# Collaborative Analysis of Qualitative Data

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While multi-researcher projects are an increasing feature of the research landscape, collaborative analyses, which integrate multiple points of view, remain the exception rather than the rule. A typical lament in a multidisciplinary project is that the researchers work in parallel, contributing separately to their original disciplines, rather than producing an integrated result which benefits from their diverse perspectives (Moran-Ellis et al., 2006). Given that contemporary research policies incentivize large-scale, multidisciplinary research projects, on the assumption that solutions to complex social problems require the contributions of multiple disciplines and the engagement of nonacademic 'research users', qualitative researchers are increasingly likely to find themselves involved in research collaborations. The purpose of this chapter is to help qualitative researchers to capitalize on the potential benefits of collaborative data analysis, when appropriate, by presenting what has been learnt in the literature to date about this process.

By 'collaborative data analysis' we refer to processes in which there is joint focus and dialogue among two or more researchers regarding a shared body of data, to produce an agreed interpretation. Such dialogues may take place in a face-to-face workshop, or over the Internet, and may encompass a variety of dimensions of difference. (Box 6.1 summarizes some of these dimensions, with references to exemplary accounts, for reference.) They may pair researchers from different disciplines, countries or theoretical traditions; they can include both senior and junior researchers; and they may bring together academic researchers with professional experts or lay people. The key point is that different perspectives are brought to bear on the analysis and interpretation of the data, with the eventual interpretation being a result of that combination.

# Box 6.1 Dimensions of Difference in Collaboration, with Exemplary Accounts

- Insider/outsider (Bartunek and Louis, 1996)
- Interdisciplinary (Tartas and Muller Mirza, 2007; Lingard et al., 2007)
- Different methodological approaches (Frost et al., 2010)
- Academic-practitioner (Hartley and Benington, 2000)
- Academic–lay person (Enosh and Ben-Ari, 2010; Lamerichs et al., 2009)
- International (Akkerman et al., 2006; Arcidiacono, 2007; Bender et al., 2011; Marková and Plichtová, 2007; Tartas and Muller Mirza, 2007)
- Senior-junior (Hall et al., 2005; Pontecorvo, 2007; Rogers-Dillon, 2005)

In what follows, we first introduce why collaborative data analysis is interesting from a methodological point of view, informed by the epistemological stance of perspectivism. Expanding this discussion, we then explore five potential methodological benefits of collaborative data analysis. These benefits primarily derive from juxtaposing diverse perspectives. Becoming more concrete, we then present an exemplar of a collaborative analysis process, and outline three different models of team organisation for collaborative analysis (in Box 6.2). The final section seeks to derive further practical lessons from others' experience, presenting typical challenges to successful collaborative analysis, along with proposed solutions.

#### EPISTEMOLOGICAL FRAME: PERSPECTIVISM

The epistemological position of *perspectivism* provides an intellectual rationale for the collaborative analysis of qualitative data. According to perspectivism, all knowledge is relative to a point of view and an interest in the world (James, 1907; Rorty, 1981). Knowledge, instead of being a 'mirror of nature', is more like a tool, something which either works or does not for a given interest (Cornish and Gillespie, 2009). This does not imply that all knowledge is equal. Far from it: the bottom line is always whether or not the knowledge is effective relative to an interest. A sociologist

has a different perspective on the problem of domestic violence to that of a counselling psychologist because they are trying to do different things. A Foucauldian discourse analyst (see Willig, Chapter 23, this volume) has a different perspective on human resource management to that of a human resources manager, again, because they are trying to do different things. To ask who is right, the Foucauldian or the human resources manager, is akin to asking whether a saw is more 'true' than a hammer the real issue is how effective the given tool is for the problem at hand. Collaborative analysis becomes useful when the interests of a research project seem not to be served by a single perspective, but require the engagement of multiple perspectives.

From a perspectivist point of view, the attraction of collaborative data analysis is that it brings a diversity of perspectives to the analysis. Our own perspectives are compelling: it is not easy to escape our social position and see the world from a different point of view (Gillespie, 2005). Researchers are embodied, socially located humans with investments and preoccupations, like anyone else. Yet the research role asks us to step back from our investment in the research topic, and take a critical attitude (Bauer and Gaskell, 1999). Being critical often means adopting more than one perspective, so that we can apprehend both positive and negative aspects of a phenomenon, or both insider and outsider perspectives (Bartunek and Louis, 1996). Combining perspectives gives externality to each perspective, enabling distanciation and critical reflection (Gillespie, 2012). Given the difficulty of stepping out of our perspectives, a collaborative analysis brings a diversity of perspectives to the project, embodied in different people.

