THEORETICAL RESOURCE

Looking at Action Research through the Lenses of Sociocultural Psychology and Activity Theory

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ABSTRACT Sociocultural research and activity theory (SCRAT) are developments of the work of Vygotsky, which aim to capture how minds and actions are shaped by, and shape the opportunities for thinking and action available. SCRAT requires a rethinking of commonly held interpretations of relationships between culture and mind, and knowledge and action, so that attention is paid to how learners interpret and respond to the opportunities available to them. Like action research, SCRAT emphasises the development of a capacity to make informed interpretations of cultural contexts and the importance of collaborative or systemic responses to those interpretations. It adds to these concerns, a focus on the historical construction of possible interpretations and responses, and so offers a potentially useful way of mapping the developments being made by action researchers in their institutional settings. It is not suggested, however, that SCRAT is a substitute for action research, but that it may illuminate explorations of informed action and institutional change in action research.

Vygotsky is concerned to study how people, through the use of their own social activities, by changing their own conditions of existence can change themselves. (Shotter, 1993, p. 111)

The goal of the sociocultural approach is to explicate the relationships between human action, on the one hand, and the cultural, institutional, and historical situations in which this action occurs, on the other. (Wertsch et al, 1996, p. 11)

A Personal Starting Point

Action research first became part of my professional life in 1985 when I took up a post in a College of Higher Education just vacated by David Hopkins. Fresh from a post-doctoral period in a psychology department, but with an earlier background in historical research and in teaching, I was already disenchanted with the disengaged, apolitical, culture-free social science that is most academic psychology. Hence, I was a rapid convert to a version of action research at a seminar run by Jack Whitehead that year.

However, my conversion was arguably incomplete and selective. My engagement as a psychologist with what Taylor terms the hermeneutic model of psychology, i.e. 'the explanation of fully motivated performance' (Taylor, 1985, p. 132) or intentional action, informed my view of action research. Consequently, its potential as a framework for professional learning was a major attraction. After working at the margins of social and developmental psychology to include voice and reflexivity in research design in order to fashion an engaged social science, an equally attractive aspect of action research was the position of the practitioner-researcher as actor, interpreter and change agent.

The action research of that period, despite examples of successful teacher research groups, was quite compatible with a concern with personal learning and tended, often by default, to focus on the development of individual practitioners. In England and Wales, the Conservative educational reforms of the late 1980s severely limited the opportunities for teacher-led school change.

Over the last 15 years I've explored relationships between action research and professional learning in in-service experiences (Edwards & Brunton, 1993), initial training (Edwards, 1996) and pre-school pedagogy (Anning & Edwards, 1999; Edwards, 1999). Although each of these analyses were located in understandings of the dialogic nature of knowledge construction, as might be expected of hermeneutic studies that focus on individuals' current interpretations of practices and the future orientation of their informed actions, they paid insufficient attention to how these interpretations and actions were culturally and historically embedded. However, increasing involvement with cross-institutional research networks which require practitioners to participate both in the virtual communities of the networks and the grounded communities of their workplaces, has demonstrated the importance of attention to workplaces as complex contexts.

The cultural contexts of action research have not been treated so lightly by everyone. John Elliott, for example, has carefully integrated Giddens's notion of structure and discursive consciousness into his concern with recognising the centrality of agency in action research (1993). Elliott's conclusion that context does not exist independently of agency and that system change 'involves the restructuring of (actors') practical consciousness through the reconstruction of their store of mutual

knowledge' (Elliott, 1993, p. 184), will be my starting point for an exploration of how sociocultural studies of the social formation of mind and activity theory models of the systems in which knowledge is created and used, might illuminate a view of action research as culturally embedded knowledge construction.

Using the Lenses of Sociocultural Research and Activity Theory (SCRAT)

The origins of SCRAT lie in:

> the sociocultural psychology of Vygotsky, its development through activity theory by, for example, Leont'ev and, more latterly, Engeström;
> parallel developments in cognitive anthropology by, for example, Scribner and Cole;
> a view of learning as mediated participation in knowledge communities demonstrated by, for example, Wertsch and Lave.

Each of these three post-Vygotskian strands has the potential to illuminate aspects of action research. Not least because SCRAT aims to be a transformative (and multidisciplinary) social science which attends to the integration of informed agency, action and context. In moving beyond such dualistic concerns as the application of knowledge to practice, SCRAT sees mind as both embodied and culturally, and historically embedded, involved in a continuous process of interpretation and response, and as such is compatible with action research aims of social transformation through the discursively informed agency of practitioners.

It is not helpful here to examine each post-Vygotskian strand separately as they intertwine so comprehensively (they can be followed up, for example, in Daniels, 1996; Cole et al, 1997). Instead, we'll look at four themes to be found in SCRAT, and consider what each in turn and together might offer the practice and interpretation of action research. They are:

> culture and mind;
> knowledge and action;
> agency, interpretation and response;
> expansive learning and institutional change.

