Adult Cognition as a Dimension of Lifelong Learning

Stephen Brookfield

Adult education scholars currently find themselves in something of a dilemma. They have spent years striving to establish a theory of adult learning which they could claim represented their own empirical territory. The raison d'etre of this effort has been to assert that adulthood as a time of life brings with it a way of learning (and a corresponding set of practices for facilitating this learning) that is not paralleled at earlier stages of the lifespan. Adult learning has been claimed to be a separate, distinct and discrete phenomenon, something that stands alone as the clear object of theory development. For many academics establishing the distinctive nature of adult learning has had important professional ramifications. If we could establish irrefutable proof that adults learned in a way that differed in kind from the learning undertaken by children and adolescents, then at a stroke we could lay claim to an area of research (adult learning) and a set of practices (adult education) that were undeniably our own. We could hold conferences, establish journals, write books, create departments and award doctorates - in short create a whole professional career structure - based on our familiarity with the conceptual and empirical territory that, clearly, was unique to us.

In the USA and UK this position was reached in the 1980's. Then, just as adult education scholars began to feel a pleasant sense of credibility and stability, along comes an American President (Bill Clinton) who talks about lifelong learning and uses this phrase in a way that emphasizes the connections between schooling and adult education. In Clinton's 1992 and 1996 Democratic Presidential campaigns the ideas of lifelong learning, and the need to invest in the continuous retraining of adult workers, were continually invoked. Then, in 1997, came the publication in the United Kingdom of the Dearing report on lifelong learning, a major policy document with great ramifications for higher education. Universities begin to create chairs, institutes and departments of lifelong learning, and the idea that the provision of continuous learning opportunities is necessary to economic survival in the information age, becomes accepted as self-evident. So now those adult educators who nailed their colors to the mast of adult learning as a discrete domain are left shipwrecked.

As the discourses (and the jobs) shift to emphasizing lifelong learning as the organizing concept for adult education, this very discourse undercuts the separateness previously claimed for adult learning. Instead, learning now starts to be conceived as a lifelong process with important

connections established between schooling, higher education, workplace learning, and colleges of the 'third age'. So the very position that has ensured adult educators' professional credibility in the past - the position that adult learning is a discrete and separate domain - is now discredited. Yet, to abandon that position and embrace the concept of lifelong learning risks bringing with it accusations of a lack of integrity, fraud and intellectual opportunism.

It is in this uneasy situation that I want to suggest a possible resolution that acknowledges the value of the concept of lifelong learning (a phrase that I have always felt was more empirically accurate than that of adult learning) while allowing for the distinctiveness of the learning that does occur in adult life. Although I believe it is wrong to argue that adulthood stands alone as a discrete, self-contained and separate stage of life, I do believe that there are forms of learning we engage in that are visible in a much more heightened form in adulthood as compared to childhood and adolescence. In other words, while these forms of learning are discernible at earlier stages of life, it is in adulthood that they stand out in particularly sharp relief. In this chapter I want to examine four strands of empirical research into adult learning that, taken together, hold the promise of establishing just what it is that is distinctive about the adult dimension to lifelong learning. These four strands will be discussed in terms of capacities that seem to be observable chiefly in adult learners; the capacity to think dialectically, the capacity to employ practical logic, the capacity to know how we know what we know, and the capacity for critical reflection.

The Capacity to Think Dialectically

Dialectical thinking as a distinctively adult form of reasoning was first proposed by Riegel (1973) and further elaborated by researchers such as Basseches (1984, 1986, 1989), Allman (1985) and Irwin (1991). As conceived by these writers dialectical thinking is a form of adult reasoning in which universalistic and relativistic modes of thought co-exist. Its essence is the continuous exploration of the interrelationships between general rules and contextual necessities with the realization that no fixed patterns of thought or conduct, and no permanent resolutions to intractable problems, are possible. In dialectical thinking the chance to explore the contradictions and discrepancies between the general and particular is regarded as an opportunity for personal development rather than a depressing and confusing reality of adulthood. Adults think dialectically when they inhabit the arena of decision-making in which an awareness of universal rules, general moral strictures and broad patterns of causal and prescriptive reasoning ("if this is the case then I should do that") is balanced against, and constantly intersects with, the contextual imperatives of a situation. The recognition and honoring of the importance of contextuality - the recognition that specific situations make nonsense of general rules or theories - is something that is learned developmentally. This

balancing of the universal and the specific is identified by a cluster of developmental psychologists as one of the key indicators in their conceptualization of wisdom (Sternberg, 1990; Lee, 1994; Denney, Dew and Kroupa, 1995).

