

Learning Communities

International Journal of
Learning in Social Contexts

Number 13
May 2013



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Publisher

www.cdu.edu.au/centres/spill/publications_ijlsc.html | The Northern Institute
Faculty of Law, Education, Business and Arts
CHARLES DARWIN UNIVERSITY
Darwin, Northern Territory 0909 AUSTRALIA
CRICOS Provider No. 00300K | RTO Provider No. 0373
ISSN 1329-1440

Typesetting and Layout

Merri Creek Productions

Artwork Credit

Artist: Marina Strocchi
Title: Mystery Train 2007
Etching (workshop proof edn 60)
24.5 x 20cm [image]
Collaborators: Leon Stainer & Dian Darmansjah
Printer: Dian Darmansjah
Gifted by the artist & Northern Editions, 2007
Charles Darwin University Art Collection
CDU 1585

Printing

UniPrint NT

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Charles Darwin University

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Editorial

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Welcome to the second number of *Learning Communities* for 2013.

This number following closely on the heels of April's Special Issue, *Ethnographic Disconcertments*, guest edited by Michael Christie and Helen Verran. While more varied in their range of subject matter, the articles in this issue are similarly grounded in theory as a means to better engage with and reveal the intricate give-and-take which occurs at what used to be called the 'contact zone' between cultures.

The issue opens with Michael Christie's reflections on a 'generative methodology for front line research,' in which he applies his deep understanding of Western academic and Aboriginal world views to consider the ways in which educationalists and policy researchers engage with Indigenous communities in northern Australia. Michael's concluding comment—'We are not general theorists, we are activists, and as such our work is useless if it does not address the public problems of people's life ways'—echoes through several of the following articles.

Susan Catapano and Candace Thompson present the results of a two-year action research project examining the impact of early field experiences on pre-service teachers placed in low-income schools and communities in the urban South of the United States. Drawing on the insights offered by their students as they reflect on their experiences, the authors mount a persuasive argument for, as they put it, 'linking social foundations courses to field experiences as a strategy for facilitating socio-cultural consciousness in early pre-service teachers.'

In *Doing Philosophy at the Boundaries*, Christian Clark asks 'What is the role of philosophy in researching epistemic boundaries and knowledge work in cross-cultural contexts?' His article provides both a fascinating account of work at the intersection of two apparently incommensurate cultural settings and of the way in which digital technologies and 'a logic of transdisciplinarity' might bridge the gap between Indigenous knowledge traditions and Western biomedical science.

Elaine Maypilama and Dany Adone provide a first account of Yolŋu Sign Language (YSL), a previously undocumented sign language of east Arnhem Land in the remote Northern Territory of Australia. In the process they provide important insights into the way in which YSL has evolved as a stand-alone language, independent of and yet integral to the linguistic milieu within which it evolved. Their work is an important step in the bolstering of YSL against the cultural changes wrought by the influence of Western modes of thought among Yolŋu, and Yolŋu youth in particular.

Anthea Nicholls' *Following Actors* draws on her engagement with Actor Network Theory (ANT) to scrutinize the mundane interactions and misunderstandings which occur around an Indigenous family's patient dealings with the complex necessities of internet banking in Ramingining, a community in north east Arnhem Land. In doing so, ANT is enlarged to include socio-technical objects it has never previously encountered and made to demonstrate its capacity to preserve rather than elide complexity.

In *Regulating Responsibilities* Stef Puszka, John Grotorex and Greg Williams tease out the impact of the imposition of income management under the Northern Territory Emergency Response on the community of Mäpuru, a homeland centre in north east Arnhem Land. In describing the failure of this top-down attempt to regulate responsibilities through policy in the absence of consultation, they argue that change can only come about through engaging local governance structures and consulting widely with local peoples and organisations.

I must conclude by taking the opportunity to sincerely thank those who have assisted in the production of this issue: the anonymous peer reviewers for their invaluable contribution to the long process of vetting and preparing of the articles for publication; Ruth Wallace and staff of the Northern Institute for their support; Juli Cathcart and Trevor van Weeren of Merri Creek Productions for their input into the design and typesetting of the issue; and, finally, to the contributors themselves for their patience and forbearance as we brought the issue to press. Good things do take time.

Generative and 'Ground-Up' Research in Aboriginal Australia

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Abstract

How might we go about collaborative research that doesn't simply come up with a report or a published paper, but results in changed practices in the areas of our concern? How do we envision and implement a generative methodology in front line research? Working with theory from the academic and Aboriginal worlds, I present examples of research with people working at the front line in various contexts, and reflect upon the role of the researcher in these areas of engagement.

Introduction

Some years ago I was involved in a research project we called *Making Collective Memory with Computers*. Our aim was to investigate and configure digital technologies to support the intergenerational transmission of endangered Indigenous knowledge in the far north of Australia where I have been working for many years, mostly as a linguist. I worked in a team with academics, designers, and traditional land and knowledge owners in various places across northern Australia. One woman we worked with was in her thirties, with a generation above and a generation below her. She had a large collection of old photographs of her extended family in various settings on her ancestral land. They were highly significant photos, some had been used in a Native Title land claim, and she wanted to keep them safe and accessible. Using a zoomable satellite image map of the area we were able to place digital version of her photos in situ. People telling stories of the land and their history could pull up these pictures of the various significant places, while moving around the satellite image.

We in effect had developed a digital resource that avoided the logic of the archive (no alphabetical list of place names) and used instead the logic of the land itself to organise its resources. Working thus 'from the bottom up' allowed us to identify and address significant problems which were invisible to (or ignored by) people developing top-down solutions, like the large centralized databases in Knowledge Centres in Aboriginal communities (see for example Christie, 2005, 2008). Working on the ground in a participatory design raised the tricky question of who has the authority to decide which photos should be uploaded to such a repository, and who can access the photos, and under what conditions? The crucial, very local Aboriginal politics of sharing and concealment, ownership and boundary-making emerged, were identified, performed, addressed and encoded all at the same time. In more recent years, I have come to think about this and many other such examples as a new approach to qualitative research with Australian Aboriginal knowledge authorities: one that, following their lead, refuses the role of judging observer, and uses collaborative knowledge

work to generate new methods, new objects, new practices and new worlds.

As we work, we reflect together upon the complex task of taking seriously Yolŋu (north east Arnhem Land Australian Aboriginal) and western academic knowledge practices through ‘transdisciplinary research’ (Christie, 2006, p. 80). Having been most interested in the Yolŋu side of this relationship (see for example Christie 1994, 2007), I wish here mostly to address work in the western academic tradition which can be understood as ‘bottom up’ rather than ‘top-down’, or which could be called ‘pragmatic’ or ‘generative’. Top-down work can be understood to parallel the work of hierarchical structures of government where policy and practice is seen as controlled, directed and instituted from the top level. Top-down research seeks for a general overarching theory. *Ground-up* research develops and deploys theory in the service of action on local problems. The researcher is an engaged observer, and works to generate change practices through the research position (Addelson, 2002).

Yolŋu Knowledge Practice

Working as a teacher-linguist in bilingual schools in Arnhem Land, I was fortunate to find myself in the mid-1980s observing, supporting and participating in radical changes to school curriculum, radical in that they seriously engaged with challenges presented to formal schooling by Yolŋu metaphysics and epistemology (Christie, 2000). The curriculum instituted by Yolŋu community elders at the Yirrkala Community School was given the name of *garma*. In Yolŋu languages, *garma* refers to an open public ceremonial space where people from different ancestral and totemic lineages work together to produce a collaborative performance and celebration of history and ways forward, here and now. It also, in the words of an elder, ‘describes the format where a Yolŋu learning environment begins’ (Marika-Mununggiritj, 1990, p. 43). The *garma* (like Aboriginal education and transdisciplinary research) actually depends on identifying, respecting and maintaining differences,

working collaboratively, coming to agreement, and building agreed ways of knowing and going ahead together (Ngurruwutthun, 1991). Years later, when we came to develop a tertiary academic program for teaching Yolŋu languages and culture, we were able to implement a rigorous and viable pedagogy accountable to the standards and practices of both academic and Yolŋu knowledge traditions (Christie, 2009), and which eventually led us to articulate transdisciplinary research practices.

In following this pathway towards a generative research methodology, I trace some formative moments. Early on in my academic career, a colleague John Greatorex and I (both fluent in Yolŋu languages) were called in by a medical research organization to help two Yolŋu elders who had been given research funding to address what they saw as some key problems experienced by their ‘long-grasser’ relatives sleeping under the stars on the beaches and in the parks of Darwin. ‘Long-grassers’ are perceived as a problem by many of Darwin’s residents, but from the Yolŋu point of view the problems are of course quite different. Maypilama and Garŋgulkpuy, the Yolŋu researchers, had done the research work in the long grass of Darwin, but were required to write a report to acquit their funding. John and I were there to help pull together a report: to talk through what had happened in such a way that we could get it written up in English with some sort of structure.

An interesting problem arose when we got to the ‘findings’ section of the report. The Yolŋu knowledge authorities were puzzled. There were no findings. Quite a few changes had been made, everyone had a better sense of what was going on on the ground, government bureaucrats and health researchers had been brought together with the Larrakia Nation (the traditional owners of Darwin) in addressing some of the issues which had been raised. ‘But what do you mean by ‘findings’? We didn’t *find* anything, we knew what was there. We used the research money to make something happen.’ The Yolŋu research practice was already generative, resisting outcomes

that were mere representations of a world out there of the experience of others. We had to struggle to formulate 'findings' retrospectively from the changes which had been generated (see Maypilama, Garrngulkpuy, Christie, & Grace, 2004). And we were forced to rethink ourselves as researchers after the 'judging observer' model (Addelson, 1994, p. xi).

Our second opportunity to engage Yolŋu knowledge practices in our research came with a project addressing communication breakdown between medical professionals and Yolŋu clients in the context of a renal dialysis unit (Cass, Lowell, Christie, Snelling, Flack, Marrnganyin, & Brown, 2002). From the beginning of the project, a Yolŋu renal patient who was also a chief investigator in the research quietly insisted, over some time and with considerable patience, on a *garma* style definition of communication (although she did not use that term). Her definition of communication (which became the name of the research program itself) was 'sharing the true stories'. Communication cannot possibly be simply passing messages from one person's head to another's about an independent and pre-constituted world out there (a strangely magical and inadequate notion). We must do better than passing messages if we are to achieve informed consent in the highly technologized practices of renal medicine. Communication in the Yolŋu context amounts to finding opportunities and spaces to bring together new and old concepts and meanings, working creatively in the tensions between them, joining up various roles and strategies, and doing the hard work of building agreed meanings and ways forward. In collaboration with Yolŋu renal patients and a range of health professionals at the renal unit, using our working definition of communication as 'building shared understandings', we began to do the work of developing policy and gathering evidence at one and the same time, working on how things could be done better, and changing practices from the bottom up. Through the guidance of Yolŋu co-researchers we began to embark upon what later we would come to see as generative research work,

as well as an understanding of what we came to call 'systemic health literacy'. More on this shortly.

