

CHAPTER FOUR

KNOWLES'S ANDRAGOGY, AND MODELS OF ADULT LEARNING BY MCCLUSKY, ILLERIS, AND JARVIS

Do adults learn differently than children do? What distinguishes adult learning and adult education from other areas of education? What particular characteristics about the learning transaction with adults can be identified to maximize their learning? Prior to the 1970s, adult educators relied primarily on psychological understandings of learning in general to inform their practice (see the chapters in Part Four). With the publication of Houle's *The Design of Education* (1972), Kidd's *How Adults Learn* (1973), and Knowles's *The Adult Learner: A Neglected Species* (1973) and *The Modern Practice of Adult Education* (1970), attention turned to research and theory-building efforts in adult learning. Attempts at codifying differences between adults and children as a set of principles, a model, or even a theory of adult learning have been, and continue to be, pursued by adult educators. However, just as there is no single theory that explains all of human learning, there is no single theory of adult learning. Instead, we have a number of frameworks, or models, each of which contributes something to our understanding of adults as learners. The best known of these efforts is *andragogy*, a concept Knowles introduced from Europe in a 1968 article. Andragogy focuses on the adult learner and his or her life situation, as do a number of other models presented in this chapter.

The first part of the chapter is devoted to describing and critiquing andragogy. In the second half of the chapter we review three other models of the adult learning transaction: McClusky's theory of margin, Illeris's three dimensions of learning model, and Jarvis's learning process.

ANDRAGOGY

Nearly forty years ago Malcolm Knowles (1968, p. 351) proposed "a new label and a new technology" of adult learning to distinguish it from preadult schooling. The European concept of andragogy, meaning "the art and science of helping adults learn," was contrasted with pedagogy, the art and science of helping children learn (Knowles, 1980, p. 43). Andragogy is based on a number of assumptions about the adult learner. Knowles originally advanced the following four assumptions:

1. As a person matures, his or her self-concept moves from that of a dependent personality toward one of a self-directing human being.
2. An adult accumulates a growing reservoir of experience, which is a rich resource for learning.
3. The readiness of an adult to learn is closely related to the developmental tasks of his or her social role.
4. There is a change in time perspective as people mature—from future application of knowledge to immediacy of application. Thus, an adult is more problem centered than subject centered in learning. [Knowles, 1980, pp. 44–45]

In later publications, Knowles also referred to a fifth and a sixth assumption:

5. The most potent motivations are internal rather than external (Knowles & Associates, 1984, p. 12).
6. Adults need to know why they need to learn something (Knowles, 1984). (For a review of which of Knowles's writings contain which assumptions, see Holton, Swanson, & Naquin, 2001.)

Knowles clearly saw these assumptions as foundational to designing programs for adults. From each of these assumptions, Knowles drew numerous implications for the design, implementation, and evaluation of learning activities with adults. For example, with regard to the first assumption that as adults mature they become more independent and self-directing, Knowles suggested that the classroom climate should be one of "adulthood," both physically and psychologically. The climate should cause "adults to feel accepted, respected, and supported"; further, there should exist "a spirit of mutuality between teachers and students as joint inquirers" (1980, p. 47). Being self-directing also means that adult students can participate in the diagnosis of their learning needs, the planning and implementation of the learning experiences, and the evaluation of those experiences.

This theory, "model of assumptions" (Knowles, 1980, p. 43), or "system of concepts" (Knowles, 1984, p. 8), as Knowles has also called it, has given adult educators "a badge of identity" that distinguishes the field from other areas of education, especially childhood schooling (Brookfield, 1986, p. 90). Andragogy became a rallying point for those trying to define the field of adult education as separate from other areas of education. However, it also stimulated controversy, philosophical debate, and critical analysis matched only, perhaps, by the recent discussions on transformational learning (see Chapter Six).

At first the main point of contention was whether andragogy could be considered a "theory" of adult learning (Elias, 1979). Davenport and Davenport (1985, p. 157) chronicled the debate, noting that andragogy has been classified "as a theory of adult education, theory of adult learning, theory of technology of adult learning, method of adult education, technique of adult education, and a set of assumptions." They are a bit more optimistic than other critics for andragogy's chances of possessing "the explanatory and predictive functions generally associated with a fully developed theory" (p. 158). For them, the issue can be resolved through empirical studies that test the underlying assumptions.

Hartree (1984) observed that it was not clear whether Knowles had presented a theory of learning or a theory of teaching, whether adult learning was different from child learning, and

whether there was a theory at all—perhaps these were just principles of good practice. The assumptions, she noted, “can be read as descriptions of the adult learner . . . or as prescriptive statements about what the adult learner should be like” (p. 205). Because the assumptions are “unclear and shaky” on several counts, Hartree concludes that while “many adult educators might accept that the principles of adult teaching and conditions of learning which he [Knowles] evolves have much to offer, and are in a sense descriptive of what is already recognized as good practice by those in the field, conceptually Knowles has not presented a good case for the validity of such practice. . . . Although he appears to approach his model of teaching from the point of view of a theory of adult learning, he does not establish a unified theory of learning in a systematic way” (pp. 206–207).

