Cultivating Knowledge:  
Learning and Transformation in Community Supported Agriculture

Mike Ambach  
University of Concordia

Abstract: A needs-centered approach in adult education and a technicist view of learning as the gaining of knowledge capital fail to recognize the possibility of situated knowledge in social change. Community supported agriculture serves as site to explore this.

Thought for Food
The typical article of food on a North American's plate travels about 1,300 km to get there, which is something like a tenfold increase in the past 50 years. The energy in calories that goes into preserving, packaging, and transporting the food item may far exceeded the energy in calories that goes into the person who eats it, the ratio being as high as 10:1 (Imhoff, 1996). An interesting bit of trivia, this serves as a barometer of just how non-localized our society has become, at least with regards to the most basic components of life: the food we eat. This reflection led me to question: how does the way we relate to our food system reflect our attitudes about the environment, sustenance, and well being?

In Canada we have a year-round variety of produce from around the world. This is made possible by technological advances in production, transportation, and preservation, as well as by the momentum of the global economy itself. That such an infrastructure be considered the fruit of progress is a matter of some critique (Shiva, 1991; Lehman and Krebs, 1996) but such critical inquiry only rarely speaks (or is enabled to speak) beyond its own discourse. More constructively, we can look to practices that not only share the critique, but also embody alternatives. Such sites may help understand how a critical theory and social transformation might connect.

Community supported agriculture (CSA) is one such site. CSA is a system of partnerships between small-scale organic produce farmers and local "sharers" who partake in "the risks and rewards" of farming. Farms are typically located on the periphery of urban areas where the members live. At the beginning of the season, members contribute a sum of money to go towards the farmers' operating expenses and in return they receive a quantity of organic produce every week for 20-30 weeks of the year. The food is distributed through drop-off points in the city. Clients forego shopping and choosing from an international variety of produce: what the farm produces that week, they eat. CSA fosters the viability of small farmers through partnership with urban dwellers and aims to bring social responsibility into localized economic activity.

In theory, CSA puts the focus on community and connection to local space as a source of nourishment. It offers a critical view of the cycle of production-consumption in a globalized marketplace. It can further be seen to address how humans relate to the food system through consumer and social participation. By foregoing the options of choice, convenience, competitive

1 Of course, nothing is to stop people from supplementing organic farm food with trips to the supermarket.
The biological produce offered by CSA is generally cheaper than store bought-food, but still more expensive than food offered at the supermarket. Two other components of CSA are quite striking. First, members are encouraged - in some cases, contractually obliged - to voluntarily come out to help with the harvest from time to time. The dichotomy of "obligatory... voluntary" does not go unnoticed; rather, it constitutes a different perspective towards consuming, one that seeks to re-introduce social responsibility into the consuming of natural resources. This element is not shared by all CSA farms, some of which opt for a more client-producer relationship. Second, the reality of seasonal rather than yearlong abundance and eventualities such as bad weather leading to a poor harvest - considered drawbacks within a conventional market system - are recast as values; by accepting the consequences of the environment, people are enabled to identify with it. In simpler terms, it allows for people to connect to their environment through experiencing its nature. This is the theory, at any rate. Research that demonstrates if and how such transformation in attitude occurs within CSA is only beginning, though what has been done strongly recommends that these areas be explored, while cautioning for critical reflection in the research process.

**The Strange Fruit of Human Capital**

Beyond the CSA model, the organic farm itself provides a frame for activities that consciously seek to integrate ecological philosophy, situated knowledge, and "sustenance work", all of which can be seen as marginalized discourses in the dominant paradigm of increased productivity of knowledge as a commodity. It is worth pointing out that human capital theory - the idea that the quality of people's knowledge determines their social and economic well being - was in part founded on a Theodore Schultz's view of agriculture as the "economy of being poor" (1981, p.3). Schultz's description of the human-nature relationship reveals much about his theory's ideological base: "Nature is host to thousands of species that are hostile to the endeavors of farmers. Nature, however, can be subdued by knowledge and human abilities" (p.17, italics added).

Human capital theory has evolved since Schultz. Recognizing the problem of measuring both the inputs (human knowledge) and the outputs (social and economic well being, the distinction rarely questioned), the OECD (1996) has sought to redefine human capital to show its utility rather than its character. Here, human capital is "the knowledge that individuals acquire during their life and use to produce goods services or ideas in market or non-market circumstances" (p. 22). This definition is supposed to "focus on two issues: i) the productive capacity arising from knowledge, and ii) the utility of improving the methods for assessing the productive capacity of human capital" (p. 23). This suggests a system that is attuned to a flux of factors in human capital, rather than one that sets out to explicate how, exactly, it works. The focus has shifted from quantifying knowledge capital through formal systems to accounting for its productive potential in fluid, interactive systems. What is important is to stay ahead of the game, not to understand its rules. Furthermore, "Although human capital is always owned by the individual or team that possess the competence, it is possible to define contracts in which the

---

2 The biological produce offered by CSA is generally cheaper than store bought-food, but still more expensive than food offered at the supermarket.