Ground-Up Research into Housing

How do we understand the ways people (and things) work in these settings? I use the example of a project aimed at enhancing the difficult relationships between government and Aboriginal people in the provision of much needed housing in remote communities. Our small part within a much larger government funded project was to do with *Consultation for Better Housing*. In Stage 1, we had heard stories from Yolŋu co-researchers on the history of Yolŋu shelters and housing from ancestral through mission to contemporary times. Shelter and different styles of architecture were always important to Yolŋu and they still refer to their homes using their clan affiliated ancestral names for totemic resting places (Christie, Dhamarrandji, Gapany, Gaykamaŋu, Gurruwiwi, Guyula, Binalany, Guthadjaka, Pascoe & Greatorex, 2011, p. 3). The centralization of Yolŋu on missions in the mid-20th century caused problems which were usually sorted out collaboratively through ongoing negotiations between the various intermarrying clan groups and the mission authorities. Under the government policy of self-determination, over 60 Aboriginal housing associations were set up in the Northern Territory (NT), and local Aboriginal people were engaged in building, carpentry, plumbing and electrical work to provide and maintain housing. Local community councils decided the placement, allocation and maintenance of Aboriginal housing infrastructure.

More recently, the whole of local government in the Northern Territory was reorganized into local shires. Over seventy Aboriginal community councils were collapsed into eleven 'super shires'. At the same time came the 'Northern Territory Emergency Response' which among other changes to the law, compulsorily acquired Aboriginal land for community housing and transferred all Aboriginal housing to 'public housing'. As part of what could be described as a policy of

Aboriginal ‘normalization’ (Sullivan, 2011), local community housing associations were disbanded, and Aboriginal tenants placed under the same regimes as non-Indigenous public housing tenants in urban centres. The role of land owners and elders in decision making about housing virtually disappeared. In the face of all this, the NT government set up Housing Reference Groups (HRGs) in 74 remote communities to advise upon but not to decide housing allocations and maintenance priorities. For our ‘Consultation for Better Housing’ project, we conducted semi-structured interviews with HRG members, with Aboriginal community housing officers, with government workers whose role is to organise these housing reference groups, and with their ‘team leaders’ and supervisors, and with people who lived in this new public housing.

We began by focusing on the experience of people at both sides of the interface between government and residents using Michael Lipsky’s (1980) notion of the *Street Level Bureaucrat*. Lipsky argues that the cumulative effect of the many moment by moment individual decisions made by front line bureaucrats is actually how policy plays out in the world of the citizen. Policy is not something that starts at the top and trickles down; it is more correctly the actual experience of common people when they’re dealing with a bureaucrat. But we also talked to people further up in the management hierarchy. We were interested in the conventional notion of ‘policy’—and the ways in which the documents, structures, and practices ‘at the top’ of a bureaucracy (the *Housing Reference Group Operational Guidelines*, for example) actually do (and don’t) influence this front line work.

Unsurprisingly, the street level work of the housing bureaucrats in complex intercultural contexts in the islands of the north and the deserts of the south were immensely complex, and largely invisible from above. They were all very happy to share their work experiences, covering thousands of kilometres, trying (and often failing) to bring a quorum together to hold a reference

group meeting, finding spaces, preparing snacks and agendas, listening to concerns from the community members, negotiating with the local health clinics about housing for people with special needs, negotiating evictions, balancing the rights of traditional land owners with the needs of overcrowded families. But how to make sense of these stories and work with them in such a way that changes can be generated from the bottom up, and recognized from the top-down?

Following the work of Maynard-Moody and Musheno (2003) we paid attention to the workaday stories people told to look at the role of discretion in their work. We found both the government bureaucrats and the Aboriginal HRG members to be constantly tossing up between their sense of themselves as an agent of the state or at least as helping the Housing Department in their (unpaid) membership of the reference groups, and their sense of themselves as a concerned citizen or community member, everyone making difficult decisions on the go. The ongoing rhythm of decision making—and therefore the work of government—can’t always be understood in terms of top-down policies. Through the stories of front line work, we see both how policies can never be 100 per cent effective in creating good practice on the ground, and how different aspects of organizational culture support or inhibit the effectiveness of government.

Maynard-Moody and Musheno (2003) used a narrative technique, asking police, teachers and counsellors to prepare stories of their discretionary work on the job. The stories were to have a beginning, a middle, and an end—and to be about some interesting or difficult decision they have had to make. Not only were they able to understand how people were using discretion in everyday work, but also how narratives themselves take a place in sustaining and invigorating the organizational cultures where people are working. The professionals used the stories first to establish the citizen-clients’ identities, and then to justify their own professional identities and practices in

terms of the former. They revealed how front line workers were making complex moral decisions, how their decisions were contingent on where they were and what they were doing, how they weren't as rule bound as they may have seemed from above, and how the barriers between the hierarchy and the front line people were not so much to do with rules (top-down policy implementation), but more to do with the ways in which social norms and culture were embedded, developed, and reinforced through the everyday front line work that these people were doing.

The Maynard-Moody and Musheno research uncovered how government policies, procedures, protocols and rules get taken up by these individual bureaucrats in different ways. In some instances, they bend or ignore the rules to make things easier for people they know, or trust, or feel for. Sometimes they enforce the rules hyper-rigorously in order to get their work done, when there is too much on, or where they have a client they don't like, or don't trust, or whom they feel is undeserving or too demanding. As with the 'cops, teachers and counselors', we found with the front line workers in Aboriginal housing that the fundamental aims of policy initiatives ('healthy sustainable housing for remote Aboriginal populations') was being achieved to a large extent through the ability of people of good will to work flexibly and sympathetically outside the rules and regulations and in ways which were unacknowledged, and in fact often invisible from above.

This opens an important question about generative policy research. How do we find ways to encourage commitment to best practice and to policy initiatives like *Constant Quality Improvement* and still promote the healthy organizational culture which allows policy initiatives to be tweaked and reshaped from the bottom up? And how do we do that without burdening or expanding complex hierarchies of supervision, and regimes of accountability? We naturally found quite different contexts of organizational culture with the NT housing officers as compared with the people

Maynard-Moody and Musheno worked with. The American police were driving around in cop cars two at a time, talking to each other about the world out there to be policed. The teachers however were most of the time alone in the classroom jungle full of students, and with not a lot of time to talk to each other. The counsellors were actually interacting much more as a group in the organizational culture which supported them. They had different sorts of opportunity to use narratives about themselves and their clients to reflect upon normative judgments they were making. The ways in which story telling could be made visible and supported in the work place was one of the keys to improving the effectiveness of the street level bureaucrats. The NT housing officers worked in two very different worlds—the air-conditioned offices in the major centres where they planned their HRG meetings, worked the phones trying to coordinate the meetings, met with their teams and line managers, and wrote reports to be uploaded to the databases—and the very remote hot dusty communities in the desert, or the steamy coasts of the Top End.

Maynard-Moody and Musheno found in stories of the mundane, everyday, and often difficult and thankless work of front line workers, a significant factor of discretion in which they move between understanding themselves as agents of the government, and understanding themselves as citizens (or community members). When we listen to the people involved at the front line of Aboriginal housing in the remote Northern Territory, we need to add a further professed accountability. Besides their commitment to the government they serve, and their commitment to the overall good of the remote Aboriginal population of the NT who have, since colonization, been poorly served with housing which can sustain their contemporary Aboriginal culture, they also spoke of the individual people they have come to know (often through previous engagements, personally or professionally) and whom they care about individually as friends, co-workers from the past, and often even as adopted family. We see signs of

these commitments slowly changing the policies and practices of government from the bottom up. For example, several of the interviewees told us rather proudly of the recent changes to the way in which remote desert communities were grouped for the attention of particular housing officers—a regrouping which responded to newly emerging cultural characteristics of the communities now linked together and the history of relationship of particular workers with those communities. This ground-up revision took place under the radar of senior management until it was eventually noted and approved. While the personal relationships which had been built up over years of working together were seen as highly productive by the Housing Support Officers (most of whom had worked for a long time in the same region, often with other government departments), people further up the hierarchy commented that it was important for them to avoid developing personal relationships so they could act professionally in their work as representatives of Territory Housing.

Building Shared Understandings

I want to turn now to more philosophical (rather than sociological) ways of conceptualizing such complex, difficult and fraught public questions as remote Aboriginal housing. In this example, I return to the public problem of Aboriginal health in remote communities, and the work of John Dewey the American pragmatist philosopher, author of *The Public and Its Problems* (1927/1991).

In 2010 we were invited by the Australian Government Office of Aboriginal and Torres Strait Islander Health (OATSIH) to provide a scoping study in remote Yolŋu communities to do with ‘improving health education and health interpreting for Aboriginal clients so that they can better understand doctors and other health workers and make informed decisions about treatments’. There are of course many ways in which those rather general aims could be addressed, and we were keen to collaborate with people we knew and whose ideas we respected, who were already working

successfully on the ground in health contexts in remote Arnhem Land communities. We spent some time talking first of all to people with whom we had already worked, and they referred us to others until we interviewed over 100 people, all of them in their own languages, from highly trained but often inexperienced ‘fly in’ medical specialists, to highly experienced but often not highly trained Aboriginal health workers on the ground. We found a dizzying array of job descriptions (clinic health workers, mental health workers, aged care workers, chronic disease workers, infant health, ear health, mental health. . .) in a health service that was becoming increasingly medicalized so that the Aboriginal health workers and their traditional roles seemed to be increasingly marginalized.

But at the same time we were listening to people who saw what they were doing in their own areas as actually already effective through their everyday tactics, working together interculturally and developing new and at times unusual collaborative practices that are often invisible from the top. They were suspicious of what they saw as yet another top-down OATSIH initiative for improving remote Aboriginal health, while it was their (unacknowledged, bureaucratically invisible) ongoing creative collaborative work which needed to be supported. People were very aware that the problem was not a structural problem, so we shouldn’t be looking for structural solutions. The last thing they wanted was more structures, more processes, more roles, more training initiatives, or (in the words of one interviewee) ‘another you-beaut flip-chart’.

Dewey wrote *The Public and its Problems* in 1927 when the emergence of totalitarian approaches to government was giving philosophers cause to think carefully about the nature of the state, governance and democracy. Dewey argued that the public in a sense only comes into existence by virtue of its problems which need to be addressed pragmatically. All rationalist approaches to government (whether they be from the left or the right) and the ‘straight-line’ instrumentalism which characterizes them are

fundamentally undemocratic, potentially coercive, and should be avoided. In health services, we should not hope for a coherent thoroughgoing plan that can be designed from the top by government and delivered to everybody. Not only is it undemocratic, but it's not going to work effectively. What we need is to find ways of understanding and supporting the work of people on the ground who are engaged in addressing the complex ongoing problems of everyday work. Understanding these problems as emergent helps us to see that there are more than human participants in the action. We find objects and discourses, spaces and systems, and an ongoing battle about whose definition of the problem can we accept, and who gets to define the solutions.

Thinking carefully about these complexities, we found ourselves resisting the conventional understandings of the current notion of 'health literacy' as being 'an individual's ability to read, understand and use healthcare information to make decisions and follow instructions'. Such a definition seems to lead towards blaming the client for irresponsible life choices and ways, and the front line workers for poor delivery.

