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The mutual shaping of human action and institutional settings: A study of the transformation of children's services and professional work

Harry Daniels

Abstract

This paper is concerned with the way which we understand and investigate the relationship between human functioning and social setting. The central argument draws on the work of Bernstein and Vygotsky. A novel approach to the study of the mutual shaping of human action and institutional settings is developed and an empirical example of its application is presented and discussed. The research reported here is drawn from a 4 year ESRC TLRP funded study of professional learning in and for interagency working in Children's Services in England.

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Key words

Vygotsky, Bernstein, Children's Services, Interagency, professional learning

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Introduction

This paper is concerned with the way which we understand and investigate the relationship between human functioning and social setting. It deploys post Vygotskian theory which attempts to account for the social formation of mind mediated by artefacts understood as cultural historical products and Bernsteinian sociological theory (e.g. Bernstein, 2000) which seeks to forge analytical linkages between structure, communication and consciousness. As I have noted elsewhere much of the sociocultural or Activity Theory research that claims a Vygotskian root fails to fully articulate an appropriate theory of social structure and an account of how it directs and deflects the attention of the individuals it constrains and enables (Daniels, 2008,2001). Sawyer (2002) argues that the way forward is to be found in an approach which:

> must include postulates about the two-way causal relationship between individual and
> social properties, including the internalization processes associated with development and
> the externalization processes whereby individuals affect social structure (Sawyer, 2002,
> p300)

In this way he rejects the individualism that is the hallmark of much cognitive psychology and the deterministic internalization which Bernstein suggests is to be found in some approaches to macro-sociology.

> A crucial problem of theoretical Marxism is the inability of the theory to provide
> descriptions of micro level processes, except by projecting macro level concepts on to the

micro level unmediated by intervening concepts though which the micro can be both

uniquely described and related to the macro level. (Bernstein, 1993, p. xv)

In this paper I will develop an account of institutional structures as cultural historical products

(artefacts) which play a part in the implicit (Werstch, 2007) or invisible (Bernstein, 2000)

mediation of human functioning and which are in turn transformed through human action.

Here human communicative action that leads to a shift from the 'given' to the 'to-be-

established' is of specific interest.

Mediation: from Vygotsky to Bernstein

The mediational process is neither one which neither denies individual or collective agency

nor social, cultural, historical influence. At the very heart of Vygotsky's (1987) thesis is the

argument that the introduction of new tools into human activity does more than improve a

specific form of functioning, it transforms it. Tools, such as language, are cultural, historical

products which mediate thinking and feeling and are in turn shaped and transformed through

their use in human activity. It is through tool use that individual/ psychological and cultural /

historical processes become interwoven and co-create each other. Vygotsky links the

development of consciousness to semiosis, and specifically to linguistic semiosis, and thus

links the specifically human aspects of our practical and mental life to socio-historical

contexts (Hasan, 2005,135-6).

It is important to note that Vygotsky's thoughts on the nature of mediation changed during the

course of his writing. Wertsch (2007) distinguishes between the accounts of, what he terms

explicit and implicit mediation. Where the former is explicit in that an individual who is

directing another individual overtly and intentionally introduces a "stimulus means" into an

ongoing stream of activity and the materiality of the stimulus means, or signs involved tends

to be obvious and non-transitory (Wertsch, p. 180). He contrasts this with implicit mediation which he sees as a feature of the later cultural historical phase of Vygotsky's work.

"implicit mediation typically does not need to be artificially and intentionally introduced into ongoing action *(as in explicit mediation).* Instead, it is part of an already ongoing communicative stream that is brought into contact with other forms of action. Indeed, one of the properties that characterizes implicit mediation is that it involves signs, especially natural language, whose primary function is communication. In contrast to the case for explicit mediation, these signs are not purposefully introduced into human action and they do not initially emerge for the purpose of organizing it. Instead, they are part of a pre-existing, independent stream of communicative action that becomes integrated with other forms of goal-directed behaviour." (Wertsch, 2007, p. 183)

