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Uncovering Epistemology

Frameworks Supporting a Change Agenda

The problem is that most of us have spent our lives immersed in analytic knowing, with its dualistic separation of subject “I” and object “it.” There’s nothing wrong with analytic knowing. It’s useful and appropriate for many activities—for example, for interacting with machines. But if it’s our only way of knowing, we’ll tend to apply it in all situations.

—Peter Senge (2008, p. 99)

Social justice education will stagnate if we do not challenge our prevailing assumptions about how we know what we think we know. According to Takacs (2002), “simply acknowledging that one’s knowledge claims are not universal truths—that one’s positionality can bias one’s epistemology—is itself a leap for many people, one that can help to make us more open to the world’s possibilities” (p. 169). Understanding epistemological frameworks helps us identify assumptions that we may take to be universal truths, just as failing to do so will leave us susceptible to our own limited point of view. Differing ways of knowing are deeply connected to our capacity to effect change. To be an effective change agent means something quite different if one believes truth is objective as opposed to subjective. Wineburg (2001) illustrates this when he states that “the narcissist sees the world—both the past and the present—in his own image. Mature historical knowing

teaches us to do the opposite: to go beyond our own image, to go beyond our brief life, and to go beyond the fleeting moment in history into which we have been born. When we develop the skill of understanding how we know what we know, we acquire a key to lifelong learning” (p. 24). We argue that unless we understand how we construct and shape knowledge, we risk reifying the status quo instead of promoting social justice. We can unwittingly work against our aims if we fail to understand our own lens with some degree of humility. Further, failure to acknowledge the subjective nature of knowledge can blind us to potential solutions that exist outside of our limited understanding of an issue. When we consider the common frustration regarding the persistent nature of some social justice issues, we have to wonder if part of the problem lies in failure to innovate, to address concerns in truly new ways that challenge interventions that have perhaps become obsolete.

My (Harrison’s) motivation for exploring epistemology no doubt results from my previous job as the director of the Stanford Women’s Community Center, where I strove to make advances for women. A big challenge in this career field stems from the reality that women have achieved legal equality and most people believe in gender equity, so the issues are less obvious than they were for people doing this kind of work fifty years ago. Yet concerns about sexism persist with regard to gender parity in higher education. Through my decade-plus experience doing women’s advocacy work, it has become clear that the problems that remain in this area are rooted in epistemological concerns. The issue of underrepresentation of senior, tenured women faculty provides a good example of a concern in which a conventional understanding of the nature of knowledge has hindered change efforts. In a gesture undoubtedly motivated by goodwill and sincere desire to remedy a problem, many universities implemented “stop the tenure clock” policies so that women faculty would not be penalized for taking time off to have children. While the policy was helpful in many

cases, the narrow focus on the tenure clock is not only limited, but counterproductive in some situations. For instance, if the prevailing paradigm of a department is that serious scholars achieve tenure in X number of years, then a professor faces significant political and professional repercussions for taking leave whether or not it is an official university policy to allow her to do so. In their groundbreaking study of male and female professors' career advancement, Mason, Wolfinger, and Goulden (2013) lauded tenure clock and other efforts aimed at creating more flexible policies for parents. But they also found that policies weren't enough; women continue to shoulder more of the parenthood responsibilities, and they pay the price professionally as a result. These conundrums do not mean a tenure clock policy is not useful; in fact, it may be a logical place to start. But it's not a good place to end: deeper, more substantive change requires the ability to examine what we think we know about academia, men, women, family, and work at their most basic levels.

Scholars have produced volumes of quality literature positing knowledge as a constructed social reality (Berger, 1966; Foucault, 1980; Habermas, 1973; Horkheimer, 1974; Marcuse, 1960). Distilling this literature is beyond the scope of this chapter; however, one goal here is to make the scholarship more accessible, because accessibility is an issue frequently acknowledged in the epistemological discourse (Tyson, 2006; Voronov & Coleman, 2003). The other primary aim of this chapter is to introduce participatory research as a methodological approach useful in addressing complex, long-standing social justice issues. What follows is an analysis of positivist versus postpositivist understandings of knowledge and an introduction to participatory research as an emancipatory epistemological tool. This chapter will explore participatory research's main concepts and analyze how this method can be applied to producing knowledge that yields fresh insights into what S. D. Parks (2005) called "swamp issues," the places where we get stuck.

