



'Piggy in the Middle': the Liminality of the Contract Researcher in Funded 'Collaborative' Research

by Farida Tilbury
Murdoch University

Sociological Research Online 12(6)16
<<http://www.socresonline.org.uk/12/6/16.html>>
doi:10.5153/sro.1644

Received: 4 May 2007 Accepted: 22 Oct 2007 Published: 30 Nov 2007

Abstract

This paper considers the challenges faced by contract researchers employed on interdisciplinary, cross institutional research projects. It argues that current funding requirements and a general fashion for 'collaborative' research have produced growing numbers of contract researchers employed to carry out other people's research. These contract researchers are caught, like a 'piggy in the middle', between disciplinary boundaries, geographic sites, institutional cultures, theoretical incommensurabilities and competing grantholders. Their position is made all the more difficult because such collaborations, in practice, often blur the sense of 'ownership' and therefore responsibility for the research, leaving the contract researcher responsible for operationalising and undertaking the work, but with little acknowledgement of their commitment. The paper includes a number of suggestions for dealing with such difficulties.

Keywords: *Interdisciplinary, Collaborative, Research Assistant, Contract Research, Teamwork*

Introduction^[1]

1.1 A number of factors have aligned to produce a situation in which contract researchers are an increasingly common feature of the academic research environment (Goode, 2006; Crawshaw, 1985; Bryson, 1999), due to a number of changes affecting research funding. Universities increasingly see research in economic management terms (Marginson, 2000), encouraging academics to attract money from outside sources. Universities require these funds to keep afloat, and to be seen as research active. Among other changes, this has produced a situation where academic researchers complain of reduced autonomy and increased accountability (Currie and Newson, 1998); where they are no longer engaged in 'blue sky' research, but must be focussed on the needs and priorities of business and industry (Considine et al, 2001: 32; Coady, 2000; Hazelkorn, 2005); where the 'lone researcher' model has given way to one ostensibly based on collaborative teams (Erickson and Stull, 1998); and where research is often managed through new organisational units within universities (often research centres) devoted to attracting external funds and undertaking projects (Sjolund, 1999; Marginson, 2000; Hazelkorn, 2005). Academics are challenged by changing policy contexts, including the new managerialism, or audit cultures (including research quality measurement), the commodification of their 'products' (both teaching and research), and time pressures, leading them to become 'split subjects' in 'bundle institutions' (Morley, 2003:100; Cooley, 1981). One of the effects of these changes is the 'devolution' of research, where the actual work of research is carried out at lower and lower levels of the research hierarchy, with greater exploitation at these levels fuelling 'improvements' in research outputs. As part of this process, the casualisation of the academic endeavour has meant that next-generation-researchers, those who have finished their postgraduate degrees, cannot expect to go straight into academic positions. Instead they spend a number of years working on the research projects of others, or pursue careers as 'jobbing researchers' (Goode, 2006).

1.2 These changes have partly been driven by funding imperatives, particularly the fact that core funding of universities from governments is being reduced, and funding from external sources is increasing as a proportion of universities' income (Hazelkorn, 2005:83).^[2] The trend currently is for funders to encourage

applicants to undertake collaborative, cross disciplinary, practically oriented research (Coady, 2000; Hazelkorn, 2005; Cooper, 1998). Consequently universities are under pressure to make their research more obviously practical and relevant, often by pairing with more 'applied' institutions. Browsers through the application forms of the major social research funding bodies around the world demonstrate that collaborative research linking academics with practitioners, particularly in the area of health, is preferred. In the U.K. the Economic and Social Research Council's website states that its aim is to "provide high quality research on issues of importance to business, the public sector and government." The Social Science Research Council also supports programs which 'target the spaces between disciplines' and offers a number of grants designed to reward interdisciplinary and inter-institutional collaboration (<http://www.ssrc.org/fellowships/>). In Australia, cross disciplinary, collaborative research is encouraged at both Federal and State levels: the National Health and Medical Research Council's Health Research Partnership Grants "aim to solve or prevent complex health problems through multi disciplinary research. ..." (NHMRC 2006); and the West Australian health promotion funder instructs applicants to: "Indicate whether the research is being carried out by a multi-disciplinary team ...this is strongly encouraged..." (Healthway 2006). The most prestigious national scheme for academic research funding also has a special category - the Australian Research Council "Linkage" grant - specifically designed to encourage academics to pair up with industry partners for research support and collaboration. Such linkages are encouraged in order to most efficiently utilise resources from the private sector, and ostensibly to creatively harness the synergies available from working across institutional and disciplinary boundaries (Walt et al, 2002). However, little consideration is given to the practical realities of undertaking such research, particularly from the point of view of the research assistant or project officer, often a junior level contract researcher, commonly employed to undertake the research once the grant application has been successful.

'Owning up' or 'writing for revenge'

2.1 The challenges discussed in this paper derive from a number of research projects with which the author has been involved. To protect the guilty (and the author's career prospects), names and institutions have been anonymised and details modified where necessary. Flippancy aside, the concerns raised in this paper are not project-specific, and are relevant to the increasing numbers of junior researchers undertaking projects as part of larger cross institutional and cross disciplinary collaborations. The paper is written partly as a process of catharsis, or, as Shacochis puts it, 'writing for revenge' (2001:181), but also in recognition that this is an increasingly important issue which is seldom addressed. The general silence results in a repetition of these experiences by successive generations of junior researchers, whose 'novice' or 'inductee' experience is marred by frustration. The paper is also an attempt to follow Colin Bell's (2004) advice that researchers should 'own up' to the messy, difficult side of research by writing about it.

2.2 The phrase in the title, 'piggy in the middle', reflects the state of the contract researcher or research assistant^[3], stuck in the middle between individuals, institutions and paradigms — a physical, intellectual and emotional place which is at once everywhere and nowhere. The liminality of the contract researcher, in terms of their place within such research projects, but also within their own career trajectory, amplifies the challenges of collaborative work (Collinson, 2004; Goode, 2006). The paper begins by exploring the ideals of collaboration and teamwork, moving on to describe the practical realities of such work in terms of ownership, communication, rivalry, personality, paradigm conflicts and the practical and emotional aspects of liminality. So as not to simply offer a litany of complaints, the paper includes some positive suggestions for solutions.

Collaborative cross disciplinary research.