Adults' capacity to think dialectically is not proposed as a rarified, higher order, intellectual activity. Rather, it is seen as much in studies of everyday decision-making (what Rogoff and Lave (1984) and Billig et. al. (1988) call everyday cognition and the psychology of everyday thinking) as it is in studies of intellectual development among college students. As an example, consider the general rule of parenting invoked by parents where exercising authority, setting limits and administering discipline to children are concerned - the rule that success will only be achieved by "Being Consistent". Superficially this rule appears to remove most of the ambiguity from the business of disciplining children. Clinging to the rule that we should behave in the same way in whatever situation of disciplining children we find ourselves (difficult though we recognize that may be) holds the promise of providing us with a life preserver that will keep us afloat as we're tossed about on the roiling sea of family life. But early on in our effort to be consistent we realize that no two situations are alike and that the subtle shadings of family interactions mean that we have to vary our disciplinary approaches as situations change. Being consistent as parents (if this is interpreted to mean "always behave the same way") strands us in limbo, since the multiple situations in which we're required to exercise discipline alter so frequently that they make a nonsense of standardized rules of parental conduct.

Basseches (1986) locates his work on dialectical thinking in the context of adults' involvement at their workplaces and in terms of how adults enter into, and disengage from, personal relationships. With regard to the latter he writes that "a dialectical approach (to beginning a personal relationship) might begin with the assumption that my traits are not fixed and that the relationships I enter will change who I am and who my partner is" (p. 26). Should the relationship falter, "I am likely to look for how experience both within and outside of the relationship has led us to grow in different directions, so much so that we would be hampered by remaining so tied to each other. The assumption is that a relationship can reach a point where it tends to interfere with the development of one or both of the partners rather than helping them to grow further and growing with them" (p. 27).

In terms of moral decision-making in adulthood, the relevance of the cluster of concepts with dialectical thinking at its center is clear. The contextual contradictions and ambiguities faced in the making of moral choices and decisions - in particular the discrepancies between uncritically assimilated norms governing moral conduct and obligations in personal relationships, work and politics and our experience of these complex realities - impel us to find meaning and create order in

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the midst of this confusion. In trying to resolve these contradictions between ideals and actuality we think dialectically. We become attentive to the importance of context and the validity of situational or relativistic reasoning, while at the same time committing ourselves to those values and general beliefs we find most valid for our experience. In other words, adult moral learning focuses on exploring the contradictions involved in fusing universal moral standards with the pragmatic constraints and situational imperatives of relationships, work and community involvement. Adults become aware of how context alters the neat application of general codes, of how the rules of moral reasoning learned at earlier stages of life are reinterpreted and contextualized because of the moral complexities of adult life.

The Capacity to Employ Practical Logic

As we consider the phenomenon of lifelong learning as it relates to learning (rather than to educational policies, provision and practices with which it is often confused) it is important to note that several psychologists have identified a stage of adult intellectual development that extends Piaget's concept of formal operations identified as the end point of young adult development. Post-formal operations, as this stage has been called, emphasizes adults' ability to reason contextually. Dialectical thinking, in its focus on adults' capacity to move back and forth between objective and subjective frames of reference, universal and specific modes of decision-making, certainly fits within this framework. Practical logic, discussed later in this section, focuses more on adults' capacity to think contextually in a deep and critical way. It is more domain-specific than dialectical thinking, concerned with reasoning within a well-defined situation in a way that pays attention to its internal features.