Positivism versus Postpositivism

In a popular research textbook, Gall, Gall, and Borg (1999) define positivism as “an epistemological position that asserts that there is a social reality “out there” that is available for study through scientific means similar to those that were developed in the physical sciences” (p. 530). Positivism takes for granted that there is an objective reality that exists independently of contexts like cultural or power differences. Positivism does not deny the existence of culture or power, but it separates these as variables rather than lenses through which reality—and, by extension, knowledge—are constructed. In a positivist paradigm, reality is not constructed; it simply is. As a result, reality is to some degree stagnant because it does not change as the result of our interaction with it. Reality and knowledge exist outside of ourselves in a positivist worldview. We interact with them, to be sure, but *we* and *them* are separate entities.

In contrast, postpositivism takes issue with the idea of a baseline reality that transcends difference, particularly differences related to culture and/or power. In a postpositivist framework, reality itself is understood as constructed, which raises questions about the *constructor*. For example, who has access to education, and are there differences in the quality of educational experience based on who the learner is? Postpositivists tend to acknowledge that the level of access to the construction materials varies according to power; people exist in relation to other people via various hierarchies, even in the flattest of organizations. Position title, where people went to school, level of education attained, political involvement, and family connections are just some of the potential criteria for establishing privilege or marginalization within an institution. Is there a relationship, for example, between ethnicity and educational resources at the primary or secondary school level? Imagining that these distinctions would not affect who gets to define the dominant discourse that shapes educational policy seems illogical, yet the default objective assumption is that there is indeed some sort of

power-free, context-free knowledge that prevails purely through its intrinsic merit. Greenfield and Ribbins (1993) suggested a way to examine how power affects the way knowledge is constituted:

We should look more carefully too for differences in objectives among different kinds of people in organizations and begin to relate these to differences in power or access to resources. Although this concept of organization permits us to speak of the dominating demands and beliefs of some individuals, and allows us to explore how those with dominating views use the advantage of their position, we need not think of these dominating views as “necessary,” “efficient,” “satisfying,” or even “functional,” but merely as an invented social reality, which holds true for a time and is then vulnerable to redefinition through changing demands and beliefs among people [p. 17].

The difference between a positivist and postpositivist understanding of knowledge has important, real-world implications. If we return to the tenure clock example, the creation and implementation of this policy using a positivist approach limits the possibility for understanding the issue in its full complexity. In this framework, the problem is that women need time off to have children and should receive additional leave to do so. If the policy does not solve the problem, the institution can conduct a survey or tinker with the amount of time that might be needed, but the deeper problem is likely to remain intact. In a postpositivist frame, the construction of the problem in the first place is on the table. How reality itself is defined is called into question, with inquiries such as, Why is parental leave framed as a women’s issue? Certainly there is no way around the fact that the actual birthing falls to women, but there is no natural law mandating that mothers must serve as primary caregivers. In a postpositivist frame, the issue

of what it means to accomplish meaningful work might also be examined. Does work have to happen between the hours of 9 a.m. and 5 p.m. in an office, five days a week? The nature of work would also likely be called into question. Why is some work valued (that is, paid work like teaching) and other work considered “leave” (that is, bearing and raising the next generation)? The argument could certainly be made that we live in an overpopulated world and do not desire to make it easy for people to raise families. This would no doubt be a controversial claim, but it would be an honest one that acknowledges an ideology, unlike the current situation in which people give lip service to being “family-friendly” or supporting “work-life balance,” while allowing institutional policies and practices that do not align with these values. Policy discussions born of a postpositivist approach would ask deeper questions about the institutional culture, allowing for the kind of substantive critique necessary as a precursor to meaningful change.

Postpositivism and Context

In a similar vein to the tenure clock example, Giroux (2001) contrasts how a positivist epistemological framework might limit one’s understanding of a seemingly simple phenomenon such as disparate productivity rates between two groups of workers: “For instance, an empirical study that concludes that native workers in a colonized country work at a slower rate than imported workers who perform the same job may provide an answer that is correct, but such an answer tells us little about the domination or the resistance of workers under its sway. That the native workers may slow down their rate as an act of resistance is not considered here. Thus, the notions of intentionality and historical context are dissolved within the confines of a limiting quantifying methodology” (pp. 16–17). Giroux’s (2001) example articulates the multiple vantage points from which something that looks like an uncomplicated difference in worker output could be constructed differently depending on the research method applied. Simple measurement would produce

knowledge about the differences between the two groups, but a method capable of capturing more complexity would be necessary to elucidate the deeper issues at play. Most important, this example demonstrates the importance of context in understanding complex phenomena. Because a postpositivist worldview does not separate reality, knowledge, and context, a more complete picture of what is really happening in a specific situation is possible.