3.1 Despite the fact that working in teams is now an expectation of various funding bodies, little academic literature exists about the practicalities of collaborative work. In fact, Barry et al. suggest that "teamwork appears to be one of the taken-for-granted aspects of research" (Barry et al., 1999:27). Teams are collectives that share a common purpose or goal, and a commitment to it (Fisher and Fisher, 1998:39-40) — in a social research context these may be groups of individuals including Chief Investigators^[4] from various disciplines, institutions, and sectors, together with various research assistants and research students. Normatively teams are seen as the best method of producing knowledge or materials (McCabe, 2000; Walt et al 2002). The aphorism that two heads are better than one suggests that the study of complex phenomena may be beyond the capacity of a single individual. Teams are assumed to enhance creativity by enabling cross disciplinary thinking, and enable differences in expertise, skills and knowledge bases, to be utilised. They also potentially ensure efficient use of resources from different institutions. Barry et al. (1999) argue that teamwork is a valuable way to tap creativity, intellectual rigor, morale and job satisfaction, producing improved methodological design and richer analysis (1999:26). Teams of 'insiders' and 'outsiders' are argued to be highly effective, bringing differences in experiences, broadening perspectives, and maximizing potential interpretations of phenomena, thus enhancing the validity of the data collected and providing greater insight in the analysis process (Thomas et al., 2000).

3.2 Where collaborative teamwork is expected across institutions such as the academy and industry, difficulties do exist, however, particularly in terms of conflicts of style in approaches to research, publication, and administrative issues such as communication and management. Many of these challenges are best understood by considering the place of the contract researcher in social research teams. Contract researchers (CRs) are increasingly being used to undertake social research, reflecting the trends outlined above, and casualisation resulting from calls for flexibility in the labour market (Collinson, 2004; Johnson, 2003; Crawshaw, 1985; Bryson, 1999). This is one aspect of change in the culture of research at universities over the last two decades which has produced an environment where academics (and the various bodies set up within universities to seek out and obtain external funds) are required to not only externally fund their own research, but to actually design research around the interests of funding bodies, so that external money is brought into the institution (Walt et al, 2002; Tight 2000; Coady, 2000;

Hazelkorn, 2005; Cooley, 1981). The irony is that once academics secure funds they cannot then cease the money-chase and proceed with the research, but must hire others to undertake it (Collinson 2004). This is particularly the case in Australia where research productivity is measured primarily by research income (rather than outputs) (Marginson, 2000). The ethical dilemmas academics face in trying to determine the extent to which one should continue to attempt to be an active producer of one's research (i.e. undertaking the design and writing of the proposal, collecting the data, transcription/inputting, analysis, statistical manipulations, and writing up) have yet to be explored adequately, as is their ambivalence at being forced into being 'managers' of research projects, or being themselves 'managed' by research centres of which they are a part. However, for the current paper, it is the position of the hired underlings employed to undertake the research which is under examination.

3.3 CRs, or 'hired hand researchers' (Roth, 1966; Lloyd, 2000), are employed specifically to do other people's research for them. They tend to be young, at the stage of developing their research skills, perhaps after PhD completion, and are often working on transitioning into an academic career. Contract researchers in academic institutions are disadvantaged in a number of ways, including lack of job security, career development opportunities, entitlements, accommodation, and pay. Concerns are beginning to be raised about these issues (Bryson and Barnes, 2000; Johnson, 2003; Goode, 2006). The CR is at the bottom of the research hierarchy, not being a grant holder, and being employed to operationalise funded research proposals. However, the CR tends to have a single focus on the given research project, whereas the grantholders often have a variety of other roles as part of their jobs, such as lecturer, service provider, bureaucrat or administrator. As a result, as Jackie Goode notes in her discussion of the research identity of a CR, despite their position at the bottom of the pecking order, their role often entails taking charge of the research activities themselves, specifically undertaking the data collection, analysis and writing up. It also involves being responsible for team process aspects such as ensuring team communication, negotiating ownership, responsibility, and intragroup rivalries, dealing with personality issues, and perhaps most difficult, negotiating paradigm conflicts at both the theoretical and institutional levels. Each of these aspects is now discussed with specific reference to the author's experiences as illustration.

Ownership

3.4 The issue of ownership, in terms of sense of responsibility, of collaborative research projects goes to the heart of their success or failure. Collaborators must be willing to own the research at all points in the research process, from the development of the idea, to the writing of the proposal, to the conduct of the research including analysis and writing. This is often not the case however, with collaborators keen to 'own' 'CV-relevant' research outputs, such as publications, but reticent to 'own' the work involved in producing those outputs. The general issue of commitment to the research, as well as some specific aspects of ownership are explored below.

3.5 I wish to spend some time on the issue of commitment, as this is perhaps the crux of the question of ownership. Traditionally, 'hired hand' researchers were employed to undertake a small section of the research such as quantitative data collection. Roth (1966) argued that this results in a lack of sense of ownership by the CR, and in the worst cases, cheating or fabrication of data to give the chief investigator what they want. Research assistants will succumb to the 'hired hand' mentality, he argued, when they realize their suggestions are ignored, they can not use their imagination or creativity, and they will not receive any credit for the final product. Contract researchers therefore cannot be trusted: "When a researcher hires others to do the collecting and processing tasks of his [sic] research plan, we often assume that these assistants fit the 'dedicated scientist' ideal and will lend their efforts to the successful conduct of the over-all study by carrying out their assigned tasks to the best of their ability. . . . I doubt that hired assistants usually behave this way even when they are junior grade scholars themselves. It becomes more doubtful yet when they are even further removed from scholarly tradition and from the direct control of the research directors (eg. Part-time survey interviewers)" (Roth, 1966: 191).

3.6 Roth's vision is out of touch with current reality - while it may have held true for situations of piecemeal research assistance provided in the past, the changed context of research means that it is far less common that the CR disavows responsibility (see Goode, 2006). Rather, due to the funding imperative, it is much more likely that the CIs will. Indeed, Hubbard et al (2001: 133) note that while "the mode of working in qualitative research is increasingly that of a 'team', . . . this does not necessarily entail grantholders carrying out any fieldwork or having the same level of in-depth involvement with the data as that characterizing the work of the research fellow to the project". In fact, Collinson (2004) found that many CRs are motivated by 'social justice' objectives, and therefore feel a sense of obligation to the research and participants. In the social sciences, and in the current research climate, it is extremely difficult for the CR to disown the research, or to care so little about the results being collected that one is willing to manipulate them. Perhaps ironically for the CR, as Goode has noted (2006), since one is 'on the ground' one tends to 'feel' the research: to connect with participants; to feel attached to the process of research; to 'invest' in the outcomes; and consequently put in more time and effort than the CIs.

