Excerpts from Influences

Marie Larochelle: (professor, Faculty of Educational Science of Universite Laval in Quebec)

Larochelle, M. (2000). Radical constructivism: Notes on viability, ethics, and other educational issues. In L. P. Steffe & P. W. Thompson (Eds.), <u>Radical Constructivism in Action</u> (pp. 55-68). London: RoutledgeFalmer.

"However, more often than not, the concern for what the student has to say is limited to a normative perspective rather than to one which aims to clarify the conditions in which the student's point of view first arises and then takes root." (p. 57)

That is, Larochelle claims that we often listen to students only to spot what has "gone wrong" between their thinking and "official school mathematical thinking" rather than to understand and learn their views, their mathematics. As a result,

"It seems as if the coherency and overall organization of the models proposed by scholarly knowledge (one model for a group of problems) carries greater weight than models developed by students, and, moreover, that students would be better off trading in their eclectic knowledge for a more high-powered variety or at least a variety considered as such within a particular milieu. But is this plausible? How can modes of knowledge which are based on different postulates and which pursue different ends be interchangeable?" (p. 58)

Larochelle proposes that even "if...the student can eventually realize that he or she is the creator of his or her knowledge, it is not at all clear that the student would be also able to realize that the knowledge which is being presented to him or her is also the 'knowledge *that*' another person (or a 'community of persons') has constructed, in light of the habitual tendency toward reification which occurs whenver scholarly modes of knowledge undergo transposition and become knowledge-to-be-taught..." (p. 59)

Furthermore, Larochelle questions whether this reified knowledge can properly be called scholarly knowledge at all, since scholarly knowledge "...cannot be reduced to empirical and methodological certitudes. Furthermore, epistemological reflection is an integral part of scholarly activity....Finally, this activity is not conducted in a social void and, for that reason, does not exist isolated from the projects and tensions that mark the social field in which it is...included." (p. 59)

She goes on to ask "And how is the student going to be able to understand this knowledge-in-final-form if he or she does not know which question it is an answer to, what its epistemological connections are, and, more generally, what world view it is based on? Is there not a risk that the student will ritualize the meaning precisely because he or she is not able to problematize it, to call it into question?" (p. 59)

"Indeed, if it is true that teaching practices cannot simply make do with nodding approvingly at students' knowledge, it is every bit as true that these practices can no longer be envisaged as 'the colonization of student's knowledge by that of scholars'...notably by masking the fact that scholarly knowledge is constructed and negotiated, too. Let us not forget that throughout their education, students learn *what kind of knowledge counts*....This is...how, depending on the case, the student will either be prone to accept the social hierarchy of knowledge uncritically, indeed to think that the production of this symbolic capital is reserved for a minority of 'gifted' persons, or how, on the contrary, he or she will tend to gain consciousness of his or her ability 'to create a difference', to 'act otherwise', that is to say, 'to

be able to intervene in the world or to refrain from such intervention, with the effect of influencing a specific process or state of affairs'..." (p. 59-60)

Larochelle contrasts a student with somewhat fatalistic, inhibiting views of how scientific knowledge is produced with one who sees a relationship between "official" knowledge production and her or his own. The following quote is from the latter student (p. 61):

> I admit that I had never thought of the process of production. At first, I thought it was something like an inspiration from heaven. I rapidly changed this simplistic view of the process of production. My ideas about science have really changed since the beginning of the course. To me, scientists were geniuses, two to three times more intelligent than the rest of us. My idea was that they woke up one morning and said to themselves, 'Today I have this problem to solve'. They would then sit in front of a piece of paper and their intelligence would function by itself. They then produced scientific knowledge. But, from my own experiences, I realized that it was not that way at all. You have to work at it, go by trial and error; it is by working really hard that you can arrive at something...I have learned that knowledge is much more a type of questioning than cramming the brain with facts and figures. (Larochelle and Desautels, 1992, pp. 235, 230)

Thus learning and knowledge development are not based on repetition and application but instead on the "potential for spin-off." (p. 61)

A few other key points from Larochelle:

• for knowledge to become reified requires a decision by some person (or the knowledge would not have become reified)--and all learners must be able to see this. Essentially, no knowledge or even decisions about what knowledge is to be valued are anonymous.

• "...as long as we believe that we encode reality in terms of substances and phenomena which are independent of our actions...as long as we conceive of ourselves as the mouthpieces of reality rather than the artisans creating it, then the effect of our discourse and practices will give us no pause for reflection..., and the chances that these practices will be problematized in epistemological terms will remain slight." (p. 62-63) She emphasizes the need to stop separating what is connected, particularly to stop separating the observer and the descriptions of her or his observations.

• language--and especially textbook language--is problematized; the research of Fourez (1985, 1988) "clearly demonstrates that 'school language' constantly eliminates the observer from its descriptions" and communicates quite different visions of the world. (p. 63) That is, math and science are presented as if they were pure--a type of knowledge which does not pose any problems. (Larochelle believes knowledge inherently poses problems--if not, it's not knowledge.)

• on a final note, this attention to the production and valuation of knowledge in constructvism "holds out the promise of a powerful ethical project since...constructivism reminds us that it is *we who constitute our world*." (p. 65)

Ira Shor: (professor of English, Graduate Center of the City University of New York and the College of Staten Island)

Shor, I. (1992). Rethinking knowledge and society: "desocialization" and "critical consciousness", <u>Empowering education</u> (pp. 112-134). Chicago, IL: University of Chicago Press.

Shor coins the term *desocialization* to indicate a way of disrupting traditional views toward and actions regarding the production and valuation of knowledge.