Brookfield (1986, p. 98), who also raises the question of whether andragogy is a “proven theory,” assesses to what extent a “set of well-grounded principles of good practice” can be derived from andragogy. He argues that three of the assumptions are problematic when drawing inferences for practice. The first assumption about self-direction is more a desired outcome than a given condition. The third and fourth assumptions relating learning to particular social roles and focusing on immediate application can lead to a narrow, reductionist view of learning. These two assumptions “could lead practitioners to equate the sum total of adult learning with instrumental learning; that is, learning how to perform at an improved level of competence in some predefined skill domain,” in essence ignoring the complexity of learning (p. 99). Brookfield finds only the experience assumption to be well-grounded. However, we feel that even this assumption can be questioned. The fact that adults have lived longer than children and thus have a quantity of experience greater than children does not necessarily translate into quality experience that can become a resource for learning; indeed, certain life experiences can function as barriers to learning (Merriam, Mott, & Lee, 1996). Further, children in certain situations may have a range of experiences qualitatively richer than some adults (Hanson, 1996).

As for the fifth assumption on motivation, although adults may be more internally than externally motivated to learn, in much of workplace learning and continuing professional education, not to mention governmental or socially mandated learning (as in the

case of driving school, job preparation, welfare programs, and prison education, for example), participation is required. The sixth assumption, which appears in only a couple of Knowles's publications, that adults need to know why they need to learn something, may be true much of the time, but some studies also suggest that adults may learn for the sheer enjoyment of learning (see Chapters Three and Five of this volume).

On the issue of whether andragogy can be considered a theory of adult learning, perhaps Knowles himself put the issue to rest. In his autobiographical work, *The Making of an Adult Educator* (1989, p. 112), he wrote that he “prefers to think of [andragogy] as a model of assumptions about learning or a conceptual framework that serves as a basis for an emergent theory.”

A second point of criticism was Knowles's original inference that andragogy, with all its technological implications for instruction, characterized adult learning, while pedagogy, with another set of implications, characterized childhood learning. Close scrutiny of the assumptions and their implications for practice by educators in and out of adult education led Knowles to back off his original stance that andragogy characterized only adult learning. The clearest indication of this rethinking was the change in the subtitles of the 1970 and 1980 editions of *The Modern Practice of Adult Education*. The 1970 subtitle is *Andragogy Versus Pedagogy*, whereas the 1980 subtitle is *From Pedagogy to Andragogy*. Knowles's later position, as reflected in the 1980 subtitle, is that pedagogy-andragogy represents a continuum ranging from teacher-directed to student-directed learning and that both approaches are appropriate with children and adults, depending on the situation. For example, an adult who knows little or nothing about a topic will be more dependent on the teacher for direction; at the other extreme, children who are naturally curious and who are “very self-directing in their learning outside of school . . . could also be more self-directed in school” (Knowles, 1984, p. 13). Andragogy now appears to be situation-specific and not unique to adults.

RECENT CRITIQUES OF ANDRAGOGY

More recent critiques of andragogy have pointed out that in its slavish focus on the individual learner, the sociohistorical context

in which learning takes place is virtually ignored (Grace, 1996b; Pearson & Podeschi, 1997; Pratt, 1993). Knowles's reliance on humanistic psychology results in a picture of the individual learner as one who is autonomous, free, and growth oriented. There is little or no awareness that the person is socially situated, and to some extent, the product of the sociohistorical and cultural context of the times; nor is there any awareness that social institutions and structures may be defining the learning transaction irrespective of the individual participant.

Grace (1996b) points out how Knowles himself and his theory of andragogy were logical products of the 1960s, "a period of rapid change; action-oriented curricula that valued individual experience were advocated. The individual had to keep up and self-improvement was in *vogue*. The andragogical model in the face of pedagogy was welcomed by many adult educators as revolutionary" (p. 383). But although its influence on adult learning has been substantial ever since it was originally proposed, "Knowles never proceeded to an in-depth consideration of the organizational and social impediments to adult learning; he never painted the 'big picture.' He chose the mechanistic over the meaningful" (Grace, 1996b, p. 386).

Lack of attention to the context in which learning takes place is a critique emanating from a sociological perspective (Jarvis, 1987) and more recently, from critical perspectives. Sandlin (2005) applied critical, feminist, and Africentric theoretical orientations to andragogy and identified five issues that cut across the three different perspectives. First, andragogy is criticized for assuming education is value-neutral and apolitical. Second, andragogy assumes adult learners all look and learn the same—and this universal image is of a White middle-class individual learner. Third, other ways of learning are ignored, thus resulting in silencing other voices. Fourth, the relationship between self and society is ignored, and—"consequently, andragogy does not take into account structural systems of privilege and oppression, based on race, gender, and class, that influence learning and does not consider how culture impacts a person's development and ways of learning" (Sandlin, 2005, p. 28). The fifth issue to cut across critical, feminist, and Africentric perspectives is that andragogy thus reproduces society's inequalities and supports the status quo.