3.7 A number of examples illustrate this sense of commitment. In one situation the author, CR on a project which involved conducting focus groups of disadvantaged minorities, was rebuked for driving participants home after a focus group^[5]. In another, assistance provided by family members was not acknowledged as a contribution to be grateful for, but as a service to be 'invoiced' for (without any mention of thanks at all)^[6]. This level of commitment to a project, and to the people participating in it, which is as much emotional as anything else, is a common 'hazard' of qualitative research, and is often seen as something needing to be 'managed' (Lofland and Lofland, 1995; Bourne, 1998). CIs, because of their distance from the research work, are not at risk of this particular research hazard. However, rather than seeing it as something needing to be overcome, emotional commitment could be seen as a positive instinct, useful, even necessary, for the progress of the project. Such an approach is, however, incompatible with the

current instrumentalist neo-liberal approach to research. The very name 'contract researcher' belies this commitment.

3.8 Contrary to the social loafing/free rider effect of team work mentioned earlier, the CR often takes ownership of the project, feeling responsible for ensuring the data gets collected, analysed and written up (Goode, 2006). Those at the top of the research hierarchy, even where it is in their interests to participate, may simply ignore requests for guidance and feedback. For instance, the author has been waiting a number of years for the three chief investigators/granholders on one project to read/approve papers, let alone provide feedback. These are papers for which the contract researcher collected the data, analysed it, and wrote the articles. The CR in this instance is constrained from submitting the papers under her own name, for ethical reasons, but is also loathe to submit the papers with the CIs names as co-authors, given their lack of involvement, even at the minimal level of 'signing off'. Such an outcome is negative for both the intellectual community deprived of the knowledge, and for the early career researcher unable to publish.

3.9 It is important for collaborative teams to try to collectively resolve some of the issues identified above, as early as possible in the project. Ideally, the details of each Chief Investigators' responsibilities should be included in the initial funding proposal. Individual objectives and goals should be identified, and individual roles and responsibilities made clear. These need to be quite detailed, and include general principles as well as specific tasks. At the first meeting of the team, after having received the funding, the group should determine the consequences if team members do not fulfil these obligations. It is vital not to let the excitement and goodwill generated by the funding win stop the team from being 'hard-nosed' and pragmatic about these issues.

3.10 This includes team members being absolutely honest in terms of their time commitment. Researchers should not be tempted to promise things that they cannot deliver, in the research proposal and in early meetings. This can be difficult, because funding bodies appear to reward promises of unrealistic time commitments and superlative framings of participation by CIs. High levels of participation by CIs are becoming increasingly difficult with increased demands on academics' time – it may be inevitable that (actual) research is pushed to the periphery of academics' activities, in the current climate. Cooper suggests that it is a commonly held view that "the move towards large scale projects involving collaboration with academic and industrial partners involved a disproportionate amount of administrative effort" (1998:23). Recognition of such demands on academics' time, and more realistic expectations from universities about the number of research projects any individual can contribute to, would enhance their ability to engage with the research appropriately.

3.11 Additionally, time relief for principal researchers must be acknowledged as an important part of external research funding, rather than just money for infrastructure, materials, travel and research assistance (Marginson, 2000:211). This is necessary in a context of rising teaching and administrative workloads. The result would be more effective collaborative teamwork, ensuring CRs feel supported.

3.12 Improved external monitoring processes may also be needed, to ensure recalcitrant CIs can be brought into line. Funders have surprisingly ineffective methods for monitoring the activity of Chief Investigators. While quarterly, or in some cases, annual, reports are required, in practice, these are often written by the CR and simply signed by the CIs. No mechanisms exist to monitor CIs' actual participation or ongoing commitment, and CRs are constrained from 'telling it like it is' by their dependence on the goodwill of the CIs for their livelihood. One solution would be for the CR to be invited to provide confidential reports directly to the funder, providing an opportunity for honest feedback. On one seriously mismanaged project, the author attempted to informally advise the funder of specific concerns, but was encouraged by the funder to make a formal complaint, without which no action could be taken. For the CR to take on a whistle-blower role, however, is extremely difficult, given that they do not have security of tenure. While such a suggestion could be seen as another imposition of the 'audit culture', the suggestion is made more for the protection of the CR than 'punishment' of the CI.

3.13 As well as the general issue of commitment, three specific aspects of ownership in team projects have the potential to be problematic – the representation of the research to others; intellectual property issues; and ownership of the findings.

3.14 Researchers often have to 'present a face' of their research, both literally and figuratively, to a particular audience (Goffman, 1963). Obvious examples include presentations to communities involved in the research, government bodies, funders, the media, and at academic and practitioner conferences. Various candidates come to mind for presenting to each of these audiences - it may be appropriate for the CR who has collected the data to cover community feedback and conference presentations, and for CIs or granholders who have relationships with government bodies and the funder to cover these groups. The most media-savvy or articulate person would be ideal to deal with the media. Thus, it may be appropriate for different 'faces' to be presented in different contexts. However, if senior team members are more interested in 'empire building' than ensuring widespread access to results, they may insist on their name/face appearing in all contexts which have the potential to enhance career capital, causing problems within the team. Chief Investigators may, for example, maintain gate-keeping relationships with funders, effectively presenting themselves as the 'face' of the research, and excluding the other CIs and CR.

3.15 An example of the difficulties of presenting a 'group' face comes from a project on which the author was CR, which involved dealing with the media. The three CIs and the funding body insisted that, in any media coverage, all parties (individuals and institutions) be named. However journalistic conventions require reporters to identify a single speaker, not a team of people. Thus the demands of standard media practice fundamentally conflict with the desire of all parties to be recognized.

3.16 Another aspect of this difficulty is in the very practical instance of identification of the research to

others. When asked 'Who do you work for?', for one project on which the author was the research coordinator, the accurate answer was: "I am working on a research project funded by Healthwise, which is a collaboration involving the West Timbuktu Public and Community Health Unit, part of the Queen Elizabeth Timbuktu Hospital, and the psychology and sociology departments of the Degrees-R-Us University." Such a description is confusing, but was required by the organisations and individuals involved to ensure their 'face' was acknowledged in all contexts.