Re-thinking the public problem of health literacy in terms of participants in collective action (Addelson, 2002, p. 119), effective health literacy is largely to do with effective communication (using the Yolŋu 'building shared understandings' model of communication), taking into account the demands of health service delivery and the vicissitudes of everyday life in a remote Aboriginal community. It is not so much what the individual client understands, but more the working together of the people and resources which generate shared understandings, agreement and consent around the problem of the moment. It involves honest respectful discussion across the divide between providers and consumers.

We also found that focusing on the generative work already happening on the ground allowed us to avoid the almost psychotic thinking necessitated by the constant, confusing and politically charged

changes in remote Aboriginal health policy as seen from the top. The inexorable move from a complex delivery model including a range of medical services, to a single regionalized Aboriginal community controlled health service is the same in nature as the policy upheavals which have left Aboriginal decision making around housing in disarray. With the change in focus from primary health care to public health, with the complex movements towards regionalization of the delivery of health services and Aboriginal controlled health services, and the movement away from a focus on infectious and acute disease to prevention and management (particularly of chronic disease), we have another hugely complex problem. Yet to some extent all these changes can also be seen as the government implicitly endorsing a more democratic, ground-up or anti-rationalistic approaches to health services delivery, and indeed we see the fact that we are called in by OATSIH (and indeed by Territory Housing) as collaborative consultants rather than (medical) anthropologists, as a sign of the government looking for a more collaborative ground-up evidence-based solution to the public problem of remote Aboriginal health.

Finally we could see the most effective work being done across boundaries—between English and Yolŋu languages for example, or between the Yolŋu and the biomedical model of the body, or the medicalized renal patient and her land and kin—where the connections are provisional, contingent and the result of significant work. In a previous research project working with Yolŋu interpreters assessing and evaluating health promotion multimedia, we noted that resources that contain health messages seldom stimulate conversations which promote new productive collaborations across the boundaries between health professionals, service users and their families (Christie, 2010, p. 40).

Digital embodiments of the top-down disciplinary approach tend to entrench definitions, roles and attitudes rather than modify them. We have proposed an additional, radically different resource, a user-friendly touch-pad animation of a human

body which has no message, no sequence. It is manipulable, zoom-able, transparent, detailed in particular areas (heart, lungs, kidneys, liver, pancreas, ears), yet de-emphasizes biomedical assumptions: not telling you how to behave, but crying out for a conversation—in any language. It doesn't have a voice. It doesn't have a sequence—no beginning, no end—you just work with it. It takes its place as a participant in collective action, in which people work together to build shared understandings and agreed ways forward (van Weeren, Cathcart, Verran, Christie, Guyala & Greator, 2011, p. 4). Real change comes when categories are unsettled, where we have conversations which allow us all to rethink our assumptions and our possibilities. Not only about Yolŋu bodies and Yolŋu health, but about who does what, who decides what, whose role it is to do what, and how do we work together, who's making the decision about this (is it the patient or is it their family or the medical professional), and are we sure we understand each other and agree?

We search for ways of working together that unsettle some of the existing assumptions and dualisms. No new structures, just joining up things that are there, and working in the spaces between them. The digital resource would need to be developed slowly and collaboratively through many conversations on the ground, to help us understand where the sticking points are, and what sort of visual representations and animations may help to generate productive conversations. The 'touch-pad body' would allow for the top-down and the bottom up practices to work together in new ways. It would allow for a both-ways renegotiation of the categories through which health professionals and their clients work together. Knowledge work around the digital device would necessarily examine, unsettle, and interrupt received notions of health, disease and treatment on both sides of the health delivery practice, and point to new ways of producing pragmatic policy. It would also address, from the ground-up, the increasing marginalization of the Aboriginal Health Workers as the whole public problem of chronic disease

comes to life, as health professionals and ill people and their families are actually working together and interacting together socially, materially and discursively. In all this piecemeal work, we promote new consistencies in the ways in which service users and providers approach their work. These new consistencies slowly work their ways upwards towards changed policy.

Isabelle Stengers (2002) talks about the hopefulness of this sort of scientific work in her philosophy of science. We tend to think of scientists as working with certainties—particular categories and accepted practices. But the real work, the best work that they do as scientists, is actually the work in the interstices between these 'facts', which is the imaginative, creative, exciting work of producing new possibilities. How do we work together in such a way that all those complex tensions between the assumptions that we're working with are actually given a chance to be played out properly and carefully, and visibly and accountably examined, and new practices, understandings, and categories allowed to emerge in ways which reverberate into changed understandings and practices further afield?

How would such a project play out methodologically? At the outset, ethnographically as participant observers, working in situations where Aboriginal clients, probably chronic disease sufferers and their families, and health professionals, whether they be doctors or nurses or Aboriginal health workers, are working together in day to day health service delivery and consumption, developing the touch pad device iteratively, building shared understandings around particular cases, rather than a general theory of what's going on. We focus upon people thinking about their own situations and what they're doing, and the decisions that they're making, the choices they can see. We would be interested in how the ambiguity of the situation may help everyone to rethink or renew some of the categories that they're working on. Resisting moving too quickly towards a more general interpretation which may reflect a more

top-down approach, but actually working carefully with what we've got to do right here and now, without unthinkingly reproducing some of those received understandings of the splits between the doctor and the patient, or between the Aboriginal and the bio-medical body.

Conclusion

This work would begin in a range of different contexts, workers with different roles, people with different ailments. And then, as researchers, looking carefully through the lens of 'systemic' health literacy, identifying and theorizing the productive practices and relationships which are persistent or emerging, and presenting those findings at various meetings at all levels where people make decisions about ongoing deployment of resources or practices, or maybe the next step in the regionalisation process, or setting up a remote interpreting service. In other words, supporting the development of a good system that will work for the health workers and the Aboriginal patients and that doesn't actually create more structure but improves organizational culture: non-structural solutions for non-structural problems.

What, finally, is the particular role of the researcher and their theory in all this? Kathryn Pyne Addelson, in her work on the history of the battle over women's fertility in the US, makes the point that working away from the development of general theory is an important strategy for the activist researchers (Addelson, 2002, p. 136). Theory in work like ours is very important, but only as another participant in collective action. As academic researchers we exercise a particular cognitive authority which we must use strategically in the deployment of bits and pieces of theory in the work of generating change. We are doing this research from a starting point which says that Aboriginal people in remote communities are most often not respectfully engaged in negotiations over government services and our work as academic researchers can help to change that. We are not general theorists, we are activists, and as such our work is useless if it does

not address the public problems of people's life ways. The work of gathering an evidence base is work which should not be understood as separate from the work of changing policy from the bottom up. That is why we continue our search for generative research methodologies.

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Teachers Begin Developing Socio-Cultural Awareness in Early Field Experiences

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Abstract

The research presented in this paper is a two-year, action research project examining the impact of early field experiences on teachers placed in low-income, urban schools and communities. The undergraduate pre-service students were concurrently enrolled in social foundations of education and educational psychology courses. Qualitative data including reflection journals and a range of class work chronicles teacher's thoughts, feelings, and actions as they struggled to tutor or complete projects with diverse elementary school children. The researchers found that faculty-facilitated early field experiences combined with social foundations course content helped early teachers in developing a 'teacher persona' and gaining a more critical understanding of the impact of culture and diversity on teaching and learning early in their education program.

Introduction

As accountability measures link teacher performance to student outcomes, teacher preparation programs find themselves struggling to include all the courses and content necessary to help new teachers develop socio-cultural awareness to work effectively with diverse students. There never seems to be enough time to cover content and provide teachers sufficient real-world applications in the field. An increasingly narrowed emphasis in teacher education on common core standards, accountability, and fiscal expediency is problematic for the eclectic and interdisciplinary field of social foundations, which has resulted in what Butin (2005) argues is its uncomfortable and unfruitful 'positioning between the professional standards movement and the conservative "market-driven" paradigm' (p. xv). Adding to

the challenge is the current focus in PreK-12 on reading and mathematics and the demand to increase content courses in these areas, which can result in the reduction of time spent in courses designed to enhance socio-cultural awareness of pre-service teachers. With all the focus on content and teacher professionalization, what role do social foundations of education courses play in the preparation of new teachers?

As educators whose backgrounds and research interests focus on teacher preparation for diverse populations, including awareness of the historical and contemporary issues that have shaped educational equity and access, we are concerned about the displacement of social foundations courses in teacher education program. Many times these are the only courses in the teacher education program that focus on the link between

the academic course content and the socio-cultural realities of schools and communities. What role can social foundation courses play in preparing teachers for culturally diverse learners?

A review of current literature suggests that schools of education across the U.S. are witnessing the marginalization of social foundations courses in teacher education programs to the point at which some are disappearing completely (Butin, 2007; Carter, 2008; Hess, Rotherham, & Walsh, 2004; Morrison, 2007; Sirotnik, 1990). Carter (2008) argues that many pre-service and new teachers 'relegate social foundations concepts to the heap of learning considered not directly applicable to the classroom' and 'see their coursework as only marginally important to the work of teaching' (p. 223-224). Social foundation courses, and particularly those courses examining the history and sociology of education, are critical in preparing culturally competent teachers (Ryan, 2006); however, when they are disconnected from classrooms they are seen as a hurdle to scale before the 'real' teacher preparation courses begin.

Most of the students in this study had experience working with children—primarily as camp counselors, childcare provider, or tutors—prior to entering the teacher education program. Recounting these experiences, study participants frequently expressed an uncritical love for children upon whose lives they believed they might foster a love of learning. Grounded in these largely positive prior experiences, facilitated by supportive adults, participants' experiences of teaching revolved around children whom they categorized as an enthusiastic and receptive audience for learning. When we asked participants to then compose a photostory of why they wanted to teach and what they believed about teaching, they invariably created moving portraits of themselves playing with mostly white, middle class children, or classrooms depicting attentive students gazing lovingly up at a happy, young, and white, teacher in a colorful, resource-rich space. Images of mission trips and forays as camp counselors were celebratory and

ahistorical, and were often accompanied with a voice-over that described the terrible conditions in which 'poor children lived' and how 'they just wanted to learn.' No messy behavioral or cultural issues disturbed these celebratory images of teachers and teaching, or at least none that could not be overcome with fun and love. This is where our work began.

In an effort to deepen students' socio-cultural awareness and situate their learning within a more critical framework, we developed a concurrent course section of introduction to social foundations and educational psychology that included a 10-hour faculty-supervised field experience hosted at a low-performing, urban elementary school. The courses were organized around a critical multicultural education conceptual framework (CME), which operates as both a pedagogical philosophy and an operational tactic for affirming diversity and engaging pre-service teachers in the analysis and critique of individual and systemic power and privilege and its impact on teachers, students, schools, and society (Nieto & Bode, 2012). A key part of this project was the intentional placement of beginning education students—the majority of whom were White, middle class women—in a school setting that was different from their own in terms of race, class and cultural context. We believed that by decentering pre-service teachers' personal, largely monocultural experiences of school early in their education program, we might interrupt stereotypic views of certain racial, ethnic and socioeconomic groups and trouble our students' notions of schools as equitable and undisturbed spaces of harmony (Ladson-Billings, 2001; Mason, 1999; Villegas & Lucas, 2002). Pre-service placements in culturally diverse schools and classrooms is supported in research by Mason (1999) who found that combining the theory and practice of a multicultural education in the university classroom with an urban field experience is crucial in making the information and its implications for teaching and learning more relevant and meaningful.

