Published in:
Kasl, E. and Yorks, L. (2002) "An Extended Epistemology for Transformative Learning Theory and Its Application Through Collaborative Inquiry" *TCRecord Online*
http://www.tcrecord.org/Content.asp?ContentID=10878

An Extended Epistemology for Transformative Learning Theory and Its Application Through Collaborative Inquiry

Elizabeth Kasl and Lyle Yorks

The purpose of this paper is to stimulate discussion about the epistemology of transformative learning and to describe collaborative inquiry as an ideal strategy for facilitating such learning. Jack Mezirow's writings about the transformative dimensions of adult learning are seminal to the ongoing discourse about adult learning and transformation. His analysis has been generative for theory building and research, not only because of the conceptualization he provides but also because of the productive lines of critique his work has stimulated. We join the discourse with suggestions that extend Mezirow's theory to a more wholistic conceptualization. We then show how collaborative inquiry, a methodology based on an epistemology rooted in experience and dependent on relationship, provides practitioners with a useful structure for facilitating adult learning.

Transformative Learning Theory and Learning from Experience

Before proceeding with our discussion, we make a short comment about the development of Transformation Theory (Mezirow 1978, 1981, 1991, 1995, 2000). The original purpose of Mezirow's project was to introduce a theory of adult learning into the discourse about adult education. Writing at a time when the literature in adult education was largely focused on describing a set of educational practices that took-for-granted beliefs about adults as learners, Mezirow called attention to the need for a formal theory of adult learning and offered his own vision. He has been successful in sparking an extensive discussion about how adults learn (Taylor, 1998, 2000).

Mezirow rests his work on the assumption that learning transformatively is rooted in learning from experience.

> Learning is understood as the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience as a guide to future action....
>
> Transformative learning refers to the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action (Mezirow, 2000, pp. 5-8).

Critics have asserted that Mezirow's conceptualization of transformative learning is overly rational and analytic (Clark & Wilson, 1991; Taylor, 1998). Mezirow has responded to critics by acknowledging the importance of multiple ways of knowing, but he continues to pay primary attention to the analytic force of reflection and rational discourse as the catalyst for transformative learning. "Transformation theory is not simply a theory of rationality, although a theory of rationality is central to it" (Mezirow, 1995, p. 48).

In contrast, we believe that the wholistic epistemology developed by John Heron and Peter Reason (Heron, 1992, 1996a, 1996b; Heron & Reason, 1997, 2001), which theorizes the foundational role of affect, provides a compelling framework for articulating how experiential knowing relates to learning and transformative learning. As their work has gone largely unnoticed by adult educators in North America, our agenda is to introduce this valuable perspective into adult educators' frame of reference about learning and transformative learning.

Heron's Model: Experiential Knowing Arises from Affective and Imaginal Modes of Psyche

For decades, Heron has been writing about an extended epistemology grounded in a phenomenological sense of felt experience. In 1992, he expanded his point of view by suggesting that epistemology must be understood in the larger context of personhood. In his book, *Feeling and Personhood*, Heron (1992) presents an integrated theory of human psyche. By psyche, Heron means "the human mind and its inherent life as a whole, including its unexpressed and unexplored potential, as well as what is manifest in conscious development...psyche includes both the potentials for personhood and the actual person…." (p. 14).

The psyche, according to Heron, has four modes of functioning — affective, imaginal, conceptual and practical. Each mode includes two processes: "The affective mode embraces feeling and emotion.... The imaginal mode comprises intuition and imagery.... The conceptual mode includes reflection and discrimination. And the practical mode involves intention and action" (pp. 14-15).

The extended epistemology that springs from these modes of psyche includes four ways of knowing — experiential, presentational, propositional and practical. Heron writes that experiential knowing is evident when we meet and feel the presence of some energy, entity, person, place, process, or thing. Presentational knowing is evident in our intuitive grasp of the significance of imaginal patterns as expressed in graphic, plastic, moving, musical, and verbal art forms. Propositional knowing is expressed in intellectual statements, both verbal and numeric, organized in ways that do not infringe the rules of logic and evidence. Practical knowing is evident in knowing how to exercise a skill (1996a p. 33).

Heron uses the metaphor of parenting (1992, p. 157) to describe how each way of knowing arises from, and is situated within, two modes of psyche. Experiential knowing is parented by the affective and imaginal modes, presentational knowing by the imaginal and conceptual modes, propositional knowing by the conceptual and practical modes, and practical knowing by the practical and affective modes of psyche.

Heron presents the fours ways of knowing as a cycle: the learner *experiences* a felt encounter which is grasped and *presented* intuitively, expressed *propositionally* and extended into *practical* action. Action creates a new experience of felt encounter and the cycle begins anew.

Many North American educators will notice similarities between Heron's cycle and the experiential learning cycle posited by David Kolb (1984), which also includes four psychological modes (feeling, perceiving, thinking, and behaving) and four learning modes (concrete experience, reflective observation, abstract conceptualization, and active experimentation). Because Kolb's model is so familiar to North American educators and the apparent similarities tempting, we think it important to draw attention to four significant differences between Kolb's and Heron's conceptualizations: 1.) Kolb creates a one-to-one correspondence between psychological modes and learning modes, whereas Heron

posits that each way of knowing is situated within two psychological modes. 2.) Although three Kolb learning modes are similar to three corresponding ways of knowing in Heron's model, there is little correspondence between the respective fourth modes — Kolb's *reflective observation* and Heron's *presentational knowing*. These distinctly different processes are the posited link between felt experience and conceptual meaning. 3) The distinctly different ideas about how experience and conceptualization are linked is an outgrowth of different philosophical positions about the nature of experience. Kolb's understanding of experience is closely associated with American pragmatism whereas Heron's is grounded in radical phenomenology. 4) Kolb structures the relationship among the learning modes as poles of two orthogonal continua — prehension (taking in experience through concrete experience or abstract conceptualization) and transformation (making meaning from experience through reflective observation or active experimentation). In contrast, Heron connotes a relationship of "up-hierarchy" by depicting ways of knowing as a pyramid. He explains "In an up-hierarchy, it is not a matter of the higher controlling and ruling the lower, as in a down-hierarchy, but of the higher branching and flowering out of, and bearing the fruit of, the lower" (1992, p.20).