3.17 The question of intellectual property is a significant one for any research project (Barry et al, 1999; Goode, 2006), but the more collaborators involved, and the more the actual work is done by one individual, in this case the contract researcher, the more complicated the situation. Such problems are partly the result of what Marginson has identified as fundamental differences in the traditional versus the management models of research: "Research that is auto-driven by the desires to know and to make – with rhythms of work sustained by disciplinary traditions rather than money and management, with loosely defined work programs and power relations often opaque, and with research findings freely exchanged – has little in common with corporate organisation and the protection of legally codified intellectual property" (2000:191). Competition is intensified in the corporate model, he argues, and industry and academic norms of intellectual property ownership are at odds.

3.18 One might well ask: does the information produced in the collaborative funded research (i.e. the data, the analysis, the synthesis, argument and write up) 'belong' to the grantholders whose names appear on the funding application, regardless of their actual input; to their various institutions; to the researcher/s who carry out the work; or to the funding body who paid for it? An example of the difficulties of providing simple answers to such questions comes from a project which produced a range of outputs, or 'intellectual property'. Outputs included qualitative data, community based intervention strategies, radio scripts and programs, conference papers and journal publications. One CI on the project felt that the data belonged to the project, so anything produced from it should include all the 'researchers' names as authors (rather than simply as acknowledgements) – including the Chief Investigators/grantholders whose entire contribution, apart from participation in the grant-securing process, was to attend occasional administrative meetings. Thus all publications and conference papers should include all CIs names, regardless of the fact that the data had been collected and analysed, and the paper entirely written by, the CR. This CI felt she was being generous allowing the CR's name to be included, as the CR had been 'paid' for their intellectual and material contribution, whereas the CIs had not (apart from their normal income). Another CI, however, felt that only those who had actually worked on the particular 'product', be it a paper or radio script, could claim ownership of it, and therefore be named as authors. A further complication arose because one CI left the country before the project began, and another left before the project was completed – it was unclear how to deal with their contributions. Clearly such problems should be discussed and decisions made about intellectual property before any property is developed (Barry et al, 1999). However it is often impossible to predict beforehand what the property will be, what actual contributions the various actors will make to it, nor what ownership claims they will make. Likewise, although institutions often have intellectual property guidelines, these may conflict across institutions, and interpretations may differ. Team members' different conceptualisations of each other's roles and responsibilities necessarily need to be clarified as these conflicts arise. Even better, early discussion may flag the expectations of others, and that 'bad practice' in terms of lack of participation, will not go unchallenged.

3.19 Another issue closely related to questions of liminality, is the use of students to undertake discrete sections of the research. The use of students is often a selling point for funding bodies within a discourse of the provision of 'training opportunities'. It also reduces their costs. The question of who owns such students' contributions to the intellectual property of a joint project is a moot point - the student, the supervisor and student, the university, the research team, the institutions to which the research team belong, or the funding body. Using a traditional hard sciences model, students' work is often presented as the work of the entire research team, but such an approach may be inappropriate in a social science context, where certain partners may have little to do with the student's work. From an academic point of view, there is also the problem that postgraduate students should be supervised by an academic in a relevant discipline area, not by a team of people who may have little knowledge of the particular discipline within which the student is working. Additionally, in practice, it is often the CR who has a significant supervisory role to play for such students, although this role is seldom acknowledged in their job description, or pay.

3.20 Finally, looking more closely at the CR's position and the question of ownership, there is often some fuzziness about the boundaries of the CR's job. Some CIs think they 'own' the CR, and have been known to use CRs to do photocopying and other menial tasks for their own work, or to undertake literature reviews (as opposed to just searches) for work marginally related to the research project, and even to have CRs give lectures for them. Because of their liminal position, the CR may undertake such work without complaint in the hope that it will improve their promotion/permanency prospects, but it adds to their sense of liminality by blurring their role.

Communication

3.21 A key factor, vital for the smooth progress of a project and to ensure all participants feel ownership of the research, is communication. Without regular communication team members' understandings of the research goals, tasks and activities are likely to diverge, and perceptions of the activities of other team members may be incorrect. This can lead to conflict.

3.22 Communication can take various forms. Interaction and information sharing are fundamental elements of teamwork, particularly maintaining regular contact, even when long distances divide researchers (West, 1994; Barry et al., 1999). In the current climate, busy schedules, rather than long distances, mean

gathering all team members for meetings is difficult. Although this is a rather pragmatic concern, inability to meet regularly may seriously affect the viability of the team (and therefore the research itself). It is difficult to get academics who work on the same campus together, between busy teaching and research schedules, let alone team members from outside organizations with other demands on their time. This causes real problems for the progress, and sense of ownership, of the project. The author has observed situations in which scheduled fortnightly meetings were delayed for several months at a time, due to rescheduling and last minute apologies for double bookings. Such problems have most effect on the CR who must ensure the project progresses during these periods. In another project, one CI frequently cancelled due to personal problems, leaving the two remaining Chief Investigators to meet much more regularly, resulting in their being able to keep a much closer finger on the pulse of the project. The result was the third CI feeling somewhat excluded, and the research assistant not understanding why, on a project with three grantholders, she was only apparently working with two of them.

3.23 One solution is to communicate using technologies such as email. A team 'nickname' in the email address book facilitates sending email to all members, and ensures the CR does not waste time consulting with each Chief Investigator/Grantholder independently at different sites about details of activities, problems encountered or the minutiae of practical aspects of the research (and then engaging in a form of 'Chinese whispers' in reporting back what each said). An interesting feature of such emails to groups, however, is that the recipients feel less obligation to respond — an instance of the 'social loafing' effect (also called the 'free rider' role by Chesla, 2000:133) where the invisibility of one's contribution, or lack thereof, results in groups working less hard. Email is also a much less 'information rich' form of communication than face-to-face interactions where facial expressions, body language and gestures as well as tone of voice, transfer meaning (West, 1994:27). Using email as the main form of communication can result in team members second guessing the tone of each others' communications and getting offended where no offence is meant. Thus email should not be seen as a complete solution for communication across sites and disciplines. Face-to-face interactions allow for questions to be asked, meanings clarified and issues explored — where some team members have frequent face to face interactions and others do not, this can lead to closer relations between those members.