While Sandlin summarizes the critical perspectives on andragogy, Lee (2003) and Alfred (2000) examine andragogy from specific cultural lenses. Lee considers andragogy's application to foreign-born learners. In citing several studies with different immigrant groups ranging from Hmong refugees to Caribbean immigrant women, Lee concludes: "These studies . . . illustrated that andragogical assumptions do not characterize the experiences of some adult immigrants. Moreover, . . . by overgeneralizing the characteristics of a particular group of learners as those of all adult learners, Knowles effectively silenced and marginalized various social groups, including the adult immigrant learners whose values, experiences, and realities do not likely resemble the discourse of the dominant population" (p. 15).

Using four tenets from an Africentric feminist perspective, Alfred (2000) assessed how applicable andragogy is to African American learners. First, personal experience is necessary to establish meaning and credibility. While andragogy certainly acknowledges personal experience, it does not acknowledge "the facilitator's experience as a valuable part of the pedagogical process" (p. 20). Further, "African American experience is centered in a culture of race, class, and gender oppression, which is often managed through wisdom or intuitive knowledge," while andragogy values objective ways of knowing (p. 20). Second, from an Africentric perspective, "for knowledge to be validated, it must be made public, and that is done in relationships with individuals or within a community," while andragogy stresses individual learning (p. 21). Third, an ethic of care characterizes this perspective; while care and a trusting environment are emphasized in andragogy, the political dimensions of this environment are not considered. Finally, the Africentric tradition evaluates "not only the knowledge that is articulated, but also the person who is making the claim" (p. 21). Andragogy does not consider the credibility of the learner and his or her claims of knowledge.

In reference to the workplace in particular, Kessels and Poell (2004) argue that andragogy in conjunction with social capital theory can transform the workplace into a conducive learning environment. Social capital theory stresses social networks, mutual trust, communities of practice, and relational forms of capital. Andragogy and social capital theory together offer HRD "assumptions on the

facilitation of learning in the workplace, the strong motivational aspects of self-directedness and autonomy in competence development, and the network of meaningful relationships that helps learning integrate in the social contexts of the day-to-day work environment" (p. 154). Finally, St. Clair (2002, p. 2) states that adult education and human resource development are moving closer together: "Although adult education programs have become more instrumental and employment focused, training and development in the business world have increasingly emphasized the holistic development of workers. . . . This convergence is further underlined by the way HRD practitioners have worked to address the shortcomings of the andragogical model by remodeling it to recognize contextual factors more fully" (Holton & Swanson, 1999).

RESEARCH ON ANDRAGOGY

Considering that andragogy has been the primary model of adult learning for over forty years, relatively little empirical work has been done to test the validity of its assumptions or its usefulness in predicting adult learning behavior. A few studies have focused on the relationship between andragogical assumptions and instruction. Beder and Darkenwald (1982) asked teachers who taught both adults and preadults if their teaching behavior differed according to the age of the students. Teachers reported viewing adult students differently and using more andragogical techniques. Gorham (1985), however, actually observed teachers who taught both adults and preadults. She found no differences in how a particular teacher instructed adults or preadults, although teachers claimed that they did treat the two age groups differently.

With regard to involving learners in planning their own learning, Rosenblum and Darkenwald (1983) compared achievement and satisfaction measures between groups who had planned their course and those who had it planned for them. No differences were found in either achievement or satisfaction. Courtenay, Arnold, and Kim (1994) reviewed all previous literature and research and conducted their own quasi-experimental study of learner involvement in planning. They found previous research results to be inconclusive (indeed, "capricious"); from their own study, which attempted to address some of the shortcomings of previous studies, they found

that "participation in planning does not appear to affect learning gain or satisfaction, even when the amount of participant input in planning is increased; the relationship between classroom environment and achievement or satisfaction is inconsequential; and classroom environment . . . may simply be a function of the satisfaction of the learner" (p. 297). They recommended that more thought be given to both the independent variable (that is, just what constitutes learner participation in planning) and the dependent variables (for example, perhaps unintended learning is as important as achievement).

Most recently, Rachal (2002) reviewed eighteen studies on andragogy conducted between 1984 and 2001, all of which attempted to assess the efficacy of an andragogical versus pedagogical instructional design. Based on measures of achievement, attendance, and/or satisfaction, studies revealed mixed results due to the varied "customizations" of the studies. For example, some studies did not segment adult undergraduates from traditional-age students, several studies had predetermined objectives, some used paper-pencil tests of content acquisition, two studies involved mandated participation, and so on. To bring more rigor and comparability to empirical studies of andragogy, Rachal proposed seven standards or criteria for designing future studies. Briefly, these seven are that participation should be voluntary, participants should be clearly adults (and not students of traditional college age), objectives should be collaboratively determined, assessment should be performance-based, or where achievement is not the primary objective, satisfaction with the learning experience should be measured, an adult learning environment should be in place, and research methodological issues should be attended to (like random assignment to treatment groups where possible).

The studies reviewed by Rachal were mostly dissertations and all were experimental or quasi-experimental in design. While certainly this is one approach to assessing the validity of andragogy, it reinforces the psychologically driven, individually focused aspect of andragogy. Social context was not considered, for example, nor were any qualitative designs included.

Perhaps the nature of andragogy, with its assumptions for adult learner-focused practice, makes it particularly difficult to validate directly. As Rachal (2002, p. 224) himself comments, "It may well

be that researchers examining the effectiveness of andragogy will perpetually be stymied by its fluidity, even its amoeba-like formlessness. In that view, its art will forever be paramount, and its science forever elusive."