Figure 1 illustrates the up-hierarchy for multiple ways of knowing as conceived by Heron. In each band of the pyramid, a way of knowing is named in large print, with the two supporting modes of psyche indicated in smaller print. Experiential knowing, which arises from the affective and imaginal modes of psyche, is the base of all learning and grounds all other forms of knowing. Practical knowing occupies the pinnacle and is the "fruit" of all other ways of knowing.

INSERT DRAWING HERE

Figure 1. John Heron's Conceptualization of Ways of Knowing as Up-Hierarchy

Heron would argue that an epistemology congruent with human experience must acknowledge affect as a central feature. We agree. In spite of their importance, emotions and feelings are often paid scant attention by learning theorists and practitioners. David Boud, who has spent a career unraveling the relationship between reflection and learning from experience, writes with colleagues Ruth Cohen and David Walker, "In contemporary English-speaking society, there is a cultural bias towards the cognitive and conative aspects of learning. The development of affect is inhibited...leading to a lack of emphasis on people as whole persons.... " (Boud, Cohen & Walker, 1993, pp. 12-13).

We believe that Transformation Theory as currently articulated by Mezirow pays too little attention to "people as whole persons," specifically to the way in which critical reflection is interdependent with other ways of knowing. Based on his exhaustive review (Taylor, 1998) of research related to Mezirow's theory, Ed Taylor observes:

> Based on the research it seems quite clear that both critical reflection and affective learning play a significant role in the transformative process.... Mezirow as well as most other studies looked at these two concepts...separately and did not give enough attention to their interrelationship in the transformative process (Taylor, 2000, p. 303).

Taylor goes on to describe findings from what he calls "the most extensive study to date" (p.304) that document the interdependence empirically. We suggest that Heron's model of up-hierarchy provides a theoretical perspective on the

interdependence of multiple ways of knowing and the primacy of affect that can usefully be pursued in the discourse about transformative learning.

Validity of Experience-based Knowledge

Like any theory of knowledge, constructivist theories based on a premise that adults make meaning from their experience must consider the issue of validity. Heron and Mezirow have similar ideas about the importance of public consensus. According to Mezirow, the outcome of a valid meaning making process will be frames of reference that are increasingly "more inclusive, discriminating, open, emotionally capable of change, and reflective...that will prove more true or justified to guide action" (2000, pp. 7-8). Discourse is a primary means for developing more adequate frames of reference, enabling learners "to use the experience of others to assess reasons justifying [their] assumptions..." (p.8) in search of a "best judgment...based on the broadest consensus possible" (p.12). In reflecting on the same issue, Heron observes that valid meaning

> ...clearly does not mean creating any old world that suits your fancy.... For reality is essentially public and shared; it depends on a consensual view of its status and credentials. I can have a distinct and idiosyncratic perspective on this shared reality, but this purely personal view is interdependent with the public account (1992, p. 249).

Although Mezirow and Heron agree that public consensus plays an important role in judging the content validity of meaning that learners make from their experience, the two theorists' epistemologies lead them to significantly different ideas about the processes that lead to that valid content. Mezirow argues that we use reflection to assess the adequacy of the meaning we are making. "Reflection is the process of critically assessing the content, process, or premise(s) of our efforts to interpret and give meaning to an experience" (1991, p. 104). Thus, in Mezirow's view, the conceptual mode of psyche bears primary responsibility for validity. Heron (1992) argues that each way of knowing has its own independent canons of validity (pp. 161-176). Each must be judged in its own terms. At the same time, because of the up-hierarchy, the validity of each way of knowing is also dependent on the ways of knowing that ground it, meaning that the validity canons for experiential knowing are the "touchstone for the validity of all higher sets of transactions" (p.162). The primary criterion for validity is congruence (Heron, 1988, 1996). "Valid knowledge...means that each of the four kinds of knowledge is validated by its own internal criteria, and also by its interdependence and congruence with all the others within a systemic whole" (1996, p.33). Critical subjectivity is the process for achieving congruence. It "involves an awareness of the four ways of knowing, of how they are currently interacting, and of ways of changing the relations between them so that they articulate a reality that is unclouded by a restrictive and ill-disciplined subjectivity" (Heron & Reason, 1997, p. 281).

On the face of it, Mezirow's description of process reflection appears similar to critical subjectivity. According to Mezirow, "*Process reflection* is an examination of *how* we perform [the] functions of perceiving, thinking, feeling, or acting and an assessment of our efficacy in performing them" (1991, pp. 7-8). Critical subjectivity "involves an awareness of the four ways of knowing...and of ways of changing the relations between them..."(Heron & Reason, 1997, p. 281). However, in Mezirow's construction process reflection is an analytic activity and the examples he gives are construed in the context of problem solving (1991, pp. 107-108; 1995, pp. 44-45). In the Heron/Reason construction, critical subjectivity is a process of heightened awareness that, when incongruence among ways of knowing is detected, requires returning to the experience of the felt encounter. Experiential knowing,

site of the affective and imaginal, is the "touchstone for the validity of all higher sets of transactions" (Heron, 1992, p.162).