Specificity is an important dimension of postpositivism's potential role in a social justice-oriented approach to knowledge production. Because postpositivist models do not acknowledge an objective reality that can transcend culture or power differences, they do not strive for generalizability. As a result, they avoid the "one-size-fits-all" pitfall underlying much of both the faulty knowledge claims and poor policy that lie beneath many of the social injustices that persist. Failure to examine a phenomenon in depth often leads to theorizing that reduces it in ways that diminish its complexity. This tendency leads to attempts at universal truth claims, which very quickly gloss over realities invisible to the majority understanding of a situation. Edward Said (2002) described this issue as the universal eclipsing the local, creating a situation where what counts as real or true is simply the point of view of those in power.

The good news is that postpositivist paradigms make it possible to negotiate so-called objective reality in a way impossible under a positivist worldview. By challenging normativity at its core, disability studies scholars provide excellent examples of the relationship between epistemology and social justice, such as this one, regarding a community with a high percentage of deafness: "The deaf people who lived there at the time did not live in a disabling society because everyone learned to use sign language. A person in a wheelchair is only disabled if there is no cut in the sidewalk or elevator in a multistory building" (Mertens, Sullivan, & Stace, 2011, p. 228). Instead of focusing on the ways in which

individuals may fail to conform to assumptions underlying communities or architecture, disabilities studies scholars emphasize how the ideas about both “disability” and “normalcy” are constructed in these environmental contexts. Seen from another perspective, the disability is not with the person, but in the environment. The liberatory potential for what can seem like a subtle difference is enormous because contexts are changeable in ways that “objective reality” is not.

Postpositivism versus Relativism

Postpositivism provides the intellectual basis for knowledge construction that emancipates in many contexts. There is a risk, however, in confusing postpositivism with radical relativism, which some use to justify a values-free approach to knowledge. This is admittedly slippery territory; what I find to be a universal human right, for example, may differ very much from someone else’s. Our differences may very well exist due to variations in our culture and/or positions of power. Stanford political theorist Susan Okin (1999) provided one of the better examples of how truly complex this issue is in her book *Is Multiculturalism Bad for Women?* I (Harrison) started at Stanford the year after this book was published and experienced the angst this book caused for progressive people, who wanted to support both multiculturalism and feminism. Postpositivism has played an important role in social justice movements, especially feminism, where scholars and activists alike have pointed out the ways in which essentialist notions of masculinity and femininity have caused limitations for both men and women. Yet postpositivism can be conflated with a radical relativism of sorts, leading some to question whether it’s acceptable to critique almost any cultural belief or practice. Okin (1999) articulates this tension well: “Those who practice some of the most controversial such customs—clitoridectomy, the marriage of children or marriages that are otherwise coerced, or polygamy—sometimes explicitly defend them as necessary for controlling women, and

openly acknowledge that the customs persist at men's insistence" (p. 14). The line is unclear, to be sure. Feminists and multicultural activists alike—many of whom span both worlds—disagree on many of these conflicts. Some advocate for a more universal understanding of human rights that would include a ban on a practice like clitoridectomy; others argue that working within cultures to ensure a safer and more humane approach to this custom is the better course of action. It's easy to knee-jerk into statements on either end of the spectrum; "that's just wrong" and "it's their culture" are frequently stated, yet rarely helpful.