3.24 Another necessary, taken-for-granted aspect of communication in research undertaken in teams is feedback. Constructive feedback improves the work of any team, and provides positive reinforcement, improved self-esteem and energy (Chesla, 2000). In multidisciplinary teams, feedback can indicate synergies and complementarities between the different elements, and also pre-empt difficulties. Where positive feedback is common, research groups work more effectively - workers are more likely to work to capacity and be committed to the project, and team managers are highly respected. Where no feedback occurs, workers become disillusioned, feel unappreciated, and can become distressed by the lack of guidance, leading to inertia. For example, the author observed a research assistant do no work for eight months after completing some analysis, while waiting for feedback from the CIs. The CIs, feeling guilty about their own lack of commitment, did nothing to encourage the research assistant to get back to work. Ultimately, the CIs simply did not renew the CR's contract, rather than provide the feedback he was waiting for.

3.25 In sum, the lack of regular face to face opportunities to communicate may result in a lack of feelings of ownership, lack of interest, and an assumption that others are doing the work. This leaves the CR trying to progress the research with little or no guidance or encouragement, producing feelings of resentment, at best, and at worst, complete inertia.

Rivalry

3.26 While the rhetoric of teamwork assumes that individuals will leave their sense of personal importance and associated competition behind when joining an interdisciplinary research team, in practice this is rarely the case. Personal conflicts in the form of professional rivalry can jeopardize real collaboration. The author has observed such rivalry in the context of constant arguments about the order of names for authorship of papers. This is partly the result of differences of standard practice between discipline areas, but also of personal rivalries. In one project, criticisms of 'ivory tower academics with their heads in the clouds', versus 'public health bureaucrats selling technologies of self-governance' were aimed at different partners. Such accusations are generally not levelled directly at the partners but to the humble CR, caught in the middle between CIs. In another instance of this rivalry, where occasional urgent decisions were made by one party, the other felt affronted that the project was being taken over. One CI commented to the CR that 'not everyone has to have a PhD', indicating feelings of inadequacy, and a concern that one institution or person might become associated with the project to the detriment of the 'kudos' of the other.

3.27 The likely causes of such rivalry are to some extent located in the personalities of the individuals involved, and in the traditional tension between 'action based' organizations (such as industry, government bodies, service providers, public health units) and 'thought based' institutions (such as universities). The result is that the already liminal CR can easily become the 'piggy in the middle' managing her bosses' professional rivalries.

Personality

3.28 While the focus of this paper has necessarily been on structural factors which affect the success of 'team' research, it is important to acknowledge that individual personality also plays a role. Personality is both an obvious and an invisible factor in the success or failure of collaborative research undertakings. Referring to core characteristics of successful teams, Harris (2003) suggests integrity, trust, forgiveness, mutuality, freedom, respect for the individual and playfulness, are paramount. These are team characteristics insofar as they are produced out of particular contexts and social interactions, but they are

also aspects of individual personalities. Individuals who bring these characteristics to a team are more likely to (re)produce these in an organizational sense. Other positive characteristics which might be beneficial in a collaborative research situation include: humility; responsibility; commitment; dedication; compassion; inquisitiveness; inclusiveness; responsiveness; cooperation; trustworthiness; tact; respect; self-discipline; reliability; helpfulness; generosity; determination and courtesy. These have been framed in the positive, so as to identify factors likely to lead to positive collaborative relationships, but the reader will be able to recognise the negatives likely to ensure not only disastrous interpersonal relationships between researchers, but the failure of the research itself.

3.29 The reader can infer from earlier examples the ways in which individual personality factors entered into the dysfunction described, therefore a single example will suffice here. The author was ostensibly the 'Research Coordinator' on a qualitative research project involving a number of ethnic minority communities. At an early meeting the three Chief Investigators declared that they would *all* attend *all* of the focus groups, rotating responsibility for facilitation and coordination of refreshments. This demonstrated their commitment to hands-on involvement in the project, and acknowledgement that the CR was not to do all the work. Ultimately, however, one CI attended one focus group, and the other CIs attended two and three groups respectively, leaving the CR to cover the remaining twenty six alone. From the list of personality traits above it is possible to identify a lack of responsibility, commitment, dedication, trustworthiness, respect, courtesy, reliability and determination in the CIs' actions.

3.30 In terms of the liminality of the research officer, this phenomenon manifests itself partly because the contract researcher is in a subservient position to the CIs or grant holders. Where the team is truly collaborative, such personality factors could be overcome with open and honest discussion. But where collaboration is merely token, and the CR is in a subservient relationship to the CIs, s/he may feel s/he has no voice with which to articulate such concerns, nor to insist on their being dealt with.

Paradigm conflicts

3.31 Gibbons et al (1994) have identified a trend from what they call 'mode 1' to 'mode 2' research – homogenous academic work with clear disciplinary boundaries is giving way to heterogenous, multi or transdisciplinary and applied research. Mode 2 research is driven by the need for knowledge to be of use to someone, usually industry or the state, and therefore requires cross disciplinary/sector collaboration. However, there are clearly challenges involved in research with teams from different disciplinary backgrounds and the resulting paradigm conflicts (Goode, 2006; Barry, 1999; Mass, 2000; Groger et al, 1999; Cooper 1998; Lloyd 2000; Walt et al, 2002). Some have argued that it is impossible to share understandings across disciplines. For example, Masse (2000), in a paper attempting to reconcile qualitative and quantitative approaches to understanding psychological distress, concludes that there are 'ontological and teleological incompatibilities' in trying to mesh the different approaches preferred by public health agencies compared to universities. He argues that there is a fundamental "incommensurability of the ultimate goals of research, which are to understand instead of to demonstrate, to interpret instead of to objectify or measure, to reveal the plurality of the dimensions of reality instead of to look for consensus and norms. In fact, 'we operate within a constructivist research paradigm, while our public health colleagues operate within the framework of logical empiricism' (Coreil, 1997 pp 252-255)" (Masse, 2000:419). Groger et al. (1999:833) also note the "irreconcilable tension between certain institutional requirements, particularly the premise of qualitative research which emphasizes emergent design and an exploratory approach". Similarly, Lloyd (2000) has described the difficulties of graduates of post-empirical sociology working in empirical research contexts. Specifically, he suggests that postmodern challenges to the idea that research can be value- and theory-neutral, and the idea that science can and should be pursuing deductive-type laws, leaves the academic and the public health practitioner fundamentally at odds.

3.32 While writers have identified these difficulties, funding bodies continue to push researchers from different paradigms to work together (Walt et al, 2002). The mismatch between funding requirements, the approach of most 'industry' and government partners, and post-positivist approaches favoured by some academics, therefore means that academics 'bluff' when writing funding applications. They write research proposals using a positivist paradigm, based in the presupposition that one knows the course and outcomes of the research, and hope that on receiving the funding they will be able to pursue their preferred approach. However, this becomes a problem not for the CI but for the contract researcher to deal with, as they try to operationalize the research, adapting it from proposal to reality, while straddling different institutional and theoretical paradigms.