Habits of Being and an Epistemology of Balance

We conclude our analysis with a reflection about language. Mezirow (2000) has recently adopted the phrase *habits of mind* to refer to what in earlier work he called *meaning perspective*. We believe that the change of language from meaning perspective to habits of mind makes the idea of meaning perspective more transparent, and thus more accessible to a broad range of readers. At the same time, we also notice that the phrase habits of mind can serve as a metaphor for Mezirow's emphasis on the conceptual and rational. We suggest that an epistemology that balances multiple ways of knowing, which we propose is a more adequate framework for understanding adult learning, is captured appropriately with an alternative phrase, *habits of being*.

The epistemological differences in perceptions about how meaning is created and tested lead to different implications for design of learning interventions. When Mezirow writes about the "establishment of ideal learning conditions" he describes ideal conditions for rational discourse (1991, p. 198). An educator following Mezirow would emphasize conceptual practices such as dialogue under the rules of free and open discourse. When Heron writes about learning, he describes an array of facilitative practices designed to elicit a balanced engagement with all four ways of knowing (1992, 1996b, 1999). For us, a significant implication of an epistemology of balance is that unchecked dominance of any one way of knowing leads to truncated, even dysfunctional, learning experiences. Examples of truncated learning experiences vary. They can range from highly dialogic designs that depend solely or largely on discourse, to meditative or expressive experiences that exclude or minimize discourse, to action-based learning methods that minimize reflection on feelings and how feelings impact learning.

The Epistemology of Action

Over the years, many of Mezirow's critics have pointed to what they perceive as his lack of attention to social action (Taylor, 1998), charging that his work is "too psychological." We suggest an alternative critique — that Mezirow's description of the psychological falls short of accounting fully for how action is embedded in the psyche. We believe that many action-oriented critics, with their terse dismissal of the psychological, fail to apprehend the significance of psyche as the context for action. Of course, not all action is social action. However, we believe that social action cannot be understood separately from an epistemology of action and is predicated upon it.

From the perspective of an epistemology of balance, we suggest that a common cause of a learner's failure to take action for which he or she has avowed commitment is a lack of congruence among the four ways of knowing. The lack of congruence may signal either *lack of skill* or *lack of will*. In the first case, lack of skill grows from lack of experiential know-how, sometimes expressed with the simple phrase, *knowledge about* is not the same as *knowing how.* In the second case, lack of will grows from lack of coherence between what has been articulated propositionally and what the learner knows through other modes of psyche. In this case, the learner may have agreed in good faith to a line of action, only to discover when it comes time to act that espoused intention is somehow at odds with experiential or presentational knowing.

We now distinguish between Mezirow's description of discourse and a phenomenon we call *learning-within-relationship*.

Our distinction rests on the differences in epistemologies just described. We use the term *learning-within-relationship* to describe what happens when an epistemology of balance is enacted in the context of a group: learners are fully engaged with their own whole-person knowing as well as the dynamic whole person of their fellow learners. To grasp the difference between discourse and learning-within-relationship, we first examine Mezirow's description of discourse.

Following Habermas, Mezirow identifies two major domains of learning — instrumental and communicative. The process of communicative learning, "learning what others mean when they communicate with you.[often involving] feelings, intentions, values, and moral issues" (1991, p.8), requires processes for structuring interaction. Mezirow suggests the ideal process is discourse.

> Discourse, in the context of Transformation Theory, is that specialized use of dialogue devoted to searching for a common understanding and assessment of the justification of an interpretation or belief. This involves assessing reasons advanced by weighing the supporting evidence and arguments and by examining alternative perspectives. Reflective discourse involves a critical assessment of assumptions. It leads toward a clearer understanding by tapping collective experience to arrive at a tentative best judgment" (2000, pp. 10-11).

Discourse is an analytic process that fosters communicative learning. In Heron's model, discourse would be a manifestation of propositional knowing, which is parented by the conceptual and practical modes of psyche. In contrast, communicative learning in Heron's model would require that participants engage each other through affective and imaginal modes of psyche as well as conceptual and practical. Discourse would be only one form of communication, embedded in a larger pattern of interaction that enables communities of learners to create mutually-held beliefs and meaning. This whole-person pattern of interaction is learning-within-relationship.

Both theorists agree that the role of felt connection in communicative learning is critical, but account for it differently. Mezirow acknowledges that effective participation in discourse requires pre-existing capacities and conditions. Discourse requires emotional maturity in participants (p. 11) and "[f]eelings of trust, solidarity, security, and empathy are essential preconditions..." (p. 12). According to Heron, feelings and emotional capacities are lodged in the affective mode of psyche, one of the "parents" for experiential knowing — which is "the domain of empathy, indwelling, participation, presence, resonance, and such like" (Heron, 1992, p. 16). We assert that Transformation Theory does not adequately account for how adults can be helped to create the conditions for reflective discourse because it privileges two modes of psyche, effectively cutting learners off from the source of felt connection. Conditions of trust, solidarity, security, and empathy cannot be created from a conceptual commitment to their importance, no matter how deeply that commitment is felt by the person who holds it. Trust, solidarity, security, and empathy require human interaction through affective and imaginal modes. Further, the more diverse the group of co-learners, the greater the effort needed to create conditions that enable them to engage each other authentically as whole-persons. Activities that can foster learning-within-relationship take time and, as Boud and his colleagues observe, are not typically provided for in contemporary English-speaking society's social institutions. We add a caveat that the

"contemporary English-speaking society" norms to which Boud and colleagues allude are represented by a hegemony that is often described with the adjectives, "Western or Eurocentric, white, male." We hasten to add that people of color and women are also swept into the hegemony in their patterns of human interaction.

