform a task. (Deci & Ryan 1985) Amotivation is the root of individuals 'going through the motions' but minimally engaging in an activity. Amotivation can be overcome in several ways. Two ways that are discussed by Ryan (1995) are making clear the connection between an action and desired outcomes, and making clear the individual's ability to accomplish the task. To rephrase this statement in the context of adult learning, an adult learner will be brought from no motivation (amotivation) to motivation in regard to learning something by making clear to her that the learning is connected to goals she values and making clear her ability to learn the material. Making clear the connection between learning something and a goal is an ideal example of telling an adult why they need to know something.

The Learner's Self Concept

The second principle of andragogy states: "Adults have a self concept of being responsible for their own decisions, for their own lives." (Knowles, et. al., 1998, p. 65) Andragogy asserts that adults have a need to be self-directing, and that often when engaging in education they see this need being unfulfilled. This perception is due to old social dynamics remembered from learning as a child, and is sometimes unintentionally reinforced by the educator. The violation of this principle, and the psychological conflict it causes for the learner, helps andragogy explain high drop out rates among adult learners.

The definition of autonomy in self-determination theory is a desire to be the origin and cause of their own behavior. The similarity between andragogy's assertion of learner's self-concept and the definition of this basic need in self determination theory is readily evident. Both ideas are about self-control in regard to decision or behavior. In the case of self-determination theory, autonomy should not be confused with individualism. Individualism is characterized by being independent and solitary. In contrast, Ryan and Deci clarify autonomy as a "feeling that can accompany any act, whether dependent or independent, collectivistic or individualistic" (2000, p. 74). As such, both *the learner's self concept* and autonomy suggest that an individual feels that one has choice regardless of the social context. Given this similarity, cross-cultural research in self determination theory that found a positive relation between autonomy and collectivistic attitudes (Kim, Butzweil and Ryan 1998) may hold true for andragogy, and argue for the utility of the model in collectivist cultures. This would bolster andragogy against criticisms some have raised about the perspective andragogy takes on the individual and their context (Merriam and Caffarella, 1999).

Again, self-determination theory causes a problem in that autonomy is a basic human need, not a basic adult need. Fortunately, socioemotional selectivity theory provides insight into differences among age groups that is more pointed in this case than for the previous andragogical principle. According to socioemotional selectivity theory, adults are more likely to pursue certain types of goals than children.

Socioemotional selectivity focuses on two, broad, functional categories for motivational goals: goals related to the acquisition of knowledge and goals related to the regulation of emotion. Both of these goals are seen in a social

context. Knowledge related goals can be concerned with the acquisition of specific information, such as how to change a tire, or they can be concerned with gaining general information about an individual's environment, social context, or some other system, such as how the highway system works. Observation, direct instruction and indirect instruction through various media such as books and the internet, play a central role in how individuals gain knowledge about social and instrumental matters (Carstensen, et. al., 1999). The category of emotion regulating goals is broadly concerned with regulating the emotional state through interaction with others. The category of emotion regulating goals is broadly concerned with regulating the emotional state through interaction with others. If focused on specific emotions, an individual's motive may be to avoid negative emotional states or engage in positive states (Tompkins, 1970). If the goal is focused on systemic emotional regulation, an individual's motive may be a desire to find meaning, to feel emotionally connected to a group, or to taking responsibility for future generations (Lang and Carstensen, 2002).

Both of these categories, knowledge related goals and emotion regulating goals, are seen as equally valuable and equally important to any given individual. The factor that mediates the choice of one type of goal over the other is an individual's perspective on whether future time is constrained or expansive. This future time perspective is seen to vary with age: as a person grows older, time becomes more constrained because the reality of death becomes increasingly imminent. Therefore, an individual in their adolescent years is likely to have an expansive future time perspective, while the same individual in their old age will have a more constrained future time perspective (Carstensen 1987, 1991). The specific findings that are repeated throughout the research on socioemotional selectivity theory is that when future time perception is constrained, emotion regulating goals are preferred, and when future time perception is expansive, knowledge related goals are preferred. (Carstensen, et. al., (1999) gives an extensive review of the research done prior to 1999.)

Adults are more likely to pursue emotional regulating goals, while children are more likely to pursue knowledge related goals. (Fang & Carstensen, 2002) Knowledge related goals are about future potential, emotional regulating goals are present focused. The nature of the autonomy need is a present-focused need. Even in the pursuit of education, adults feel an urge to be responsible for themselves. Where younger people are willing to forgo some autonomy in order to pursue knowledge, adults are not looking to exercise autonomy at the current time of a class while learning new knowledge.