3 A term used by Hart (1993) to describe work that does not serve to underpin lifelong learning as a means to increasing productivity in a competitive global knowledge market.
benefits due to acquiring such competence is in the hands of the lender..." (p.50). To this end, learning must produce marketable knowledges or competencies. Such an approach has been conveniently woven into life-long learning as adaptation to change, to the mixed responses of adult educators.

Rich and varied literature from adult education (Stein, 1998), environmental education (Orr, 1992; Donahue, 1994; Jorgensen, 1993), CSA and social movement theory (Imhoff, 1996; Cohen, 1985), geography (McTaggart, 1993), community development (Dorfman, 1998), and literary essay (Berry, 1970) attest to the presence of an alternative practice of situated learning leading to qualitatively different knowledge. Such a presence offers three challenges: 1) An alternative to the limitations of technicist-empirical educational research; 2) A contrast to knowledge-as-commodity presented by human capital theory; 3) An objection to adult educators who seek to define their "clients" as "needy". A deeper reflection on these three challenges follows.

Learning the Environment

Learning at an organic CSA farm can be related to numerous research areas: environmental education, situated learning, social movement theory, bioregionalism, paradigm shift, and praxis. Material published by the CSA networks is largely promotional or instructional (Rowley, Tamsyn, and Beeman, 1994; Van En, 1992; Équiterre, 2000). Some writers link CSA to critical theory in development and globalization (Getz, 1995) or analyze its consumer benefits (Cooley and Lass, 1998) while various studies from sociological perspectives look at gender roles and participation (Chavis and Wandersman, 1990; Meares, 1997; DeLind and Ferguson, 1999). Research in social movement theory (Cohen, 1985) points to reciprocity among diverse life activities - economic, social, leisure - that characterize new social movements.

Literature on environmental education (Donahue, 1994; Zelezny, 1999; Chawla, 1999) holds that natural spaces have much potential to make learning meaningful. Research on using gardens as a site for learning (Rahm, forthcoming; Mabie & Baker, 1996) suggests that science may made relevant and authentic for learners, inviting them to create rather than consume a curriculum while stimulating dialogue to develop an environmental ethic. Though talk of environmental literacy exists in academic writing (Orr, 1992), it is practically absent from adult education research.

A recurring theme in this literature, one that is accompanied by a broad and evolving theory, is bioregionalism. McTaggart (1992) presents bioregionalism as a model consisting of three sub-systems: the biophysical (nature), the inhabiting (people and their infrastructures), and the network (economic and political ideologies). McTaggart suggests that ideological components have a tendency to dominate and displace the knowledge of biophysical processes, severing accountability among the three sub-systems. More than a simple iteration of environmental credos within the existing paradigm, a bioregional approach calls for "...a re-examination by human groups - human communities - of the way in which they have collectively structured their forms of differentiation... to dissolve the antagonistic differentiation which characterizes our common relations with the biological-physical environment" (p. 314). In a less academic vein, Wendell Berry (1970) suggests that
The discipline proper to agriculture, which survives not just by production but also by the return of wastes to the ground, is not economics but ecology. And ecology may well find its proper disciplines in the arts, whose function is to refine and enliven perception, for ecological principle, however publicly approved, can be enacted only upon the basis of each man's perception of his relation to the world. (p.100).

There emerges a strong set of ideas about what tack research should take. A reliance on a positivist-empiricist framework has inherent limitations and more constructivist and phenomenological approaches are called for. At the same time, ownership and control of research are not mere pragmatic or even ethical concerns; they are central to the social movements concerned with situated "grass roots" knowledge. We are led to question how, where, and for what purposes knowledge is created and validated. The potential is for highly self-reflective research to inform learning processes that go beyond knowledge as an empirically measurable and compartmentalized pursuit, suggesting instead knowledge as a locally-rooted value-actions, as critically informed living.

Knowledge on the Organic Farm

Having participated just a small degree in CSA, I have a few reflections about what shapes the knowledge of an organic farm. To begin with, much of the knowledge of its operation is passed down intergenerationally. A farmer once explained to me how the task of starting a farm is facilitated when the knowledge is "in the family"; in addition to farming know-how, family ties allow for the sharing of material resources, services, produce, seeds, and space. Cooperation among farmers seems to be an intrinsic element of farm operation. Second, the CSA farm has a tendency to grow only to a certain size. Most farms get up to between 100 and 200 sharers; any more and the partnership starts to lose the sense of community that is necessary to maintain the commitment to the CSA model. In certain cases, CSA farms have limited or even shrunk their membership when things get too big. Third, as organic farms do not use pesticides or insecticides they are more subject to the effects of the nature. The climate, insects, etc. simply must be contended with. For example, the summer of 2000 was exceptionally cool and humid in Quebec and tomato crops suffered a blight. As a result, most of the sharers received no organic tomatoes. Tomatoes on non-organic industrial farms were also affected, but the conventional consumer didn't notice much difference because imports filled the space. In bioregional terms, an ideology of cooperation bears out social structures (small local economies) that encourage adaptation to the biophysical region.