Let us take as an example the fundamental perspectival distinction in the analysis of qualitative data, between description and interpretation of our participants' perspectives - that is, between aiming to elucidate participants' point of view and aiming to provide a critical explanation or problematization of that point of view. Ricoeur (1970) distinguishes between a 'hermeneutics of faith' and a 'hermeneutics of suspicion' (see also Josselson, 2004; Frost et al., 2010; see also Willig, Chapter 10, and Wernet, Chapter 16, this volume). When adopting a hermeneutics of faith, we treat the speaker's voice as an authentic representation of their point of view (as, for instance, in typical examples of thematic analysis seeking to present a summary of interviewees' beliefs). Adopting a hermeneutics of suspicion, we engage more critically with a text, treating the speaker's voice as a result of social or psychological processes which call for explanation. Smith (2004), exponent of interpretive phenomenological analysis, makes the case that analyses should reflect both of these perspectives, producing both an empathic reading of a person's experience and a 'more critical and speculative reflection'. To realize both the hermeneutic of faith and the hermeneutic of suspicion in a research project, it may be helpful to embody those different perspectives in different collaborators. Insiders to a field may often be more empathic to the local actors, given that they share assumptions and identifications, while outsider-researchers may take up a more suspicious/critical stance (Lingard et al., 2007). However, there is not a fixed relation between insider/outsider status and an attitude of empathy or critique; rather, it will vary according to the context (see the discussion of Cornish and Ghosh's differences below for a counter-example). The perspectivist stance informs our following discussion of the methodological benefits of collaborative analysis.

#### METHODOLOGICAL BENEFITS OF COLLABORATIVE ANALYSIS

Benefits claimed for collaborative analysis range from the goal of researchers confirming one another's analyses (i.e. affirming a single perspective) to more complex aspirations of constructing new ideas through the diversity of perspectives. The following subsections work through five potential benefits. Collaborative analysis is not the only way to achieve these benefits. Indeed, academic practices such as peer review, critical reflection, or participant observation research have long been means of bringing multiple perspectives to bear upon one's object. The argument is, however, that, by embodying different perspectives in different analysts, collaborative analysis is particularly well poised to capitalize on multiple perspectives.

#### Inter-coder Reliability

A second analyst in the role of coder, auditor, sounding-board or overseer is suggested as a safeguard against an interpretation representing the subjectivity of the observer more than the object of study (Gaskell and Bauer, 2000). If coding (see Thornberg and Charmaz, Chapter 11, this volume) and analysing are private activities, there is a risk, or at least a suspicion, that the resulting analysis may be unconstrained or unsystematic (Ryan, 1999). Collaborating on the coding process is said to enforce systematicity, clarity and transparency (Hall et al., 2005). Similarly, having a second researcher as 'auditor' is a form of accountability, preventing researchers from making unjustifiable leaps of the imagination (Akkerman et al., 2008).

Multiple coders also enable the assessment of inter-coder reliability statistics, where agreement between two or more coders is taken as evidence of the rigour of an analysis. (Ryan, 1999; Lu and Schulman, 2008). In research projects working with relatively small bodies of data, the second coder usually codes a subset of the data coded by the primary coder, checking for reliability. In research projects dealing with such large corpuses that multiple coders are needed to cover the material, inter-coder reliability is an important check on the consistency of coding. For example, when US government agencies seek public comment upon proposed legal changes, they may receive hundreds of thousands of email or Web-based submissions from members of the public, and they have a duty to digest all of these responses. Shulman (2003; 2006) and colleagues devised a process and a software package (CAT) to enable a team of multiple coders to code the submissions swiftly and consistently, producing a rigorous content analysis with multiple checks on inter-coder reliability.

Despite the popularity of inter-coder reliability in some fields, there are two important caveats. First, this form of collaborative data analysis is suited to content or thematic analysis, where representativeness is an aim. It is less suited to analyses, such as conversation analysis, discourse analysis or dialogical analysis, which do not make claims to representativeness, but instead claim transparency on the basis of publishing sufficiently long textual extracts to allow the reader to check the plausibility of the interpretations. Second, agreement between coders does not guarantee against collective idiosyncrasies, nor does it necessarily increase validity (Gaskell and Bauer, 2000). Two or more coders may agree because they share the same peculiar or limiting assumptions (see Barbour, Chapter 34, this volume).