Similarly for Hasan (2002) and Bernstein (2000) visible semiotic mediation mediates a specific category of reasoning, a certain range of technical concepts, and a particular relation to the physical phenomena of the world whereby the world is classified and categorised in a certain way (Hasan, 2002, p152). Whereas invisible semiotic mediation is concerned with the ways in which unself-conscious everyday discourse mediates mental dispositions, tendencies to respond to situations in certain ways and how it puts in place beliefs about the world one lives in, including both about phenomena that are supposedly in nature and those which are said to be in our culture (Hasan, 2002). Invisible semiotic mediation occurs in discourse embedded in everyday ordinary activities of a social subject's life. Bernstein (1990) argues that whilst the context for mediation is always the social practices of discourse an important qualification is that in such practices individuals take up specific social positions and are

themselves positioned. The same context offers different possibilities for socially positioned actors.

> Participation in social practices, including participation in discourse, is the biggest boot-strapping enterprise that human beings engage in: speaking is necessary for learning to speak; engaging with contexts is necessary for recognising and dealing with contexts. This means, of course, that the contexts that one learns about are the contexts that one lives, which in turn means that the contexts one lives are those which are specialised to one's social position. (Hasan, 2005, p. 153)

Much of this analysis has been based on studies of settings at particular moments in time. I will bring the analysis of the sequential and contingent development of innovation over time into a Bernsteinian framework in order to open up the possibility of studying the ways in which such action transforms institutional structures whilst also being shaped by them. In this way I will seek to outline an approach to the mutual shaping and transformation of individuals and institutions.

Wertsch (1998) has advanced the case for the use of mediated action as a unit of analysis in social-cultural research because, in his view, it provides a kind of natural link between action, including mental action, and the cultural, institutional, and historical context in which such action occurs. This is so because mediational means, or cultural tools, are inherently situated culturally, institutionally, and historically. However as he had recognised earlier the relationship between cultural tools and power and authority is still under-theorized and in need of empirical study (Wertsch & Rupert, 1993). This recognition is an important step forward from the original Vygotskian thesis which as Ratner (1997) notes did not consider the

ways in which concrete social systems bear on psychological functions. He discussed the general importance of language and schooling for psychological functioning; however he failed to examine the real social systems in which these activities occur. The social analysis is thus reduced to a semiotic analysis which overlooks the real world of social praxis (Ratner, 1997).

Bernstein (1993) argued that the enrichment of Vygotskian theory calls for the development of languages of description which will facilitate a *multi-level* understanding of discourse, the varieties of its practice and contexts of its realization and production. There is a need to connect the theory of social formation of mind with the descriptions that constitute part of the methodological apparatus of empirical research. This should provide a means of relating the social cultural historical context to the form of the artefact. If processes of social formation are posited then research requires a theoretical description of the possibilities for social products in terms of the principles that regulate the social relations in which they are produced. We need to understand the principles of communication in terms derived from a study of principles of social regulation.

Different social structures give rise to different modalities of language which have specialised mediational properties. They have arisen, have been shaped by, the social, cultural and historical circumstances in which interpersonal exchanges arise and they in turn shape the thoughts and feelings, the identities and aspirations for action of those engaged in interpersonal exchange in those contexts. Hence the relations of power and control, which regulate social interchange, give rise to specialised principles of communication. These mediate social relations.

In order to understand social mediation it is necessary to take into account ways in which the practices of a community, such as school and the family are structured by their institutional context (Abreu and Elbers, 2005). There is a need to connect the theory of social formation of

mind with the descriptions that are used in research. This should provide a means of relating the social cultural historical context to the form of the artefact, in the present case the patterns of talk understood and analysed as communicative action. If processes of social formation are posited then research requires a theoretical description of the possibilities for social production of artefacts / tools in terms of the principles that regulate the social relations in which they are produced. We need to understand the principles of communication in terms derived from a study of principles of social regulation at the institutional or organizational level.

The regulation of action in institutions

It is not just a matter of the structuring of interactions between the participants and other cultural tools; rather it is that the institutional structures themselves are cultural products which serve as mediators. When we talk, as Makitalo and Saljo (2002) argue, we enter the flow of communication in a stream of both history and the future (Makitalo and Saljo p. 63). When we talk in institutions history enters the flow of communication through the invisible or implicit mediation of the institutional structures.