Culture and Mind

The premise that mind is formed socially in interaction with the tools of our culture, which include artefacts and social conventions, as well as language, underpins every element of SCRAT. This premise has meant that inquiry can start as easily with features of the culture as with individuals. It has also presented analytic challenges. In pursuing Vygotsky's attack on the Cartesian dualism of mind and behaviour, Vygotskian researchers have tended to take goal-oriented action as an important unit of analysis (Zinchenko, 1985), which, in turn, has led to a need to understand better

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what Axel (1997) describes as the 'action potence' or the potential for action available in specific situations. SCRAT research is therefore necessarily multi-layered, and consciously weaves together relationships between culture, mind and action (see, for example, Cole, 1996a).

The weaving renders problematic the nature of culture and it is here that the cognitive anthropologists (D'Andrade, 1981; Holland & Quinn, 1987; Cole 1996a; Strauss & Quinn, 1997) and their erosion of the boundaries between culture and construing are helpful. Strauss & Quinn, focusing on people's shared experiences and the shared schema they acquire as participants, acknowledge that for them culture is a 'fuzzy concept' (p. 7). Their attention to cultural construing helps us see culture as both within and without individuals, and both shaping and shaped by them as they interact in and with cultures that are mediated by the resources within them. They add a cognitive dimension to Elliott's interpretations of Giddens' analyses of agency and structure (Giddens, 1984; Elliott, 1993).

However, the cognitive anthropologists add a further element to analyses of social construing, and by extension action potence and intentional action. Culture is read historically. Cole, for example, reminds us that we humans need 'to inhabit an environment transformed by the activity of prior members of (our) species' (Cole, 1996b, p. 190) and that our interpretations as we try to make sense of our worlds are mediated in part by 'the cultural past reified in the cultural present in the forms of artefacts that mediate the processes of co-construction' (Cole, 1996b, p. 193). Just consider, for example, the extent to which school-based teacher training is still constrained by the artefacts and social processes that belong to pre-reform practices, and how useful it might be to build that understanding into any change strategy.

Knowledge and Action

SCRAT characterises knowledge construction as a process of increasingly informed participation in the communities in which specific skills and understandings are employed. Knowledge is accordingly constructed dialectically in interaction with the cultural tools that mediate the knowledge in use in that community. Such a participatory model of learning explains quite effectively how a novice may be inducted into the skilled practices of a well-established craft such as tailoring (Lave, 1997). It also explains the power of the emphasis in action research on moving beyond case study into action where new pedagogic tools are used or old tools are given fresh interpretations by the researcher-participants.

An understanding of learning as increasingly informed participation does not, however, necessarily demand a capacity to articulate what is informing one's actions. Action research is therefore more than merely participatory learning because it does make that demand. However, it is all too easy to regard the main aim of practitioner enquiry to be to render explicit practitioners' tacit knowledge (Hargreaves, 1998). As useful as that

is, we also need to conceptualise how the knowledge held in communities of practice might be informed, used, constructed and shared.

It is here that Moll's sociocultural notion of the 'funds of knowledge' held in communities which are both distributed within communities and carried across community boundaries, resonates usefully with Elliott's notion of a 'store of mutual knowledge'. In addition, Moll's version of the metaphor allows us to consider how knowledge might be carried from one community to another. Moll's study of working class households in Tucson (Moll & Greenberg, 1990) examined how children from Latino communities were able to use the mathematical knowledge available to them at home when they were in school, and argued for more accommodating versions of schooling which were able to draw on children's existing knowledge resources. Parallels are easily drawn when considering how schooling makes use of teachers' funds of knowledge as they move between, for example, external research networks and their schools. Use, however, is not a question of the application of knowledge. In this model of informed action, knowledge use is a matter of a capacity to interpret complex environments and respond in ways that are informed by available funds of knowledge, including those distributed within the system.

The view that knowledge is held and distributed within groups is a phenomenon recognised more generally by SCRAT, where there has been a long-term interest in how knowledge is constructed, transformed, distributed and held within communities. Bruner, for example, uses the illustration of the successful laboratory in which a shared 'extended intelligence', and ways of thinking and using knowledge are appropriated while participating in its activities (Bruner, 1996, p. 154). With a more overt focus on knowledge construction, Gardner discusses the idea of 'expanded intelligence', which he locates in the interactions between individuals (Hatch & Gardner, 1993, p. 184). Here, the interactions of differently informed participants scaffold understandings that continue to augment the funds of knowledge distributed in pairings or groups.

Conceptualising how knowledge and ways of thinking are co-constructed and distributed within groups also assists analyses of how such groups articulate, i.e. connect, with others. Consequently, it emphasises the need for attention to how such groups connect with, for example, colleagues who are not group members. These analyses are crucial as we form action research networks and maybe expect individual network participants to effect change beyond the network. Again, a cognitive analysis sits easily alongside Elliott's concern with the restructuring of practical consciousness, but also allows, perhaps, a more systemic analysis. Importantly, though, this cognitive analysis does not separate mind from either affect or environment. The SCRAT mind is both embodied and culturally embedded.