## Incorporating Rich Local Understandings

The complex phenomena of interest to qualitative researchers may require years of socialization to be understood 'from the inside', as a local expert, and through the local language. Local experts, as collaborators, may provide the role of a 'guide' or 'educator', explaining to the rest of the team the local context and customs – knowledge which is needed in order to produce a sensitive analysis (Hartley and Benington, 2000; Lingard et al., 2007). In the case of complex organizations, the insider can be an invaluable guide to the informal and unofficial processes adopted by the organization, which might otherwise be difficult for the outsider researcher to discern (Hartley and Benington, 2000; Lingard et al., 2007). Using collaboration in this way is similar to the function of the 'key informant' in ethnographic research (see e.g. DeWalt and DeWalt, 2010), a wellversed member of the community who can speed up the outsider–researcher's development of familiarity with an area.

In a series of collaborative studies of lav understandings of democracy in Eastern and Western European countries following the fall of the Iron Curtain, the researchers came to appreciate the necessity of rich local understandings of history, politics and linguistic nuance (Marková and Plichtová, 2007). Whereas political, economic or macro-sociological studies showed change to social institutions, and sought to compare countries on their degree of 'democratization', Marková and Plichtová (2007) argue that lay definitions of 'democracy' were more nuanced than large-scale comparisons could reveal. Not only did 'democracy' mean different things in different countries, but even where institutions were democratizing, lay beliefs, values and practices were slower to change. These authors argue that their team could not have understood this local diversity without team members fluent in the national languages and familiar with the national histories.

Incorporating local voices in the analysis, cutting across the social boundary between the researchers and participants in the field, prevents hasty interpretations being made by outsiders based on incomplete knowledge. It may also lead team members to problematize their own taken-for-granted assumptions. More ambitiously, collaboration may also produce a *transformation* of knowledge, as our following three subsections elaborate.

# Perspective-Transcending Knowledge

If the narrowness of our individual perspectives is a rationale for collaborative research, one of the goals of collaborating may be to achieve 'perspective-transcending knowledge' (Gillespie and Richardson, 2011). Perspective-transcending knowledge is an understanding of the situation that goes beyond the limited individual perspectives to the 'emergence' (Zittoun et al., 2007) of a higher-level, more synthetic knowledge.

In the participant observation literature, the perspectives of 'insider' and 'outsider' or 'participant' and 'observer' are hailed as a productive dimension of difference. whose juxtaposition or integration is the source of the special insight of the participant observer (DeWalt and DeWalt, 2010; Atkinson and Hammersley, 2007; see Marvasti, Chapter 24, this volume). The combination of the embodied, practical understanding of the participant, and the reflective, distant understanding of the observer, are argued to yield the fullest understanding of social phenomena (Becker and Geer, 1957). Traditionally, the anthropologist or sociologist participant observer has sought to embody both participant and observer perspectives, by both undertaking the routine activities of the community being studied, and stepping back to observe and theorize those activities (e.g. Wacquant, 2004). Collaborative analysis can bring together these perspectives in two different persons in the research team. In the literature on collaborative data analysis, insider/outsider collaborations have attracted particular attention (e.g. Bartunek and Louis, 1996; Lingard et al., 2007).

In some of our own research on community mobilization of sex workers for HIV prevention in India, Flora Cornish, a European researcher, has worked with Indian colleagues Riddhi Banerji and Anuprita Shukla to understand the creation of successful projects (Cornish and Ghosh, 2007; Cornish et al., 2010). Contrasting socio-cultural and intellectual heritages led each of us to differing interpretations of our complex data. Cornish, conscious of the post-colonial politics of her outsider position, has generally begun with a sympathetic view of the sex worker projects, assuming that community mobilization is difficult to achieve, and that the projects studied

are successful, against the odds. Indian colleagues, with more practical experience of the constraints of working in red-light districts and awareness of NGOs' self-publicizing as well as local controversies about the projects, have often been more sceptical and critical. Long debates have led us to interpretations that acknowledge both the achievements and the compromises of the projects. Rather than seeking to make singular interpretations of the projects, we have come to see them as workable, contradictory responses to contradictory pressures (e.g. Cornish and Ghosh, 2007). Our eventual interpretations, we suggest, bear the traces of each of our original starting points, in a novel synthesis. Not only does the collaborative analysis enhance the subtlety of the eventual interpretation, but it also is a learning process for each of us, so that our individual perspectives become extended as we incorporate something of each other's points of view.