Heron and Reason are the architects of a research process called co-operative inquiry (Heron, 1996; Heron & Reason, 1997), which they assert ideally actualizes the wholistic epistemology described above. The educational process called collaborative inquiry (Bray, Lee, Smith, & Yorks, 2000; Kasl & Yorks, forthcoming; thINQ, 1993), which we now describe, is derived in large part from principles outlined by Heron and Reason .

Collaborative Inquiry — Putting the Extended Epistemology into Practice

Collaborative inquiry is a systematic process ideally suited for facilitating learning-within-relationship. Small groups of learners come together as peers to pursue a question of mutual interest. Collaborative inquiry is especially appropriate for constructing new meaning regarding questions that are professionally developmental, socially controversial, require personal or social healing, or explore inner experience. These categories are of course not mutually exclusive.

Using systematic procedures for learning from their personal experience, participants generate new knowledge from repeated episodes of reflection and action. They share equal power and responsibility for making decisions, practice critical subjectivity and intersubjectivity in mutual pursuit of new meaning, and follow explicit validity procedures. Thus, collaborative inquiry creates a learning structure that mirrors the conditions long held by Mezirow (1991, 1995, 2000) to be fundamental to transformative adult learning — freedom from coercion, equality of opportunity for participation, and norms of inquiry that reinforce commitment to building shared meaning through validity testing.

Learning from experience and transformative learning are both supported by learning in the context of a group. The context of group has several benefits. Groups offer ready access to diverse and challenging perspectives. They create social support for construction and reconstruction of meaning. Collaborative inquiry groups typically meet for an extended period of time, thus making it more likely that members will develop the trust and empathy that is associated with the whole-person epistemology of learning-within-relationship.

Below we briefly tell the stories of three inquiries. We have chosen these particular inquiries because they illustrate the broad range of purposes to which collaborative inquiry lends itself. As we have space to provide only the briefest sketch of these three inquiries, we focus our narrative on how the power of whole-person epistemology and learning-within-relationship creates a place of nexus for individual personal growth and action in the world. After describing each inquiry, we use Mezirow's observations regarding frames of reference as an interpretive frame for describing the inquirers' transformation. In 1991, Mezirow described "three types of meaning perspectives" — epistemic, sociolinguistic, psychological (pp. 42-43). In 2000, he writes, "A frame of reference is a 'meaning perspective,' the structure of assumptions and expectations through which we filter sense impressions" (p.16). In addition to epistemic, sociolinguistic, and psychological "filters," he now adds moral-ethical, philosophical, and aesthetic (p. 17).

The Community Women

Linda Smith is a community-based adult educator committed to what she describes as "the validation of grass-roots knowledge." After discovering Peter Reason's work, she was inspired to organize a collaborative inquiry group. In the opening paragraph of his

1988 edited book, Reason writes about research "*with* and *for* people rather than *on* people" (p.1). Linda wondered, "How can I join *with* people who have grass-roots knowledge in order to validate the importance of this kind of knowledge?" She began to search her network of connections in her home community, Washington D.C., and discovered the community women.

The community women had been working for a year as volunteer peer counselors in clinics that serve new mothers. One of them, Ann, obtained a small grant to cover expenses for child care and transportation. With great enthusiasm, Linda invited the group to join her in an inquiry about the power of grass-roots knowledge. Linda bubbled with enthusiasm, based on her practitioner experience and her recent discoveries related to epistemology — descriptions of women's ways of knowing (Belenky, Clinchy, Goldberger & Tarule, 1986) as well as Reason's "new paradigm."

Years later, in describing her approach to the community women, Linda smilingly explains that her presentation was "perhaps a *little* too abstract." Luckily, the group's leader with whom Linda had spoken during her search for a group, was committed to the inquiry. Ann called Linda to ask, "What will it take to make the idea of collaborative inquiry more concrete? The peer counselors like things to be concrete." Together, they decided to organize a potluck. Over casual interaction, enjoying favorite dishes and sharing recipes, the women agreed to try collaborative inquiry, which they now understood as "telling stories about clinic experiences in order to learn from each other."

The peer counselors were diverse in race, language, and education. For many, English was not a first language and several had only a high school education or equivalency. When they met Linda, they had been working together for a year, but not as a cohesive unit. Within their group of ten, they tended to work in pairs or trios defined by race or language. Relying on expert knowledge, they turned often to a large reference book about breastfeeding. After they agreed to try collaborative inquiry, the women crafted their question, "What are the ways we can lower the barriers to peer counseling?" and through telling clinic stories, learned to appreciate the value of their personal experience. As Linda facilitated their storytelling, she "waited and watched" for opportunities to help the women direct their own reflection in a process they all thought of as "asking questions."

After a year of inquiry, the community women had grown confident that their personal experience was as important a guide for counseling practice as the big reference book on which they had been dependent. For example, one counselor's story about interacting with a Spanish-speaking client catalyzed reflection and ongoing experiment with different ways to overcome language barriers. As they broadened their experience with communicating across cultural differences, the women grew comfortable with talking about race and culture. By the end of the inquiry, Smith reports how the group had learned to change its assumptions about cultural differences. "In one of our early sessions, Emily, a white peer counselor, spoke about not approaching black women because she assumed that they were not interested [in breastfeeding]. Several sessions later Emily told a story [about] a great experience with a black woman" (1996, p.163). The "great experience" was possible because the group had begun to challenge members' assumptions about race and Emily's confidence in approaching the black woman was based in what she and the group were learning. From their growing cross-cultural experience in the clinics and within their group, the women debunked their own racial and cultural stereotypes, stereotypes that had guided their work the previous year.

About the same time, the peer counselors' two-year grant came to an end. Having learned to value their own experience, when the women asked themselves how they might raise money for the stipends that made their counseling work possible, they hit upon the idea of using their knowledge about communicating across cultural difference. Having once thought of themselves as working "mother-to-mother," they now made plans to work "group-to-group." During the next eighteen months, the community women facilitated inquiry processes for organizations interested in cross-cultural communication. Their efforts culminated in a project they undertook for the March of Dimes, in which they guided leaders from 32 community organizations drawn together by their association with programs related to teen pregnancy and parent education.