"In a desocializing class, existing knowledge is examined with the goal of gaining critical distance on what has been absorbed uncritically in school and everyday life." (p. 119)

"Desocialization does more than question existing knowledge. It recognizes that socialization and curriculum are political processes of inclusion and exclusion; that is, what people learn to believe, say, want, and do presupposes other knowledge and choices left out of their development." (p. 119)

Like Larochelle, Shor attends closely to language because of its critical impact on views of the world and knowledge. He also defines critical conscousness as a way of thinking "desocially":

"...the desocialized thinking called critical consciousness refers to the way we see ourselves in relation to knowledge and power in society, to the way we use and study language, to the way we act in school and daily life to reproduce or transform our conditions." (p. 129)

"To one degree or another, average students are silenced in teacher-centered classrooms. Held back from natural curiosity and dialogue, they grow up with underdeveloped academic interests. In class, they display depressed performance levels, having learned that education is something done to them, not something they do." This quote speaks to the alienation that may come from not seeing the self as a producer of knowledge.

Kevin Kumashiro: (Assistant Professor of Education at Bates College, Maine)

Kumashiro, K. K. (2001). "Posts" perspectives on anti-oppressive education in social studies, english, mathematics, and science classrooms. Educational Researcher, 30(3), 3-12.

Kumashiro stresses the importance of seeing all work and knowledge as partial and non-definitive, (and I definitely see mine this way!):

"I should note, as problematic as is expecting that oppression does not play out in our classrooms is expecting that we now know the effective way to change it." (p. 3)

"My goal is not to name strategies that work (for all students, in all situations, against all oppressions), but rather, to emphasize the partiality of any approach to challenging oppression, and the need to constantly rework these approaches." (p. 4)

"...knowledge is always partial and situated, shaped by social situations and personal identities that always color the lens through which we come to know." (p. 6)

I resonate with his call to challenge norms (although I don't know if I accomplish this level of challenge in my understanding and manifestation of the production & valuation of knowledge...yet!). And I appreciate his understanding of the enormity and difficulty of truly challenging norms:

"...the desire to teach and learn in only certain ways stems from a desire (perhaps a subconscious one, perhaps not) to use only certain stories--especially the stories we have traditionally used--to make sense

of the world and ourselves. And since the traditional stories are the ones that define normalcy (i.e., are the hegemonic ones), we ironically desire exactly what is harmful to ourselves." (p. 6)

"By implication, learning to overcome one's desire for the comforting repetition of normative knowledges, identities, and experiences involves learning to desire the discomforting process of unlearning. **Desiring change involves *desiring to learn through crisis*.**" (p. 8)

I also resonate with how stories and their political effects change by way of inclusion (p. 6)--in mathematics education, one way of changing narratives might mean changing notions of who produces mathematical knowledge and what knowledge gets valued. For example, students might ask:

What story about mathematics does the presence of our work on consecutive sums (our mathematical voices, so to speak) tell us? When we add different mathematical voices, how does the story of mathematics change? Which stories justify the status quo? Which stories challenge the marginalization of certain groups and identities in mathematics classrooms?" (adapted from p. 6)

Kumashiro speaks directly to the production and valuation of knowledge within the notion of looking beyond what is being learned:

"...if science and mathematics classrooms are centered on approaches to science and math that claim universality (despite their necessary partiality), then students might critically respond by exploring alternative approaches...and seek not an understanding of *what is math/science*, but an exploration of *what do different approaches to math/science make possible and impossible in terms of understanding the world and addressing different problems*..." (p. 7)

"As with teaching social studies, educators can approach the teaching of maths and sciences in paradoxical ways: simultaneously learn new knowledge, while critiquing the very ways we come to know..." (p. 7)

As Larochelle does, Kumashiro critiques the notion of repetition as a basis for learning mathematics, noting that repetition perpetuates social inequities. He also critiques the notion of meeting standards because it requires a practice of repetition, "...a practice that closes off the possibilities of learning what has yet to be known...Furthermore, meeting standards assumes that teachers can know and control the processes of teaching and learning." Finally meeting standards presupposes we know who we want students to be and can make them be that way. (p. 9)

"To acknowledge the unknowability of teaching is to acknowledge that teachers cannot say ahead of time what we want students to learn, what we will do to get them there, and how we will then determine if they got there..." (p. 9)

Finally, he asks an important question:
"...'what did this lesson make possible and impossible? In what ways did it enable repetition, crisis, change, and so forth?'" (p. 10)

Perhaps we can ask that question of my "lesson."

Outtakes from Kumashiro:

"...the focus on difference fails to change that which is not-different, namely the norm....Learning about differences will be accomplished through lenses already colored by the norm, as when we learn about Others in comparison or constrast with the Self. What this means is, adding difference does not really change teaching and learning practices that affirm our sense of normalcy....Perhaps we desire teaching and learning in ways that affirm and confirm our sense that *what we have come to believe is normal or commonsense in society* is really the way things are and are supposed to be. After all, imagine the alternative: Imagine constantly learning what 'what is normal' and 'who we are' are really social constructs maintained only through the Othering, the marginalization, the silencing of other possible worlds and selves." (p. 5)

Kumashiro recognizes that challenging norms involves disequilibrium and, potentially, crisis:

"...education involves learning something different, learning something new, learning something that disrupts one's commonsense view of the world. The crisis that results from unlearning, then, is a necessary and desirable part of anti-oppressive education." (p. 8)

"Can we imagine an assignment where the product is less important than the process? And, can we imagine an assignment where students are helped to resist repeating their and their teachers' knowledges, identities, and practices, and to engage in the discomforting process of resignifying knowledges, identities, and practices?" (p. 9)