#### Reflexivity

Assuming, as do many qualitative researchers, that the interpretation we produce is partially a function of our particular perspectives, reflexivity about our ideological, theoretical and methodological predispositions is advocated as a step towards transparency, if not emancipation from our constraints (see May and Perry, Chapter 8, this volume). A collaborator, bringing an alternative perspective, and questioning our own, might help us to step back from our taken-for-granted assumptions (Cornish et al., 2007). The particular dimension of difference of the collaboration is significant. While an international collaborator might help us to reflect upon our own national situation or practices, a collaboration with a practitioner might help us to reflect upon the potential practical usefulness of our conclusions.

In a collaboration between medical and sociological colleagues regarding doctorpatient communication, Barry et al. (1999) describe the stark differences that were revealed in their definitions of 'good' and 'bad' communication. In 'the seaweed incident', a doctor sought to reassure a patient that an antiindigestion medication was 'actually just made from seaweed' (39). The pharmacist interpreted this as helpful framing in terms of lay knowledge, while the sociologist viewed it as paternalistic and persuasive. The confrontation of such diverse interpretations led each to reflect on their definition of 'good communication'. It also led the team to seek more objective measures of 'good communication', and to work much harder on developing analyses that would fit with doctors' models of medicine – given their goals of educating doctors.

Conducting collaborative analysis with lay people, academic researchers may seek to promote local critical thinking (Kagan et al., 2011; see Murray, Chapter 40, this volume). For instance, Lamerichs et al. (2009) describe using the 'Discursive Action Method' in a collaborative process with young people to promote their critical thinking about how they speak and act in relation to bullying. Learning some of the tools of discursive psychology, the young people analysed examples of their talk, in collaboration with the academics, leading both to a heightened awareness of their own interactional strategies and to the initiation of participatory anti-bullying activities.

#### Useful Knowledge

'Applied' research seeks to create useful knowledge, which answers to human interests, improving practice in some way. If researchers want to make knowledge that is useful beyond academia, either to practitioners or to the public at large, then it might be helpful to include these potential beneficiaries in conducting the analysis.

Academic communities develop their own peculiar languages, infused with assumptions, and embedded in historical traditions. What seems significant to a socio-cultural developmental psychologist might appear meaningless to a sociologist of education, or indeed to a teacher. An analysis that is endorsed by different collaborators (e.g. medical doctor and social worker; IT specialist and educator) is likely to address a wider audience than an analysis developed and articulated in the language of a single community.

Communication gaps between communities have been particularly evident in efforts to derive 'applied' benefit from 'academic' research (see Murray, Chapter 40, this volume), exemplified in debates about the problem of a 'theory-practice gap' and a consequent effort to initiate 'evidence-based practice'. Part of the problem may be that analyses developed in an academic language and context do not speak to the language and concerns of practice. For example, in a research project on young people's relationship to literary and philosophical texts in secondary school (Grossen et al., 2012; Zittoun and Grossen, 2012), we were surprised to discover the importance of teachers' often accidental recognition of students' out-ofschool life for the students' commitment to learning. Eager to 'bring back' those discoveries to the teachers who took part in the project, we were surprised to be met with a total lack of interest. For one reason or another, the teachers do not consider this knowledge as usefulknowledge-for-teachers. Had the teachers been more involved in the construction of the knowledge, they might have had more commitment it. Hartley and Benington (2000; see Box 6.2) suggest that the involvement of their coresearchers leads not only to useful knowledge being generated, but also to its being put into practice. Developing useful knowledge is not simply about discovering truths, or indeed useful truths, it is also about making 'ergonomic' knowledge that 'fits' with the aims and identities of the potential beneficiaries.

The following sections turn to presenting some practical steps to enable such methodological benefits to be realized.

