

Chapter 5

Action Research

Action research aims to create social change in the process of conducting research. Although it is linked to design research through a shared focus on practice, action research's critique of power and its epistemological insights provide a more critical and holistic foundation. Action research (AR) emphasizes learning by doing, addressing real life problems, increasing participation and bringing together theory and practice in pursuit of practical solutions. In *The Handbook of Action Research* (2006) Peter Reason and Hilary Bradbury describe AR as a unique manner of conceiving of knowledge and its relation to practice. It is an orientation that enables researchers to take on more complex social problems than traditional social sciences. Action research is a value-oriented approach that is more critically aware of its social, historical and political context than design theory, research and practice. As such AR offers important insights for the learning and communication problems associated with ecological literacy. Action research developed in tandem and was strongly influenced by pragmatic philosophy, liberationist movements, social theory and ecological thought. This chapter will briefly explore the provenance of these ideas and the key concepts coming from each tradition. AR aims to do better research because of the diverse voices that inform the process thereby creating a richer, more nuanced and representational perspective on complex issues. While some forms of action research simply reflect on practice, the more radical AR practices question underlying values. Action research creates a basis for individuals to become more effective agents of social transformation and has a legacy of facilitating change within organizations and wider social movements. These factors make AR a rich field capable of informing design practice in the context of sustainability. Action research is an orientation to inquiry that is participatory, practical, multidisciplinary, systemic and contextual as a deliberate reaction to earlier social research that created a dichotomy between research and action – amongst other identified sites of contention in traditional social sciences, which are explored below.

5.1 Problems in Traditional Research

Action research explicitly responds to problems in conventional academic research. A basic understanding of these issues is important for design research as design attempts to broaden the scope of its analysis in response to social and environmental issues. The following list of four problems with traditional social science research also briefly describes how action research strategically addresses these issues:

(1) Objectivity: Traditional academic value-neutrality has been exposed to be problematic (if not illusionary) as feminists scholars (amongst others) have demonstrated how knowledge and power are bound together. Knowledge-making most often 'creates a reality that favours those who hold power' (Reason & Bradbury 2006: 6). Rather than being a value-free process that produces objective truths, knowledge production is a political process in which powerful groups monopolize the production of knowledge (Bourdieu & Passeron 2000:5). What masquerades as objectivity is often a point of view that privileges influential groups.

(2) Power: Research will often serves the interest of the powerful in such a way that this dynamic is virtually invisible. The relationship between power and knowledge is developed in its own section (see *Power in Research and Education* – 5.3).

(3) Participation: Action research promotes democratic social change, building the capacity of participants to control their own destinies (Greenwood & Levin 2007:7). AR places a strong emphasis on learning from diverse voices as an approach that informs decision-making. Participatory processes are seen as a better basis from which to deal with complex problems. Participation is also necessary to create the kind of learning communities essential for sustainability to become possible, as engaged actors are key to social transformation.

(4) Practice: Action research holds that knowledge is derived from practice while practice is informed by knowledge as an ongoing process. Within AR, 'knowing how is more important than knowing that' (Ibid:54). AR follows pragmatic tradition that maintains that 'the only way to understand something is through a comprehensive attempt to try and change it' (Ibid:54) and action is the best-way to 'generate and test new knowledge' (Ibid:6). This focus on practice links AR to design research.

AR is a whole system orientation to research that is a deliberate response to the epistemological problems of conventional academic practices (Reason & Bradbury 2006:4). Action research emphasises the gaining of knowledge by actively engaging with issues in order to test ideas in practice. Action research in this thesis consist of four cycles. The first cycle was the Teach-in for ecological literacy in design education, October 2009 at the Victoria & Albert Museum in London (see Figure 5.1).