Although assessing the validity of andragogy directly may prove difficult to do, one could consider the extent to which a broader range of research in adult learning may or may not support the assumptions underlying andragogy. For example, the research on self-directed learning that finds upwards of 90 percent of adults are engaged in self-directed learning projects and that 70 percent of projects are planned by the learner (see Chapter Five) would tend to support the assumption that adults are self-directed and can plan their own learning. Further, studies on participation (see Chapter Three) indicate that participation is clearly linked to adult roles of worker, family member, and so on, lending support to the assumption that the readiness of an adult to learn is closely linked to the developmental tasks of his or her social roles. That the developmental issues of adulthood lead to learning was also underscored in Aslanian and Brickell's (1980) findings that 83 percent of adult learners were engaged in learning activities because of some transition in their lives. Nevertheless, the growing prevalence of mandated continuing education and training could be cited to argue against the assumption that adults are internally motivated.

Despite some writers' grim predictions of andragogy's demise, practitioners who work with adult learners continue to find Knowles's andragogy, with its characteristics of adult learners, to be a helpful rubric for better understanding adults as learners. As St. Clair (2002, p. 2) suggests, "[A]s a guide to teaching adults, andragogy has a great deal more to offer when it is approached, as Knowles originally suggested, as a set of assumptions." Further, the implications for practice that Knowles draws for each of the assumptions are also considered to be good instructional practice for all ages, especially adults. Thus, we see andragogy as an enduring model for understanding certain aspects of adult learning, and as maintaining "its role as a necessary component of the field's shared knowledge" (St. Clair, 2002, p. 2). It does not give us the total picture, nor is it a panacea for fixing adult learning practices. Rather, it constitutes one piece of the rich mosaic of adult learning.

OTHER MODELS OF ADULT LEARNING

Although andragogy remains the best-known model of adult learning, there are a number of other models that offer us some insights into adult learning. Three have been selected for review here. First, we have chosen to present McClusky's theory of margin (which actually predates andragogy) because it continues to captivate learners who find they can readily relate their life situation and their learning to this model. Second, we present a recent model, Illeris's three dimensions of learning, because it captures major components of the learning process in an easy-to-grasp visual of an inverted triangle. The third model is Jarvis's learning process. Originating in research with over two hundred adult learners more than twenty years ago, this model has undergone several revisions as Jarvis comes closer to understanding the learning process—"a mirage," he says, "since the closer you get the further away the goal appears" (personal communication, August 15, 2005). His model draws from a wide philosophical base as well as psychology and sociology.

MCCCLUSKY'S THEORY OF MARGIN

McClusky first presented his theory of margin in a 1963 publication, followed by discussions of application in 1970 and 1971. His theory is grounded in the notion that adulthood is a time of growth, change, and integration in which one constantly seeks balance between the amount of energy needed and the amount available. This balance is conceptualized as a ratio between the "load" (L) of life, which dissipates energy, and the "power" (P) of life, which allows one to deal with the load. "Margin in life" is the ratio of load to power. More power means a greater margin to participate in learning.

Both load and power consist of external and internal factors. Hiemstra (1993, p. 42) explains: "The external load consists of tasks involved in normal life requirements (such as family, work, and community responsibilities). Internal load consists of life expectancies developed by people (such as aspirations, desires, and future expectations). Power consists of a combination of such external resources . . . as family support, social abilities, and

economic abilities. It also includes various internally acquired or accumulated skills and experiences contributing to effective performance, such as resilience, coping skills, and personality."

Taking both power and load into consideration, McClusky (1970, p. 83) explains how the theory works:

Margin may be increased by reducing Load or increasing Power, or it may be decreased by increasing Load and/or reducing Power. We can control both by modifying either Power or Load. When Load continually matches or exceeds Power and if both are fixed and/or out of control, or irreversible, the situation becomes highly vulnerable and susceptible to breakdown. If, however, Load and Power can be controlled, and, better yet, if a person is able to lay hold of a reserve (Margin) of Power, he [sic] is better equipped to meet unforeseen emergencies, is better positioned to take risks, can engage in exploratory, creative activities, is more likely to learn, etc.

To engage in learning, then, an adult must have some margin of power "available for application to the processes which the learning situation requires" (McClusky, 1970, p. 84). Adult students in particular have to be adept at juggling multiple responsibilities and demands on their time. Take the hypothetical case of Caroline, a single parent who wants to upgrade her skills. She enrolls in the local community college, where she can learn to be a physician's assistant, a job she would like and that pays more than her current job on the housekeeping staff of a local hospital. On top of juggling her shift work at the hospital and her class schedule, Caroline has to find child care for her youngest and transport her older child back and forth to school. If one of the children or Caroline herself gets sick, she will have to miss class or work or both. Caroline has very little margin to deal with her present situation, let alone respond to any other demands on her time and energy. In contrast, Michele is a high-salaried vice president of a marketing company. She is married and has a nanny who comes to her home to care for her two children while she is at work. Michele has always wanted to be a master gardener and considers taking a course at the local botanical garden. Michele's skills, education, income, and support network are sources of power that she can adjust to deal with her load, affording her a comfortable margin wherein she can take the class.