### AN EXEMPLAR: HALL ET AL.'S (2005) ITERATIVE COLLABORATIVE ANALYSIS PROCESS

Hall et al.'s (2005) account of their collaborative grounded theory study (see Thornberg and Charmaz, Chapter 11, this volume) of clerical workers' workplace distress serves as a useful exemplar to make the process of collaborative analysis more concrete. For alternative models of team organization, see Box 6.2. Hall and colleagues are differentiated on seniority (including two faculty members, graduate and undergraduate students, and volunteers, some with no prior research experience), discipline (including sociology, counselling, journalism, occupational health and safety, nursing), and amount of time committed to the project. Their grounded theory study aimed to develop a middle-range substantive theory of how workers manage their workplace distress, incorporating both contextual and person-level concepts. The grounded theory techniques of the constant comparative method and theoretical sampling – in which analysis of early data inform subsequent data collection – lend themselves well to an iterative model of individual and group stages of analysis. Table 6.1 presents a condensed account of the steps used by Hall and colleagues in their collaborative analysis.

Steps	Description	Guiding principle
Preparation stage		
1. Team building	Understanding individual and group goals	Towards a shared
2. Reflexivity exercises	Surfacing individual presuppositions and preferences	understanding:
3. Contracts	Formal agreements regarding data ownership, roles and responsibilities, timelines, etc.	coordination through mutual adjustment
Analysis stage		
1. Individual analysis	Interviewing and preliminary open coding	Creating an
2. Pairs compare	Pairs compare/contrast their individual codes for the same data	atmosphere of critique and questioning
3. Full team analysis	Develop higher-level categories	/
	Identify gaps, informing further sampling	
4. Individual synthesis	Draft tentative explanatory frameworks	
5. Full team debate	Critique and develop the proposed frameworks	
6. Individual writing	Co-authors write, varying responsibilities defined	
7. Individual feedback	Circulate drafts for all authors to review	

Table 6.1 Hall et al.'s (2005) iterative collaborative analysis process

The guiding collaborative principle employed in this study was the aspiration to achieve 'coordination through mutual adjustment' rather than 'coordination through centralised decision-making' (Hall et al., 2005: 396). To enable the former model of coordination, in which each team member would have a sense of ownership of the common goals and understanding of the goals of others, the team placed great emphasis on activities to build a shared understanding, particularly in the preparation stage. Early team-building work was focused on constructing a shared understanding of grounded theory and the project goals, with a later activity creating space for reflections on experiences of teamwork. Part-way through the data collection, the team employed two 'reflexivity exercises' (detailed in Barry et al., 1999), designed to surface individual team members' presuppositions, biases and preferences. Finally, formal, signed, publication agreements clarified mutual expectations.

The analysis stage was also built around developing a shared perspective, with iterative moves between individual, pairs or threeperson groups, and large-group work. In this

The process of discussion enables a coordinated and cumulative approach, so that the

phase, the importance of an atmosphere allowing critique and questioning came to the fore. Each team member serves as lead researcher for particular participants, interviewing them and beginning to code their data. To develop a shared perspective, subgroups of 2–3 participants analyse the same transcripts, comparing and contrasting their coding. At full team meetings, code lists are discussed, codes defined and categories developed, with a particular focus on codes that require further clarification or development. Gaps are identified, to inform the next round of theoretical sampling, with a return to individually conducted interviews and preliminary coding.

nated and cumulative approach, so that the early collective experience of the team can inform the subsequent actions of each member. Once group meetings had produced agreement on higher-level categories, the task of drafting a tentative explanatory framework was undertaken by an individual, and brought back to the group for critical discussion. Finally, the writing phase was again a primarily individual task, with drafts circulated for individual-level feedback. Thus, the collaborative analysis consisted of numerous moves between individual and collective work, according to the benefits of each.

# Box 6.2 Three Models of Team Organization for Collaborative Analysis

1. Insider/outsider pairs

Lingard et al. (2007) conducted an interdisciplinary study of health care novices learning their profession's discourse, bringing together experts in rhetoric, paediatric medicine, optometry and social work. They used 'insider/outsider pairs' to analyse their data, finding that this was the best way of unearthing tacit knowledge. Both the insider and the outsider conduct independent analyses and present them to the team for discussion, which benefits from the insider's local expertise and the outsider's relative lack of taken-for-granted assumptions about the topic. They report noticing that critical findings often derived from the discussion prompted by the insider and outsider encountering a discrepancy that could not be resolved.