The primary purpose for this two-pronged approach was to investigate the impact on our early pre-service teachers' understanding of learning development, diversity (specifically race, class and language), and systemic factors affecting educational equity. We were especially interested in how students developed a bridging dialogue with foundations content to inform their understanding of the ways learning, sociocultural diversity and (in)equity intersected and shaped their engagement with and planning for the K-5 students with whom they worked.

We operated on the premise that a foundation of critical multicultural content in combination with early experiences in an historically underserved school could serve as the bridge connecting pre-service teachers' university classroom readings, questions, and conversations to their experiences in schools, thereby allowing them to negotiate the practical implications of what are too often theoretical conversations. Although early field experiences are not a new concept in teacher education, they are neither widely practiced nor substantively supported by our institution, and field experiences of any kind are rarely supervised on-site, by faculty who also teach the content.

Our inquiry focused on the questions: *What is the impact of faculty-supervised field-experiences in two introductory teacher education courses on pre-service teachers' development of a teacher persona, and on attitudes toward students from various racial, socioeconomic, and linguistic backgrounds? What instructional practices meaningfully and effectively connected social foundations content to field experiences?*

This article highlights a portion of a two-year research study examining the effects of early field experiences in low-performing schools serving predominantly poor students of color on pre-service teachers' development of a culturally responsive disposition and practice. We draw from data collected in the larger study to examine how early field experiences, linked

to introductory foundations course content, can open authentic spaces for pre-service teachers to 'gain a sense of critical awareness about issues of inequity' (Castro, 2010, p. 207) and begin the process of developing effective strategies and ways of knowing to shape a critically reflective and culturally informed practice.

Field Experiences in Teacher Education

Teacher education operates within a larger educational ecology of significant resource and achievement gaps among diverse PreK-12 student groups (Wiseman, 2012). Amidst ongoing debates about the relevance and effectiveness of colleges of education, the demand for talented teachers and sophisticated teacher education for diverse classrooms is a pressing concern. This demand is echoed by Gay's (1997) contention that 'climate, philosophy, pedagogy, and ethos (underlying value assumptions) of teacher education programs must be revised to reflect the cultures, histories, and heritages of the many ethnic, racial, and social groups' (p. 159). Early field experiences are an essential part in this process and continue to be an important part of teacher preparation programs (Darling-Hammond & Cobb, 1996). How they are structured, who supervises them, and where they are held determines the value of the experience for pre-service teachers (McIntyre, Byrd, & Foxx, 1996). Knowles & Cole, as cited in Maxie (2001), note that development of teaching skills through field experiences is complex and the focus should be on the process of teacher development through reflection and dialogue. This is underscored by Freire's emphasis on critical consciousness that grows through dialogue grounded in experience (1973, 2000). Field experiences early in the teacher preparation program are especially valuable when intertwined throughout the program, not just as a culminating experience (Darling-Hammond, Hammerness, Rust, & Shulman, 2005). Knowles and Cole found that such experiences were layered, revisited, and recalled as teachers progressed through their program. The opportunity to practice teaching within a teaching setting helped emerging

teachers develop experiences they would draw upon when they received a classroom of their own.

Hickcox (2002) identified field experiences, a form of active learning, as the most optimal way for pre-service teachers to apply concepts learned in a traditional instructor-centered classroom. Applying new concepts in field sites allowed pre-service teachers to move the learning from passive to active or learner-centered and then develop a broader and more in-depth understanding of the knowledge or skill. It is also important to include field experiences that are well planned and timed in the course, so the value of the experience was maximized (Kozar & Marcketti, 2008). In one example of a teacher preparation program with early field experiences, a California-based program included intensive field experiences early in the undergraduate program (Maxie, 2001). Activities used in the early field experiences included specific questions for pre-service teacher reflection that connected the concepts learned in the university course to the application of activities within a K-12 classroom. Although the results of this course-based action research indicated that pre-service teachers in the earliest classes are self-concerned rather than learner-concerned, they did make connections between concepts covered in the foundation classes to what they applied in the field experiences (Maxie, 2001). Field experiences connected to a critical multicultural framework are particularly important. Research suggests that exposure to the critical multicultural framework of a social foundations course, can result in teachers (pre- and in-service) being less likely to embrace culturally deficit views (Irvine, 2003).

Early field experiences may also have relevance for addressing the issue of teacher retention. A 2005 report from the *Alliance for Excellent Education* (cited in Butin, 2005) attributed teacher attrition in part to the overall lack of preparation of new teachers to deal with classroom dilemmas, administrative duties, and challenging work environments with diverse learners. We argue that linking introductory social foundation course

content to field experiences not only fosters the construction of reflective practice, but facilitates early pre-service teachers' ability to bridge the gap between classroom content and real-world teaching applications and experiences (Goodman, 1985; Tabachnick & Zeichner, 1984; Zeichner & Liston, 1987).

The Study

The research presented here draws extensively from narratives from pre-service teacher's weekly reflection journals and results from an exit survey where pre-service teachers made links between field experiences and coursework. The items selected from the pre-service teacher's work chronicle their thoughts and feelings as they struggled to tutor or complete projects with young children.

Context

The study took place at a college of education in a highly selective, predominately white (85%) and affluent, mid-sized public university, located in the Southeastern United States. The surrounding city is largely segregated by class and race, and is a stark contrast to the university campus. High concentrations of poor and mostly African American families reside in less desirable sections of the city, and are served by struggling neighborhood schools. As is reflective of the teaching profession overall, the education students in this study were predominantly white (98%), middle income, and female (90%). In contrast, the children in the study were 98% racial and/or ethnic minorities (80% African American and 15% Hispanic) with 98-100% receiving free or reduced lunch. Study participants were selected from the larger, two-year study pool of education students enrolled in blocked sections of Teachers, School, and Society and Psychological Foundations of Education¹ during fall 2009/2010

¹ As of fall 2010, the two courses were blocked and the same students were enrolled in both sections. There were different students each semester. During 2009-2010, the students were different between courses and across semesters.

and spring 2010/2011. All students participated in supervised field experiences in low performing schools serving predominately low income and African American students.

Data analyzed in this article are drawn from fall 2010 (n=24 students) and spring 2011 (n=12 students). Participants were enrolled in the two blocked courses and the same students were enrolled in both sections during their respective semesters². By fall 2010, we had fully developed a blended approach for delivering the two social foundations courses by aligning course objectives and content across the courses with field experiences, covering the same thematic information within the context of working in schools with children using dialogic, reflective, and practice/action elements of a critical multicultural education framework.

Each week, pre-service teachers spent 2-1/2 hours working in small groups with K-5 students at a diverse, low-performing school, then participated in a debrief and reflection session with course faculty for the final 45-minutes. Students in the fall were required to complete a 12-hour field experience, and students in the spring semester completed a 10-hour field experience³ of tutoring children struggling with reading and math skills. The remaining weeks of the semester took place at the university where students continued to reflect on their experiences and develop connections to issues and topics covered in the blended courses through dialogue, personal narratives, and research of local schools and communities.

Data Collection

Data collected included weekly reflection journals (these included student reflections on their participation in a poverty simulation), and an

end of semester survey. Because we functioned as both course instructors and participant-observers, we also used the extensive field notes from observing and working with our pre-service teachers and from debrief sessions. We saw our role as cultural translators (Gay, 2010) and advocates as we interrupted and informed deficit talk and attitudes, provided guidance and support to pre-service teachers struggling to manage small group dynamics, and modeled effective communication and developmentally appropriate interactions and instruction with and for our university students. Pre-service teachers' reflective journals chronicled their experiences with the children they were tutoring and provided a space for students to interact with course content (i.e., readings, videos, simulations, assignments). Reflective dialogue in class and in the schools also challenged students to examine the relationships between their work with children, the school, and the communities it served.

Data Analysis

We used students' weekly online reflective journals, post-survey of field experience, debriefing notes, and research field notes for inductive coding. Themes emerged from a review of the four data sources. Using both an educational psychology and a critical multicultural lens, we looked for patterns of awareness of learning development, and critical consciousness and attitudes about students from diverse backgrounds in the pre-service teacher's writing, discussions, and our observations. Two major themes emerged: (1) development of a teacher persona; and (2) the impact of culture and diversity on teaching and learning, as well as several sub-themes.

Results

The results of triangulating student journals with research observation, classroom and school dialogues, and post-survey comments revealed two major themes and several sub-themes. Under the major theme of *Developing a Teacher Persona*, two important sub-themes emerged in

² Prior to fall 2010, all classes were held on campus and pre-service teachers completed field hours through a series of four separate 1-hour observations of PreK-12 learning environments.

³ Variations between fall and spring hours depended on differences between university and school vacations and official end-of-grade-test schedules in the spring.

which pre-service teachers offered insight into: 1a. *Understanding Children and Learning*, and 1b. *How Assessments Inform Teachers About Students*. The second major theme, *Impact of Culture and Diversity on Learning*, examined pre-service teachers' conceptualizations of 2a. *The Impact of Poverty on Learners*, and 2b. *The Impact of Working Across Cultural Differences*. Insights from these themes and sub-themes provided a context from which to examine connections students made (or missed) between their applied work in the schools and the blended course content.

Developing a Teaching Persona

A teacher persona developed as pre-service teachers navigated their role as classroom teachers. Developmentally, teachers begin their careers concerned with their own performance and success as a teacher. Typically, only after personal success as a teacher do they begin to focus on the success of their learners. Our hope was that the earlier pre-service teachers take responsibility for their learners the sooner they will move to focusing on learner success. The pre-service teachers in this study quickly learned that they had to make decisions to support the children they were tutoring. Although pre-service teachers were initially provided with educational games and instructional guidance, it was ultimately up to them to decide what interventions were necessary to help the child they were tutoring succeed. Pre-service teachers consulted with faculty on a regular basis, and resource-sharing discussions took place during regular class time. An example of an emerging teacher persona is evident in Tiffany's journal entry.

Getting him to focus on what is important is what makes me feel most like a teacher every time I work with him . . . Anybody with common sense and math skills can teach a kid how to count but the fact that I can connect with him on HIS level, without the need of an adult or supervisor to get him to relax and calm down around me . . . is a big accomplishment.

Once all the game playing was done we were able to get a LOT of work done.

As a beginning teacher education student, Tiffany was already noticing what strategies were necessary to gain the trust of the child and how important the interpersonal relationships were to teaching and learning. This knowledge worked in tandem with the unit in the educational psychology course on the social and emotional development of children, as well as the importance of developing relationships with learners to support teaching and learning.

Another demonstration of teacher persona and how its connection with the course content leads to an awareness of the necessity of selecting appropriate materials for focusing on specific learning needs came with Clint, who had the challenge of working with a first grade English Language Learner. Clint had extensive experience as a camp counselor for the local YMCA, but had no prior experience working with non-native English speakers.