One of the most complete statements on post-formal thought is that of Sinnott (1998) who sees it as endemic to the struggle of adult life "to find existential meaning in life and to develop an adult logic of living in balance" (p. 10). To Sinnot there are two central components to post-formal operations; "the ability to order several systems of formal operations, or systems of truth" (p. 24) and the use of self-referential logic. In a self-referential posture we are aware of the incompleteness of all knowledge and the subjectivity of logic yet we decide to act "despite being trapped in partial subjectivity" (p. 34). Sinnott breaks down these two central abilities into 11 specific thinking operations, including such things as metatheory shift, problem definition, creating multiple solutions, acknowledging multiple causalities and recognizing paradoxes and contradictions. The abilty to order several systems of formal operations, or systems of truth, seems to me to be close to dialectical thinking as outlined earlier. The idea of self-referential logic (in which we act according to a critical questioning of rules within a particular framework) seems to me close to what others

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have called, variously, expertise (Tennant, 1991), practical intelligence and practical knowledge (Wagner, 1992, Chaiklin and Lave, 1996, Sternberg and Wagner, 1986; Scribner, 1984). Labouvie-Vief's (1980) work proposes the concept of 'embedded logic' to describe how adults "achieve a new integration in which logic, initially decontextualized, is reembedded in its social context" (1980, p. 16). This idea is connected to the concept of situated cognition, which recognizes that "cognition is a social activity that incorporates the mind, the body, the activity and the ingredients of the setting in a complex, interactive and recursive manner" (Wilson, 1993, p.72).

It is important to repeat that, as with dialectical thinking, practical logic is not a form of reasoning observeable only in academic settings. Indeed, studies of this way of thinking have focused on very much on workplace learning in paces such as dairies (Scribner, 1984) or the development of clinical judgment in nurses which "resembled much more the engaged, practical reasoning first described by Aristotle, than the disengaged, scientific, or theoretical reasoning promoted by cognitive theorists and represented in the nursing process" (Benner, Tanner and Chesla, 1996, p. 1). There have been studies of the workings of practical logic in the ways mothers and children solve problems together (Levine, 1996), in how sports fans understanding the nuances of cricket or baseball games (Spilich, 1979), and in how punters make decisions in betting shops on which horses to back (Ceci and Liker, 1986). As Tennant and Pogson (1995) observe of the authors of the last study, "they make a compelling case for their conclusion that racetrack handicapping is as intellectually demanding as the decision making apparent among established professions such as science, law, and banking" (p. 51).

A logic that is practical is a logic that springs from a deep understanding of the context of the situation (whether this be placing a bet or deciding whether to alter a patient's medication). It is a logic that does not follow formal rules of deductive reasoning, but that is experiential and inferential. It involves being aware of, and attending seriously to, very subtle cues whose importance only becomes apparent to those who have the benefit of a lengthy and mindful immersion in experience. In my own field, when adult educators do something apparently spontaneously that contradicts established principles of good practice, they are often applying a form of practical logic. For example, in one of my discussion-based courses a while ago I, seemingly unthinkingly, announced a "no-speech allowed" policy at the first meeting of the class. In effect I said ...

" I know that speaking in discussions is a nerve-wracking thing and that your fear of making public fools of yourselves can inhibit you to the point of nonparticipation. I, myself, feel very nervous as a discussion participant and spend a lot of my time carefully rehearsing my contributions so as not to look foolish when I

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finally speak. So please don't feel that you have to speak in order to gain my approval or to show me that you're a diligent student. It's quite acceptable to say nothing in the session, and there'll be no presumption of failure on your part. I don't equate silence with mental inertia. Obviously, I hope you will want to say something and speak up, but I don't want you to do this just for the sake of appearances. So let's be comfortable with a prolonged period of silence that might, or might not, be broken. When anyone feels like saying something, just speak up "

Superficially, this looks foolhardy, since it raises the prospect that the class will spend an hour in silence. But, after this class, several students came up to me and told me that the fact that they had been allowed to stay silent actually took so much performance-anxiety off their shoulders that they felt emboldened to speak. If I had been asked in the midst of my declaration why I was telling participants they didn't need to talk in the discussion I would have said that it seemed like a good way to defuse the anxiety that I felt in the room. I would also have elaborated on some of the signs of anxiety that I observed. I would have said that I was thinking of my own autobiographical experiences of discussion participation where I felt a combatant in an intellectual arena that resembled the Algonquin roundtable or a Bloomsbury dinner party. I know that if a speech policy resembling the one above had been declared in my undergraduate or postgraduate seminars then it would have reassured me enormously and probably relaxed me enough to get into the conversation. So, though I did something that on the face of it looked like the error of a novice teacher, on closer examination it seems to me I was using a kind of practical logic. This logic combined an attention to cues in students' behavior (for example the way they entered the room, even the way they composed their bodies in the chairs) that were very clear because I'd observed them many times before, with a rapid autobiographical scanning of my own experiences as a learner to gain some insights for my own conduct.