2. Co-research (three perspectives)

In a collaboration between a university business school and 35 local authority organizations in the UK, three-person research teams are constituted (Hartley and Benington, 2000), comprising an academic, a 'host manager' from the case study organization and a 'co-researcher' from an equivalent organization. The academic is an outsider. The 'host manager' is an insider to the organization. The 'co-researcher' is an insider to the professional domain of the case study organization, but is an outsider to that particular organization. Similarities and differences between 'host' and 'co-researcher' organizations prompt the emergence of analytical insights.

3. Loose team research

Since the 1990s, Ana Cecilia de Sousa Bastos and her group of colleagues, including peers, Masters and PhD students, have worked on the general theme 'Developmental contexts and trajectories'. For eight years they have focused on the transition to motherhood, using a framework combining three theoretical models and a general methodological orientation.

Each participant interprets the task in his or her own way (e.g. studying trajectories of mothers who have lost a child, of women who do not want to become mothers, of mothers from three generations), combining models as required. Collective analytical work is done through weekly seminars, one-to-one supervisions, and commenting on each other's papers). In addition, the group regularly organizes workshops, where each researcher presents his or her current work, and external 'experts' help to systematize the analysis, creating links between the perspectives, and supporting the development of a more comprehensive view of the problem and the theories (Cabell et al., forthcoming.). Following this model, the loose team previously produced a compelling account of poverty in a Brazilian *favela* (Bastos and Rabinovich, 2009).

#### **CHALLENGES AND SOLUTIONS**

The methodological gains of collaborative analysis are not easily won. It is typically more comfortable to work within a familiar disciplinary and methodological frame than to work across communities and disciplines. Some collaborations produce results that are hardly different to the lead researcher's starting assumptions (Akkerman et al., 2006). In other cases, teams have been unable to agree or to commit to writing up the findings of collaborative studies (Riesman and Watson, 1964; Erickson and Stull, 1998). In this section, based on a review of the literature reporting experiences of collaboration, we outline three sets of challenges and indicate possible constructive responses.

# **Practical Challenges**

To coordinate a diverse, geographically dispersed team represents a significant management challenge. It requires the establishment of agreement (to varying degrees) on the goals, means, time frames, division of labour and valued outcomes of the collaboration. Establishing such coordination, itself, has a significant cost, in terms of time (to build a shared frame of reference) and money (to cover travel, host meetings, and pay for research managers to administer the relationships between different institutions, and between a large team and their funding body). In the literature there is an impression that collaborations are rarely well supported or rewarded by academic institutions (Lingard et al., 2007). Hall et al. (2005) report an impression that there was never enough time given to analysis, but instead their limited time was devoted to the urgent practical task of conducting the next set of interviews. Erickson and Stull (1998), seeking to account for the failures of a large team to write up fully their collaborative ethnographies, describe how individuals' competing commitments undermined their commitment to collaborative writing. A key hurdle, then, for collaborative analysis, is to arrange for sufficient time and resources.

To avoid misunderstandings, projects using collaborative analysis have a particular requirement to be clear and explicit in their formulation. To work together, each colleague needs to have a clear understanding of their particular role and how their work is going to be valued. To work with others on data, the organization of the data must be meticulous. Labelling of primary data files with key information must follow agreed formats. The definition of codes, categories, inclusion and exclusion criteria for individual codes, and other conventions needs to be clear and agreed upon. Clarity about the division of labour is important, whichever of the diverse possible forms of organization is chosen (see Box 6.2). For some teams, explicit written, signed agreements were found to be useful means of achieving clarity of understanding. Hall et al. (2005) wrote a

'publication agreement' outlining the rights and responsibilities of all team members in relation to the data, authorship and publication. Arcidiacono (2007) describes a 'collaborative contract' which served primarily to clarify questions of 'ownership' of data among a large international team, and secondarily to establish collaboration etiquette regarding timelines and communication. Both reprint the agreements in their papers' appendices, for reference.

Overall, the potential administrative burden of coordination is not to be underestimated. Insightful qualitative analyses require focused engagement with data, and administration should not overshadow this. For this reason multi-country EU research projects, for example, often employ research managers to take charge of the significant administrative tasks.

Recent developments in CAQDAS software (see Gibbs, Chapter 19, this volume), particularly the advent of Internet-based programs and servers hosting the data, should facilitate coordination. Early CAQDAS programs could not allow for simultaneous coding, and required one researcher to keep a 'master copy' of the analysis. Keeping track of multiple versions and iterations presented a significant management problem. When programs and data are hosted on servers, the 'master copy' is on the server, and so coders are working on the same material rather than on various versions.