To be honest, a topic like clitoridectomy sends me (Harrison) straight into a positivist mindset because I find the idea horrifying. I struggle with this as both a feminist and a person committed to multiculturalism. This was a "swamp issue" for me, a place where I felt stuck. Fortunately, I became close enough to a student from Ethiopia to have the rapport necessary to ask her what she thought about this practice. She explained to me that she was against it, but that I had to understand that the horror I felt was also culture-bound. She compared the situation to her reaction to seeing her first anorexic women in the United States and feeling completely disturbed by the idea that someone would willingly starve herself. This student helped me understand that while I, too, find anorexia problematic, I react less to it as something sadly more normal in my culture. She told me that the first time she saw a dangerously thin woman, she wanted to shove a hamburger into the woman's mouth, a similar impulse toward the force I would want to use to stop clitoridectomy. We agreed these would not be the most effective interventions and that deeper, more substantive change would require truly understanding the contexts that produced both behaviors, including colonialism, which was a connection I had not made before. Fortunately, participatory research exists as a more intentional way to get to the place where I had the good fortune to arrive with the help of my student. It does not solve the problem of determining exactly where the line between positivism

and postpositivism ought to be with respect to social justice issues, but it does provide a method for getting to the deeper knowledge needed to get unstuck and effect change more thoughtfully.

Participatory Research as a Model for Knowing

Participatory research is more of an approach to understanding knowledge than a specific set of techniques, though it does offer concrete methodological tools we will discuss later. At its core, participatory research exists in opposition to traditional research in three important ways. First, as an extension of the idea of knowledge as constructed, participatory research does not seek to separate the researcher from the researched, understanding both parties as two (or more) active agents in an iterative process, rather than the traditional notion of a scholar doing research *on* or *to* a subject. Second, participatory researchers conduct inquiry in a way that reunites the dichotomized ideas of theory and practice, aiming for knowledge born of application and a lived experience informed by sound theory. Third, and perhaps most important, participatory research seeks an emancipatory end. In its understanding of knowledge as something that cannot be values-neutral, researchers using a participatory framework do not seek a values-free end. Each of these points presents a counternarrative to the dominant discourse about how knowledge is produced and consumed and therefore warrants further exploration in the sections that follow.

Co-Researchers

Understanding knowledge as constructed provides the philosophical basis for the radical reexamination of the researcher-subject paradigm. Rather than conceptualizing people as subjects on whom to conduct research, participatory approaches treats people as active agents in the construction of knowledge. By naming the taken-for-granted ways in which traditional research is carried

out, Kieffer (1981) unmasks the power dynamic created and reinforced in this hegemonic relationship, explaining, “As long as the academic researcher initiates contact, negotiates refinement, selects participants, carries out procedures, chooses the focus of interpretation, and owns the results, the inequities of power continue to exist. A participatory framework makes normally hidden relations of power explicit and engages the participants, post-hoc, in personal ownership. It surrenders control of information and consciously draws them in to interpretation” (p. 5).

By conceptualizing those viewed as subjects in traditional research as participants, participatory research allows for a more equitable understanding of knowledge production as a collaborative process. In a similar manner, the inclusion of participants not only in the data collection stage, but in the analysis process as well, allows them to participate more fully in the process of generating new knowledge. But, most important, the simple act of repositioning the researcher and participants as equals stimulates a meaningful counternarrative about the nature of knowledge as more subjective than objective.

Breaking the boundaries between researcher and researched is difficult, making the co-researcher model an “easier said than done” prospect at times. Smith, Bratini, Chambers, Jensen, and Romero (2010) write eloquently about the challenges of restructuring the research relationship in a way that is truly equitable. In a situation where researchers and participants were asked simply to introduce themselves, Jensen shared the following reflection: “In the moment that I was asked to participate in that same discussion with participants, I was struck with an anxiety-provoking realization. It was easy to say to my colleagues at school that I wanted to help and advocate for queer youth in our city. However, to say ‘I want to help you’ to a group of people who were actually more comfortable with their sexuality than I was seemed incredibly presumptuous. Immediately, I realized I was still not viewing the organization’s members as equal partners in the project” (p. 411).

This example also helps illustrate how the co-researcher paradigm could be extended to mitigate power differences between professors and/or student affairs professionals and students. Rather than defaulting to the position of professor or student affairs professional as active agent and student as passive participant, making this shift in one's mind has the potential to transform one's pedagogy and/or practice. If you view your educator role in a participatory manner, how do you listen differently? Do you make more or fewer statements, ask more or fewer questions? What kinds of questions do you ask? Both parties benefit from this more egalitarian approach, which fosters creativity and therefore expanded possibilities for innovation, particularly with regard to social justice issues. This shift also creates greater congruence by not only teaching about social justice as a topic, but demonstrating it in one's approach to students.