The Capacity to Know How We Know What We Know

A third stream of research relating to the distinctively adult aspects of lifelong learning has evolved within the field of adult education research, and, as such, represents one of the few attempts to develop theoretical propositions about adult learning which does not rely on perspectives drawn from an allied discipline. The central component here is learning to learn (Cell, 1984; Smith, 1990; Tuijnman and Van De Kamp, 1992), defined as the capacity adults possess of becoming self-consciously aware of their learning styles and being able to adjust these according to the situations in which they find themselves. Fundamental to the concept is some form of epistemological

awareness; that is, a self-conscious awareness of how we come to know what we know, and an evolved understanding of what it means for us to know something. Kitchener (1983, 1986) describes this as epistemic cognition; that is, "knowledge of whether our cognitive strategies are sometimes limited, in what ways solutions can be true, and whether reasoning correctly about a problem necessarily leads to an absolutely correct solution" (1983, p. 226). Epistemic cognition "includes the individual's assumptions about what can be known and what cannot (e.g., our knowledge of some things is ultimately uncertain), how we can know (e.g., by observing what exists; via authority), and how certain we can be in knowing (e.g., absolutely, probabilistically). Following from each form of knowing is an understanding of how beliefs may be justified in light of the characteristics of the knowing process" (Kitchener, 1986, p. 76).

King and Kitchener (1994) have developed a model of reflective judgment to measure the development of epistemic cognition in adults. They posit seven stages of intellectual development, the most advanced of which (stages 6 and 7) "reflect the epistemic assumption that one's understanding of the world is not "given" but must be actively constructed and that knowledge must be understood in relationship to the context in which it was generated .... true reflective thinking presupposes that individuals hold the epistemic assumptions that allow them to understand and accept real uncertainty" (p. 17). More recently Mezirow identifies epistemic critical self-reflection as an important domain of transformative learning. This occurs when the learner "sets out to examine the assumptions and explore the causes (biographical, historical, cultural) the nature (including moral and ethical dimensions), and consequences (individual and interpersonal) of his or her frames of reference to ascertain why he or she is predisposed to learn in a certain way or to appropriate particular goals" (Mezirow, 1998, p. 195). The connections between epistemic cognition and work on critical thinking and critical reflection (Brookfield 1995) and on the constructive way of knowing observed in women learners (Belenky et. al, 1986) will be clear. Epistemic cognition clearly displays the use of self-referential logic that Sinnot identifies as one of the two key features of adult post-formal thought.

Epistemic cognition is clearly observable in work on teacher thinking (Day, Calderhead and Denicolo, 1993; Kincheloe, 1993; Carlgren, Handal and Vaage, 1994). This research looks at the ways adults as teachers make rapid, multiple decisions in classrooms in response to the cues they observe. When asked to state a rationale for these, teachers will display a form of epistemic cognition as they state the inferential chains of reasoning they use, the cues they attend to (and why these rather than others are worthy of their attention) and the grounds for their decisions. In our moral lives epistemic moral cognition involves us becoming aware of why we feel a strong sense of moral certainty about certain opinions or behaviors, and why we feel an absence of this about others. We can discuss the experiential evidence for these feelings rather than just insisting on their

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moral correctness. We are better able to make judgments regarding the relative validity of moral pronouncements made by others. A developed sense of epistemic moral cognition also helps us to decide which moral impulses should be followed as accurate guides to action, and which should be held in check.

In the field of adult education, Smith (1982, 1983, 1987, 1990) has argued that learning to learn is an important intellectual activity evident in adult students and, consequently, should be a major focus for adult education practice. Learning to learn is defined as the capacity adults possess to become self-consciously aware of their learning styles and to adjust their preferred ways of learning according to the situations in which they find themselves. In his last major publication, Smith (1990) placed this activity squarely in the context of lifelong learning, defining it as "knowledge, processes, and procedures by which people come to and are assisted to make appropriate educational decisions and carry out instrumental tasks associated with successful lifelong learning" (p. 4). In terms of lifespan learning, he argues that learning to learn, while evident at earlier ages, is most fully realized in adults and is an important developmental process. Smith points out that metacognition and metalearning - the capacity to think about one's thinking - are terms used more or less interchangeably with learning to learn. The connections to epistemic cognition are clear to see. All these terms support the self-referential orientation mentioned earlier by Sinnot as crucial to post-formal thought. He cites research such as Danis and Tremblay's (1988) study of successful self-taught adults in which the authors found that their subjects were able to transcend their own learning process "and are able to describe rules and principles pertaining to their own learning process and the act of learning itself" (Smith, 1990, p. 13).