Looking back on the group's experience, one woman observed, "I think on our meetings as golden. We learned to believe in ourselves, and we all stood taller."

Interpretive Comment. During the first year of their inquiry, the community women learned new epistemic frames of reference (meaning perspectives or habits of mind). In the language of *Women's Ways of Knowing*, a model Linda used to guide her work with the women, the community women changed from being the *received* knowers who were dependent on the "big book of breastfeeding" to *constructed* knowers who had grown skillful in making sense of their experience and acting on their experience-based knowledge. They also learned new psychological frames as members' growing sense of agency changed self concepts. Finally, they disrupted former sociolinguistic assumptions about race and cultural difference.

Further reading about the community women's inquiry is available in Bray, Lee, Smith, and Yorks (2000), Smith (1995), and Smith (forthcoming).

The Technology Educators

Joyce Gerdau (now Joyce Lee) recruited eight technology educators to pursue an inquiry about the impact of educational technology on teaching and learning. All held state-wide educational leadership positions as administrators, staff developers, or coordinators of programs for the state of New Jersey. All were persons Gerdau had come to respect for both their knowledge and curiosity about the link between technology and education and how this link could be most effectively utilized by teachers. This initiating interest is reflected in the group's inquiry question, "How can educators be assisted in planning for and integrating technology into the teaching/learning processes at their respective sites?"

Through six action/reflection cycles over a period of eight months, the participants identified nine assumptions that participants believed should guide their respective practices. The last assumption captures a shift in their perspective about their work with teachers. "Above all, the integration of technology should be a humanizing process and we should remember that technology itself is not the solution, that the application of technology is only one solution to improving the educational system" (Gerdau, 1995, p. 203). As the group reflected on how its learning had led to this insight, members examined the discrepancy between their original question and what they now believed important.

> Henry: Then forget about technology! The burning question is: How do human beings better communicate with each other in a teaching-learning environment. That doesn't have anything to do with machines, eh?....
>
> Martin: Very good. Why didn't you come up with this six sessions ago? (laughter)
>
> Joyce: ...we all bought into the question.

> Martin: That's true, we did..... The bigger question is: How do we use technology to *improve* the interactions in the teaching-learning process! (Gerdau, 1995, p. 236).

The group's insight reflects a systemic understanding of education and technology's role in the schools. As illustrated by the difference between the group's initiating question and its closing perception, the co-inquirers changed their assumptions about the role of teacher agency in the relationship between teachers and technology.

Growth in members' capacity to perceive education systemically grew, in part, from their experience of learning to perceive the systemic character of their learning within the collaborative inquiry process. They grew to appreciate how their interrelatedness created a power greater than a sum of individual powers. At their last meeting, members drew pictures of their experience, then explained their drawings to each other. The pictures nearly all expressed prominently the power of group learning (pp. 207-215). For example, Sara drew streams of water that had originated in various locations, then came together in a waterfall. She explained,

> ...At the beginning we were diverse and came from different backgrounds. Then in the mixture of this waterfall the water is shared — the interchange of ideas and experiences opens up to new ways of thinking by building up a repertoire of choices and avenues. As the waterfall reaches the bottom, we disperse but within each little molecule of water the structure is changed somewhat (p. 214).

Paul drew two pictures. The first shows him tugging hard to pull uphill a rope that has twelve people attached to it. The second shows a number of people, milling around, exploring different points of view. He explained,

> Before collaborative inquiry, I thought there was a right direction which was Paul's enlightened direction. After collaborative inquiry, I see there is no one right way, there may be many ways. With this process, I think if you get a whole bunch of people who are smart and care about what they are doing and get them in the same place at the same time and give them no direction at all, they'll probably go someplace in the right direction (p. 208).

In an interview five months after the inquiry's conclusion, Paul observed,

> At first, it was like a lot of baloney...it took awhile...somewhere, about half-way through I discovered I was learning something and changed my behavior. I went into this collaboration with one set of opinions, a hardened set, and then softened in my positions (p. 237).

Although the group cherished the power of its experience with making meaning collaboratively, members tended to believe that they could not use collaborative strategies in their respective workplaces. At the final session, for example, as they talked about the process itself, "Martin leaned forward in an intense way and slammed his hand on the table. 'This is not real!'...Henry voiced a similar reaction, "It strikes me that our work environment by definition is not this work environment. The work environment has all kinds of qualities about it that work against the nice chemistry of this kind of mix." Paul concurred, likening the group's process to a poetry meeting, "In our lives we were all like firemen. We were putting out fires and then suddenly...we went to this poetry meeting.... If you are fighting fires, poetry becomes insignificant. But if your entire life is spent without any poetry in it, then what is the meaning of your life?" Although members appeared to believe that collaborative inquiry processes had no immediate relevance to their work environments,

eight months after that closing session, Martin observed that "a narrow application for collaborative inquiry" could have "efficacy in the workplace" (pp. 224-225).

At the group's closing meeting, Martin asked rhetorically, "How come I get all excited and pumped up about this process? This is the first time I have experienced at this level the adrenaline as a participant — this collaborative learning" (p. 204). Perhaps in answer to his own question, he also observed, "You know, it's really therapeutic for me...[but] I have no idea why I get so pumped up" (p. 241). Thinking about the "one thing that stands out about the experience that was particularly satisfying," Tom observed, "What sticks in my mind about our experience was the emotional content. It was very high intensity. The discussion had a high emotional content, people felt what they said and people took it as important — it was psychologically charged" (pp. 238-239).