Maintaining some margin of power in order to engage in learning is a concept adults readily relate to. As Hiemstra (1993, p. 42) observes, adult students' first encounter with McClusky's theory is often "an epiphany in terms of their own life circumstances."

McClusky (1970) also saw his theory as helpful in explaining the developmental changes characteristic of adult life (see Chapter Thirteen). Changes adults undergo as they age could be translated into adjustments of load and power. These adjustments are made "as a person accumulates and later relinquishes adult responsibilities and modifies the varying roles which the successive stages of the life cycle require" (p. 84). Since learning in adulthood is often a function of changing roles and responsibilities and physical and mental development, McClusky's theory can be used in understanding this link between changing social roles and learning.

Several studies have in fact investigated this link. Baum (1980) used the theory as a framework for exploring the power and load of one hundred randomly selected widows. Self-identified problems encountered in widowhood were viewed as load factors, and services and resources available to widows were categorized as power factors. She found that negative attitudes toward widowhood predicted more problems (load), but that it also led to finding more resources (power). As load increased, power increased, resulting in a fairly stable margin in life.

Using an instrument developed to measure margin in life, Stevenson (1980) compared the load, power, and margin patterns of independent older adults, nursing home residents, and young and middle-aged adults. She found that the two groups of older adults perceived themselves as having slightly more power (and less load) than the young and middle-aged adults.

A number of studies have used McClusky's theory to study adult student needs, performance, and participation in continuing and higher education (Demko, 1982; Garrison, 1986; Hansen, 1988; James, 1986; Mikolaj, 1983; Root, 2000; Schawo, 1997; Walker, 1996; Weiman, 1987). Findings across these studies are mixed, so no clear-cut generalizations can be drawn about the validity of McClusky's theory for predicting aspects of participation in continuing and higher education. His theory has also been used in a study of employees' readiness to change in the workplace

(Hanpachern, Morgan, & Griego, 1998). Based on 131 employees of a manufacturing company, "overall MIL and five work subscales had significant positive relationships with readiness for change" (p. 339). Londoner (1993) developed a load-power matrix exercise for assessing work and personal loads and the powers available to address the load. He suggests that this matrix can be used as a tool by HRD counselors and others in helping professions. The matrix is a device "to help adults manage stress and crises more effectively by developing and implementing specific change strategies that create favorable margin in their lives" (p. 126).

McClusky's theory has appeal in that it speaks to the everyday events and life transitions that all adults encounter. It is perhaps a better counseling tool than it is an explanation of adult learning, however. In fact, there is a striking similarity between McClusky's power, load, and margin concepts and the components of Schlossberg's model for counseling adults in transition. In her model, one determines the ability to work through a transition by assessing the relative strength of four factors: the situation, the self (internal strengths), external supports, and strategies one has developed to handle stress (Schlossberg, 1984, 1987). Indeed, McClusky's theory has been operationalized as an assessment tool to counsel applicants about their readiness for continuing pastoral education (Association for Clinical Pastoral Education, n.d.).

Although life events and transitions certainly precipitate many (and some would say the most potent) learning experiences, McClusky's model does not directly address learning itself but rather when it is most likely to occur. One might also question whether a reserve of energy or margin of power is necessary for learning to arise. Learning can happen under conditions of stress, or in McClusky's terms, when load is greater than power. Wolfin's (1999) study, for example, found that "overloaded" adults were as likely to learn as those with a surplus of power: "A surplus of power over load is not a 'necessary condition' or 'crucial element' for adults to be more likely to learn. . . . Overloaded Adults will do all they can, regardless of their inhibiting activities if those Overloaded Adults perceive the subject matter as essential, meaningful, or worthwhile and perceive the learning method as convenient" (p. 281). In addition, the fact that learning itself has the potential to increase one's power is not addressed by McClusky.

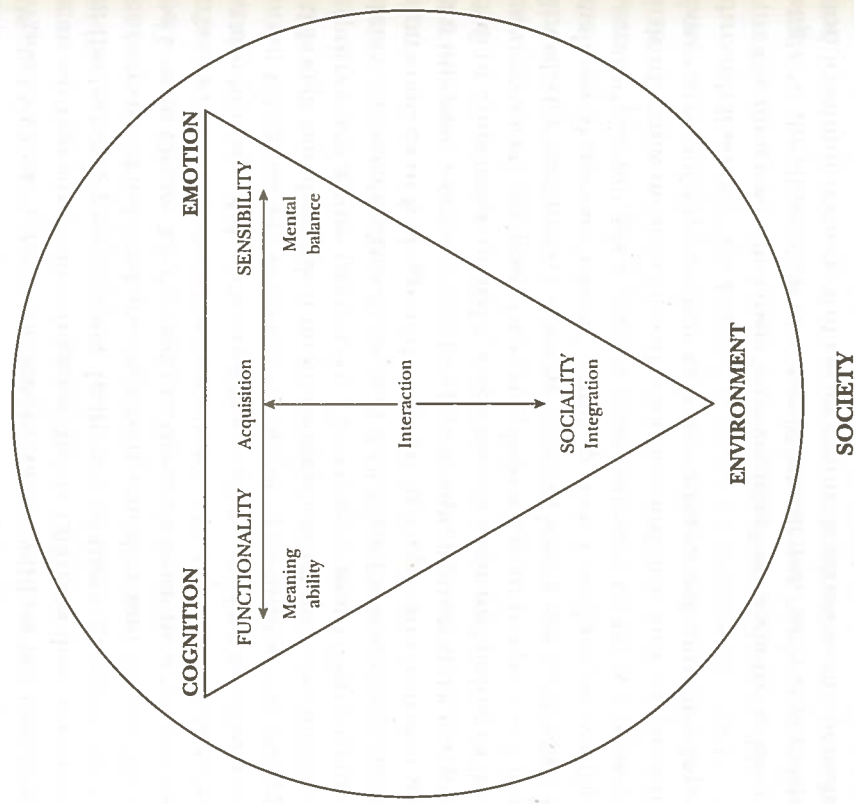
ILLERIS'S THREE DIMENSIONS OF LEARNING MODEL