Critical Reflection

A final body of work focuses on adults' development of critical reflection, briefly defined as the process by which adults become critically reflective regarding the assumptions, beliefs and values which they have assimilated during childhood and adolescence. Becoming critically reflective involves assessing the accuracy and validity of these norms for the contexts of adult life. Put simply, it entails judging the 'fit' between the rules of life transmitted, assimilated, and evolved in childhood, and the realities of adulthood. Does what we were told in childhood about the nature of friendship, or the rules for a successful marriage, make sense for us in our own intimate relationships? Are the principles of democratic political living espoused in school and church evident in local and national politics? Does what we learned about the characteristics of a good worker hold true in the workplace? Are the television depictions of family, work and political life we grew up with of any relevance to our own experiences in these arenas of adult life? All these

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activities involve us moving between the universal and subjective modes of analysis involved in dialectical thinking. They all entail the use of a practical form of logic embedded in the contexts of adult life. And they all lead to the adults concerned having a more developed, self-referential understanding of how they come to decisions.

The argument is made by theorists of adult critical reflection (Mezirow, 1990, 1998; Brookfield, 1994, 1995) that this process can only occur as adults pass through experiences in their interpersonal, work and political lives which are characterized by breadth, depth, diversity and different degrees of intensity. This breadth, depth, diversity and differential intensity only comes with time. We cannot critically scrutinize the validity of our unquestioned assumptions about interpersonal relationships, work and politics until we have lived through the building and decay of several intimate relationships, until we have felt the conflicts and pressures of workplaces, and until we have acted politically and lived with the consequences of our political actions. How can we assess the truth of rules we learned in childhood regarding relationships, work and politics, until we have experienced directly these complex, contradictory and ambiguous realities? According to this interpretation of adulthood, what is distinctive about adult learning is the search for meaning in these complex, contradictory and ambiguous realities, and the process by which critically reflective capacities are developed in this search.

The pattern of critical reflection that emerges from studies of adult development is one comprising a praxis of action, reflection on action, further action, reflection on the further action and so on in a continuous cyclical loop. But these alternating phases need not be separated by extensive periods of time. Action can be mindful, thoughtful and informed. Weick (1983) describes this as 'acting thinkingly'. At any one point in the phases described are engaged in a complex series of operations, some of which are scrutinizing past assumption, some of which are exploring new meaning schemes, some of which are trying on new identities and so on. As noted in a study of reflective thinking among Canadian teachers, "emotions such as frustration, depression, love, shock, elation, hatred and fear interacted with cognitive components throughout the reflective process" (D'Andrea, 1986, p. 258). It should not be presumed that the following stages are neatly observable sequences or stages evident in each person's intellectual development.

The theorists of critical process discussed posit the following pattern. An episode of critical reflection within the context of adult life is prompted by some unexpected occurrence which occasions reflection on the discrepancy between the assumptions, rules and criteria informing our values, beliefs and actions and our experiences of reality. These trigger events are usually presented as traumatic or troublesome in some way, as disorienting dilemmas, cognitive

dissonances, or perceptions of anomalies, disjunctions and contradictions between our expectations of how the world should work and actuality. Practically every theorist of critical thinking and change emphasizes how trauma triggers critical thought (what Belenky and others (1986) describe as disequilibration studies) through such life shaking incidents such as divorce, bereavement, unemployment, disability, conscription, forced job change or geographical mobility.