3.33 Jackie Goode (2006) describes the challenges of combining two methods, in-depth interviews, and conversation analysis of telephone interactions, suggesting that "The fact that the issue of combining these two kinds of data was never fully resolved, on a funded project which brought all the attendant pressures of delivering 'outcomes' on time, perhaps constitutes another 'lie' to add to Fine's list – that of 'mixed methods' being the new orthodoxy, at least as far as common understandings of how the mixing can/should be done are concerned."

3.34 Similar concerns arose from a project of which the current author was a part, where team members hailed from fundamentally different disciplines. One group were public health practitioners. The public health approach is to develop more effective ways to promote 'health', as defined by health promoters, and to encourage individuals to take responsibility for their own 'health'. Their goal in research is to develop and test health promotion messages or interventions. Success is measured in 'client uptake'. The other group were academics from sociological and critical psychological disciplines, strongly influenced by the Foucaultian approach. From this perspective, illness is a social construction, the function of which is to pathologise difference. Diseases are labels used to identify those who do not commit to society's norms.

The labelling gives society, through the medical profession, warrant to control elements which might be disruptive to 'normal' society. From this perspective, 'public health' is simply an extension of the 'medical gaze', another technology of control and self-governance, a 'helping profession' designed to induce individuals to conform to 'normal' social roles (White, 2002:6).

3.35 This fundamental paradigm conflict was evident in the original funding proposal, but was not picked up by reviewers (who had been recommended by the applicants). The first paragraph, obviously written by the critical psychologist and the sociologist, referred to figures such as Foucault, Szasz and Rose, all immediately recognisable as critics of the public health approach. The second paragraph, in line with the public health partner's paradigm, referred to the 'highly disabling worldwide pandemic of depression', buying into the very discourse the first paragraph critiqued. The final paragraph actually referred to people as 'consumers', in line with the current marketplace ideology applied within the health system. The result was an odd combination of critical and managerial discourses. One of the proposed outcomes of the project also illustrated this dilemma, promising a particular type of intervention as a 'deliverable', based on an assumption about the necessity and appropriateness of that form of intervention, when the point of the research was to determine what kinds of interventions were necessary and appropriate.

3.36 The paradigm conflicts, which are fundamentally associated with differences of 'core business' (see Marginson, 2000, on research as a managed economy), also spill over into differences of workplace culture, including different understandings of what is meant by project management and being a chief investigator, and issues of accountability and independence. In this project, culture conflict between the public health workplace which had adopted overtly 'teamworking' practices and the (slightly) more traditional approach of the university led to difficulties as the CR negotiated differences in levels of autonomy (eg. having to keep a time chart of one's whereabouts at the public health unit versus complete freedom at the university site), expectations and obligations.

3.37 How do paradigm conflicts affect the CR's sense of liminality? Firstly, it is the CR who is tasked with operationalising the research, undertaking it, and producing the deliverables, including reports and papers, which ultimately are designed to conceal such conflicts. Secondly, the CR bears the brunt of being caught between two (or more) sets of researchers with fundamental differences in their understandings of the project, and the various territoriality issues which accompany this situation. The CR ultimately must negotiate these issues if they are to progress the project.

3.38 To deal with paradigm conflicts, it makes sense to begin with an attempt to outline each team member's perspective - the intellectual and practical paradigms which they bring to the project. In an ideal world this would be done before the proposal has been written. The key ultimately is that, difficult as it may be to resist, it is best not to be tempted to 'get into bed' with those with whom it is unlikely that one will be able to reconcile perspectives. It is impossible to address the incommensurability of institutional and epistemological agendas once funding has been granted, and the result is alienated research assistants, fragmentation of the project, and the risk of alienating the researched population (Lloyd 2000). Another pragmatic and partial solution is for team members not to attempt to reconcile paradigms but to work separately - writing separate articles, using different forms of analysis, for different audiences/journals. While such a solution does not lead to the integrated approach Morgan (2007) recommends, and which interdisciplinary research is supposed to engender, it does allow work to proceed.

Practical and Emotional Liminality

4.1 Building on the work of Jackie Goode (2006) regarding the negotiation of the fragile contract researcher identity, I have spent some time outlining some of the realities of team research work across disciplines and the difficulties of the in-between-ness of the contract researcher. The awkwardness of working between two institutions, and the practical and emotional aspects of liminality are now explored.

4.2 It is recognised that when reporting research, issues to do with emotion are systematically excluded from academic discussions, although work in anthropology and feminist research methodology is beginning to correct this (Kleinman and Copp, 1993; Hovland, 2007). The feelings of researchers, about their own professional identities, their relationship to the research and to those being researched, as well as to their co-researchers, necessarily influence their sense of job satisfaction, but also the quality of the job they do, in terms of data collection and analysis. Foregrounding such issues might improve research outcomes, particularly once research teams develop strategies for 'managing' emotion and for using 'emotionally-sensed knowledge' (Hubbard et al, 2001: 119).

4.3 Earlier, the sense of emotional commitment to participants and to the research was mentioned, in relation to issues of ownership. The main emotion relevant to the CR in relation to their identity as CR is the sense of alienation from not having designed the research or having power over its direction and outcomes, and, for the CR who works on projects coordinated between institutions, the loneliness, disconnection, lack of belonging and liminality resulting from having multiple work places and bosses. This emotional liminality is best illustrated by considering the practical issues involved in working at two sites such as the challenges of maintaining two offices with computers, emails, files, etc. The need to be organized and self-disciplined to ensure that necessary documents exist at both sites is clear. Working at two sites causes difficulties for others associated with the research, such as participants, who may have to seek the CR on two different phone numbers at which she can be reached on different days of the week (and not at all on other days because such jobs are necessarily part-time!) – leaving the researcher feeling guilty for her lack of availability. Then there is the question of the social and bureaucratic aspects of working within two institutions - two sets of staff to meet and greet and share weekend stories with, two regular staff meetings to attend, two quality assurance procedures to participate in, two sets of professional development programs to be involved with, two sets of birthday and farewell celebrations to contribute to, two sets of pigeonholes — and so the list goes on. One necessarily makes pragmatic

compromises, choosing to attend some but not all of the above. But at a personal level this is often at the cost of feeling neither a full part of one organization nor the other, and being seen partially as an outsider, or as aloof in terms of choices not to participate in some activities. This sense of inferiority and exclusion has been noted by others researching the identity of contract researchers (Collinson, 2004:9; Johnson, 2003).