While McClusky's theory of margin focuses on how learning intersects with an adult's life situation, Illeris (2002) is most interested in the learning process itself. In his model there are three dimensions involved in learning—cognition, emotion, and society. As can be seen in Figure 4.1, he pictures these dimensions as an inverted triangle, with cognition and emotion at the top and environment at the bottom of the inverted apex; all three aspects of learning occur within society, represented by the circle around the triangle. Although one dimension might be emphasized over the other two, all three are always present in a learning activity. The cognitive dimension involves knowledge and skills while the emotional dimension consists of feelings and motivation. Cognition and emotion are internal processes that interact simultaneously in the acquisition of knowledge or skills. Cognition is what psychologists have concentrated on when studying learning and refers to "both knowledge and motor learning" (2002, p. 18). Emotions, in contrast, involve "psychological energy, transmitted by feelings, emotions, attitudes and motivations which both mobilize and, at the same time, are conditions that may be influenced and developed through learning" (p. 18).

The dimension he labels "environment" or "sociality" in the triangle "is the dimension of external interaction, such as participation, communication, and cooperation. It serves as the personal integration in communities and society and thereby also builds up the sociality of the learner" (Illeris, 2004b, p. 83). This dimension is about interacting with other people as we learn, or it can refer to contributions of others to our learning (Illeris, 2002). Society wherein all three aspects of learning are encompassed is the context for our learning. That is, our learning is always within the society or social context in which we live and this context interacts with and shapes our learning.

How the process of learning begins is with one of five stimuli, what he calls the "raw material" of the process: (1) perception is "where the surrounding world comes to the individual as a totally unmediated sense impression" (Illeris, 2002, p. 120); (2) transmission, wherein someone else passes on information or transmits

FIGURE 4.1. LEARNING PROCESSES AND DIMENSIONS.



Source: Illeris, 2004b, p. 82. Reprinted by permission.

“specific sense impressions or messages” (p. 120); (3) experience, which while it can include both perception and transmission, we could also “limit the use of the word so that experience presupposes a particular activity, i.e., that the learner is not simply receiving, but also acts in order to benefit from the interaction” (p. 120); (4) imitation occurs when the learner attempts to imitate or model another’s actions; and (5) activity or participation in which the learner is engaged in a goal-directed activity sometimes participating with others as in a community of practice. Illeris cautions that

these five “input[s] of the learning process . . . should not be regarded as separate, but rather as characteristics which can be combined in a single learning event, each of them being more or less present or prominent in a pattern unique to the specific situation” (p. 227).

Illeris gives an example of how the three dimensions of cognition, emotion, and society might play out in a learning process. His example is a chemistry lesson that has as its focus the cognitive content of learning a particular chemical process. But each student experiences this lesson in a specific way, which involves emotions, motivations, and psychological energy. The result of the learning “will be closely connected with how the emotional dimension has been functioning” (p. 20). For example, depending on the cognitive-emotional and social interaction it is possible the learning could be “distorted, or perhaps no learning at all will take place, or something quite different will be learned: maybe a negative impression of the teacher, of some other students, of the subject, or of the school situation in general” (p. 21). Finally, external societal conditions will influence the process, such as whether the learning is to be examined, or whether the learning is needed to function in society.

This model, of course, can be applied in the same way to any type of adult learning activity. An adult learning to read, for example, engages both the cognitive and emotional dimensions, and this learning activity will be influenced by social interactions with instructor and fellow students. Further, society’s expectations, internalized by the learner, that being literate is both desirable and necessary to function in today’s world, interacts with the other two components of the process.

The strength of Illeris’s model lies in its comprehensiveness but also its simplicity. We can all relate to how a learning activity reflects cognitive, emotional, and social dimensions. Much of adult learning research and theory building emphasizes the cognitive, so Illeris’s inclusion of emotional and social dimensions is a real strength. Further, his model can be used to understand resistance to or rejection of learning as well as something as powerful as transformational learning: “Very special and demanding situations, often with a crisis-like character, can lead to deep and comprehensive transformative learning processes that include simultaneous changes in all the three learning dimensions and have to do with

the very identity of the learner" (2002, p. 229). And while he does not claim it to be a model of *adult* learning per se, its application to preadults seems limited due to their level of cognitive and emotional development and their awareness of the societal context.