A period of self-scrutiny and appraisal of the features of these anomalies follows the trigger event, in which periods of denial and depression alternate with attempts to understand the nature of the contradiction, dilemma or discomfort in their lives. During this period people seek desperately for others who are confronting similar anomalies. This appraisal is followed by an active effort to come to terms with the tension and discomfort that is felt. In this phase of exploration we interpret our experiences to make sense and create meaning from the apparent chaos through which we are passing. There is a hermeneutic quest to discover the meaning, reason and significance embedded within the dilemma as people try to reduce feelings of discomfort and alienation. This phase may be distinguished by a flirtation with new identities, by the contemplation of new role models, or by an effort to inhabit the perspectives of others so that the dissonance can be interpreted from another vantage point. This exploration will often involve a public admission of discomfort, dissatisfaction and the search for change. At this stage people often join networks and peer support groups (for example, Alcoholics Anonymous groups, women's consciousness raising groups, community action movements, or gay rights initiatives). This phase entails a testing of new identities, beliefs, values and actions as people search for a 'fit' between these and reality.

Arising out of this process of exploring and testing new identities, assumptions, explanations, roles, values, beliefs and behaviors is the development of a changed way of thinking and acting which 'makes sense' or 'fits' the disorienting dilemma. This new perspective is constructed by the person involved, and is liable to be, initially at least, partial, tentative and fragile. Indeed, there is often a series of incremental confirmations of the validity of elements of this new perspective as people's actions are informed by this. The perspective becomes judged to be increasingly valid, and its features refined, as experience confirms its accuracy. Boyd and Fales (1983) write that "the new insight or changed perspective is analyzed in terms of its operational feasibility" (p. 27). The outcome of this confirmation process is often described as a period of resolution or integration. Having decided that new norms, assumptions, beliefs and behaviors make sense in the context of our experiences, we seek for ways to integrate these permanently into our lives. These resolutions may be more or less tenuous, ranging from the development of tentative commitments to a heady rush of self-affirmation - a feeling that a person's 'real' or 'true' identity has been realized.

Understanding the Affective Dimensions to Adult Learning

One noticeable absence from the literature of adult learning is detailed attention to its visceral and emotional dimensions, to the ways in which epistemic cognition, practical logic, dialectical thinking and critical reflection are experienced as a contradictory realities, at once troubling and enticing. Although writers frequently allude to the importance of understanding critical reflection as an emotive as well as cognitive process there are few grounded depictions of how adults feel their way through the process that so many adult educators have prescribed for them. The personal voice and subjective experience of the student is often curiously absent. In this section I want to summarize some of my own research into how adult students experience their own learning (Brookfield, 1994, 1995).

Five significant themes are highlighted in adult learners' generalized descriptions of how they experience learning, all of which stand out for two reasons; first, they represent the experiential clusters that emerge with the greatest frequency and the greatest validity across the diverse educational settings in which adults learn. Second, they contradict much of the inspirational rhetoric that surrounds discourse on adult learning. Although there are stories recounting heady moments of transformative breakthrough, of empowerment, of emancipation and of liberation, what figure equally strongly in adult students' accounts of learning, particularly those focused on critical reflection, are feelings of impostorship, acknowledgments of a disturbing loss of innocence, accountings of the cost of committing cultural suicide, descriptions of incrementally fluctuating rhythms of road running, and recognition of the significance that membership in an emotionally sustaining learning community has for those in critical process. These stories are the dark underbelly of the inspirational rhetoric of adult learning.

Impostorship

Impostorship is the sense adults report that at some deeply embedded level they possess neither the talent nor the right to become learners. As adults describe the beginnings of their journeys as critical learners, they speak of their engagement in critical process almost as a form of inauthenticity, as if they are acting in bad faith by taking on the external behaviors they associate with critical analysis without really feeling a sense of inner congruence or conviction about these. There is a sense of impostorship regarding the rightness of their taking critical perspectives on familiar ideas, actions and social forms. This feeling does decrease over time, but it rarely disappears entirely. Not all share this feeling, it is true, but amongst adults represented in my own research it does seem to cross lines of gender, class and ethnicity. The cultural roots framing

impostorship are hard to disentangle, but most who spoke about impostorship viewed it as having been produced by their awareness of the distance between the idealized images of omniscient intellectuals they attached to anyone in the role of 'student', and their own daily sense of themselves as stumbling and struggling survivors. This contrast between the idealized and the actual was so great that the inference was made that aspiring to describe themselves in these idealized terms was unrealistic and unconvincing.