My suggestion is that there is need to analyse and codify the mediational structures as they deflect and direct attention of participants. In this sense I am advocating the development of cultural historical analysis of the invisible or implicit mediational properties of institutional structures which themselves are transformed through the actions of those whose interactions are influenced by them. This move would serve to both expand the gaze of Vygotskian theory and at the same time bring sociologies of cultural transmission such as that developed by Bernstein (2000) into a framework in which institutional structures are analysed as historical products which themselves are subject to dynamic transformation and change.

Empirical work

The Learning in and for Interagency Working project (LIW)[1] was concerned with the learning of professionals in the creation of new forms of practice which provide joined- up solutions to complex and diverse client needs. We studied professional learning in children's services that aim to promote social inclusion through interagency working. Working with other professionals involves engaging with many configurations of diverse social practices. It also requires the development of new forms of hybrid practice. The call for 'joined up' responses from professionals places emphasis on the need for new, qualitatively different forms of multiagency practice, in which providers operate across traditional service and team boundaries

Vygotsky was concerned to study human functioning as it developed rather than considering functions that had developed. The essence of his 'dual stimulation' approach is that subjects are placed in a situation in which a problem is identified and they are also provided with tools with which to solve the problem or means by which they can construct tools to solve the problem., When applied to the study of professional learning, it directs attention to the ways in which professionals solve problems with the aid of tools that may be in circulation in their workplace or may be provided by interventionist researchers. We studied professional learning in workshops which were broadly derived from the 'Change Laboratory' intervention sessions, developed by Engeström and his colleagues in Helsinki (Engeström, 2007), which incorporates a dual stimulation method.

In laboratory sessions the participants were helped to envision and draft proposals for concrete changes to be embarked upon. They discussed and designed interventions which were intended to bring about changes in day to day practices and, at times, in the social

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[1] TLRP-ESRC study ESRC RES-139-25-0100 'Learning in and for Interagency Working' was co-directed by Harry Daniels and Anne. Edwards. The research team included Paul Warmington, Deirdre Martin,, Jane Leadbetter, David .Middleton, and Steve Brown.

structures of the workplace. These actions were prompted by reflections on the tensions and dilemmas raised by data drawn from their everyday work practices. Prior to the workshops interview and observational data were used as a base from which to select data which mirror embodied tensions, dilemmas and structural contradictions in the practices of each site. In this way critical incidents and examples from the ethnographic material are brought into Change Laboratory sessions to stimulate analysis and negotiation between the participants. The crucial element in a Vygotskian dual stimulation event is the co-occurrence of both the problem and tools with which to engage with that problem.

We worked in three multiagency settings: (a) Nortonville, a school whose remit has been extended to act as base for other agencies (b) Wildside, a 'children in public care' team (c) Seaside, a multi-professional team that originally was comprised of education professionals but expanded to incorporate social care and health practitioners. We organised 6 Developmental Work Research (DWR) workshops at each site. The aim was to build upon professionals' 'everyday' understandings of multiagency working, juxtaposing these with reflective, systemic analyses of the ways in which current working practices either enable or constrain the development of innovative multiagency working. The stated aim of the workshops was to address the challenges of multiagency professional learning by:

- encouraging the *recognition* of areas in which there is a need for change in working practices

- suggesting possibilities for change through *re-conceptualising* the 'objects' that professionals are working on, the 'tools' that professionals use in their multiagency work and the 'rules' in which professional practices are embedded.

10

Analysing and describing the sites

There was a need to refine a language of description which would allow the research to 'see' institutions as they did their tacit psychological work through the discursive practices which they shape. A way of describing, what were essentially, the pedagogic modalities of the settings in which we were intervening was required. That is the most likely forms of institutional practice that would be sustained in those settings. A crucial element in the description was to be an attempt to try and identify points at which communicative action would engage with the transformation of the institution. This attempt was minded by the understanding that different social structures give rise to different modalities of language in institutions which themselves have specialised mediational properties. From a Bernsteinian standpoint the relations of power and control, which regulate social interchange, give rise to specialised principles of communication. These mediate social relations and shape both thinking and feeling: the 'what' and 'how' as well the 'why' and 'where to' of practice. We were concerned with the ways in which wider social structures impact on the interactions between the participants and their patterns of communicative action.