Because of the democratic nature of the knowledge construction process in participatory research, it requires reflection and self-examination on the part of all parties involved. Smith, Bratini, Chambers, Jensen, and Romero (2010) pointed out that this was true for the participants as well, who had internalized the dominant culture's explanations for their perceived shortcomings. Conventional research in which an expert extracts data from passive subjects is likely easier and more efficient in many ways. But it also fails to capture phenomenological complexity by failing to ensure the researcher's worldview is not simply replicated in the data analysis. As a result, the co-researcher design in participatory research increases the likelihood of producing truly new knowledge by accounting for the inevitable ways researchers influence knowledge production.

Praxis

Another way in which participatory research facilitates fresh and creative knowledge is by using the conceptual tool, praxis, to break down the theory-practice dichotomy. Coined by Paulo Freire

(1970), *praxis* is defined as “reflection and action upon the world in order to transform it” (p. 36). This change mandate inherent to participatory research enhances its utility as a methodology appropriate for negotiating complexity. Change is not a new focus in the literature on complexity; in fact, one could argue convincingly that change defines the complexity discourse. Yet conventional epistemologies are disinclined to champion any sort of change agenda in research, opting for some sort of scholarly distance that tends to dull the research’s more interesting edges. As an aside, the recent proliferation of scholars criticizing the uselessness of much academic research (for example, Hacker & Dreifus, 2010) might be mitigated if more researchers employed methodologies that embraced rather than eschewed practical application. Participatory research reunites the unnecessarily separated ideas of theory and practice, adding to its appeal as a methodology up to the task of enabling change by endorsing both lived experience and empirical data as legitimate sources of knowledge.

Praxis helps focus the lens in determining what merits study. In traditional epistemologies where there is believed to be a consensus about what is objective or normal, what typically warrants investigation is whatever is perceived as outside of this frame. When theory is born of lived experience rather than a constructed idea of what might be novel, greater possibilities open. Forester (1999) offers an excellent example: “When we examine it, ordinary action turns out to be extraordinarily rich. What passes for ‘ordinary work’ in professional-bureaucratic settings is a thickly layered texture of political struggles concerning power and authority, cultural negotiations over identities, and social constructions of the ‘problems’ at hand” (p. 47). Here, Forester demonstrates why the ordinary is worth studying; that is, there is a normally hidden process by which something becomes collectively understood as ordinary. The expression “taken for granted” is most often used passively or as an adjective, but it is essentially an active process to “take something for granted.” Seeing what our minds accept as objective reality or

ordinary poses an intellectual challenge, much like the proverbial fish in water that only understands it is in water when pulled out of the tank and thrust into the air. Duberley and Johnson (2011) discuss negation as a tool “to challenge what is taken for granted as the natural order of things and to see things that are assumed to be rational and ordinary as exotic” (p. 351). Negation creates the possibility of defamiliarizing ourselves with our taken-for-granted assumptions about what constitutes normalcy so that we can see it with a fresh set of eyes. As is the case for the fish suspended outside the only environment it has ever known, negation is likely to cause discomfort. Yet negation offers a vital first step in effecting change; that is, exposing something that appears to be a natural law as, in fact, constructed and therefore changeable.

Expanding the parameters for what can be changed allows for truly novel inquiry. Ada and Beutel (1993) wrote about the utility of participatory research methods for researchers exploring fairly uncharted territory: “The challenge and richness you will face as a researcher doing participatory research is that of identifying, naming, and giving voice to knowledge that is not yet codified or legitimated by the dominant society. It is the nature of participatory research to intentionally go after knowledge that is not traditionally part of the already established and published store of knowledge” (p. 11). Praxis expands conventional ideas about what is worthy of study by blurring the line between subject and object. This is similar to the ways in which participatory research makes the relationship between researcher and researched more hazy than in conventional knowledge production. As with interdisciplinarity, these facets extend the frontiers of knowledge in ways that more reductive structures tend to stifle with their disciplinary boxes and discrete categories.

Emancipation

Participatory research is a methodology, a means to an end. What has been discussed so far is its role as a means, but what really

drove its creation is the idea propagating a positive end. *Positive* in this case is not some sort of benignly general idea; the positive end sought in participatory research is clearly social justice focused in its mission. Participatory research advances a democratic aim, seeking to broaden the true participation from which it gets its name. More specifically, participatory research aims to redistribute life chances through demonstrating how positivist epistemologies are complicit in reflecting and creating unjust hierarchies.