JARVIS'S LEARNING PROCESS

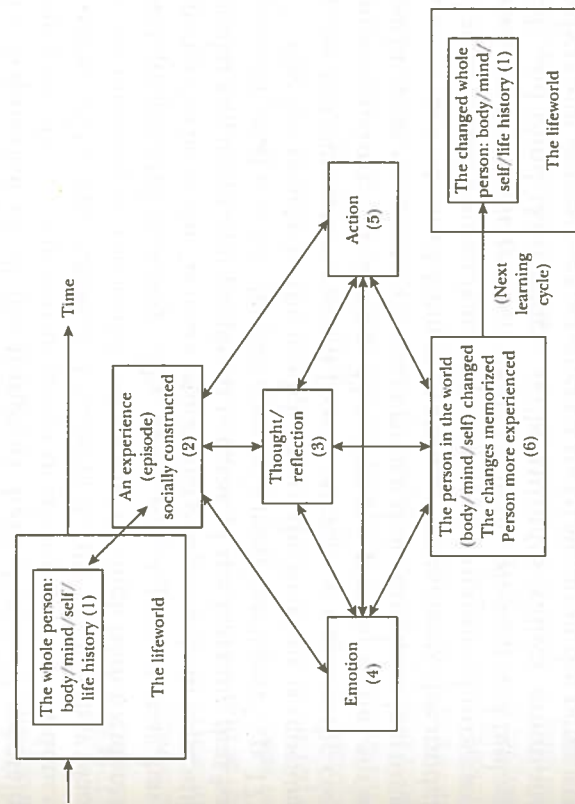
Jarvis's model begins with an adult's life situation, or more correctly, an adult's experience: "Even miseducative experiences may be regarded as learning experiences. . . . *All* learning begins with experience" (1987, p. 16; italics in original). Some experiences, however, are repeated with such frequency that they are taken for granted and do not lead to learning, such as driving a car or household routines. At the start of the learning process is a disjuncture between biography (all that a person is at a particular point in time) and experience—an incident that a person is unprepared to handle. "Disjuncture occurs when our biographical repertoire is no longer sufficient to cope automatically with our situation so that our unthinking harmony with our world is disturbed to some degree or other" (Jarvis, 2006, p. 9). "No longer can previous learning cope with the present situation, people are consciously aware that they do not know how to act. We have to think, to plan or to learn something new. Learning then always begins with experiencing" (Jarvis, 2004, p. 93). This "inability to cope with the situation unthinkingly, instinctively, is at the heart of all learning" (1987, p. 35).

Jarvis theorizes that all learning begins with the five human sensations of sound, sight, smell, taste, and touch. He believes that "our learning is ultimately dependent on our body and biology is a significant factor in the learning process—not because of our genes, but because of the way that our senses function" (2006, p. 13). In our everyday lives we meet unfamiliar situations; for instance, we hear a new sound or we read a word whose meaning we do not know. Through asking others or by chance or by design we acquire the meaning of the unfamiliar sensation. This meaning is memorized and practiced (for example, we may try to use a word whose meaning we have just learned) until it becomes a part of us and we once again take the world for granted. "The significant thing is that the original sensations have been transformed into knowledge, skills, attitudes, values, emotions, and so on" (p. 14).

For Jarvis, all experience occurs within the learner's world (that individual's world, not *the* world), which is ever changing—"[I]t changes over time in relation to the changes that occur both in the wider world, in which it exists, and to the individual's involvement in it, and so we cannot depict a simple relationship with it in respect of learning. . . . [T]he person exists in a 'flow of time' within the lifeworld" (Jarvis, 2006, p. 7).

The learner is more than a cognitive machine. The learner is a whole person made up of the mind and the body and comes to a learning situation with a history, a biography that interacts in individual ways with the experience that generates the nature of the learning. As can be seen in Figure 4.2, Jarvis's model of the learning process begins with the whole person who encounters an experience in her social context, one that cannot be automatically accommodated or assimilated. This creates the disjuncture

FIGURE 4.2. THE TRANSFORMATION OF THE PERSON THROUGH EXPERIENCE.



Source: Jarvis, 2006, p. 16. Reprinted by permission.

between one's biography and the experience, a state of unease that can trigger learning. If, in contrast, the individual chooses to ignore or dismiss this unease, no learning occurs (as evidenced by the two-way arrow between Boxes 1 and 2).

The next level of the model portrays three ways of learning, thinking, doing, and feeling (experiencing emotion). Each of these can occur in any combination with the others, as the arrows among the three boxes indicate. Jarvis explains that different combinations can produce different types of learning, "critical thinking, problem-solving learning, reflective learning, action learning, and so on." He speculates that "it is perhaps through the emotions that thought can be transformed into action. However, either of these two can dominate in the process of learning and a number of different types of learning can occur: contemplation, rational thinking, desiring, planning, action learning, and so on. In addition, the emotions can have a considerable effect on the way that we think, on motivation and on beliefs, attitudes and values" (2006, p. 11).