I was partnered with Leo, an ESL student. Right off the bat, the language barrier was pretty significant. While Ms. D was writing letters on the board, Leo would trace the letters on the bag of gel. He made a lot of mistakes and didn't seem to be able to recognize differences between the letters. I worked with him and instead of trying to talk to him I was able to show him using our materials. There was also clay available to shape letters. I worked with Leo for about 30-45 minutes and he learned to write his name with the clay and recognize the 4 letters in his name. I felt it was a significant achievement for him and myself. For him because he probably has never had that much direct attention and mentoring in a learning environment and he accomplished something that would have taken him much longer without that one-on-one time. For myself, it was the first time I have made a difference in a child's life in the classroom. From now on, whenever Leo writes his name, the first time he ever did that was in Room 141 of [sic] ABC Elementary and I was there to help him do it.

Clint's success in a one-on-one tutoring situation required him to make and implement instructional decisions on the spot. Clint's decisions were not made in a vacuum; rather he was able to dialogue with classmates during our weekly post-tutoring debriefing sessions that included instructor-facilitated discussion and encouraged students to draw from readings that addressed issues of educational equity, access, and support for culturally and linguistically diverse students. The combined immersion in readings and research on the theoretical and philosophical foundations of education and educational psychology provided pre-service teachers with an introduction to research-based perspectives and served as a tool for engaging students in the critical examination of teaching and student engagement.

Understanding Children and Learning

As the social foundations of education provided an historical foundation for understanding schools, teaching, and society, the Psychological Foundations of Education course provided insight into child development. Child development is an abstract concept if taught solely within the context of the university classroom. Applying theories and concepts within the field experience helped students make sense of child development because they could see evidence of the theories, as well as ages and stages of child growth and development. Denise noted in her journal an observation that was a common concept taught regarding the physical and social development of learners: 'I learned that as an after-school program we should take the girls outside for 15 minutes to get out all the energy and have bonding time with all 4 of us.' Denise recognized that she would have more success tutoring the children if she took care of their physical development needs prior to expecting them to work on academic skills in an after-school program. This information will continue to inform her, as a classroom teacher, about the important connection between cognitive and physical

development. Bonding with the tutors was important for understanding why relationships are so important between teachers and learners. Hopefully, as she works with young learners in the future she will remember this transition technique to help learners get focused.

Another example of connecting course content with field experience was John's reflection on using hands-on materials: 'When B. and S. played a game with [aesthetic] materials, they were more likely to remember things later on.' The use of hands-on, aesthetic materials is a strategy used for classroom management and cognitive (memory) development. Noting this himself, John realized he could support the child he was tutoring by providing aesthetic materials for the child to use rather than keeping everything abstract.

How Assessments Inform Teachers about Students

During regular class instruction, pre-service teachers were introduced to how assessment and accountability data was used at the school and national levels. Students engaged in classroom discussions, debates, web searches, and readings to build awareness of the national debate about test scores, the purpose and outcomes of NCLB, inequities inherent in a high-stakes test environment, and teachers' struggles to balance assessments with effective teaching. Pre-service teachers also discussed and debated the value of assessment and how data could be used to support learners. This became a reality within the field experiences as noted by Kyle's journal.

. . . it became quite clear when assessing J's scores at the beginning of our tutoring and at the end. I wasn't aware that he had learned so much until after I saw the results of his alphabet assessment. I knew we had progressed and he was learning the alphabet, but I hadn't realized he had learned the entire thing.

Kyle was pleased with the progress his student had made. His pride and confidence during the

presentation was obvious. He was able to connect the use of assessment data to how teachers plan for student success.

Another example of how the field experience helped the students understand and critically examine authentic assessment was the comment Jennifer made in her journal.

As a teacher, I couldn't really tell which students actually knew the right answer if they were the second one to repeat it until I gave them individual assessments. It wasn't until then that I saw what they each individually needed to work on.

This acknowledgement by the student is powerful when considering the focus on differentiation of assessment and instruction needed in the classroom. Although these topics are covered in many teacher education classes, Jennifer's reflection confirms her recognition of this important part of teaching and learning. That such recognition is contextualized within a social foundations framework connected with student field experiences deepened students' understanding of how the socio-political contexts of education and school practices impacted student learning.

The Impact of Culture and Diversity on Learning

In developing a teaching persona, pre-service teachers had to develop skill in navigating unfamiliar cultural territory and build awareness of the impact of culture and diversity on teaching and learning. Approximately 98% of the students in this study were White, middle income, and female (90%). Most of our university students stated that they had little or no prior experience working with diverse peers, students, or communities. However, the children in the study attended a low-performing elementary school and were 98% racial and/or ethnic minorities, with 98-100% receiving free or reduced lunch. The cultural divide between pre-service teachers and the students with whom

they worked illuminated the necessity of self-reflection about their own identity and culture as a way to begin the process of questioning and unpacking assumptions. Yet initial journal entries were often reticent in their approach, often avoiding any mention of race, class, or language as they struggled to 'see' their students as individuals and avoid the appearance of prejudice and bias. Gay and Kirkland (2003) found that 'developing skills in self-reflection and critical consciousness specific to racial, ethnic, and cultural diversity among teachers is obstructed' in part by students' efforts to divert or diffuse attention away from the targeted topic particularly when it conflicts with their celebratory conceptions of teaching (p. 183). Such resistance to examining multicultural issues is not uncommon.

Using personal cultural narratives, simulations and role-play, we worked with students to explicitly engage in critical self-reflection of their own socio-cultural identities as well as interrogate their beliefs about what makes for 'good' neighborhoods, 'good' schools, 'good' teaching, and 'good' students. There were two sub-themes in this area, one was working with children and families in poverty and the other was the impact of working across cultures.

Impact of Poverty on Learners

Because our students were embedded in urban schools serving predominantly low income communities, awareness of economic equity and stress were an important focus in our instruction. It was important to engage our mostly middle-class pre-service teachers in both a theoretical and practical examination of poverty. All students were required to participate in a poverty simulation experience facilitated by university faculty (the authors served as lead facilitators). Simulation-based learning (SBL) experiences are one way teacher education programs can provide pre-service teachers with focused experiences that assist in the development of the skills they will require to effectively teach learners from diverse backgrounds and circumstances. One area of particular growth

in SBL is in the area of helping pre-service teachers understand the challenges faced by families living in poverty (Row, 2002; Stark-Rose, Lokken, & Zarghami, 2009; Woodward-Young, 2008).

Data collected from student journals and anecdotal records from classroom discussions suggest that the simulation had some impact on pre-service teacher's awareness of the challenges children and families living in poverty face. During discussions our students talked about their experience participating in the poverty simulation, specifically the lack of hope and the desperation they started to feel when it was clear they could not accomplish what they needed to within the unfolding 'weeks' of their lives. Jan said:

After week four, we had no utilities and had not eaten [for] two of the four weeks. I had failed my girlfriend and her son, as well as my cousin. The economy had failed me. I had failed me. Covered in sweat, I returned to my table as we blankly stared at each other and the mess we were stuck in. At the end of the month, we had no possible way to pay our utilities or two weeks' worth of food. We had worked hard and not given up the whole time, yet we couldn't put food on the table. I was completely devastated. I had no idea how hard it was for those who live in poverty. I had never even thought about the children who live in these conditions.

Students also discussed how 'it makes sense now why some low income families are desperate enough to steal, can't find food, and don't send their kids to school with supplies or money.' As another student stated, 'I feel that as a future teacher this simulation really put into perspective a part of the community that I do not usually see.' Although pre-service teachers frequently cited their frustration, lack of time, and sense of futility to manage the challenges presented by poverty during the experience, some students still espoused a belief that moving out of poverty was largely based on individual initiative and personal responsibility, as noted in one student's journal.

Most of my perceptions and ideas haven't changed about poverty. It is an issue, but I think most people can do something about it. I'm not saying there aren't circumstances that poverty is uncontrollable, but for the most part I think people can do something about it.

Another student noted his discovery that poverty is not as obvious as he had assumed when he reflected on the children he worked with in his field-experience placement.

You would never be able to guess that these children come from very diverse and possibly struggling households. Resulting from my experience in the Poverty Simulation, I learned how tough it can be on the parents and the children in a household that is struggling to make ends meet. I can imagine that some of these children come from these households, but you could never tell that from the way the students acted.

Similarly, another student discussed how her biases about poverty and unemployed people were challenged by participation in the simulation.

I had always felt sorry for people of low-income families or people who lived in bad living situations. At the same time, I would always think that those people may be lazy and need to just go out and get a job. After doing the simulation, I learned that it is not always that easy and there are other outside factors that contribute to the situation. Yes, there are some individuals who may be lazy and choose to not get a job or not work their hardest, but in fact many times this may not be the case.

Students regularly referenced the poverty simulation experience throughout the semester. While tutoring in her assigned kindergarten classroom, one pre-service teacher noted on her field experience poster the importance of pre-school for children entering Kindergarten. A class discussion preceded her notations in an online

discussion focusing on why children do not attend preschool. Students discussed the levels of quality of preschools that were available to low-income families, the lack of spaces for children in high quality programs, and the challenges families might face accessing high quality preschool. Her poster noted:

I learned the value of Pre-K education. I feel that low-income families truly suffer from not having the funds to send their children to Pre-K education. The students of these families start school behind all of their classmates and it is extremely difficult for them to catch up without extra attention and time.

This student's comments suggested a realization that it is neither the fault of the child nor should it be assumed to be a lack of caring by the families when a child arrives in Kindergarten without prior school experience. This knowledge reflects a more complex understanding of the challenges of poverty and teacher attitudes and assumptions about children and families. It is sometimes a matter of access and resources that are out of the control of the families. This young woman hopes to become a Kindergarten teacher and she will enter her profession with a deeper understanding of her future children than she would have had without her field experience. This student and her peers' growing understanding of the impact of poverty was merely the beginning. It is vital that continued opportunities to examine issues of poverty be available throughout their teacher education in order to move students beyond individual, localized understandings of injustice to more critical questioning of historical inequities embedded in and perpetuated by our economic, political, legal, health, educational, and social institutions.

Impact of Working Across Cultures

Daniella's journal entry highlights this sub-theme.

We must first take a look at ourselves before we can even try to understand others, but both of

these efforts need to be made in order to have any hopes of crossing the boundaries we've created for our cultural differences in this society.

Working across cultural differences was an ongoing effort for our early pre-service teachers and a major focus of our combined courses. Having little prior experience with groups and individuals outside their own social and cultural groups, our students had few points of reference from which to shape their approaches; and when they did, they were frequently misinformed, simplistic, and lacking the critical consciousness necessary to challenge these assumptions. Rather than place students into the field immediately, we scheduled the field experience to begin three weeks into the semester allowing us time to facilitate student examination of key educational issues from social, historical, and philosophical perspectives as well as engage in collaborative research and discussion of our prospective school site and the community it served.

Students arrived at their field experiences hopeful, nervous, and excited about what they would encounter. The elementary school site where we have worked since spring 2010 recently relocated to a new building. The structure is impressive, welcoming, and environmentally friendly. Pre-service teachers' first impressions of the beautiful new school were variations of awe. As preparation for the first visit to the new location, students discussed the impact of increasing local, state, and national racial and economic re-segregation of public schools. Students also conducted research about our school site's academic rating, teacher quality, student demographics, and surrounding community resources and challenges. This helped inform and temper students' initial reactions as noted in the following journal entry.