Interpretive Comment. The technology educators all held highly responsible positions in the state department of education, based on their expert knowledge about technology. During the inquiry, they experienced change in both sociolinguistic and epistemic frames of reference. When the group perceived that its original question focused inappropriately on technology instead of the quality of the teaching-learning process, it was identifying and challenging norms in the technology community as well as a cultural predisposition toward valuing instrumental learning and problem solving. When members recognized the power of group learning, they were learning new frames for understanding how knowledge is created. This new frame had not yet permeated members' epistemic worldview, in that they could not imagine, at the time of their closing session, that the pace or chemistry of collaborative inquiry could be efficacious in their workplaces. However, as Sara observed with the water analogy, the inquiry changed "the structure" of each participant's perspective. Eight months after the inquiry, Martin was imagining that he might apply collaborative inquiry in his work environment. We suggest that the technology educators found it difficult to associate whole-person epistemology with the context of work. Yet, having experienced it themselves, they now had new epistemic frames with which to view what might be possible in other environments.

Further reading about the technology educators' inquiry is available in Bray, Lee, Smith, and Yorks (2000) and Gerdau (1995).

Inquiry into Whiteness.

This third example is not one inquiry, but a federated design in which several different collaborative inquiry groups were convened to assist members in learning about the impact of white consciousness on their personal beliefs and behaviors. A team of researchers studied the learning experience of participants in four of these groups. This synopsis is based on that team's findings.

The research team discovered that all but one of nineteen participants reported changed beliefs and behaviors, even though they started the inquiry "with different levels of awareness or consciousness regarding white hegemony" (Barlas, Kasl, Kyle, MacLeod, Paxton, Rosenwasser, & Sartor, 2000a, p. 27). From the many examples these researchers provide, we choose one that reveals the dynamic of how personal change is entwined with changed behavior. Barlas and her colleagues (2000a) describe the change in Eleanor:

> Eleanor, who is a writing teacher in a highly diverse community college, has changed her teaching. Before participating in the [collaborative inquiry], she never asked her students to write about their cultures or their experiences with discrimination, in part because she thought it would be unethical to ask disclosure from her students when she did not know how to be disclosing

about herself. She also believed that if she talked about racism, it would "be like reinforcing it and make it more powerful and more oppressive to minority people." As a result of her [collaborative inquiry] experience, Eleanor asked her remedial writing class to write about personal experience with racism. She completed the assignment herself and volunteered to be first to read her paper, which described through a vivid critical incident her own struggles with understanding how to confront racism. "I read mine first and you could just feel the whole room shift. It was really powerful because, I think, of how honest I was. It was hard for me to be this way and, you know, they knew that." (pp. 28-29).

Eleanor had wanted for a long time to "do something" about racism, but what she calls her "good girl" upbringing had taught her that it was "not nice" to talk about such things. Avoidance of things not nice filtered her perceptions of the world, which in turn directed her actions.

> Before her [collaborative inquiry] participation, she was so ashamed of having prejudiced thoughts that she "would just close them down so fast that they wouldn't really have contained any reality for me...." In contrast, she now notices such thoughts "in a little moment" of awareness. She notes that "[w]hen that happens I feel a little bit scared, and a little bit kind to myself, at the same time." With compassion for herself on these occasions, she thinks "I need to give myself explicit permission, not exactly in words, but to say to myself, 'It's okay to have the thought. It is all right.'" Because she has learned to be "a little bit kind" to herself, Eleanor now can stop repressing thoughts that shame her. Instead, she can notice them, reflect on them, and learn from them (pp. 27-28).

Eleanor's new way of being with herself and in the world had consequences beyond her classroom. The year after she participated in the inquiry, Eleanor "created a diversity workshop for college faculty and administrative staff. Her workshop spawned the rejuvenation of a disheartened institutional diversity committee, who sought and received a new budget allocation of $10,000" (p. 29).

In Eleanor's story, we see the interaction between feeling and perceiving, perceiving and thinking, thinking and taking action.

Interpretive Comment. Eleanor typifies the way in which personal transformation manifests itself in multiple ways and demonstrates how changes in epistemic, psychological, and sociolinguistic frames of reference are interrelated. Eleanor's shift in personal consciousness changes her capacity to notice her own racist thoughts and also changes the way she thinks about her responsibility as a white person to speak out about race and racism. Before her participation in collaborative inquiry, perceiving the world through her frame of "good girl," Eleanor thought it was "rude" to admit that she was conscious of race. Now she understands that her silence communicates a false message of acquiescence or support for race-based inequities. Eleanor's change in personal consciousness affects her behavior as a teacher and as a white person in the world. Before her participation in the inquiry, Eleanor avoided issues of race and culture, even though she is a writing instructor in a community college where the students are nearly all persons of color. Now, understanding that writing about race and culture can be liberating for her students, she bravely ventures into communications that she previously avoided. Further, in other venues of her life, she is learning how to speak about racist behavior when she observes it. Eleanor's new meaning perspectives have encouraged her to speak out in

faculty meetings in ways that have provided leadership for institutional change. With her new boldness, she has become a leader in the institution's diversity initiatives.

Further reading about the Inquiry into Whiteness can be found in Barlas, Kasl, Kyle, MacLeod, Paxton, Rosenwasser, and Sartor, (2000a, 2000b) and European-American Collaborative Challenging Whiteness (forthcoming a, forthcoming b).

Concluding Reflection

Nexus of Individual Personal Growth and Action in the World

The examples of the three groups illustrate the interaction between action in the world and reflection on the self.

When they began their inquiry, the Community Women focused on action in the clinics. Gradually, they learned to balance their natural propensities for action with reflective practices. Experimentation with ways to overcome barriers in the clinics spilled over into reflection about the social and cultural divisions among themselves, a force that before the collaborative inquiry had been potent but unacknowledged. With new understanding of cultural differences grounded in their own felt experience, the women were then able to translate their insights into practical action — among themselves, in the clinics, and in the larger community.