The result of this learning, as seen in Box 6, is a person affected in some way by the learning. There are three possible ways a person is changed. One is "the person's self is changed both by the acquisition of all the things we have discussed mentally, emotionally . . . but also in terms of identity, self-confidence, esteem, and so on" (2006, p. 17). Second, "the learner may place a new meaning on the world and events" through both incidental and purposeful learning. The third way a person may have changed is he or she "is more experienced, more able to cope with similar situations and problems because of the learning that has occurred, that is to say that the learner is more intelligent" (p. 17).

The last section of the model, where the first box is repeated in the bottom right corner, is Jarvis's attempt to capture the continuous nature of learning. The changed person in her social world again encounters an experience that stimulates learning. Jarvis's definition of human learning summarizes the model: "I now regard human learning as the combination of processes whereby the whole person—body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses)—experiences a social situation the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the

person's individual biography resulting in a changed (or more experienced) person" (p. 7).

Jarvis's model is perhaps the most comprehensive of models reviewed in this chapter. Furthermore, his model situates learning in a social context; learning is an interactive phenomenon, not an isolated internal process. In his most recent book (2006) he presents each component in detail. Not just the learning process, but also concepts of the whole person, the social context, types of learning, and the nature of experience itself are dealt with in depth, drawing from a wide body of literature. Although his early work on this model was constructed from research with adult learners, it is clear that his interest is understanding and explaining *human* learning, not just adult learning. He does, however, imply that his model is perhaps easier to apply when speaking of adults, because young children do not have the cognitive skills, emotional range, or action alternatives available to adults. Further, the child and the adult's life situation or context are quite different, leading to different kinds of experiences shaping the learning. His model has been unfolding over the past twenty years, so that the most recent iteration looks quite different from the original 1987 version. However, the processing of experience remains fundamental to his thinking.

SUMMARY

Although there was sporadic attention given to adult learning in the early decades of the twentieth century, it was not until the 1970s that adult educators themselves began to focus systematically on some of the distinguishing characteristics of adult learning as separate from the body of information from psychologists' and educational psychologists' investigations of learning in general. This shift in focus was part of the field's efforts to differentiate itself from other areas of education. It also led to the search for a single theory of adult learning, one that would differentiate adults from children, include all types of learning, and was at once elegant and simple. But just as there is no single theory that explains human learning in general, no single theory of adult learning has emerged to unify the field. Rather, there are a number of theories, models, and frameworks, each of which attempts to capture some aspect of adult learning.

The best-known theory of adult learning is Knowles's andragogy. Nevertheless, it is less a theory and more a set of assumptions about adult learners that learners and educators alike can use to strengthen the learning transaction. The assumptions regarding an adult's self-concept, experience, readiness to learn, problem-centered focus, and internal motivation all have some intuitive validity, making andragogy popular with practitioners in many fields. These assumptions were critiqued in this chapter, as was Knowles's isolation of the individual learner from the learning context.

The chapter then turned to reviewing other, less well-known models of adult learning. Like andragogy, McClusky's theory of margin is more about the personal life situation of adults than learning per se. McClusky's theory of margin emphasizes both personal characteristics (internal load and power factors) and situational characteristics (external load and power factors). His model has more to say about adult development and the timing of learning, though, than about the actual learning transaction.

Two other models do focus on the learning process itself, although neither claims to be about adult learning only. Illeris's three dimensions of learning model positions learning as the continuous interaction among cognition, emotions, and social context. Jarvis's model of the learning process links the whole person (body, mind, self, life history) with an experience encountered in the person's social context. The disjuncture between the person's biography and the experience leads to learning that involves emotion, thought, and action. The result is some change in the person.

Each model discussed in this chapter contributes in its own way to advancing our understanding of adult learners. However, there has been little research testing the power of the models to explain or predict adult learning behavior. The process of model and theory building does, however, stimulate inquiry and reflection, all of which may eventually provide some of the answers to our questions about adult learning.

CHAPTER FIVE

SELF-DIRECTED LEARNING

Since Tough's work on adult learning projects was published in 1971, self-directed learning has captured the imagination of researchers and writers both inside and outside the field of adult education. Many public schools and colleges and universities have used this concept to describe one of the primary goals of their institutions: to enable their students to be lifelong, self-directed learners. While certainly adults have always learned on their own, serious study of this phenomenon is relatively recent in comparison to other aspects of learning, such as memory, cognition, and intelligence (see the chapters in Part Four). This lag is due in part to much of self-directed learning occurring outside of formal institutional settings, and therefore being so embedded in people's everyday lives as to be invisible. Tied in with this perspective is the role of educators of adults. Should we be working with learners outside the formal institutional environment? And might we be cutting into our own "business" as educators if we acknowledge that many adults can learn very effectively without our assistance? Despite these concerns, the study of self-directed learning has emerged as one the major thrusts of adult education research. There is, in fact, a voluminous literature base to draw from, an annual conference on the topic, and a recently inaugurated Web site (www.sdlglobal.com), which houses, along with other resources, an online journal devoted to self-directed learning.

Tough (1967, 1971), building on the work of Houle (1961/1988) and others, provided the first comprehensive description of self-directed learning as a form of study that he termed *self-planned learning*. Drawing on a study of the learning projects of sixty-six people