It is not only due to lack of clarity of procedures that teams may fail to reach a consensus. Each collaborator works within particular social, institutional and national contexts which exert constraints on the collaborator's action. Collaborators have responsibilities to their 'home' discipline, institution or country, as well as to the 'collective' interest of the collaboration. Different institutions may have different goals, creating contradictory pressures on boundary-crossing collaborators.

Akkerman et al. (2006) describe a project in which a five-country team of educators sought to create a European syllabus for 'pioneer teachers' of information and communication technology. As their project developed, however, it became clear that differing national constraints made it impossible for them to agree on a common syllabus. They first settled on the production of a more vague 'curriculum framework' which would allow each country to create a syllabus suited to local needs. This solution, in acknowledging the diversity among the countries, suggests that collaborations sometimes cannot produce a single definitive outcome, but need some flexibility in the degree of sharedness of their product (see also Tartas and Muller Mirza, 2007).

However, in this instance, the project leader of the team was nervous that they had promised their funder (the European Commission) a European syllabus, something that would add 'European value' to the project, legitimating their five-country composition. In the interest of meeting their funder's expectations, the project leader created a syllabus, which was almost the same as the one he had suggested at the start of the project, and which thus did not reflect any of the learning that had taken place. Here, an institutional requirement (to meet the objective of producing a single syllabus), which was ostensibly directed at producing 'European added value', in fact effaced the diversity of the team in the end product.

Sometimes institutional diversity can be a source of advantages for collaborative teams. Lingard et al. (2007) described how different conventions for recognizing authorship in different disciplines led them to extract extra benefit from their publications. In the humanities, proximity to the first name on a paper signals author importance, whereas in health care sciences, the last name on a list of authors gains important recognition. By putting humanities scholars at the start and health scholars at the end, each gains significant recognition in their academic communities.

#### **Identity Challenges**

As scholars of inter-group relations have established, the simple act of defining people by virtue of their membership of a particular group runs the risk of creating a situation of inter-group tension. When people are labelled as 'academics' vs 'practitioners', or as 'medics' vs 'social scientists', they may become sensitive to their identity and to challenges to their group's status. In a project bringing together education researchers and IT specialists to create pedagogical software, each side developed nicknames for the other: the pedagogical teams were called 'dreamers', the technical teams were labelled 'technocrats' (Tartas and Muller Mirza, 2007).

As we have argued above, part of the value of interdisciplinary analysis comes from the problematization of assumptions, leading to questions of why practices are one way in one discipline and another way in another discipline. But, as Becker (1998) points out, the question 'why?' is often interpreted as a challenge, as calling the person to account for their unusual behaviour. An optometrist working in an interdisciplinary team (Spafford, in Lingard et al., 2007) reported that having her own discipline under the critical gaze of interdisciplinary colleagues was difficult. She writes: 'in the process of peeling back our words to their bones - feelings of exposure and exhaustion were my frequent companions' (2007: 505). In particular, she felt uncomfortable about exposing weaknesses of her discipline in front of the more powerful discipline of medicine.

Not only is our group identity an issue, but also our personal commitments and interests are at stake. In Hartley and Benington's (2000) co-research model, managers from one organization visit another organization in the role of a co-researcher. They describe the risk that the co-researchers interpret their findings in terms of a judgement or evaluation of their own organization or of the organization they are visiting. They write:

a co-interviewer may deplore a particular set of organizational processes and believe and feel that their own organization manages better. (Alternatively, they may lionize a particular leading figure in the case-study organization, and feel that their own organization would work 'if only' they had someone of the same calibre in their own organization). (2000: 474)

For these authors, productive research generates knowledge about organizational

processes – not evaluations of individual case study sites. Sometimes, they report, they have needed to guard against interpretations of case study data becoming judgemental evaluations. The human, interested, perspectives that we occupy, of course, lead us to interpret data in the light of our own experience and our own aspirations for ourselves and our organizations, but to make this interpretation into research is to make it more than a personal comment, to become an analytical understanding about processes that transcend individual cases.

## Challenges to Open Debate

To capitalize on the diversity in a team, collaborators need to listen to each other's perspectives, not to ignore or silence difference (Akkerman et al., 2006). Social status is often cited as a factor undermining an atmosphere of open debate and critique (Cooper et al., 2013). If some team members are of a higher status on many of the dimensions of difference among the collaborators (e.g. discipline, seniority, length of time associated with the project), and others are consistently of a lower status, this poses a real risk that the lower-status members are unlikely to voice challenges, and the higher-status members are unlikely to listen to such challenges (Psaltis, 2007).