Role of the Learner's Experience

The third principle of andragogy is the *role of the learner's experience*. This principle proposes that adults have more experience and more diverse experience than children. As a consequence, the learner's experience is a valuable resource in the classroom. This principle is not directly related to motivation the way the other principles of andragogy are. However, the implications of ignoring this principle have considerable impact on an adult learner's motivation. This implication is one that Knowles, et al. (1998) call "subtle"(p.66) because it involves experience as a part of the person as a whole, rather than in its own regard. Knowles, et. al. acknowledges that children have experience as well, but the relationship between the adult and their experience is different than the relationship between the child and their experience. An adult derives self-identity from their experiences, where a child's identity tends to come from social connections, e.g. family, school, or sports teams. Because of the integral nature of prior experience to the identity of the adult learner, when their "experiences are ignored or devalued, adults will perceive this as rejecting not only their experience, but rejecting themselves as persons." (Knowles, et al. 1998, p. 67)

The detrimental effect of rejecting an adult learner's experience can be understood through self-determination theory. Self-determination theory can give support to the assertion of regarding the connection between experience and self-image. The dynamic of the learner wanting their experience to be valued can be seen as a combination of the competence and relatedness needs. The need for competence encompasses the desire to experience having an effect on one's environment (White, 1963) and the desire to control the outcomes of one's behaviors. A learner's prior experience is likely to be full of memories of activities that fulfilled the competence need. These experiences will be in multiple domains, both relevant and not relevant to the classroom. When an educator rejects this experience, devaluing it as Knowles, et al. describe, that undermines the competency need. The relatedness need is one reason for this dynamic. Relatedness refers to an individual's desire to feel satisfied with their involvement with others in a general sense, and more specifically to individual's striving to relate to and care for others and to have others authentically relate to and care for them. (Deci and Ryan, 1985) In this case, the relationship with the instructor can cause the individual to question the value of their experience. This can cause a conflict between the relatedness need and the competency need. This conflict is an example of cognitive dissonance, a mental state that individuals try to avoid. (Festinger, 1957). If they cannot avoid it, individuals tend to discount one or the other idea. Because of this dissonance between an adult's past experience and the instructor's negative reaction to it, valuing past experience avoid the problem of either the instructor or the past experience being discounted.

Readiness to Learn

The next principle in order is the *readiness to learn*. Andragogy assumes that adults are living their lives while learning. The contexts of life-demands lead adults to prioritize different learnings at different points. At any given point in life, adults are “ready to learn those things they need to know and be able to do in order to cope effectively with their real-life situations.” (Knowles, et al. 1998, p. 67) Andragogy suggests that real-life situations are major, contextual situations. Examples they give include workers not being ready to learn supervisory skills until they are called to supervise and a woman not ready to learn about infant nutrition until an infant is imminent.

Socioemotional selectivity theory’s categorization of goals in to future-oriented, knowledge related goals and present-oriented, emotion regulating goals gives a framework to explain the mechanics of this principle. As future time perspective shortens, adults become more inclined to pursue emotion regulating goals, which are present focused. Note that emotion regulating goals are not necessarily about feeling happy, but rather about achieving a positive state in the present. With the more expansive time frame perspective of a child, knowledge related goals are more likely to be pursued (Carstensen, et al., 1999). *Readiness to learn* is a matter of adults having more psychic energy around goals that are present-focused and satisfy current needs than goals that are future-focused and based on acquiring knowledge. Because of the energy focus on current-over-future, the worker in the example above would likely be spending time in the supervisory skills class thinking about and possibly working out how to manage a problem with her current workload or scheduling rather than learning the presented skills.

The self-determination theory need of autonomy could play a part in the readiness to learn principle as well. Real-life situations are likely to pressing concerns for the adult learner. If not pressing, at least interesting. An adult learner would like to feel that she is choosing to study a particular topic instead of being forced to study it. With this consideration, an adult learner is likely to be more motivated to learn if they choose the topic, and socioemotional selectivity theory suggests they would be more likely to chose a topic that is relevant to a current problem.

Orientation to Learning

The final principle of andragogy is *orientation to learning*. Andragogy proposes that adult learners are life-, problem-, or task-centered in their approach to learning. Each of these three orientations has been proposed through the years, but they are in essence the same. In fact, they arguably build on each other: task-centered would be considered most effective if the task is relevant to an important problem, and problem-centered would be most motivating when that problem is a life issue, rather than a trivial issue. Andragogy considers all three of these orientations likely for adults, and a fourth orientation, content-focused, more likely for children. Knowles et. al (1998) emphasize the importance of orientation to learning by describing the poor impact of reading programs that were disconnected from life experiences and life problems and the powerful impact of those same programs after the administrators connected them to the learners’ context.

This principle is very similar to the previous one, readiness to learn. Many of the underlying dynamics are the same and accordingly much of the discussion of how socioemotional selectivity theory is evidenced in readiness to learn is appropriate for orientation to learning. However, there is a key difference between the two principles. Where readiness to learn focuses on engaging the adult learner to learn, orientation to learning focuses on engaging the adult learner *as they learn*. In this case, knowledge-related goals are considered less effective in the process of learning as well as the inspiration for learning. One way socioemotional selectivity theory can explain this is the adult learner’s relationship to the educational setting. Most adult learners are in an educational setting for a finite period time, with a clear starting point and a distinct finish. Contrast this with the child learner who has been in school for as long as they can remember, and is years away from leaving school. At any given point in a child’s education before high school, his time left in school is between one-third and one-half of their current life span. Now consider that researchers have found that socioemotional principles connected to the proximity-of-death are also triggered by other endings. For example, one study was administered in Hong Kong just before rejoining the People’s Republic of China, and another study asked participants to frame their answers in the context of planning to emigrate in two weeks. (Fung, Carstensen and Lutz , 1999). Connecting these two thoughts could lead to the idea that the imminence of the education ‘ending’ for an adult could be behind the impact of methods that utilize current, contextual problems.