Hierarchy presents an interesting example of how the way in which knowledge is constructed has a concrete impact on organizational life. Conventional wisdom states that hierarchy is a good thing, that it is a necessary feature in institutions in order to prevent chaos, foster accountability, and promote efficiency. Yet Child (2011) presents a powerful counternarrative to this idea: “Hierarchy creates a relational distance between people. It lends itself to information asymmetry, lack of transparency, and low mutual understanding. The agency problem in hierarchies can consequently operate in both directions, with senior management failing to secure the commitment of those in lower positions and the latter not being able to constrain or expose malpractice at the top. The distance between controllers and controlled has increased along with the rise of megacorporations and government departments” (pp. 508–509).

Some will advocate hierarchy’s merits as a means toward efficiency. But the question must always be asked about efficiency to what end. Too often, efficiency is described in neutral terms rather than acknowledging that what is seen as central or marginal in the efficiency process is often privilege-laden. Hierarchy is an enticing idea, particularly when one has benefited from hierarchical ways of organizing that privilege his or her way of thinking. It’s easy to mistake both what one senses as urgent and what tasks and people are peripheral for objective reality. Participatory research aims to name and remedy this problem by highlighting the limits of linearity itself, exposing its hidden political dimension.

In its dismantling of hierarchies between researcher and researched and theory and practice, participatory research takes aim at hierarchies between the powerful and the powerless as well. Not content to simply give voice to the paradigms of those in power, participatory research refuses the “disinterested researcher” stance. Interest in effecting positive change very much drives participatory research, making it a frequent site for emancipatory action based on new understandings of what constitutes legitimate knowledge.

Some scholars argue that participatory research does not go far enough in promoting concrete change initiatives (Kinsler, 2010). This argument has merit, but we caution against underestimating the power of theory. The way we think produces real-world outcomes that impact people’s lives. Even the discourse on change itself provides an excellent example. The current zeitgeist endorses a very cheery narrative about change, but Morgan and Spicer (2011) present an alternative perspective: “The result is change becomes a ubiquitous phenomenon that has no boundary ... they (critics) remind us that our fluid and flexible working lives have produced heightened anxiety, a pervasive sense of insecurity, the destruction of common bonds, and the destruction of livelihoods and ways of life across the world” (pp. 251–252). An uncritical acceptance of the current change discourse presents real dangers. Change that comes after an inclusive process where voices of those affected by it are carefully heard and seriously considered builds relationships and reduces anxiety, even if not all parties get everything they want. For example, organizational power brokers frequently dismiss substantive objections to new austerity measures as simple “resistance to change.” A postpositivist epistemology exposes change as not a neutral phenomenon: there are changes that emancipate and processes that reflect integrity that should be implemented, and there are changes and methods that oppress and ought therefore to be resisted. Changes that neither emancipate nor oppress undoubtedly exist, but they are fewer than the contemporary change discourse acknowledges.

Conclusion

In this chapter, we propose participatory research as an epistemological framework that supports a change agenda. A complex world demands a sophisticated epistemology that illuminates the interests, structures, and systems at work in the complicated organizations that define contemporary existence. Few would argue that our complex world does not need change; growing environmental degradation, poverty, corruption, and intolerance offer just a few examples that illustrate flaws in the current course. Many people desire change, yet change proves elusive because our ways of knowing lead us to replicate the same thinking that got us into a problem in the first place.

Alvesson, Bridgman, and Willmott (2011) argue that our collective inability to challenge the status quo in any substantive way hampers potentially meaningful change efforts: “The natural and legitimate nature of the dominant social order is taken for granted and problems are seen as minor or moderate imperfections to be resolved or, when not, are seen to be unavoidable. Broader and deeper ethical and political issues and questions—such as the distribution of life chances within corporations or the absence of any meaningful democracy in working life—are either ignored or, at best, marginally accommodated through, for example, programmes of employee ‘involvement’ and ‘consultation’” (p. 10). The aforementioned picture is bleak, but organizational life does not necessarily have to be so. Postpositivist epistemologies demonstrate that there is no natural law stating that organizations must operate on hierarchical models. Participatory research offers a way to excavate the new knowledge needed to fuel truly creative alternatives to the thinking that created the situation in which we now find ourselves. What we experience as reality is simply the current construction; an alternative methodology enables change. New means can yield new ends.