Lingard et al. (2007) report that their study suffered from the alignment of multiple dimensions of status. Their core team comprised specialists in English, paediatric medicine, optometry and social work, in a study of the socialization of novices to make 'case presentations'. Unintentionally, the social work team member was disadvantaged on several dimensions, leading to her perception of being a 'second stringer' throughout the project. Not only did she join the team later than the others, but an apparently arbitrary decision to analyse the data from medical students first meant that medicine became the 'authoritative first case' - a reference point in the process of analysis - so that social work data was always compared with the medical data. The authors describe how this situated social work 'outside' the core, and seemed to demand that the social worker continually account for the difference of her discipline.

The value of different dimensions of social status not being aligned is evident in Hall et al.'s (2005) account of a turning point in the group dynamics of their team, following which team members were able to challenge each other's interpretations respectfully. Their team included senior and junior members, with the junior members initially expressing a feeling of being inexpert, uncertain and unlikely to challenge interpretations. The turning point came when the faculty members engaged in a critical dialogue regarding the tentative analysis offered by one of them. There was an interesting social dimension to the development of this atmosphere of critique, which was that the faculty member presenting the interpretation was in a minority in her discipline. As a sociologist, she offered a social-structural interpretation. The other faculty members, like the majority of the junior team members, shared a background in counselling psychology, which led them to argue against an overly structural account which neglected individual agency. Again, the group dynamics needed to be managed to avoid inter-group alliances, but the numerical advantage of the students' theoretical perspective appeared to support them in raising challenges to the academically higherstatus faculty member.

With a similar interest, Pontecorvo (2007) describes the distribution of expertise and status in her Italian team of students and faculty members working on video recordings of family dinners. While Pontecorvo was the project leader, she reports that the methodological expertise in conversation analysis required for the project was held by two other, more junior researchers. Moreover, the expertise in the content of the data was widely distributed, with pairs of students and their tutors being the experts in the sub-topics for which they had taken responsibility (Pontecorvo, 2007).

From this point of view, the social positioning of team members would ideally be ambiguous, so that those from more traditionally respected disciplines might be less central to the project planning, or the more junior researchers might have richest expertise in the details of the data, for instance. If this is not practical, teams ought to be aware of problems of social status, and work to compensate for them. In the family dinner study mentioned above. Pontecorvo and Arcidiacono describe an informal rule for their team analysis meetings, namely that it is not only the professor who offers interpretations, but all present should make a contribution (Cornish et al., 2007). More formally, in Hartley and Benington's (2000) work with local authorities in the UK, an institutionally recognized rule was invoked to enable free and critical exchange on sensitive matters. The 'Chatham House' rule is familiar to UK government bodies, and establishes that participants are allowed to use the information generated in a meeting, but not allowed to report speakers' identity or affiliation beyond the meeting.

#### CONCLUSION

From a perspectivist outlook, collaborative analysis of qualitative data seems to hold the potential for a variety of valuable gains, from producing a more informed, nuanced, complex or useful analysis, to creating new, perspective-transcending knowledge, or, indeed, to individual learning on the part of researchers. Such potential benefits are not risk- or cost-free. Risks and costs, like the benefits, derive from the confrontation of diverse perspectives. Institutional support and flexibility, explicit working procedures, and social relations, which promote debate without threatening identities, may all help to alleviate the risks of collaboration.

In reviewing the literature on collaborative analysis, for this chapter, we sought especially to understand the methodological significance of collaborative analysis. By 'methodological significance' we mean the consequences of collaboration for the substance of the resultant analysis. So, asking: what is different about the interpretation that results from a collaborative

analysis compared with one produced by a single researcher? While the literature richly documents practical and inter-personal challenges of collaboration, and makes positive theoretical claims for the value of collaboration, we found few concrete examples unravelling how that value emerged as a result of the particular composition of the team. Social studies of science show us that the social conditions of knowledge production shape the content of the knowledge produced. This should be of concern to methodologists. An expansion of methodological discussions to include the social relations in which research is produced would aid qualitative researchers in designing, conducting, capitalizing on and understanding their collaborative research projects.

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