We also recognised the importance of developing an approach to the analysis and description of our research sites that could be used to monitor changes that took place over the course of our intervention. These understandings formed the background to the development of an account of institutional structures as cultural historical products (artefacts) which play a part in implicit (Werstch, 2007) or invisible (Bernstein, 2000) mediation.

Bernstein's (2000) model is one that is designed to relate macro-institutional forms to micro-interactional levels and the underlying rules of communicative competence. He focuses upon two levels; a structural level and an interactional level. The structural level is analyzed in terms of the social division of labour it creates (e.g. the degree of specialisation, and thus

strength of boundary between professional groupings) and the interactional with the form of social relation it creates (e.g. the degree of control that a manager may exert over a team members' work plan). The social division is analyzed in terms of strength of the boundary of its divisions, that is, with respect to the degree of specialization (e.g. how strong is the boundary between professions such as teaching and social work). Thus the key concept at the structural level is the concept of boundary, and structures are distinguished in terms of their relations between categories. The interactional level emerges as the regulation of the transmission/acquisition relation between teacher and taught (or the manager and the managed), that is, the interactional level comes to refer to the pedagogic context and the social relations of the workplace or classroom or its equivalent.

Power is spoken of in terms of classification which is manifested in category relations which themselves generate recognition rules. Possession of which allows the acquirer to recognize as difference that is marked by a category as would be the case of the rules which allow a professional to be recognized as belonging to particular professional group. This is not simply a matter of finding out which service someone belongs to, it also refers to the ways in forms of talk and other actions may be seen to be belonging to a particular professional category or grouping. When there is strong insulation between categories (i.e. subject, teachers), each category is sharply distinguished, explicitly bounded and having its own distinctive specialization, then classification is said to be strong. When there is weak insulation then the categories are less specialized and there distinctiveness is reduced; then classification is said to be weak.

Different institutional modalities may be described in terms of the relationship between the relations of power and control which gives rise to distinctive discursive artefacts. For example with respect to schooling, where the theory of instruction gives rise to a strong classification and strong framing of the pedagogic practice it is expected that there will be a separation of

discourses (school subjects), an emphasis upon acquisition of specialized skills, the teacher will be dominant in the formulation of intended learning and the pupils are constrained by the teacher's practice. The relatively strong control on the pupils' learning, itself, acts as a means of maintaining order in the context in which the learning takes place. This form of the instructional discourse contains regulative functions. With strong classification and framing the social relations between teachers and pupils will be more asymmetrical, that is, more clearly hierarchical. In this instance the regulative discourse and its practice is more explicit and distinguishable from the instructional discourse. Where the theory of instruction gives rise to a weak classification and weak framing of the practice then children will be encouraged to be active in the classroom, to undertake enquiries and perhaps to work in groups at their own pace. Here the relations between teacher and pupils will have the appearance of being more symmetrical. In these circumstances it is difficult to separate instructional discourse from regulative discourse as these are mutually embedded. The formulation of pedagogic discourse as an embedded discourse comprised of instructional and regulative components allows for the analysis of the production of such embedded discourses in activities structured through specifiable relations of power and control within institutions.

The language that Bernstein has developed, uniquely, allows researchers to take measures of institutional modality. That is to describe and position the discursive, organizational and interactional practice of the institution. Bernstein's work has not placed particular emphasis on the study of change (see Bernstein 2000) and thus, as it stands, has not been applied to the study of the cultural historical formation of specific forms of activity.

A model of description

A model of the setting in which the development of such multiagency functioning develops must refer to the group of professionals who were involved in the workshops, the wider local authority and the clients who were to be served by emergent multiagency practices..