This chapter explains how action research has evolved strategies to deal with the issues described above. Action research reflects the nature of knowledge as 'interconnected, dynamic, multivariate and always more complex than theories and methods at our disposal' (Greenwood & Levin 2007: 54). In this way, action research is consistent with the epistemological premises of ecological literacy. Its critical understanding of power make it an appropriate methodology for dealing with the highly contentious and politicised topics of ecology and sustainability. Action research is embedded into my research design as a process of contracting cycles becoming more refined as I am able to sharpen my focus. I formulate propositions and create projects to test ideas in practice. While gathering feedback, I reflect on the action and reinterpret my research question for the next round of action research. In each cycle I test the workability of the new designs, i.e. their usefulness as communication tools. Action research is mapped into the research design in Figures 7.4 and 7.5 as an introduction to the project's methodology. Before the exact nature of specific methods are described in Chapter Seven, it is necessary to examine the legacy of action research and what it offers this research.

5.2 Critical Consciousness in Research and Education

Action research was strongly influenced by the pragmatic philosophical tradition that taught that the best way to understand any phenomenon was to try and change it. American educational philosopher John Dewey developed a critique of the traditional separation of thought from action in conventional social sciences and academia and proposed that the source of all knowledge is 'forged in action' (Ibid:60). Dewey based his arguments on a philosophical critique of Cartesian science including the notion that facts and values should be separated before 'rational action' can proceed (Ehrenfeld 2008:94). As an instigator of the pragmatist tradition that upheld the primacy of experience over theory, Dewey championed a shift from a positivist/rational to an experiential/pragmatic orientation in research (Ibid:94). Ideas should be rated by their effectiveness in producing common good and truths existing in the context of the world of effective action (Ibid:95). This orientation was a profound challenge to traditional social science that 'had come to separate thought from action and, thus, created social researchers who offered no threat to existing power arrangements' (Greenwood & Levin 2007: 61). Combining theory and practice is core to AR.

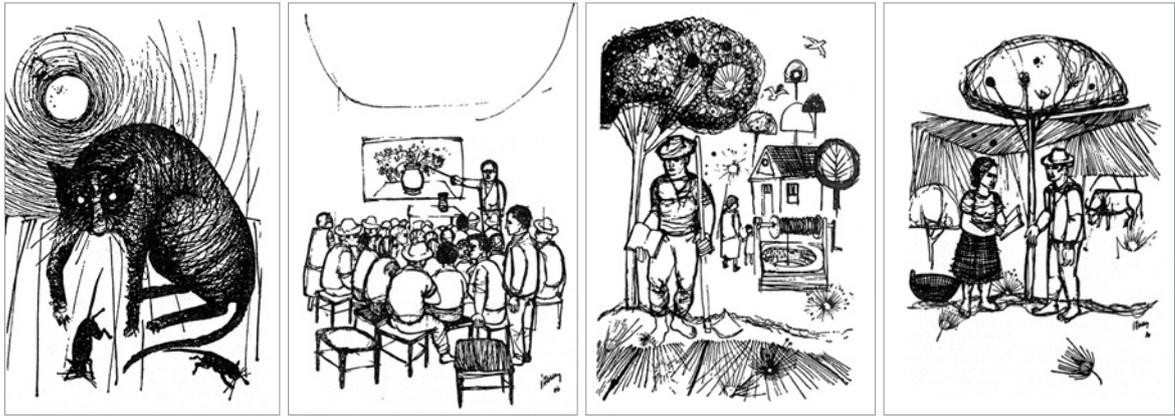


Figure 5.2 - Examples of codified images used by Paulo Freire in his teaching practice. Images were central to Freire's pedagogy as a means of helping learners visualise how communicative practices created cultural realities, to show how ideas are culturally mediated. Each picture contained elements to be decoded by participants in a learning process emphasizing political agency.
Source: Freire commissioned the images from artist Francisco Brenand.

MIT psychologist Kurt Lewins coined the term 'action research' in a 1946 paper where he described AR as a process of 'a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action' (Lewins 1946:17). Within AR, knowledge must be fundamentally practical; action is central to the creation of real knowledge. Reason and Bradbury explain: 'Action research is about working toward practical outcomes, and also about creating new forms of understanding, since action without reflection and understanding is blind, just as theory without action is meaningless' (Reason & Bradbury 2006:2). Educator Paulo Freire holds even stronger opinions on this issue:

An unauthentic word... results when a word is deprived of its dimension of action, reflection automatically suffers as well; as the word is changed into idle chatter, into verbalism, into an alienated and alienating 'blah'. It becomes an empty word, which cannot denounce the world, for denunciation is impossible without a commitment to transform, and there is no transformation without action (Freire [1970] 2006:68).