4.4 It is therefore vital to provide the necessary support for the Contract Researcher. Chief investigators/granholders must recognise the difficulties the CR faces in working liminally, and ensure that systems are put in place to make sure they feel supported. This includes appropriate methods of communication, acknowledgement of emotion work and intellectual work, and so on, but it could also include material support, for example through the provision of administrative support so that time-consuming tasks such as arranging meetings can be undertaken by appropriate administrative staff.

4.5 The issue of practical liminality is difficult to get around. The most realistic option is to designate one institution as the primary host for the CR (which does not resolve the problem of rivalry between institutions). The consequence, unfortunately, is losing the possibilities for creativity and opportunities generated through 'being in two places at once'. Another option for the liminal researcher is to see oneself as administering between institutions i.e. to not expect to be working for one or the other. This involves an acceptance of being 'in-between' as producing creative possibilities, and a degree of independence (but does not solve the issue of confusion for those outside the project). In fact, Collinson (2002) notes that some CRs see the difficulties they face, when looking back retrospectively on them, as a 'rite of passage', giving them the personal and professional qualities useful for future careers; and Goode (2006) offers her experience of 14 years continuous employment as a contract researcher and the various skills and opportunities she has gained as a result, as evidence that there is a positive side to contract work. Victor Turner (1967), who developed Van Gennep's notion of liminality, would approve this positive 'spin' on 'in-between-ness' as an opportunity for creativity and development.

4.6 The key is the need for CIs to develop a sympathetic and aware stance to the difficulties CRs face, and a willingness to attempt to address these. However, much more rigorous examination of the social organization of research within and beyond the academy is also vital.

By way of a conclusion

5.1 At the core of the difficulties described is the fact that funding procedures and the emerging structure of research work combine elements of neoliberal individualist philosophy (competitive tendering, reduced centralised funding, practical outcomes-focussed funding, short-term project-based contract employment) with collectivist ideologies wherein concepts of teamwork and collaboration are based. The result can be one of two things: either attempts at 'real' collaboration, with the attendant problems outlined above; or a 'simulation' of research collaboration - the appearance of teamwork and interdisciplinarity, but not the reality (Cooper 1998:24). 'Simulated' collaborative research occurs where those forced into 'team research' through funding imperatives keep actual collaboration to a minimum, for fear that the very real problems it entails will jeopardise their prospects for future funding support.

5.2 The alternative is to try to get the collaborative model to work, but not to expect the contract researcher to be responsible for its success or failure. A set of ground-rules for the development of collaborative research involving CRs is long overdue. This paper contains some suggestions for improvements, as does Goode's (2006). Most require good communication, and what West (1994) has called high task and social reflexivity i.e. constant reflection on what the team is doing, and how they (we) are doing it. This involves ensuring that shared team objectives, participation, and task orientation are encouraged, and innovation supported. He suggests that a 'team climate' which provides support for growth and well-being, and uses appropriate methods of conflict resolution, is vital for a team's success. The various contributors to Coady's collection (2000) on the changing face of the university recognise the need to deal with the changed funding realities, and adapt aspects of the research culture. To assist in this process, many practical guides to teamworking are available. While academics are naturally wary of such resources, practical reality may force them to start using these to improve the situation. Conceptualising the research group as a network made up of different parts rather than a team may go some way to allaying the concerns of academics, and ease them into new ways of working with others outside their disciplinary and sector boundaries. For the CRs, there is a need to become skilful negotiators, assertive communicators and good networkers, and to develop their own supportive networks, perhaps with other, more experienced CRs^[7], or under the tutelage of a mentor (Goode, 2006).

5.3 To conclude, it is important that the research community starts to deal with some of the practical concerns beginning to be raised here and elsewhere. Yet books on social science research methods continue to be written from the point of view of the single researcher who designs, undertakes and writes up their own research (Cooper 1998:30). This does not reflect the current reality where most social research is undertaken by more than one person, and for externally driven research objectives, and where the actual day to day work is carried out by a Contract Researcher who did not design the research. Ways of dealing with this situation ought to be part and parcel of research methods training and the culture of the social research community.

Notes

¹ The author wishes to thank three anonymous reviewers for their very prompt, helpful and extensive comments on an earlier draft.

² The ways in which funding imperatives have driven research methods has been mapped by historians of sociology (see Turner, 1998).

³ I use the terms 'research assistant', 'research officer' and 'contract researcher' interchangeably, as in practise, the roles tend to be very similar. A reviewer of this paper pointed out that the term CRS (contract research staff) is currently under review in the UK, and may be replaced by the generic term 'researchers', which would include graduate research students as well as contract staff. Such a move would erase hard won gains by CRs to be recognised as staff with some level of equality with permanent academic staff.

⁴ While the term 'Chief Investigator' (CI) is common in Australia, in the UK 'Principal Investigator' or 'grantholder' is more common. Lesser collaborative partners may be known as 'Co-applicants', 'Co-investigators' or 'Associate Investigators'. For ease of reference, the term CI will be used throughout the paper.

⁵ The reason for the rebuke was concerns about insurance liabilities.

⁶ This is actually a clever rhetorical tactic which produces the relationship as an economic marketplace relationship, rather than the more social relationship which the particular activity is indicative of. This is a fundamental problem with the current research funding model, the idea that knowledge is something which can/should be bought, rather than being something the researcher seeks for some less instrumental reason and which the researcher is dedicated to.

⁷ I would like to thank an anonymous reviewer for this insight.