Agency, Interpretation and Response

Agency, from a SCRAT perspective is synonymous with a person's way of being, seeing and responding in the world. It is an embedded and interpreting agency that draws on its funds of knowledge to both interpret and respond to the environment. Greeno, in a discussion of situated learning (Greeno, 1997), identified the goal of learning in this version of cognition to be the increasingly effective participation of an individual in the activities of a system. Effective participation does not consist of the acquisition and application of carefully stored knowledge, but the 'ability to use representations to orientate their attention to properties and relationships that are important in activity'. Representations, i.e. individually stored knowledge, are not irrelevant, but stored knowledge is a resource, which can assist interpretations and which is responsive to the action potence available in a situation. Learning or professional development therefore becomes a question of repositioning oneself in relation to aspects of knowledge through changing one's interpretations of contexts and the possibilities for action within them.

Behind Greeno's notion of an interpreting agent lies a model of mind which is not primarily a system for encoding and applying knowledge, but is what Clark describes as a 'locus of inner *structures* that act as operators on the world via their role in determining actions' (Clark, 1997, p. 47). The mind that Clark describes interprets and responds to the contexts of action and exploits the opportunities for effective action within them. It is an outward-looking mind which seeks local scaffolding to enhance its purposive action and resonates with Pea's notion of distributed intelligence (Pea, 1993) in which contextual features enhance complex thinking. In action research such scaffolding might be physical, such as a framework for observing classroom interactions in a science lesson, and may certainly be the dialogic reasoning found in collaborative action research. Clark's mind is the enquiring and increasingly informed mind of the action researcher who tests understandings in practice and so constructs refreshed, i.e. transformed, versions. In collaborative action research these versions become part of the distributed knowledge fund of the group. Clark's mind resonates with what, in SCRAT terms, Engeström & Middleton (1996) call 'mindful practice'.

Expansive Learning and Institutional Change

The interpretative, culturally embedded mind, sensitive to the action potence available in a situation directs our attention to the systemic nature of the social that forms the mind and to the activity theory elements of SCRAT. Leont'ev's insertion of activity into analyses of relationships between subjects (i.e. actors) and the objects of their actions was an important development in SCRAT. Activity in this sense always occurs within a system of social relationships, whether these social relationships are evident in our interactions with others, or in the tools we use and the intentions we have.

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Arguing that 'the human individual's activity is a system in the system of social relations' (Leont'ev, 1981, p. 47), he takes our gaze from action as simply mediated interaction to place it on action as systemically constructed and constructing. (Here some parallels with Giddens notions of agency and structure can begin to be drawn.) Yrjö Engeström's development of Leont'ev's thesis is currently having considerable impact in SCRAT (see, for example, Engeström, 1993, 1996; Cole & Engeström, 1993; Engeström & Middleton, 1996).

In brief, Engeström's analytic framework (see Engeström, 1999) allows us to examine how actions are shaped by and shape the affordances (i.e. possibilities for action) of an activity system. For example, in a school that has set up an internal action research network as an initiative focusing on the pedagogy of group work, both the school and the network are amenable to analyses as activity systems. A school-based research coordinator, considering how she is able to work with colleagues in the initiative, can use Engeström's framework to examine the complex inter-relationships between, for example, rules that historically govern professional behaviour in the school, the division of labour in the initiative, the compatibility of the initiative with the goals of the school community, etc.

Using the framework, these analyses of complex interactions can capture expectations of responsibility and behaviour driven by:

institutional history;
the intended and unintended goals of activities;
the extent to which the initiative is being accepted and rejected by the system as a whole;
the division of labour among key players;
who is excluded;
where change is occurring over time;
where help is needed.

These systemic analyses are not seeking equilibrium. Instead, the contradictions and turbulence identified within systems are characterised as points for systemic adaptation or expansive learning. As part of the process of expansive learning the analysis is fed back to participants in the system so that they might interrogate the evidence, and ultimately seek and test alternative ways of operating.

If action research, as Elliott signals, is also concerned with system change, it arguably needs an analytic tool at the systems level, which is compatible with its attention to agency and informed action. It would seem that an exploration of the systemic analyses developed within SCRAT and far too briefly outlined here, may be worthwhile, if for no other reason than that they direct attention to how the histories of systems impinge in complex ways on current and future actions.

SCRAT and Action Research

That SCRAT has the potential to be an engaged and responsible social science is evidenced in the very practical work of, for example, Moll and Cole in economically disadvantaged communities (Moll, 1990; Cole, 1996b). Moll argues that sociocultural psychology is a transformative psychology (Moll, 1990). However, it is not another type of action research. SCRAT can, however, illuminate the path that some versions of action research are following and may, at times, throw a little light on the opportunities in action research for more wide-ranging explorations of informed action and institutional change.

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