As beautiful as the school was, I couldn't help but remember the research I had done on the school and its students. In the past few years they have not performed as successfully as they should. They are still in jeopardy as far as standardized testing goes. Not to mention, a majority of the

students come from low income families and receive free or reduced lunch; making this a Title I school. So, the building gives you a false sense of the success of this school, but if you look more closely you will notice that there is still more work that needs to be done. With that being said, this school is still bubbling with bright and cheerful children.

The pre-service teachers were enthusiastically welcomed by their tutees, and were instantly enamored with the ‘bright and cheerful children’ before them. It did not take long before this undisturbed space of apparent harmony was troubled by the specter of race. During our second visit to the school, one of the first graders began to cry when her young, White female tutor approached her and the small group of first and second graders assigned to the tutor. When we finally calmed the child down, she said she was scared of White people and she did not like being there with them. We shared the incident with our students during the post-experience debrief. The shock and dismay expressed in the following student quotes upon hearing this story was a reminder of their privilege as members of a dominant culture for whom race was largely invisible.

It was really upsetting to hear that one of the little girls said she was scared of white people. I would never want a child scared of me based on the color of my skin. It’s sad that in today’s world we have schools that are so racially divided and that children are only being exposed to a certain race. I wish this could be changed.

When you [instructors] said that little girl was scared of white people I was very surprised. I feel like at times I’m ignorant at the fact that racism is still alive. I was just never raised to be that way and it’s very relevant once you open your eyes.

Although we constructed our course content and field experience to connect to examinations of larger foundational issues, we were aware that the constraints of time (in the classroom and

in the field) and exposure to teachers and other important support staff (i.e., social worker or guidance counselor), families and communities served by the school, means there is insufficient time and experiences to engage students in a deeper deconstruction of systemic racism and discrimination and the influence of power and privilege in schools and society. Gilbert (1997) reminds us ‘Simply “being there” without careful analysis of multicultural and socio-economic issues in the community in relation to the individual’s personal constructs and the community at large, may not provide the positive results expected from direct experiences’ (p. 93). And so, we continue to build strong relationships with the school site to develop options for fostering more extensive connections to schools and communities and combat entrenchment of early pre-service teachers’ stereotypes and biases.

Connections

As part of their reflective journals and final survey, students were encouraged to draw from course readings, films, simulations, and discussions to assist them in making sense of their field experiences. Although not all students did this on a regular basis, those that did showed a growing awareness of the connection between student outcomes and institutional inequities. On some level, pre-service teachers still assigned primary responsibility or blame for perceived lack of academic preparation to families. Despite evidence of these entrenched deficit views, the disequilibrium resulting from field engagement facilitated students’ question-posing as they began to participate in the critique of prior and new knowledge (Ladson-Billings, 1995).

Development of a more critical perspective—through course content, instructional methods, and student consciousness—serves as an important counter-narrative to less threatening and oversimplified conceptions of multicultural issues and ideas as seen in a journal excerpt from a spring 2010 student.

After reading the article on school funding, I became more aware of some things I have noticed at [sic] ABC elementary. Most of the children at the school are economically disadvantaged and this sets them as a minority. In the article, I liked how Deborah Meier pointed out that ‘privatizing’ schools means a loss of democratic control. Public schools have to take everyone, but private schools can be the ones to turn away a child who is causing trouble or who is ‘unwanted.’ If public schools are supposed to be fair then why is it not ‘fair’? I have even noticed when doing math problems and reading with my kids that many of them are on different levels . . . how is it that some are way more ahead than others? Even though many kids move at a different pace than others I do not think this is the whole problem. Maybe some children have more help with their parents or older siblings than others. . . . There are so many factors that can affect a child’s attitude. Even though public schools are supposed to be equal, they are far from it.

Early field experiences were important in helping our pre-service teachers begin to unpack the differences between their own experiences of schooling and how diversity serves as a tool for affirming and building bridges between home and school cultures. Students found the experience to be valuable and a start to building the relationships they wished to achieve with their ‘students’.

I noticed the artwork on the walls of [sic] ABC elementary and how all cultures and ethnicities were represented. I think this is very important because I do not remember any artwork like that in my elementary school. ABC’s artistic walls help symbolize their support for all ethnicities and backgrounds. I would recommend that every [introduction to education] class take part in this experience. Out of all the activities in this class, I have gained the most from getting field experience working with the children, but I feel like eight weeks is not long enough to work with the kids

and get to know them. A textbook can only teach so much. Without working with children in the beginning, students cannot get the full effect of the teaching profession. This class has reassured me that I want to teach.

As pre-service teachers participated in these introductory field experiences, they engaged in the active construction of a teaching philosophy and practice that would support their ability to make informed decisions about whether or not they wanted to teach, as well as the kind of teacher they hoped to become. We recognized that our approach to connecting social foundation courses to school-based field experiences was not a novel concept; however, financial constraints and lack of institutional support for faculty who wish to embed their courses within a school or community site, have made opportunities for these important early experience near impossible. It seems that in the face of these challenges, the value to prospective teachers and future students and the need to increase these opportunities is an effective way of introducing—and possibly retaining—early pre-service teachers to aspects of teaching, learning, schools, and society they would not be exposed to until later in their program. In fact, it’s elementary and just good teaching.

Conclusions and Implications for Action

This study provided evidence that some pre-service teachers in social foundations of education courses with urban field experiences, identified meaningful links between theory and practice in the application of course content (Bell, Horn, & Roxas, 2007; Brown, 2004; Middleton, 2002). However, not all students had the experience and, as we have seen in their journals, transformation of deficit perspectives does not always occur. One of the limitations of this study—and what we hope to understand in the future is how these early experiences with diversity weave their way in beginning teachers’ conscious through the first year of teaching.

Pre-service teacher journals and survey data, detailed how the uncritical love our students profess for all children early in the semester was challenged and changed as they engaged with children from predominantly African American and poor communities. Their **teacher persona** began to emerge as they invested in relationships with their students and were held accountable for successful outcomes in the learning projects they were assigned. As noted in a student journal from spring 2011, field-based foundations courses build pre-service teachers' awareness of the socio-political contexts of schools, and their role (and possibilities) as a teacher-leader.

These two courses and this [field] experience are continuously keeping me aware that job of a teacher moves beyond just educating students about political structures, citizenship skills, historical events, and academic foundations. It is so much more. My eyes and ears are more open now than they have ever been, and I am only at the beginning.

In an article on the role of social foundation courses in preparing culturally responsive teachers, Ryan contends that 'social foundations courses can provide an integrated experience where content is wedded to the practice of teaching in such a way that students can see how individual and social issues have real implications for everyday pedagogical practice' (2006, p. 12). Keeping with Ryan's assertion, we argue that establishing supervised, connected, field experiences in social foundation courses provided pre-service teachers' opportunities to develop their 'teacher persona' throughout their teacher preparation program, not just during the final year of preparation. Additionally, opportunities for individual and collaborative reflection and immersion in course content and field experiences that engage students in critical examinations of institutionalized inequities in schools and society are vital to helping students develop a critical multicultural awareness (Smith, 2000; Garmon, 2004).

In addition to adding field experiences in social foundation, faculty in teacher preparation programs should collaborate to begin the field-experiences early in the program and intentionally link those experiences to methods content as the pre-service teacher continues through the program. A model for early field experiences challenges schools of education to reexamine current university-school partnerships and agreements that present barriers from schools of education to support faculty who move their classrooms outside the university (Butin, 2006). The field experiences need to be an authentic application of content, not just observation, and faculty must be on-site, visible, and engaged in developing meaningful, sustainable links between classroom content and on-site experiences. It is our hope that these early pre-service teachers will begin to write the next chapter in teacher preparation as they are inspired and prepared with early experiences serving diverse learners.

In this article, we offer pedagogical possibilities opened up by critical, collaborative efforts between two foundations faculty and their pre-service teachers. Student reflections provided examples of practices that can serve to meet the growing demands from schools and communities for culturally competent, socially aware teacher-leaders. The implications for effective, culturally responsive teaching is clear: uncritical, untroubled, untested love is not enough. These reflections also offer a glimpse into the value of linking social foundation courses to field experiences as a strategy for facilitating socio-cultural consciousness in early pre-service teachers.

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Doing Philosophy at the Boundaries: Researching the Design of Health Multimedia with Doctors and Indigenous Australians

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Abstract

What is the role of philosophy in researching epistemic boundaries and knowledge work in cross-cultural contexts? This paper presents one answer through an account of philosophical research done within a project investigating the use of multimedia Digital Learning Objects for generating understandings of healthy respiration and circulation among first language speaking Indigenous Australians. Developing this method of philosophy requires a novel account of knowers, knowledge and reality which can tell a story of difference that goes further than one of 'social' positionings, and that credits the potential of the research practice itself to generate novel ways of working within and across boundaries. This account has philosophy proceeding through three moves: locating the researcher in the embodied collective situation of the investigation; crediting multiple knowledges through adopting the figure of an outsider; and valuing the vagueness and multiplicity that characterize boundaries through understanding reality as emergent. It is argued that this account does not supersede others, but rather adds to them within a logic of transdisciplinarity.

Introduction

This paper tells of a project investigating the use of multimedia Digital Learning Objects (DLOs)¹ for generating understandings of health, respiration and circulation in first language speaking Indigenous Australians.² The project

was facilitated by researchers at Charles Darwin University and brought together a medical doctor from the University of Melbourne, DLOs and a multimedia designer from the Melbourne University Biomedical Media Unit and Yolŋu Indigenous Consultants³ from Northern Australia. The paper recounts some initial stages of the project through three episodes, one from a preliminary meeting during which DLOs were assembled in the Biomedical Media Unit, and two from a

1 Digital Learning Object is a piece of computer software that is designed and used to educate users through their interaction with a multimedia interface. These can be simple, such as a single digital image, or complex, such as an animated heart and lungs for which the user can manipulate to simulate physical exertion or the impact of a disease in real time.

2 A preliminary report on the project – *Interpreting Multimedia* (Healthy Breathing and Heart) can be viewed at <http://www.cdu.edu.au/centres/yaci/im/index.html>.

3 The Yolŋu Aboriginal Consultants Initiative (YACI) is an innovative cross-cultural research initiative in Northern Australia which takes the question of knowledge production and validation in cross cultural context seriously. See Yolŋu Aboriginal Consultants Initiative: <http://www.cdu.edu.au/centres/yaci/>

workshop held in Charles Darwin University some months later. To help truncate these episodes, I refer to participants by role: Doctor, Consultant, Facilitator, Designer. I refer to myself, however, in the first person, which begs the questions, what was my role? This is my main concern and contribution in this paper: what does a researcher, who analyses boundaries between knowledge systems, do? I call this role Philosopher, and while during the workshop my main contributions were in setting up equipment and documenting the proceedings, the following discussion will suggest some ways of doing philosophy at the boundaries and its possible contributions to understanding transdisciplinary research and collaborative research between Indigenous and non-Indigenous peoples in Australia and other post-colonial places. I begin with three episodes focusing on the uses of DLOs in the investigation. Each episode tells of DLOs working in different ways which I identify using a typology of symbol/index/icon.