References

- BARRY, C., BRITTEN, N., BARBER, N., BRADLEY, C. and STEVENSON, F. (1999) 'Using reflexivity to optimize teamwork in qualitative research', *Qualitative Health Research*, Vol. 9, No.1, pp. 26-44.
- BELL, C. (2004) 'Doing Sociological research: the genre of 'owning up'', *International Journal of Social Research Methodology*, Vol. 7, No.1, pp.29-33.
- BOURNE, J. (1998) Researchers experience emotions too. In Rosaline S. Barbour and Guro Huby (eds) *Meddling with Mythology*. Routledge, London.
- BRYSON, C. (1999) Contract research: the failure to address the real issues. *Higher Education Review*, 31 (2): 29-49.
- BRYSON, C. and BARNES, N. (2000) 'The Casualisation of employment in United Kingdom higher education', in M. Tight (editor) *Academic Work and Life: What it is to be an academic and how this is changing*, Amsterdam: JAI Press.
- CHESLA, E. (2000) *Successful Teamwork: how to become a team player*, New York: Learning Press.
- COADY, T (ed) (2000) *Why Universities Matter*, St Leonards, NSW: Allen and Unwin.
- COLLINSON, J. (2004) 'Occupational identity on the edge: social science contract researchers in higher education', *Sociology*, April, Vol. 38, No. 2, pp. 313-330.
- CONSIDINE, M., MARGINSON, S., SHEEHAN, P. AND KUMMICK, M. (2001) *The comparative performance of Australia as a knowledge nation*, (Report to the Chifley Research Centre). Melbourne: Monash Centre for Research in International Education.
- COOLEY, M. (1981) The Taylorization of Intellectual Work. In Levidow, L. and Young B. (eds) *Science, technology and the labour process* CSE Books, London.
- COOPER, G. (1998) 'Simulating difference: ethnography and the relations of intellectual production', *British Journal of Sociology*, Vol. 49, No. 1, pp. 20-35.
- COREIL, J. (1997) 'More Thoughts on Negotiating Relevance', *Medical Anthropology Quarterly*, Vol 11, no 2, p252-255.
- CRAWSHAW, B. (1985) Contract research, the university, and the academic. *Higher Education*, 14, 665-682
- CURRIE, J and NEWSON, J (1998) *Universities and Globalization: Critical perspectives*, Thousand Oaks, Sage.
- ERICKSON, K.C., and Stull, D. D. (1998) Doing Team Ethnography: Warnings and advice. *Qualitative Research Methods Series*, Vol.42. Thousand Oaks, CA: Sage.
- FISHER, K. and FISHER, M. (1998) *The Distributed mind: achieving high performance through the collective intelligence of knowledge work teams*, New York: The Fisher Group.

- GIBBONS, M., LIMOGES, C., NOWOTNY, H., SCHWARTZMAN, S., SCOTT, P. and TROW, M. (1994) *The New Production of Knowledge*, London: Sage.
- GOFFMAN, E. (1963) 'On Face-Work.' *Interaction Ritual*, New York: Anchor Books.
- GOODE, J. (2006) 'Research Identities: Reflections of a Contract Researcher', *Sociological Research Online*, Vol. 11, No. 2.
- GROGER, L., MAYBERRY, P., and STRAKER, J. (1999) 'What we didn't learn because of who would not talk to us', *Qualitative Health Research*, Vol. 9, No. 6, pp. 829-835.
- HARRIS, C. (2003) *Building Innovative Teams: strategies and tools for developing and integrating high performance innovative groups*, Hampshire: Palgrave Macmillan.
- HAZELKORN, E (2005) *University Research Management: Developing research in new institutions*, Paris: OECD.
- HEALTHWAY (2006) <<http://www.healthway.wa.gov.au/research/default.htm>>
- HOVLAND, I (ed.) (2007) 'Fielding Emotions' Special Issue, *Anthropology Matters*, Vol 9, No. 1.
- HUBBARD, G., BACKETT-MILBURN, K. and KEMMER, D. (2001) 'Working with emotion: issues for the researcher in fieldwork and teamwork', *International journal of Social Research Methodology*, Vol 4, No. 4, pp. 119-137.
- JOHNSON, B (2003) 'The Drain-O of Higher Education: Casual Labor and University Teaching', in Johnson, B, Kavanagh, P and Mattson, K (eds) *Steal this University: the rise of the corporate university and an academic labor movement*, New York: Routledge.
- KLEINMAN, S AND COPP, M (1993) *Emotions and fieldwork*, Newbury Park, California: Sage.
- LLOYD, M. (2000) 'Analysis on the move: deconstructing troublesome health questions and troubling epidemiology', *Qualitative Health Research*, Vol. 10, No. 2, pp. 149-163.
- LOFLAND, J. and LOFLAND, L. (1995) *Analysing Social settings*, California: Wadsworth Publications
- MARGINSON, S (2000) 'Research as a managed economy: the costs', in Coady, *op cit*.
- MASSE, Raymond (2000) 'Qualitative and quantitative of psychological distress: methodological complementarity and ontological incommensurability', *Qualitative Health Research*, Vol 10, No 3, pp 411-423.
- MCCABE, D. (2000) 'The team dream: the meaning and experience of teamworking for employees in an automobile manufacturing company', in Proctor and Mueller *op cit*, pp. 203-221.
- MORGAN, D. (2007) 'Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods', *Journal of Mixed Methods Research*, Vol 1, No. 1, pp.48-76.
- MORLEY, L (2003) *Quality and Power in Higher Education*, Berkshire: SHRE.
- NHMRC (2006) <<http://www.health.gov.au/nhmrc/funding/hrp.htm>>
- ROTH, J. (1966) 'Hired Hand Research', *American Sociologist*, Vol. 1, pp. 190-196.
- SHACOCHIS, B. (2001) 'Writing for Revenge', in Waldman, M. R. (editor) *The Spirit of Writing: Classic and Contemporary Essays celebrating the writing life*, pp.14-16, New York: Penguin.
- SJOLUND, M. (1999) 'Strategic Management in Research Funding', in Henkel, M and Little, B (eds) *Changing Relationships between Higher Education and the State*, London: Jessica Kingsley.
- THOMAS, M., BLACKSMITH, J. and RENO, J. (2000) 'Utilizing insider-outsider research teams in qualitative research', *Qualitative Health Research*, Vol. 10 No. 6, pp. 819-828.
- TIGHT, M. (editor) (2000) *Academic Work and Life: What it is to be an academic and how this is changing*, Amsterdam: JAI Press.
- TURNER, S. (1998) 'Did Funding Matter to the Development of Research Methods in Sociology?', *Minerva* Vol. 36, pp. 69-79.
- TURNER, V. (1967) "Betwixt and Between: The Liminal Period in Rites de Passage", in *The Forest of Symbols*. Ithaca, NY: Cornell University Press.
- WALT, O., BRUGHA, R. and HAINES, A. (2002) 'Working with the private sector: the need for institutional guidelines', *British Medical Journal* Vol: 325. pp 432-435.
- WEST, M. (1994) *The Secrets of Successful Team Management*, London: D Baird.

WHITE, K. (2002) *An Introduction to the Sociology of Health and Illness*, London: Sage.