The competence need in self-determination theory also gives insight into adult learners’ orientation. As competence is the ability to have an effect on the environment or to be effective in tasks (Deci & Ryan, 2000), a task orientation would seem to fulfill this need more handily than content orientation. The competence need suggests that an adult learner would strive to use new learning to increase competence. If this is not done as part of the formal education, the learner will do this on her own. This energy is potential in the learning environment. Content oriented education leaves it untapped. A task- or problem oriented method would tap this energy, and consequently, lead to more productive learning.

Conclusions and Recommendations

The two motivation theories of self-determination theory and socioemotional selectivity add depth and perspective to andragogy. Using the theories, much of the underlying assumptions of andragogy could be validated through empirical research. Self-determination theory opens up the internal motivators that Knowles refers to in the principles of andragogy. Socioemotional selectivity theory gives insight into the ‘adult’ aspect of andragogy, and why adults have the motivations ascribed to them as well as differing perspectives than children.

Each principle of andragogy is supported in to some extent through examination through the lens of self-determination theory and socioemotional selectivity. The principle of *they need to know* is supported by the self-determination strategies for overcoming amotivation. Self-determination theory directly suggests informing individuals of how an action relates to their own goals. *The learner’s self concept*, with its focus on personal responsibility, is strongly supported by the autonomy need in self-determination theory. The desire of a learner wanting to have their experience valued - the *role of the learner’s experience* - can be seen as a combination of the competence and relatedness needs of self-determination theory. *Readiness to learn* is supported by socioemotional selectivity’s understanding of the impact of current and future goals in adults. The support for *motivation* being intrinsic is inherent in both socioemotional selectivity and self-determination theory. Finally, the learner’s *orientation to learning* being focused on problems rather than content is supported by socioemotional selectivity in its understanding of an adult’s orientation towards time and how that impacts goal selection.

Socioemotional selectivity theory gives a process for delineating the child learner from the adult learner in regard to motivation. The effect of future time perspective on goal selection delineates age well, although it does this in regard to time-from-ending rather than time-from beginning and is not solely associated with age in years. However, since the definition of adult is one that is argued in the field, this new conceptualization – adulthood based on proximity to death – should not undermine the utility of the theory. By categorizing knowledge related goals and emotion regulating goals and providing a framework for understanding an individual’s preference for each, socioemotional selectivity theory provides an explanation for the adult learner’s readiness to learn and orientation to learning.

The insight and depth that these theories add is hypothetical in nature. Before being considered valid, the connections stated in this paper need empirical testing. This would not be a challenge. Both self determination theory (Kasser, Davey, and Ryan, 1992) and socioemotional selectivity (Carstensen, 1991) have instruments that measure the theories. As a first step, replicating the results studies previously done with adult learners could validate that connection. Beyond that, a new instrument could be devised to measure the andragogical qualities in motivation for adult learners. Other questions would be more challenging to answer, such as measuring and comparing the effectiveness of content and problem oriented methodologies and the satisfaction of the competency need. However, a planned process of testing the general concept and progressively narrowing the focus would enable a new branch of research to delve into the intricacies of andragogy.

Contribution to New Knowledge

This paper contributes to new knowledge in two ways. Connecting andragogy to recent psychological motivation theories adds a new dimension to this extensively-used model. With this new dimension comes a potential for validating andragogy through empirical research as suggested by Davenport and Davenport. Also, these two motivation theories are sound, current and well-tested. Both have been cross-culturally validated. Self-determination theory has been examined in multiple cultures (Sheldon, et. al, 2004) and a several studies in socioemotional selectivity have focused on examining it in cultural contexts (Fung, Lai, & Ng, 2001; Fung, Carstensen & Lang 2001; Fung, Carstensen & Lutz , 1999). Utilizing these theories to anchor a validation strategy for andragogy will help develop a sound argument for andragogy as a cross-culturally applicable model.

The second contribution this paper makes is in the realm of cross-disciplinary understanding in HRD. Although the field is said to be anchored by psychology, economics and systems thinking (Swanson & Holton, 2000), the adult learning aspect of the field is dominated by a school of thought that rejects many psychological theories. In fact, Wolodowski, in talking about motivation in adult learning, specifically discounts psychological theories (1999). This paper should reintroduce the field of psychology in the realm of adult learning in HRD. The recent advances in motivation, social psychology and cognitive psychology should be examined for potential applications in the HRD field.

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