The Technology Educators began their inquiry with relatively instrumental frames of reference about technology and their task of helping teachers learn to use it. Their perspective grew progressively more systemic. As they began to appreciate the power in their own relationship-based learning, they gradually realized the importance of communicative and relationship-based learning for the teachers. The Technology Educators changed their perspective on the goals of their work and seem on the cusp of restructuring their beliefs about processes that might effectively implement that change.

Experience from four different groups participating in the Inquiry into Whiteness is represented in Eleanor's story. The supportive context of relationship enables Eleanor to confront in herself frames of reference that she had been too ashamed to acknowledge. Once able to surface these schemas, she is able to examine them and make progress toward changing them. Eleanor's change in personal consciousness propels her into new behaviors and actions that have served as catalysts for change in her workplace.

Collaborative inquiry groups usually begin their inquiries with a relative imbalance in their attention to inner experience or outer behaviors. For example, at their onset the Community Women and Technology Educators were focused on actions in the context of work roles (either volunteer or paid). Gradually, reflection about their experience in the workplace turned these inquirers' reflective attention toward self. The opposite pattern applies to the White Inquiry project. More than the other two projects, this one begins with a clear focus on an issue that is socially controversial and requires deep attention to inner experience. Changed internal consciousness in turn leads to changed behavior.

Changed habits of being are linked to the wholistic epistemology implemented in collaborative inquiry. Inquiry groups try out new behaviors as part of the action/reflection process. Sometimes members first practice new behaviors inside their inquiry groups, as the Community Women practiced communicating across language barriers. Co-inquirers also plan actions that require new behavior when they are away from the group, as Eleanor practiced talking about race instead of silencing herself because "that would be rude." Throughout the inquiry, co-inquirers find ways to maintain the quality of affective knowing in their interactions, so that they can support each other exploring the full meaning of their experience.

Collaborative Inquiry in Practice

Adult educators who want to learn more about how to structure and facilitate the collaborative inquiry process are encouraged to consult other sources (Bray, Lee, Smith, & Yorks, 2000; Heron, 1996; Yorks & Kasl, forthcoming).

We observe two notes of caution.

The wholistic epistemology described here is counter-cultural in the dominating norms of "contemporary English-speaking society." For example, although the Technology Educators valued their emotional connections with each other and acknowledged learning deeply when they engaged imaginatively through drawing pictures of their experience, they did not think it possible to use similar ways of knowing in their respective workplaces. From our experience as adult educators who have coached countless adults in how to use collaborative inquiry, we know that keeping participants continually grounded in their own felt experience is one of our greatest challenges. The multiple cycles of action/reflection that form the basic structure for collaborative inquiry can be short-circuited into a more familiar epistemology that privileges analysis and critical reflection instead of balancing multiple ways of knowing.

When adults engage wholistically — with people who bring diverse points of view, in inquiries about issues for which they feel strong personal interest — emotions can run high. This will be especially true if the process begins to lead toward transformation. As Mezirow observes, "Transformative learning, especially when it involves subjective reframing, is often an intensely emotional experience in which we have to become aware of both the assumptions undergirding our ideas and those supporting our emotional responses to the need to change" (2000, pp. 6-7). At such times, it is crucial that collaborative inquiry groups provide for distress facilitation (Heron, 1996; Heron & Reason 2001), yet many adult educators feel unprepared for this challenge. In discussing this challenge with colleagues, Ed Taylor no doubt speaks for many educators when he observes,

> ...on an intellectual level I recognize the significance of feelings and their interrelationship with rationality, but on a practical level I often find myself at an impasse of how to deal with intense feelings in the classroom.... too much focus on the personal starts to turn the classroom experience from one of education into therapy (Tisdell, Hanley, & Taylor, 2000, p. 138).

In writing about her own experience with distress facilitation in collaborative inquiry, Penny Rosenwasser makes an important distinction, "Like therapy, distress facilitation helps co-inquirers process emotions, and ideally, transform in the process. Unlike therapy, however, ... distress facilitation methods are not the focus of the inquiry; instead, these methods are tools to facilitate learning during action/reflection cycles" (Rosenwasser, forthcoming).

Although challenging, we believe it imperative that adult educators who want to use collaborative inquiry as a structure for learning and transformative learning become skillful in dealing with intense feelings in the context of learning.

Note

1. Our use of the term *learning-within-relationship* is drawn from the Group for Collaborative Inquiry (1994), who writes about *learning-in-relationship*, as well as from Gwendolyn Kaltoft's (1990) discussion of what she calls *self-in-relationship*.

References

Barlas, C., Kasl, E., Kyle, R., MacLeod, A., Paxton, D., Rosenwasser, P. & Sartor, L. (2000a). Learning to unlearn White supremacist consciousness. In Sork, T., Lee-Chapman, V., & St. Clair, R. (Eds.) Proceedings of the 41st Annual Adult Education Research Conference . University of British Columbia, Vancouver, Canada, June 2-4, pp. 26-30.

Barlas, C., Kasl, E., Kyle, R., MacLeod, A., Paxton, D., Rosenwasser, P. & Sartor, L. (2000b). Cooperative inquiry as a facilitator for perspective transformation. In Weissner, C., Meyer, S, & Fuller, D. (Eds.) Challenges of practice: Transformative learning in action. 3rd International Transformative Learning Conference Proceedings, Teachers College, Columbia University, New York, October 26-28, pp. 51-56.

Belenky, M. F, Clinchy, B. M., Goldberger, N. R. & Tarule, J. M. (1986). Women's ways of knowing: The development of self, voice, and mind. New York: Basic Books.