Episode One

The first task was to assemble as many different DLOs; posters, .pdfs, books, videos, animations, photos, interactive widgets, programs and hand sketched diagrams, into some form of collection. To do this, each object was digitised and re-produced within a single PowerPoint file, and for many hours Doctor, Designer and myself huddled in a cubicle in the Biomedical Media Unit talking about, selecting and arranging the DLOs.

'It is about having many different versions of the same thing', Doctor explained.

Occasionally he described a particular DLO and invited me to comment on its possible effectiveness; my indeterminate responses perpetuating their continuing proliferation.

We worked the many DLOs as mere symbols of the human body; arranging them, editing them, and cropping them, in total independence from any real human body. The PowerPoint file, however, did

not support the embedding of many of the objects: some movies and animations remained distinct files linked via hyper-links in the PowerPoint file and one interactive program had to run from its proprietary CD-ROM. The accumulated DLOs summed over 700 megabytes and it was decided that the PowerPoint file be split into four individual files. We planned to meet one more time to finalise the collection of DLOs before Doctor and I were to take them to the workshop in Darwin. Doctor and myself received one set of the four files each to review before the final meeting, and Designer kept the copies on his computer.

By the final meeting, however, both Doctor and Designer had revised their files. Designer had standardised the formatting to promote smooth viewing and included acknowledgements and copyrights. Doctor had added a few slides and added text to aid his communication of the educational value of the DLOs. The two sets of DLOs were embedded in different files each with hyper-links defined by two different folder structures. The ensuing reformatting, beginning with the Doctor's files, took longer than any prior meeting. Despite our familiarity with DLOs as self-contained objects, independent of any embodiment of what they represented (the human body), they were embedded in different file types, computers and folder structures. Now slightly anxious about the mobility of the DLOs, we burnt the files onto CDs and sent these to the workshop facilitators so they could check that the DLOs opened correctly on another set of computers.

A few weeks later:

Episode Two

It was my job to set up a projector, two laptops, and speakers to display the DLOs and a video camera to document the proceedings. The workshop began with introductions: the Facilitators introducing the project; the Consultants sharing stories of hospital visits, interpreter work and life in remote communities; and Doctor introducing the DLOs with 'have here a whole lot of different ways of talking about breathing. . . . What I want you to do is tell me which ones you think are the best'. The presentation of the DLOs began.

After a few slides, however, a conversation in Yolŋu Matha⁴ between the Consultants interrupted proceedings. The Facilitator framed questions trying to elicit general Yolŋu perspectives, not simply the knowledge of the Consultants. English began to be spoken.

'They think it's your blood because it's running through your body', explained one Consultant.

'Blood is running through your body', Doctor confirmed.

'There is air here and here', the Consultant continued, touching her wrist and neck.

'When a Yolŋu is about to die, then the Yolŋu put the wata from here back again' another said, massaging from her shoulder down to her hand.

'Yes, yes, but . . .', Doctor said trying to follow the words and body movements.

'Circulation, in your words it's circulation, but in our words it's wata, wind.'

'Or breath', added another Consultant.

'Yeah, and you think of blood then going out into the arteries?' asked Doctor.

'Or air?'

'Or air? Or air going into the arteries!' Doctor seemed astounded.

'Yes', greed the other Consultants.

'You see, this is not so. There is no air in the arteries', Doctor said. He went onto explain that blood flows in your arteries, and emulated the bodily demonstrations of the Consultant by running his fingers down the inside of his arm as if tracing the flow of blood in

his arteries. The DLOs were no longer representing independent bodies, but began to index practices of knowing particular bodies in the here and now.

Later that day:

Episode Three

There were long pauses during the afternoon session, and with the conversation frequently in Yolŋu Matha, Doctor and I had little idea of what was being said. The discussion frequently addressed the shared purpose of the project, the potential of DLOs to become useful objects in Yolŋu communities, yet it seemed that addressing the DLOs directly was the origin of the difficulties.

'Pictures like this . . . the moving ones, does it matter? What did you think of that one where you could hear the breathing?' asked Facilitator.

This one was generally liked.

'We've only been looking at lungs', said one Consultant.

'Some [DLOs] for example, we might do a different design because we Yolŋu, we are shy and modest people. We might come up with a different idea, for animated [DLOs].'

'Are there some parts [of the body] that you should not talk about?' asked Doctor.

'Not really. Just the way of presenting it so that when you have [particular] people, and who's in the room, who's there and who's not, you know, who we should talk about.'

'So the way you tell the story differs for who's present', explained another Consultant.

One way to understand what she was saying is that here in 'the story', the DLOs are like icons; they are not separate from the audience (embodied humans) that they had previously only represented, but tightly enmeshed with them.

4 A group of related languages variously spoken by Yolŋu Indigenous Australians in north east Arnhem Land.

This was explained again by one Consultant. ‘What are we, this group, going to do? We need to take it back to the community, because this is very important, very important, and . . .’

Doctor interjected, ‘Yes, I understand you. You’re saying . . .’

The Consultant continued, ‘I don’t want to put you down, or put us down, but I want to . . . show . . . that’s the message that a lot of Yolŋu people can’t get that clear. Someone has already explained that we thought there was only one lungs, but they are all different, names, and all the terms.’

The Consultant clearly valued the story the DLOs told that lungs were not simple singular things, but complex things with many different parts named with different terms (bronchi, bronchioles, alveoli, et cetera). What had become obvious was that these stories could not be expressed independently of the people for whom the DLOs were intended to educate.

How do we analyse this workshop in which differences emerged as much unexpectedly as expected? What is the role of a philosopher participating within the unsettling interface of radically different knowledge systems? Torres Strait Islander Professor Martin Nakata offers one ‘method of inquiry’ which he argues can strategically generate knowledge within the tensions which connect and separate Indigenous and non-Indigenous knowers and knowledges at what he calls the ‘cultural interface’ (Nakata, 2007, pp. 213–217). To practice Nakata’s Indigenous Standpoint Theory, in my understanding, one must hold a critical position toward the social power relations which constitute me as knower (philosopher) and my knowledge (philosophical account of workshop), and in doing so draw attention to marginalised accounts often silenced by the ‘privileged social positions’ (Nakata, 2007, p. 215) within an academy still permeated by universal Science and the colonial project.

As a non-Indigenous researcher, I could develop a counterpart to Nakata’s Indigenous

Standpoint, one cognisant of radically different knowledge traditions and the social relations of power he articulates, sensitive to the ongoing marginalisation of Indigenous knowledge and livelihoods, knowingly and unknowingly, by the academic institutions within which I work, and re-conceiving my privileged position not as given but as one among many actualised and potential ‘standpoints’. While such appreciation of difference is important, accounting for difference through historically contingent social relations risks treating power relations and boundaries between knowledges as fixed and already there in the world, and risks limiting analysis to a careful contextualisation of the knower (as individual human mind) and knowledge (as propositions). I do not want to allow differences in knowledge and power to be explanatorily exhaustive of the project, of its confusion, or of the unsettling and creativity in the workshop in which I had participated and in which I continue to be involved as researcher and storyteller. I want to be able to account for the undoing and redoing of knowledge-power relations *within* the confusion and unsettling, and value projects, such as the one here, as both potential moments of redress concerning knowledge-power relations and as potential episodes for their reconfiguration. Developing such an account requires a novel account of knowers, knowledge and reality which can tell a *different* story of difference, a story of different differences to those of ‘social’ positionings, and one that credits the potential of research across boundaries, within interfaces and within transdisciplinary contexts. I develop this account through three moves.

The first move is to position the knower, the philosopher I am developing here, not in a purely ‘social’ position, but within the situation of the research itself. In doing so, I am guided by Lorraine Code’s thesis of ‘ecological thinking’. Recognising that the social positioning theorised in her previous work (Code, 1987) implicitly relied on individual ‘generic knowers’ with equal (yet different) access to the “stuff” of knowledge’ (Code, 2006, p. viii),

Code argues that:

. . . ecological thinking relocates inquiry ‘down on the ground’ where knowledge is made, negotiated, circulated; and where the nature and conditions of the particular ‘ground,’ the situations and circumstances of specific knowers, their interdependence and their negotiations, have claims to critical epistemic scrutiny equivalent to those of allegedly isolated discrete propositional knowledge claims. (Code, 2006, pp. 5-6)

The figure of the philosopher in this paper begins in the episodes of the workshop I tell above. I was a welcomed and valued participant in the workshop, and here, through the re-telling of my involvement, I seek a credible account of my contribution beyond setting up computers and taking video recordings. It is this dual involvement as participant and researcher, both in the workshop and here as author-in-the-text, that, in following Helen Verran, Annemarie Mol, and Kathryn Pyne Addelson, I am calling doing philosophy (Addelson, 1994; Mol, 2002; Verran, 2002a). This brings me to the second move that this philosopher can make.

The position of the philosopher I am both being and writing about here is of a double outsider, much like Verran’s philosopher figure in her accounts of workshops on fire and land management (Verran 2002a, p. 161), in which she is neither an ecological scientist nor a Yolŋu knowledge authority. I was not recognised as a medical scientist and in developing the DLOs I was often positioned as the ‘test’ subject of the DLO’s effectiveness (in Episode One I was shown a DLO, told its story and asked if I had understood and therefore had (or had not) been effected as a knower of the biomedical body). I was also an outsider in relation to Yolŋu people and places, which was most evident in my almost total ignorance of any Yolŋu languages (and I am most grateful to the bi-lingual Consultants and Facilitators for their inclusiveness and careful transcription, translation and explanations).

Being an outsider, as Verran points out, offers the possibility of crafting symmetrical accounts of multiple knowledges. To take advantage of this possibility, my analysis needs to generate a credible account of the Doctor, the Consultants, the Facilitators, their different knowledges and the routines of the project through which participants collectively puzzled over the nature of the DLOs. In doing so, the concern of the project and the concern of this analysis can become common: we are all puzzling over what might useful DLOs be in Yolŋu health contexts. That is, for all of us, in the work of the workshop and its retelling here, the DLOs are an ‘epistemic thing’: an irreducible, vague, emergent collective entity (Rheinberger, 1997, p. 28). The difficulty told in this story is not of impenetrable boundaries between knowledge systems, nor of incommensurable knowledge practices. Rather, the DLOs emerged differently at different times, and getting a handle on this difference is an important task in accounting for the work and future of the project.

In Episode One, related above, I said the DLOs worked as *symbols*. Here I am using Charles Peirce’s semiotic typology of symbol/index/icon as it is re-deployed by Verran (2011) to contrive a useful differentiation of the vague, collective, emergent entity that were the DLOs. Routines in which the sign-referent relation operates as a tightly bound co-constitution are iconic. Routines in which the sign-referent relation operates to sustain a dynamic relation between an index and a field are indexical. Routines in which the sign-referent relation operates as the representation of a more or less independent object are symbolic. Working DLOs as symbols, knowledge becomes representations-in-here-of-a-world-out-there. From within a small office cubicle in the Biomedical Media Unit, DLOs could be generated, edited and assembled independently of any bodies they were representing. In being worked as symbols, differences between DLOs, such as being more or less detailed, animated or static, including a whole body or just the torso, was of little concern as they were all representations ‘of the same thing’: the

biomedical body. In fact, it was hoped that the Consultant's would judge the relative importance that such differences in representation might make in Yolŋu health contexts. This is not to say that the DLOs were purely symbolic. They were very much materially embedded in computers, filing structures, PowerPoint files, CD-ROMS, sketched diagrams and so on. Learning to work with this embeddedness across different material arrangements of computers proved a less than straight-forward task.