Furthermore, according to Freire, reflection without action cannot lead to true knowledge:

A mere perception of reality not followed by [a] critical intervention will not lead to transformation of the objective reality - precisely because it is not a true perception. This is the case of a purely subjectivist perception by someone who forsakes reality and creates a false substitute (ibid:34).

The notion that knowledge must be forged through action and demonstrated in practice is central to this thesis. Putting ideas into practice is essential because only by living according to the ideas that we advocate can we avoid the cynicism and defeatism that results from unrealized environmental communications. Herein lies a problem with practically all communication and education about sustainability; because virtually no one who has any power (and therefore a voice) in the western world is living in a sustainable way, each of us who talks about sustainability is subject to being revealed and/or charged with hypocrisy. Even radical Paulo Freire acknowledged the difficulty of this position: 'We must make an effort, humbly so, to narrow the distance between what we say and what we do' (Freire 2004:21).

AR was inspired by the influential educator Paulo Freire whose powerful pedagogic practices in South America aimed to help individuals to 'see through' the ways in which the establishment monopolizes the production and use of knowledge for the benefit of its members. Freire's most influential legacy is his critique of traditional education and emphasis on the agency of individuals to transform circum-

stances. Freire described 'banking education' where knowledge is deposited into students, a process that leads to passivity as learners 'adapt to the world as it is and to the fragmented view of reality deposited in them' (Freire 1970:54). Instead Freire advocated dialogical, problem-posing education which 'responds to the essence of consciousness - intentionality - and rejects communiqué and embodies communication' (Ibid:60). Education should consist of acts of cognition, not transferrals of information (Ibid:60). Within this pedagogic practice, learners become able to intervene critically in the situation (reality) - which is something that the banking method of education does not achieve. The banking system of education results in a lack of critical understanding of reality because it encourages apprehending it in fragments (Ibid:85). This type of education domesticates 'the intentionality of consciousness by isolating consciousness from the rest of the world' (Ibid:64). Due to this effect, Freire claims that education and cultural action either 'serves domination consciousness (consciously or unconsciously) or it serves the liberation of men and women' (Ibid:160) by either encouraging this fragmentation or by helping to liberate individuals from this view of reality. The best way to help individuals break out of fragmented consciousness is through dialogic processes. In AR, learning is a result of communication rather than one-way transmission of information (Greenwood and Levin 2007:66); an approach where individuals must reach conclusions as subjects not objects (Freire 1970:49).

Critical consciousness or conscientization is a concept popularized by Freire as a process of self-awareness through collective self-inquiry, reflection and becoming aware of one's situation within a historical, social and political context (see Figure 5.2). Learners 'come to see the world not as a static reality' but as dynamic and 'in a process of transformation' (Freire 1970:64). Deepening conscientization helps individuals 'to apprehend the situation as a historical reality susceptible to change and resignation gives way to the drive to transform' (Ibid:66). Critical consciousness proceeds through the identification of 'generative themes'. The process of 'reading the world' and 'de-coding' enables individuals to acquire the ability to intervene in reality. Intervention results in the emergence of critical consciousness (Ibid:90). This process involves both examining cultural myths that define our worldview and how they affect our daily life and also intervening in reality to create more appropriate and fulfilling stories and social practices. Through critical consciousness individuals move from objects of historical circumstances to assume the status of subjects (Ibid:141). Freire's notion of conscientization has informed the development of AR, transformative learning and the ecopedagogy movement and is central to the learning processes developed in this thesis project.