Boud, D., Cohen, R. & Walker, D. (1993). Introduction: Understanding learning from experience. In D. Boud, R. Cohen, & D. Walker (Eds.), Using experience for learning (pp. 1-17). Buckingham, England: The Society For Research into Higher Education & Open University Press.

Bray, J., Lee, J., Smith, L.L. & Yorks, L. (2000). Collaborative inquiry in practice. Thousand Oaks, CA: Sage Publications.

Clark, C.M. & Wilson, A. (1991). Context and rationality in Mezirow's theory of transformational learning. Adult Education Quarterly 41, 75-91.

European-American Collaborative Challenging Whiteness (forthcoming, a). Cooperative inquiry as a facilitator for perspective transformation. Teachers College Record Online, http://www.tcrecord.org.

European-American Collaborative Challenging Whiteness (forthcoming, b). A multiple-group inquiry into Whiteness. In L. Yorks & E. Kasl (Eds.), Collaborative inquiry as a strategy for adult learning: Creating space for generative learning. New Directions for Adult and Continuing Education no. 94. San Francisco, CA: Jossey-Bass.

Gerdau, J. (1995). Learning in adulthood through collaborative inquiry. Dissertation Abstracts International, 56,(07), 25247, (University Microfilms No. AAC95-39807).

Group for Collaborative Inquiry (1994). A model for transformative learning: Individual development and social action. 35th Annual Adult Education Research Conference Proceedings. The University of Tennessee at Knoxville, May 20-22, pp. 169-174.

Heron, J. (1988). Validity in co-operative inquiry. In P. Reason (Ed.), Human inquiry in action: Developments in new paradigm research (pp. 40-59). Newbury Park, CA: Sage Publications.

Heron, J. (1992). Feeling and personhood: Psychology in another key. Newbury Park, CA: Sage Publications.

Heron, J. (1996a). Cooperative inquiry: Research into the human condition. Thousand Oaks, CA: Sage Publications.

Heron, J. (1996b). Helping whole people learn. In D. Boud & N. Miller (Eds.), Working with experience (pp. 75-91). London and New York: Routledge.

Heron, J. (1999). The Complete Facilitator's Handbook. London: Kogan Page.

Heron, J. & Reason, P. (1997). A participatory inquiry paradigm. Qualitative Inquiry 3, 274-294.

Heron, J. & Reason, P. (2001). The practice of co-operative inquiry: Research 'with' rather than 'on' people. In P. Reason & H. Bradbury (Eds.), Handbook of action research. London: Sage Publications.

Kaltoft, G. (1990). Music and emancipatory learning in three community education programs. Unpublished doctoral dissertation, Teachers College, Columbia University, New York.

Kasl, E. & Yorks, L. (forthcoming). Collaborative inquiry for adult learning. In L. Yorks & E. Kasl (Eds.), Collaborative inquiry as a strategy for adult learning: Creating space for generative learning. New Directions for Adult and Continuing Education no. 94. San Francisco, CA: Jossey-Bass.

Kolb, D. (1984). Experiential learning: Experience as a source of learning and development. Englewood Cliffs, N.J.: Prentice-Hall.

Mezirow, J. (1978). Perspective transformation. Adult Education 28, 100-110.

Mezirow, J. (1981). A critical theory of adult learning and education. Adult Education Quarterly 32, 3-24.

Mezirow, J. (1991). Transformative dimensions of adult learning. San Francisco: Jossey-Bass.

Mezirow, J. (1995). Transformation theory of adult learning. In M. Welton (Ed.), In defense of the lifeworld: Critical perspectives on adult learning (pp. 39-70). Albany, N.Y.: State University of New York Press.

Mezirow J. (2000). Learning to think like an adult. In J. Mezirow and Associates, Learning as transformation: Critical perspectives on a theory in process. (pp. 3-33). San Francisco: Jossey-Bass.

Rosenwasser, P. (forthcoming) Exploring internalized oppression and healing strategies. In L. Yorks & E. Kasl (Eds.), Collaborative inquiry as a strategy for adult learning: Creating space for generative learning. New Directions for Adult and Continuing Education no. 94. San Francisco, CA: Jossey-Bass.

Smith, L. L. (1995). Collaborative inquiry as an adult learning strategy. Dissertation Abstracts International, 56,(07), 2533, (University Microfilms No. AAC95-39867).

Smith, L. L. (forthcoming). Using the power of collaborative inquiry: Community women learn and lead themselves. In L. Yorks & E. Kasl (Eds.), Collaborative inquiry as a strategy for adult learning: Creating space for generative learning. New Directions for Adult and Continuing Education no. 94. San Francisco, CA: Jossey-Bass.

Taylor, E. (1998). Theory and practice of transformative learning: A critical review. Information Series No. 374. Columbus, Ohio: ERIC Clearing House on Adult, Career, and Vocational Education.

Taylor, E. (2000). Analyzing research on transformative learning theory. In J. Mezirow and Associates, Learning as transformation (pp. 285-328). San Francisco: Jossey-Bass.

thINQ. (1993). Adult learning through collaborative inquiry. 34th Annual Adult Education Research Conference Proceedings, Penn State University, University Park, PA, May, pp. 293-298.

Tisdell, E., Hanley, M.S., & Taylor, E. (2000). Different perspectives on teaching for critical consciousness. In A. Wilson & E. Hayes (Eds.), Handbook of Adult and Continuing Education. San Francisco, CA: Jossey-Bass.

Yorks, L. & Kasl, E. (Eds.) (forthcoming). Collaborative inquiry as a strategy for adult learning: Creating space for generative learning. New Directions for Adult and Continuing Education no. 94. San Francisco, CA: Jossey-Bass.