None of this is the case with large agribusiness farms. The knowledge is largely managerial and technological and can be passed on through more formal training. As well, industrial agriculture's growth is not limited by social factors. In fact, increased growth, productivity, and profitability are all recommended for the viability of agribusiness in a competitive global market. Third, the vagaries of the climate and insects are aggressively countered by chemicals, preservatives, and increasingly, biotechnology. As well, the structure of agribusiness and the food distribution system insulate consumers from the realities of the biophysical system. The dominant discourse favours ideologies (economic neo-liberalism, growth
and competition) that bear out social structures (the global food distribution service) to the continued marginalization of experiencing biophysical processes (the possibly adverse effects of climate). All of this has the effect of rendering obsolete the knowledge processes of the small organic farm.

And we may ask "so what?" Few people bemoan the marginalization of the horse and buggy as a means of transportation these days. This is also knowledge that has become largely obsolete. To answer this, we might remember that "the small organic farm" is a microcosm of the entire 10,000-year legacy of human agriculture prior to about the last 50 years. Aside from the question of the loss of biodiversity, lifestyle, and heritage, the organic CSA farm appears as an alternative ideology and practice to that of human capital theory, wherein knowledge is necessarily a transposable global commodity.

**Implications for Adult Education**

The insights from situated learning, social movements, and environmental education parallel the concerns for a post-modern research ethic for adult educators (Usher, Bryant, and Johnston, 1997; Dyer, 1993). The re-examination of perceptions through any activity (learning on an organic farm, for example) does not exclude the researcher, whose research is at once a text that speaks to a particular academic culture, subjectively relates personal experience, and purports to convey some valid knowledge. A research "subject" that rejects the scientific-empiricist view of learning as a process of gaining knowledge capital for productivity is a challenge for the researcher. And here it must be clarified that the challenge is more than one of pragmatics ("how to go about collecting the data"); it is a challenge of situating the researcher as a "narrator and narratee" who affects the knowledge through the choices made. What is to be considered data? Who decides this? What is not being considered? What power is assumed by the researcher through the methodology chosen?

Kastner (1993) poses similar questions in her exploration of the knowledge systems of social movements, concluding that adult educators need to define their limits and roles lest they set themselves up as agents of "unwitting manipulation and disempowerment of the people... intended [to be] served" (p. 142). Similar cautions have swirled about the heels of participatory action research (Rahneema, 1990; Hall, 1982) and critical ethnography (Dyer, 1993). Zackarakis-Jutz (1996) identifies the irony of how adult educators ignore the corporate-led disempowerment of rural farming communities in Iowa, instead "applying inane bandages" according to a blind faith in the pairing of education and economic development.

For me, it is adult education's attachment to the identifying of learner needs that predisposes it towards the supplying of "inane bandages". This tendency runs deep, despite well-argued critiques of the "perpetual deficiency" of needs manufacturing. A needs-mentality mis-orients adult educators to the potential of community-supported agriculture and new social movements in general. Rather than bemoaning what they do not have (knowledge "capital"), the people involved may be celebrating what they do have, seeing their resources (including themselves) as adequate to the demands of their own values and aspirations. Encouraged to continually assess our needs relative to a growth-oriented economy, we may instead begin to question the criteria that make orientation to growth a preference.
Conclusion

In my ongoing research within CSA, I try to keep these ideas in mind. The malaise increasingly expressed by adult educators concerned with social change - alluded to in this conference's theme - is a curious one. Adult education has been in the spotlight for several years. Delighted to see its reflection in every learning event around, its theoretic framework has expanded in all directions. As the center - the philosophical roots - predictably fall out, adult educators may find themselves "recovering stories". Lest this imply that adult education somehow holds a patent on creating emancipatory learning, I would say that it never did; emancipatory learning created adult education. Or they have been creating each other, at least until recently. The challenge is for adult education to recognize the limitations of its accumulated ideological baggage and become involved as a genuine participant in the learning of its diverse environments. Finally, if adult educators do not take on this challenge, then it is likely that other groups will.

Communities can only be built by focusing on the strengths and capacities of the citizens who call that community home. Those who have escaped the lures of deficiency, therefore, have been drawing up a new map based on old truths, an 'Assets Map'... At the center of the map, and of the community building process, lie the 'gifts' of individual residents, their knowledge, skills, resources, values, and commitments. (Kretzman cited in Dorfman, 1998, p.5).

References


Usher, Robin, Bryant, Ian, and Johnston, Rennie. (1997). *Adult education and the postmodern