Bernstein's (2000) concepts of boundary strength (classification) and control (framing) can be applied to many aspects of such a model. Here we used the terms instrumental or instructional practice to refer to the pragmatic actions within practice. Within the workshop group the strength of classification (horizontal division of labour) in the practices of professional agencies and control (framing) over the membership of these groups was examined. The strength of distinctions in the vertical division of labour, the strength of the marking of hierarchy and the associated relations of control within this hierarchy was also seen to be a central facet of the structuring of the workshop groups. The strength of control over the regulative practice (matters of order, identity and relation) was also noted. In many respects this shows similarities with Engestrom's (1992) discussion of the 'why and where to' aspects of activity in that the reference is to the values and beliefs which underpin practice. The features of the practices within the DWR group were modelled as follows in table 1:

INSERT TABLE 1 HERE

In the local authority the vertical division of labour between members of the workshop and their colleagues in the wider authority was also taken as a key feature of the research sites as was the extent to which boundaries were maintained between the professions in the local authority. The control over the boundary relations between the workshop groups and the local authority was modelled, somewhat awkwardly, as the framing of those relations where strong framing was taken as a boundary maintained by the authority, weak framing as a boundary relation in which the workshop group maintained control and an intermediary position in

which a relatively fluid two way flow of communication was maintained. The features of the practices within the local authority were modelled as follows in table 2:

INSERT TABLE 2 HERE

The extent to which clients were classified as belonging to a particular category of need (strong classification) or as the 'whole child' (weak classification) was also noted. This was taken as the division of labour within the client community.

Each aspect of this model was described for each site through data gathered through extensive observations and interviews. A coding grid was developed for each aspect. The codings were independently validated by two researchers. An example is given in figure 1.

INSERT FIGURE 1 HERE

The codings were agreed for the full model for each site were as shown in figure 2.

INSERT FIGURE 2 HERE

We also noted the means by which attempts were made to coordinate services in the wider local authority as well the form and location of any recent disruptions in the social order of the local authority. These features are given in figure 3.

INSERT FIGURE 3 HERE

A crude typification of these sites in terms of a general application of Bernstein's model of the embedded features of pedagogic practice in which instructional Practice (I) and regulative practice (R) are mutually embedded but in which one may predominate is given in figure 4.

INSERT FIGURE 4 HERE

In this way we arrived at condensed codings of what may be seen as the historical legacy presented at the moment when we sought to engage with groups of professionals at each site.

Analysing communicative action at each site

David Middleton proposed an approach to analysis which focussed on the forms of social action that are accomplished in talk and text and the sorts of communicative devices that are used (Middleton et al, 2008)[2]. This was termed the 'D-analysis'. It was designed to focus the analytic attention of the research team on emergent distinctions that were argued by participants. This involved the examination of the shift from the 'given' to the 'to-be-established'. 'What-it-is-to-do' or 'to learn' was not assumed to be an analytic 'a priori' (Middleton, 2004). Rather such issues are approached as participants' concerns or 'members categories' (Sacks, 1992; Edwards and Stokoe, 2004). This analytic shift aimed to move from framing communication as descriptions corresponding to states in and of the world, to the performative organization of communicative action. In other words, what we do with talk and text can be analysed in terms of it accomplishes (Potter and Wetherell, 1987; Edwards and Potter; Edwards. 1992). We emphasised that addressing such issues required a focus on the sequential and contingent organisation of session communicative action. That is, how

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[2] I am grateful to David Middleton for permission to draw on project notes for this section

people's contributions to the sessions are contingently related to each other in terms of the sequential organisation of their talk (Middleton et al, 2008).

Its cyclical application enabled: reading, reviewing, interrogating, collating and comparing all the audio-visual evidence from the intervention sessions in order to identify the emergent strands of learning and proposals for change. The approach was developed as a means of identifying strands of communicative action which witnessed the sequential and contingent development of concepts over the course of the year in which the 6 DWR workshops were organized at each site. In drawing analytical attention to the significance of claims to experience we were also able to highlight the temporal organisation of communicative action. We also used forms of discursive analysis to trace the emergence of what can be taken as the collective and distributed knowledge of people who are charged with the task of working together. We aimed to track the emergence practical epistemologies (c.f. Wickman and Ostman, 2002; Wickman, 2004) that come and need to be taken-as-given in order to take account of hitherto unaddressed gaps in the realisation of multi-agency practice. Such gaps were identified and worked on through participation in the DWR sessions at each research site.