At the outset of critical episodes, the triggers that bring this sense of impostorship to the forefront of consciousness are seen at distinct times in adults' autobiographies. The first of these has to do with the moment of public definition as a student. The news that one has been admitted into an educational program is greeted with a sense of disbelief, not entirely pleasurable. The second set of public definition or recognition as a learner this time in a social setting. The experience beloved of so many college teachers of having participants introduce themselves at an opening program orientation session as a way of relieving students' anxieties, seems to have the converse effect of heightening these same anxieties for many students. Rather than affirming and honoring their prior experiences, this round table recitation of past activities, current responsibilities and future dreams serve only to heighten adults' sense of impostorship.

Impostorship of a more complex and embedded nature manifests itself in a third way in the reverence adults turned learners feel for what they define as 'expert' knowledge enshrined in academic publications, or at least in the public domain of the published, printed word. When asked to undertake a critical analysis of ideas propounded by people seen as experts adults will often say that to do so smacks of temerity and impertinence. More particularly, they will report that their own experience is so limited that it gives them no starting point from which to build an academic critique of major figures in their fields of study. There is a kind of steamrolling effect in which the status of 'theorist' or 'major figure' flattens these students' fledgling critical antennae. This is perhaps most evident when the figures concerned are heroic in the eyes but it is also evident when students are faced with a piece of work in which the bibliographic scholarship is seen as impressive. The sense of impostorship they feel in daring to comment critically on this makes their experience of engaging in critical analysis seem a rather unconvincing form of role-taking, even play acting. Their assumption is that sooner or later any critique they produce will be revealed to be the product of an unqualified and unfit mind.

Cultural Suicide

Cultural suicide is what often happens to adults who are seen by those around them to be re-inventing themselves, to be in critical process. Cultural suicide is the threat adults perceive that if they take a critical questioning of conventional assumptions, justifications, structures and actions too far they will risk being excluded from the cultures that have defined and sustained them up to that point in their lives. The perception of this danger, and experience of its actuality, is a common theme in adult students' autobiographies. Students who take critical thinking seriously report that this often causes those around them to view them with fear and loathing, with a hostility borne of incomprehension. The adult in critical process who was formerly seen by friends and intimates as 'one of us', is now seen in one of two ways, both of which carry a real sense of threat to those who see themselves as being betrayed or left behind. On the one hand the person concerned may be viewed as taking on airs and pretenstions, as growing "too big for her boots", as aspiring to the status of intellectual in contrast to her friends and colleagues who feel that they are now somehow perceived as less developed creatures grubbing around in the gritty gutters of daily life outside academe. The adult who has come to a critical awareness of what most people accept as taken for granted, commonsense ideas can pose a real threat to those who are not on a similar journey of self-discovery, or who do no see themselves as engaged in the same political or intellectual project. In the eyes of those left behind the adult student is perceived as having 'gone native', to have become a fully fledged member of the tribal culture of academe.

On the other hand, adults in critical process are sometimes seen as turning into subversive troublemakers whose raison d'etre now seems to be to make life as difficult and uncomfortable as possible for those around them. A common experience reported by adult students is of their rapidly being marginalized as a result of their slipping into a more critical mode in their daily work. They find out that their raising of critical questions regarding commonly held assumptions is not met with resentment and suspicion, with a feeling that the person concerned has betrayed the group culture and has somehow become a pink tinged revolutionary. Many students complain that being critically reflective only serves to make them disliked by their colleagues, harms their careers, loses them fledgling friends and professionally useful acquaintances, threatens their livelihoods, and turns them into institutional pariahs.

Incremental Fluctuation

 Mezirow's (1991) writings on adult perspective transformation have stressed how incremental movement through the various stages of critical reflection is much more likely than dramatic paradigm shifts. In speaking of critical reflection as a learning process, adults often describe a rhythm of learning that might be called incremental fluctuation; put colloquially, it can be

understood as two steps forward, one step back, followed by four steps forward, one step back, followed by one step forward, three steps back, and so on in a series of fluctuations marked by overall movement forward. It is a rhythm of learning which is distinguished by evidence of an increased ability to take alternative perspectives on familiar situations, a developing readiness to challenge assumptions, and a growing effective tolerance for ambiguity, but it is also one which is characterized by fluctuating moments of falling back, of apparent regression. When learners are in the middle of these temporary regressions they report that they experience them as devastatingly final, rather than inconvenient interludes. They are convinced that they will never 'get' critical thinking, that "it's beyond me", and that they may as well return to tried and trusted ideas and actions on the grounds that even if these didn't account for everything in life at least they were comfortable, known and familiar.