Critical ecopedagogy (see 2.4) is a critique on dominant models of environmental education and linked to the concept of ecological literacy. Douglas Kellner claims ecopedagogy describes:

a dynamic and complex definition of ecological literacy that seeks to promote the idea that while we are hemmed in by the limits of and interpolated by destructive institutional forces, we can recognize and transcend these thresholds through measures of individual transformation and collective action (Kellner in Kaln 2010:152).

Ecopedagogy emerged from critical pedagogy and its understanding of how ideology produces domination. Ecopedagogy works against what Freire calls 'fatalistic ideology' (2004:19) or 'ideology that seeks the demise of ideology' (Ibid:102). This type of ideology takes 'a despotic approach to education as mere training' (Ibid:102). This thesis draws on AR and critical pedagogy in order to help design move towards a more robust critical position in light of the challenges of sustainability.

5.3 Power in Research and Knowledge

Knowledge is never neutral. Critical theorists have demonstrated how values and assumptions are generated by social conventions. Powerful institutions and groups have the capacity to influence what is legitimate knowledge. Critical inquiry holds that ideas are mediated by power relationships and that 'what is presented as "fact" cannot be disentangled from ideology and the self-interest of dominant groups' (Gray 2009:25). Social theorist Steven Lukes describes how power makes hegemonic ideologies invisible thereby making them seem natural and inevitable. Pierre Bourdieu describes how academic institutions and research practices are implicated in reproduction of systems of class, race and gender oppression (Bourdieu & Passeron 2000:5). Participatory research counters the monopolization of the production and use of knowledge by powerful groups. Responding to the intimate relationship between knowledge and power is central to the AR process. This section will briefly examine Steven Lukes' 'Three Dimensions of Power' and Pierre Bourdieu's ideas on symbolic violence as they inform the practice of action research and could also inform critical whole systems communication processes.

Action researcher Peter Reason developed a participatory research model to address the manner in which power dynamics distort knowledge. Reason refers to Steven Lukes' seminal work *Power: A Radical View* (1974) describing how power functions in society, where power is most effective when it is least observable. Lukes describes power as consisting of three dimension. Reason summarised Lukes position:

Three-Dimensional Power (Reason 1998 based on Lukes)

One-dimensional power involves the capacity to directly influence events.

Two-dimensional power is the ability to influence the agenda of possibilities that may be addressed (and exclude certain perspectives).

Three-dimensional power is the ability to control the frameworks through which we make sense of and understand ourselves and our world. This is the most fundamental exercise of power, the power used to shape the way we see their world so that we may accept things as taken for granted because there appears to be no alternative. (Reason 1998:150 based on Lukes 2005 [1974]).

The third dimension of power is the power exercised through the propagation of hegemonic ideologies. Lukes' theory of power is instructive in exploring the reasons why both sustainability and (to a far larger degree) ecological literacy remain marginal despite the urgent need to address environmental priorities. Environmentalists, activists and those in front-line impacted communities describe hegemonic institutions and groups obstructing the construction and design of sustainable alternatives, appropriate technologies and social learning projects about sustainability. Powerful groups effectively ignore these claims and maintain the status quo, i.e. unsustainability, through current development regimes, 'rational' economics and a plethora of public relations and advertising programs to reassure the public (see 8.2). Design must always serve an economic function first and foremost, often with destructive ecological and social consequences. This third dimension of power distorts judgment through setting a particular ideological vision as the absolute truth (i.e. the market will solve all our problems, etc.). This theory of power also explains the function of the advertising industry. Lukes asks: 'Is it not the supreme form of power to get another or others to have the desires you want them to have - that is, to secure their compliance by controlling thoughts and desires?' (2005:27) The role of controlling desire is performed with great skill by the advertising industry with all the knowledge, tools and skills of the social sciences (psychology, cognitive science, anthropology) and the creative arts (design, illustration, media arts) enlisted in the process. Designers

are often painfully aware of their role in fuelling the forces of conspicuous consumption but lack a sense of agency of how their skills could be put to more socially constructive uses. The role of design education should be understood to help young people recognize their role as agents of social and political change. This thesis aims to address this problem through processes of critical consciousness and transformative learning. This will be done through a series of communication processes facilitated by visual resources as explained in Chapter Seven.