In the first instance we approached the data with what could be termed a minimal operationalisation of what-it-is-to-learn from a participant's perspective. We examined the data for ways participants signalled some forms of awareness that theirs or others knowledge state is at issue. . Such 'noticing's' provide the resource that engages the participants in their definition, delineation, deliberation of the nature of the practices that make up their multi-disciplinary work. In the data we could identify many such strands of noting and noticing such distinctions that make the difference. Indeed this sort of analysis provided us with a basis for defining a protocol for guiding interrogation and analysis of the data in terms of the

sequential organisation of such strands. The analysis was therefore initially guided in terms of the following protocol:

Deixis: - identify when there is some nomination or 'pointing' to a particular issue in terms of drawing attention to a distinction that is then worked up to make a difference in subsequent turns.

Definition and delineation: look for how that issue is elaborated in the uptake of others in terms of how the following are warranted and made relevant through: (i) qualifications identifying further distinctions; (ii) orderabilities in the organisation and delivery of past, present and future practice; (iii) expansive elaborations of the problematics of practice.

Deliberation: identify how some working consensus on what is the case emerges in terms of evoking both particularities and generalities of marking distinctive features of past, present or future practice.

The analysis then turned to examining in what ways such sequences mattered. If we identified strands of deixis, definition/ delineation and deliberation what were their contingent consequences for participants. Did they make visible distinctions that made the difference in ways that participants could be identified as attending to what it was necessary to attend to in order to learn to do multi-agency working? In other words, did they lead to some form of departure or development in claims concerning the practice of the participants? Thus enabling us to complete the definition of the protocol with:

Departure: identify shifts towards qualitatively different position in practices in terms of the formulation of emergent distinctions.

Development: identify when participants specify new ways of working that provide the basis for becoming part of, or have become part of, what they take to be and warrant as a significant reformulation of their practices.

Sequences of communicative action were analysed in the transcripts of the workshops. Some sequences progressed to departures others remained at other stages within the model. Related sequences were identified and these were grouped into strands of talk that wove their way through the progress of the each series of workshops. These strands (comprised of different types of sequences) witnessed the progression of learning through and with talk in the workshops. The themes that these strands addressed and the contradictions which gave rise to their emergence were analyzed in activity theoretic terms. At the end of the project participants were interviewed about what they gained from the experience and subsequent analysis revealed the traces of each sites strands in the interviews at each site. In this way we developed an approach to the analysis of communicative action in the workshops themselves along with a rudimentary approach to validation. The next move was to consider the relation between the communicative action that took place and the historically given structures which shaped the practices of participants.

The overall challenge of the project was to show how institutionally established categories and ways of arguing could be reformulated and transformed into new strategies and activities as part of learning what it is to become engaged with and in multi-agency work. However without the comprehensive analysis of the communicative action within the sessions across all the research sites we would not have been able to progress to the final analysis of those transformations (Daniels, 2006).

Communicative action and structural change

The notion which guided the further development of the analysis was that the institutional arrangements at a particular site would direct and deflect the possibilities for action by participants. This suggestion was witnessed in the findings.

The data suggest that at a very general level there were stronger values of classification and framing of the instructional practice in Nortonville and progressively weaker values in Seaside and Wildside. In addition, a consideration of the nature of the regulative practice in each site suggests strong framing in Seaside, weak framing in Nortonville, with Wildside occupying an intermediary position. Thus, in Nortonville the instructional practice (which was strongly classified and highly framed) predominates over the weak regulative discourse. Whereas in Seaside the relatively weak boundaries witnessed in the weaker values of classification of the instructional practice were embedded in the regulative practice through which common values and meanings have been the object of much of the early work of the team. In Wildside an intermediary position was witnessed in the embedding of the instruction and regulation.

Over the period of interventions in the workshops many structural transformations were witnessed. The Bernsteinian analysis revealed the boundaries where communicative action in each site was most engaged and how that action was regulated. In a situation where boundary crossing was required in the general drive for 'joined up' approaches we inferred that the weakest boundaries would be those that were most likely to be crossed and transformed. Analysis revealed how a focus on institutional boundaries and relations of control provided important tools for the understanding the shaping of transformative learning in specific settings.

