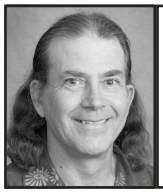
A Revolution in Education

Chris Mercogliano

The educational revolution that began in the 1960s is alive and well, but it needs to coalesce and expand its social orientation.

We tend to think of revolutions as sudden events because they often are, especially in the political arena. However, according to activist scholar Ron Miller (2008) in his latest book *The Self-Organizing Revolution,* there is a quiet revolution simmering just beyond the margins of mainstream education. It first erupted, actually *with* a certain suddenness, in the late-1960s as part of a more generalized rebellion against an increasingly militaristic and materialistic culture. As Miller (2002, 121) details in *Free Schools, Free People,* more than perhaps 2,500 educational alternatives sprang up during the late-1960s and early-1970s. Although a great many of them were short-lived, the revolution as a whole survived the fall of the counterculture, and the collective force of its ideology has had a widespread impact on conventional educational thinking and also lent impetus to the birth of the homeschool movement.

Today the revolution is regrouping and gathering renewed strength. The best rooted of those early experiments, such as Sudbury Valley and the Albany Free School, have since joined Summerhill, Montessori, and Waldorf as models for the start-up of similar schools around the world. The past decade has seen a proliferation of new schools and resource centers, and presently the Alternative Education Resource Organization's (AERO) (2009) Database of Educational Alternatives contains listings for more than 12,000 different alternatives around the world. (As an interesting aside, the quarterly magazine published by AERO calls itself *Education Revolution.*) Additionally, the homeschool population in the United States is exploding as we speak. According to a survey conducted by the U.S. Education Department's National Center for Education Statistics, approximately 1.5 million students were pursuing their education at home in Spring, 2007, equaling 2.9% of the nation's school-age youth. That figure, which in all likelihood is a conservative estimate because not



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all homeschoolers register with their school districts, represents a 74% increase over a similar survey conducted in 1999 (National Center for Educational Statistics 2009).

A Self-Organizing Revolution

Miller (2008, 8) calls the revolution "self-organizing" for two reasons. The first is the diverse, grassroots manner in which it is unfolding, with no centralized leadership guiding it from the outside. In fact, the revolution is now comprised of a dozen or more distinct approaches to teaching and learning, each with its own particular emphasis: traditional and non-traditional forms of home-based learning, spirituality, freedom, democratic process, learner centeredness, publicly funded alternatives, and so on, with some combining several of these approaches.

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Secondly, Miller (2008, 16) uses the term "self-organizing" as an extremely apt reference to the new-paradigm concept of "self-organization," which is the term far-edge, quantum-era scientists began using in the 1970s and 1980s to describe the set of fundamental processes by which all living organisms and even certain nonliving systems develop and adapt to changing circumstances. The official meaning, according to physicist Fritjof Capra (1996, 85), is "the spontaneous emergence of new structures and new forms of behavior in open systems far from equilibrium characterized by feedback loops."

Such a technical definition warrants a little unpacking. "Open systems" are those that are constantly interacting with the environment, and exchanging matter and energy with it. Living organisms, therefore, are open systems and crystals are not. Nor are the conventional schools in this country, which only seem to wall themselves off from the rest of society.

"Far from equilibrium" describes a system that has been thrown out of balance by a significant shift in environmental conditions, the key being that open systems are capable of change *only* when they have reached a sufficiently far-from-equilibrium state. A good illustration of this point is the laser. Lasers start out much like ordinary light bulbs, with their light-emitting atoms producing random waves of different lengths and thereby providing only diffused light. But when a high-voltage electrical charge is pumped into the chamber, the atoms become so excited that total chaos ensues. Then, all of a sudden, the atoms spontaneously begin producing identical-length waves that self-organize into a coherent beam with tremendous power.

Finally, "feedback loops" in self-organizing systems are circular pathways by which some of the output of a system returns as input, thus amplifying the original output. If a person giving a lecture senses that an audience shares her enthusiasm, the speaker talks with greater enthusiasm herself. Sometimes feedback goes awry. A classic example is when a microphone and a loudspeaker are placed too close to each other. This allows the microphone to pick up the sound from the speaker and send it back around the loop at higher and higher frequencies, resulting in that ear-splitting screech with which we are all so familiar.

The education revolution truly is a self-organizing phenomenon. It began when society was in a highly chaotic state, with the various expressions of dissent against the conventional educational model rapidly coalescing at least loosely into a coherent movement. Openness to exchange with one another and the outside world is certainly a commonly held characteristic among the different strands of the revolution. AERO, for example, hosts an annual national conference that attracts a highly diverse range of participants.

As for feedback loops, the revolution has been in existence long enough for students who have been its beneficiaries to join in as adults. The number of second generation alternative school students and

teachers is rising steadily, as well as homeschooling parents who themselves were once homeschooled by their parents. Also, graduates of internship programs at schools like Play Mountain Place in Los Angeles and the Albany Free School in New York State are beginning to launch educational initiatives of their own. These alternative school alumni provide valuable feedback to the revolution.