Pierre Bourdieu's notions of habitus and symbolic violence¹ explore power and how it reproduces itself through cultural institutions, cultural products, tastes and dispositions. Habitus works beneath the level of ideology, it is an embodied and internalized totality of learned habits and sensibilities. Through habitus individuals learn to consider conditions as natural and even to value oppressive social practices and ideas. Symbolic violence is a form of power that is 'exerted on bodies directly as if by magic, without any physical constraints, but this magic works only on the basis of the dispositions deposited, like springs, in the deepest levels of the body' (Bourdieu 2001:38). Symbolic violence is perpetuated through systems of representation and myths our culture circulates that have 'a hypnotic power' and that internalize sensibilities and values systems (Ibid:9). Bourdieu's ideas describe why societies facing severe crisis could continue to organize themselves around value systems that have proven to be erroneous and have the potential to become the cause of ecological catastrophe. Epistemological error (see 1.5) is deeply embedded into our social and cultural structure and are thus part of our habitus.

5.4 Extended Epistemology and Multiple Ways of Knowing

A distinguishing characteristic of action research is its commitment to a whole systems paradigm and the subsequent development of a host of methods and concepts to support this epistemological position. AR typically involves changing patterns of thinking and acting in individuals and groups. John Heron and Peter Reason suggest that this work requires 'an extended epistemology' and the development of a 'multiplicity of ways of knowing' (Heron & Reason 1997:5). An extended epistemology moves away from an exclusive reliance on orthodox empirical and rational Western views of knowing privileging positivist science and quantifiable data as a basis for decision-making. It recognizes other types of knowledge as having value and seeks to develop methods to integrate different ways of knowing. Reason and Heron describe four 'ways of knowing' as part of an extended epistemology: experiential, presentational, propositional and practical (1997:279). The ways of knowing creates 'critical subjectivity'² (Ibid:281) and an understanding of the movement from abstract to practical knowledge that reveals the process of bringing new ideas into being. The concepts of extended epistemologies, ways of knowing and critical subjectivity are important for this thesis as the work attempts to help learners move from theory to action - from experiential knowing to practical knowing in concepts and capacities associated with ecological literacy. By articulating different ways of knowing, an extended epistemology sheds light on how we can understand and manifest new ideas - in a process that is akin to design.

¹ Bourdieu also uses the term 'symbolic domination'.

² Critical subjectivity is characterised by an awareness of the manner in which ideologies become naturalized.

5.5 Conclusion

Concepts introduced in this chapter describe why it has been so hard to make the necessary shifts to ecologically-informed theory and practice. Action research understands the nature of knowledge as intimately intertwined with power and has a legacy of delving deeply into the epistemological, political and social complexities associated with social change. AR is relevant for designers pursuing sustainability as it is a tradition familiar with both critiquing the way that power works in society and working on practical solutions to circumvent hegemonic ideological assumptions. It does this by creating situations where participation is encouraged, knowledge is co-created and social change the goal. A communications design practice informed by action research would be very different from contemporary strategies in communication design. Most communication design sits comfortably within the tradition of what Friere describes as 'depositing' information. Advertising and marketing are examples of how powerful cultural forces 'deposit myths indispensable to the preservation of the status quo' (Freire 1970:120). Facilitating this 'depositing' process is a dominant role of communication design industry engaged in marketing (see 8.3). This type of communication design encourages fragmentation, alienation and conspicuous consumption. Alternatively communication design can become a tool of emancipatory learning, facilitate the development of agency and encourage emergent ecological perception (see Chapter Ten). This thesis aims to help communication design engage critical consciousness and the agency to take action on the basis of new knowledge. Design must engage with people as subjects capable of informed decision-making, rather than passive objects to be manipulated into various consumer choices. This chapter has described how action research informs critically informed, participatory, whole systems research. The precise methods and processes will be introduced in Chapter Seven. Before that, it is necessary to introduce one more methodological tradition with a powerful legacy of facilitating social change: transformative learning.