For example, by the end of the intervention it was the weaker regulative practice of Nortonville which was the object of intervention from an external agent. The historical legacy of the strongly boundaried extended school site within which professional practices were

highly controlled and which remained distinct from each other provided a setting in which a move to multiagency working and thus weakening of boundaries was most likely to be achieved through external influence on the values and beliefs within the DWR group (the regulative practice). This was confirmed through the analysis of communicative action within the workshops.

In Seaside the focus of communicative action was on the rules and practices of communication within the instructional practice. Participants became frustrated by the contradiction between legacy rules (maintained by the local authority) and the new emergent objects of multiagency work. They had already established a strong regulative practice before the DWR intervention was initiated. On the basis of this legacy they sought to examine the contradictions in the instrumental aspects of their practice and began to bend (or even break) the legacy rules. The strong boundary between the workshop group and the local authority was maintained through practices of communication in which instructions (rules) were formulated and transmitted by local authority strategists but who were unresponsive to replies or ideas formulated by operational professionals within the workshop group. The D-analysis confirmed that the boundary between the workshop group and the local authority was the focus of the communicative action in the workshops.

In Wildside the relation with clients became the predominant concern. There were no strong barriers between the group and the authority and although the categories of professional agencies within the authority remained strong the learning focussed on ways in which multiagency work could be coordinated through strategic tools. These tools were the focus of much of the communicative action in the Wildside workshops.

The strong boundaries around the professional categories and the strong control over professional behaviour in Nortonville maintained the practices of individual specialists. In what was, in essence, a contract culture in which specialist labour was purchased in order to

meet needs that were stipulated by one agency, there was no debate or development of the regulative discourse, the why and where-to features of the practice. Here the formation of a collection of specialists was mediated by explicit means. Whereas at Wildside there were weak boundaries around the professional categories in which professionals were situated in the workshop and they were more in control than there peers in Nortonville but in which operational professional practice witnessed strong boundaries between services and their professional In Seaside the weakened professional boundaries and relations of control which had been weakened through rule breaking and bending gave rise to a collection of workers who drew on the primary strengths of their colleagues when they recognised the need for their expertise. values coordinated by strategy resulted in a coordinated collection of specialists in the field. The implicit meditational effect of the boundary between the operational and strategic aspects of the work resulted in transformations, in the form of rule bending, that were not open to articulation by practitioners. It was only when their changes in practice were represented to them that they realized the nature of the changes they had made in their work.

Conclusion

This approach gives some insight into the shaping effect of institutions as well the ways in which they are transformed through the agency of participants. We modelled the structural relations of power and control in institutional settings, theorised as cultural historical artefacts, which invisibly or implicitly mediate the relations of participants in practices in which communicative action takes place. This communicative action was then analysed in terms of the strands of evidence of learning in and for new ways of working.

Middleton's D analysis taken together with an application of Bernstein's sociology of pedagogy provided empirical evidence of the mutual shaping of communicative action by

organizational structures and relations and the formation of new professional identities. The D analysis provided a means of tracking the sequential and contingent emergence of new concepts. The Bernsteinian analysis was indicative of the points at which change was most likely to take place in specific institutional modalities as pressure for change was invoked from outside those settings. In all three of the settings which were studied the D analysis evidenced the development of new concepts which lead to the transformation of the institutions within which these ideas were developed. The institutional setting shaped the possibilities for communicative action which in turn shaped the institutional settings.

This approach extends the application of Bernstein's work to the study of the transformation of institutional modalities over time. The analysis of communicative action provides an approach to the consideration of the sequential and contingent development of concepts over time in specific institutional settings.

This approach to modelling the structural relations of power and control in institutional settings theorised as cultural historical artefacts which invisibly or implicitly mediate the relations of participants in practices. Their communicative action may be analysed in terms of the strands of evidence of learning in and for new ways of working gives some insight into the shaping effect of institutions as well the ways in which they are transformed through the agency of participants. It opens up the possibly of developing increasingly delicate descriptions of the rules and division of labour that obtain within and between settings. At the same time it carries with it the possibility of rethinking notions of agency and reconceptualising subject position in terms of the relations between possibilities afforded within the division of labour and the rules which constrain possibility and direct and deflect the attention of participants.

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