Lost Innocence

Adults in critical process speak of the epistemological as well as cultural risks they run and they see their learning to think critically as a journey into ambiguity and uncertainty requiring a willingness to ler go og eternal verities and of the reassuring prospect of eventual truth. In contrast to the relentlessly upbeat rhetoric surrounding much exposition on empowerment, liberation, emancipation and transformation, their descriptions of their journeys as learners are quite often infused with a tone of sadness. In particular, they speak of a loss of innocence, innocence being seen in this case as a belief in the promise that if they study hard and look long enough they will stumble on universal certainty as the reward for all their efforts. Although this kind of comment represents a loss of epistemological innocence, an absence of a previously felt faith in the impending revelation of certainty, it also signifies what could be viewed as a corresponding growth in wisdom, in wise action (Sternberg, 1990). People in critical process look back to their time as dualistic thinkers, and to their faith that if they just put enough effort into problem solving solutions would always appear, as a golden era of certainty. An intellectual appreciation of the importance of contextuality and ambiguity comes to exist alongside an emotional craving for revealed truth.

As practically the only book addressing directly the connection between emotions and adult learning recognizes, the transformative dimensions of critical thinking involve, for an adult, "the agonizing grief of colluding in the death of someone who he knows was himself" (More, 1974, p.69). In terms of schemas drawn from developmental psychology, people experiencing a loss of innocence are caught in the relativistic freeze between concrete and dialectical thinking (Basseches,

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1984) or between dualism and multiplism (Perry, 1981). Despite the prevalence of a sense of epistemological loss, however, one can look long hard and mostly unsuccessfully for themes of yearning, bereavement and sadness in reports of adult critical thinking found in professional journals and research conference proceedings.

Community

Impostorship, lost innocence, cultural suicide, moments of incremental fluctuation - these make for a pretty depressing rendition of the process of learning to think critically, and one which stands in marked contrast to the positive optimism of much transformative rhetoric. There is, however, a more hopeful experiential theme which emerges from adults' experiences as critical learners - the theme of community. As adults speak of their own critical process they attest to the importance of their belonging to an emotionally sustaining peer learning community - a group of colleagues who were also experiencing dissonance, reinterpreting their practice, challenging old assumptions and falling foul of conservative forces.

Given the fluctuating, emotionally complex and culturally punished nature of critical thinking it is not surprising to hear adults speak of the store they placed on their membership in a peer support group. As they talk and write about the factors that help them sustain momentum through the lowest moments in their autobiographies as critical learners, it is membership of a learning community - of an emotionally sustaining group of peers - that is mentioned more consistently than anything else. These groups are spoken of as "a second family", "the only people who really understand what I'm going through", "my partners in crime", and they provide a safe haven in which adults in critical process can confirm they are not alone, and through which they can make sense of the changes they are experiencing.

Since learning to think critically entails so many tales from the dark side it is important that educators have the chance to gain accurate insight into the emotional and cognitive ebbs and flows of this process so that they can help adult students tolerate periods of confusion and apparent regression more easily. Through peer learning communities students can be encouraged to share their private feelings of impostorship in an attempt to help them realize that their private misgivings can coalesce into publicly recognized truth. Knowing that one is not alone in thinking or feeling something that seems divergent is an important step in coming to take one's own experience seriously, especially when that experience is of a critical nature and therefore likely to be devalued by mainstream theory and practice.

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As Simon (1988, p.4) points out, taking a critical perspective on commonly accepted ideas and practices can easily turn an educational setting into a council of despair as people start to realize the power of the forces and the longevity of the structures ranged against them. However, by using learning communities as the forum in which they can compare their own private journeys as critical thinkers, adults come to realize that what they thought were idiosyncratic incremental fluctuations in energy and commitment, morale sapping defeats suffered in isolation, and context-specific barriers preventing change, are often paralleled in the lives of colleagues. This knowledge, even if it fails to grant any insights into how these feelings can be ameliorated or how these barriers might be removed, can be the difference between resolving to work for purposeful change whenever the opportunity arises, and falling prey to a mixture of stoicism and cynicism in which staying within comfortably defined boundaries of thought and action becomes the overwhelming concern.

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