Learning is Self-Organizing

To describe the revolution as self-organizing is doubly apropos because recent discoveries in cognitive and neuroscience, biology, and child development are making it abundantly clear that both learning and development — the processes the education revolution aims to foster — are entirely self-organizing. In a previous *Encounter* column (Mercogliano 2009), I described at some length how the old Newtonian paradigm — the bedrock of the conventional model of education — completely breaks down when it is used to explain how children learn and grow. This is because there is no outside program that controls learning and development. Rather, children are born with all of the necessary means to actualize the tremendous potential with which they enter the world. According to neuroscientist J. A. Scott Kelso (1995, 2), this, in turn, is because all of the fundamental patterns and processes that underlie life are self-organizing. For instance, much like laser atoms, individual neurons in the brain connect and synchronize with each other entirely on a self-organizing basis (Kelso 1995, 239). This means the brain is *not* a computer run by a master program, and likewise, according to developmental psychologists Esther Thelen and Linda Smith (1994, 38), knowledge is not made up of a stored set of enduring rules, concepts, and innate ideas. It is a self-organizing pattern of activity that self-assembles in context and in the moment.

By combining Kelso's ideas with the earlier work of developmental theorist Jean Piaget (1952), who was an early new-paradigm thinker, Thelen and Smith (1994, 143-46) have redefined child development as a growth process driven not by outside instruction, but by discovery and trial-and-error problem solving. The fuel for the process is open-ended experience and the wherewithal to make choices. This is because at the neural level of intelligence, the brain, which idles on the edge of chaos in order to maintain maximum flexibility, is continually choosing the optimal way in which to configure itself so that it can make the best possible response to an ever-changing environment. The key to a child's complete development, therefore, is access to a large diversity of compelling options (Thelen & Smith 1994, 143-146).

What's Next?

The educational implications of the new paradigm are indeed revolutionary. As Ron Miller (2008, 6) emphasizes, the solution to the abject failure of the conventional model of education is not to change the content, which is what reform movements to date have tried to do. What is called for instead is a total reconfiguration of the process itself, an idea that is entirely in keeping with the dictionary definition of revolution: "A sudden, radical, or complete change."

The good news, according to Miller (2008, 7), is that all of the existing strands of the revolution are attempting, each in their own way, to put the basic principles of the new paradigm into practice. For example, consider Laura Weldon's soon-to-be-published *Free Range Learning* (2010). Weldon, an author and longtime homeschooling parent, convincingly demonstrates how home-based education — when parents resist the pressure to turn their homes into miniature schoolrooms — can become a self-organizing affair guided by children's innate desire for knowledge and competence. In her thoroughly researched book, she grounds the intuitive wisdom of John Holt in new paradigm principles, and, as such, the book has great relevance to contemporary homeschoolers and non-homeschoolers alike.

Miller's bad news is that the revolution is presently too diffuse to pose a serious threat to what he refers to as the "industrial" model of education, one which is so obviously obsolete and offers no hope of helping children develop the creativity, resilience, and sensitivity that will enable them to thrive in a rapid-fire world. (Miller 2008, 46). Miller calls on the revolution's disparate proponents to actively expand existing common ground

by recognizing and articulating the shared new-paradigm principles that inform their practices. Only then, he says, will the revolution possess the laser-like focus it will take to cut away the myths and illusions that make the conventional model so impervious to change. On this score Miller (2008, 84) is hopeful because new-paradigm perspectives are making their way into mainstream culture. Revolutions, he says, don't occur in a vacuum; they are a reflection of a society's underlying patterns of thinking, feeling, and believing.

The other piece of bad news is that the revolution, with the exception of the Big Picture schools and a handful of others, is a predominantly white, middle class movement. As an outraged Jonathan Kozol (1972) decried nearly 40 years ago, and Lisa Delpit (1995) more recently, the core values of the majority of educational alternatives — individual freedom, self-reliance and expression, and personal fulfillment — represent an unspoken form of cultural exclusion. Members of non-dominant cultures tend toward a collectivist orientation that focuses on the importance of community and society, and on relationships that are hierarchically structured around family roles and multiple generations. For them, education's cutting edge must be the confrontation of social inequalities. Also because of the deeply entrenched nature of racism in this country, African American parents in particular don't feel they have the luxury of "trusting in the natural process" and waiting for their kids to "learn at their own pace," both of which are hallmarks of most educational alternatives.

An Inspiring Idea

But there is a solution to this problem as well, according to Indianapolis educator John Loflin (2009), one which echoes Miller's suggestions for creating common ground. In a paper presented at the June, 2009 AERO conference in Albany, NY, Loflin urged dominant-culture alternatives to stretch their emphasis on Abraham Maslow's individualistic concept of "self-actualization" to include "social actualization" — a shared responsibility for the common good based on the ability to make connections and promote cooperation between diverse individuals and diverse cultures. Social actualization includes "cosmic actualization" — the sense that everything in the universe is interdependent and interconnected. These extensions will "widen the circle," as he puts it, to include non-dominant cultures in the revolution. Piggybacking on Loflin's thought, I would add that if the revolution can find a way to become sufficiently inclusive, the additional energy will catapult it to a whole new level of power and influence.

Loflin, a fellow with the Black & Latino Policy Institute, is already successfully carrying out his ideas in his native Indianapolis, where he was recently able to influence a special Indiana commission on youth of color to include in its final report a recommendation to mandate student participation in school-related decision making in the public schools. Such a step would expose the conventional educational model to one of the revolution's most fundamental tenets.

Viva la revolución!

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