In Episode Two however, while the Doctor and I attempted to treat the DLOs as representations now screened on the wall, the DLOs emerged rather differently. They connected with, or *indexed*, particular sets of practices that go with knowing and being living, breathing bodies. While the Consultants and Doctor had different words to go with these practices, they performed their respective knowledges of bodies through gesturing, breathing and pointing. The obvious shared experiences of being an embodied person, sitting, breathing and feeling a pulse, while simultaneously talking about this experience very differently, was profoundly disconcerting (to paraphrase from Episode Two, 'in your words it's circulation, but in our words it's wind', and 'There is no air in the arteries, it is blood'). My argument here holds this disconcertment as part of the slippage in the reality of the DLOs, not simply slippage between words or conceptual systems. There were differences in words (circulation and *wata*) and in conceptual systems (circulation as blood and circulation as air), but these differences emerged through DLOs indexing them (as fields). The DLOs were successfully connecting with Yolŋu people and places, but not as symbols representing the universal biomedical body. The DLOs were now indexing practices of knowing bodies. For one of the Consultants, this was caring for a dying person by massaging the *wata* down the arm from the armpit to the wrist in order to revive a pulse. For the Doctor, this was tracing the arteries along the inside of his arm with his fingers.

In the Episode Three, the DLOs became *icons*. What had begun life as symbols, free from language and bodies and hopefully agile at boundary crossings, the DLOs were now constitutive of the very bodies we all wanted to keep healthy. The lungs and bodies that the DLOs presented were also our lungs and bodies present in the room. Hence, making healthy bodies in the community meant making different DLOs in the community. As one of the Consultants carefully tried to point out, it was not a matter of rejecting the Doctor's presentation, it was the best they had heard, nor was it entirely about respecting social norms of what can and cannot be spoken of, it was about getting the right combination of people in the right place to make the right DLOs. That is, DLOs, people and places all emerge at once tightly bound together.

This story of difference locates the difference between multiple enactments of the DLOs (Watson-Verran & Turnbull, 1995), presented here as the continuum of symbol/index/icon. It can account for the participation of myself, the Doctor, the Consultants, and the Facilitators in the collective enactment of the DLOs. Most importantly, this analysis does not take difference and boundaries as given in a social realm or in a reality outside the workshop, but as mutually constitutive of the workshop, even if, at the time, it felt thoroughly disconcerting.

The final move required in this account is to make explicit not only my previous participation in the enactment of the DLOs, but also my re-enactment of them here through stories and analysis. It is clear that in rejecting a priori definitions and differences, the philosophical method presented here needs to have minimal commitments toward what is real, what is knowledge and what/who is knowing. Helen Verran's articulation of ontics provides such a minimalist metaphysics. In her accounts of burning grasslands, Nigerian classrooms and designing databases (Verran, 2001; Verran & Christie, 2007; Verran, 2002a, 2002b), Verran's framework of ontics takes realness as emergent in practice.

[Ontics] does not aspire to completeness and accepts and values vagueness. Ontics is a politics of rendering our ontic commitments visible, often by telling stories, but also in other sorts of embodied performance . . . [it] suggests that we would do well to enquire about, puzzle about, the rituals and routines through which we 'do' our worlds (including the methods by which we claim to know) if we are concerned about the character of these emergent realities. (Verran 2007, pp. 110-113)

DLOs, knowers of bodies, and the reality of bodies and hopefully healthier real bodies, are not all separated as knowledge, knower and world, but rather are emergent in the project. Boundaries are not between knowers of a single world, nor are they between worlds inclusive of their knowers. Rather, they are constituted as and between different enactments of the DLOs, here re-told as DLOs working as symbolic, indexical and iconic. Understanding DLOs in this way, as irreducibly multiple in practice, affords them the potential of having a shared reality for both the biomedical sciences and Yolŋu knowledge traditions. Ontics, like Code's ecological thinking, is not directed at replacing other theories of knowledge or ways of knowing. Nonetheless, it is a philosophical project which seeks to radically reconfigure understandings of knowledge, ensuring that their transformative practices are always empirically informed and open to contestation 'on the ground'.

For researchers who work at the boundaries of knowledge traditions, the figure of the Philosopher as presented here is offered as one who engages with epistemic boundaries not simply as separations but as productive, embodied places for both research and future ways of living. Such a Philosopher works with these places as a double outsider, offering accounts of difference which open up tensions and puzzles as lively, emergent realities within which collective solutions can be sought. I have contrasted my approach of epistemic boundaries to that of Nakata's understanding of knowledge work on the cultural interface. For Nakata, the careful

articulation of social positions is necessary for collective work to be respectful and productive. The analysis here does not aim to replace the insights of Standpoint theories, but includes social positions only as one element of a multitude which needs to be articulated in local, collective work. Moreover, knowledge, knowers, and what is known do not precede the local articulation of differences, but emerge from the collective work itself.

The success of the workshop in this account was its articulation of DLOs as working as vague emergent entities, traced here through the framing of symbol/index/icon. As vague and emergent entities, the DLOs did transfer from a Biomedical Media Unit in a large metropolitan university to a workshop with Yolŋu Consultants who live predominantly in more 'remote' places. The DLOs did link together the knowledges and skills of a Designer, a Doctor, the Facilitators, Consultants and a Philosopher. They did generate new understandings of health, respiration, and circulation for everyone. What this paper has tried to provide is a credible account of how this occurred. Analysing the emergence of DLOs in three episodes—1) as representing a biomedical body in an office cubicle; 2) as indexing practices of knowing bodies of a group of people sitting together breathing and pointing; and 3) as emerging only through a careful co-constitution of particular Yolŋu in particular places—we are able to see epistemic boundaries as productive, embodied places. By understanding DLOs as emergent and always open to new connections, we can work with them in more creative ways. We can also appreciate the potential of DLOs as being different in different places, and in doing so, respect and accommodate local needs and resources. As one Consultant pointed out in Episode Three, it is critical that the stories the DLOs told were shared with more Yolŋu, but done so in place and in different ways. By knowingly working DLOs as symbols/indexes/icons, newly emergent in each new situation, such a task may be more carefully and more effectively pursued than it might be if only social differences were taken into account.

I would like to conclude this paper by presenting its analysis in terms of Christie's distinction between interdisciplinarity and transdisciplinarity. This may be particularly useful for those who are working in the academy within which interdisciplinarity and transdisciplinarity are familiar modes of inquiry, and yet Indigenous knowledges are largely marginalised. Christie describes interdisciplinary research as occurring when Indigenous and other marginalised researchers bear the 'lonely responsibility' (Christie, 2006, p. 88) of repeatedly demonstrating the validity and significance of their research and knowledge. That is, Indigenous knowledge becomes an academic discipline for which its members-researchers produce and defend the content and relevance of their discipline. In contrast, transdisciplinary research occurs when research 'moves beyond the disciplinarity of the university and takes into account knowledge practices which it will never fully understand' (Christie, 2006, p. 88).

In accepting and engaging with knowledge practices without capturing them as a 'discipline', and without fully understanding them, research practices come to accept and value incompleteness and vagueness. Collective work between knowledge traditions no longer begins with a thorough and exhaustive articulation of social positions (as it does for Standpoint theories, and for which one instance is Indigenous knowledge authorities defending successfully or not their claim to be a discipline) but through an openness towards who knowers are, what knowledge is, and what reality is in their shared endeavour. As Christie points out, both interdisciplinarity and transdisciplinarity are important. In other words, an academic discipline can understand itself as generating knowledge as a discipline, while accepting that what knowledge is, who knowers are, and what reality is and might become is open to question and experimentation in the local collective work in which it participates.

This paper has told one story of such collective work. In its telling it has demonstrated the value

of a philosophical account of such transdisciplinary work through articulating the multiple and open nature of objects (DLOs) at the very heart of the project, and the multiple ways of knowing and living with healthy hearts and lungs that are possible within universities, hospitals, Indigenous communities and homelands.

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Yolŋu Sign Language: An Undocumented Language of Arnhem Land

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Abstract

Recently there has been an increase in studies documenting the world's languages. Most of these studies concentrate on spoken languages but there is a growing effort to document sign languages. In this short paper we describe one of the many undocumented sign languages of Arnhem Land in the Northern Territory of Australia. This Indigenous sign language is known locally as Yolŋu Sign Language (YSL). Although this language is used in daily interaction, many of its users are not aware that it is a language per se. With this brief description of YSL we hope to make our readers aware of the existence of this language. Another aim of this paper is to generate some general discussion on the status of Indigenous sign languages in Arnhem Land, which we believe have become endangered. Although YSL is an endangered language there are still measures that can be taken to prevent this language disappearing.

Introduction

In the last decade we have seen an increasing effort to document endangered languages in many areas of the world. Most of the languages that have been documented are spoken languages. Little is known of signed languages. In this short paper we describe briefly an undocumented sign language in Arnhem Land. This Indigenous sign language is known locally as Yolŋu Sign Language (YSL). Although this language is used in daily interaction, many of its users are not aware that it is a language per se. Our main aim in this paper is to describe some interesting aspects of this sign language. In doing this we hope to make our readers aware of the existence of this language and to generate some general discussion on the status of Indigenous sign languages in Arnhem Land. We believe these are in a similar situation to many spoken languages,

in that they have become endangered. The term 'endangered' is a complex one because there are various degrees of endangerment. In the case of YSL it is not too late to save the language, but only if some immediate measures are taken to protect this language.

This paper is organized as follows. In section two we introduce the distinction between spoken and sign languages. In section three we give an overview of studies previously conducted on the Indigenous sign languages of Australia. In section four we describe the study conducted by Cooke and Adone (1994) and the current research project on YSL. We discuss briefly the sociolinguistic contexts in which YSL is used and we compare some characteristics of YSL to those of other sign languages. In section five we concentrate on the future of YSL. Section six consists of a brief conclusion.

Spoken and Sign Languages

In the field of Linguistics scholars generally distinguish between two types of language. Spoken languages are languages in the auditory-oral modality while sign languages are languages in the visual-gestural modality. This means that for spoken languages people use mainly their ears and voice to communicate, whereas for sign languages people use mainly their eyes and hands. This is probably the reason why people use terms such as 'hand talk' and 'talking with hands' to refer to sign languages. For instance, Davis (2010) refers to the sign language of the American Indian nations as 'Hand Talk'. Yolŋu people on Galiwin'ku (Elcho Island) refer to the sign language they use as 'action' or '*djäma goŋdbu*', 'work with hand'.

Today in the field of Linguistics we have accumulated considerable knowledge of spoken languages. We know that there are language families, that some languages are closer to each other than others. We also know that there are regional differences among languages. We know that there has been intense contact among languages in many parts of the world. Europe is a typical example of this, where we see the influence of French on British English and vice versa.

An example of a language family in the Northern part of Australia is seen in the group of Yolŋu languages. Some examples of spoken languages within this group are Djambarrpuyŋu, Gupapuyŋu, Gumatj, and Djapu, among others (Morphy, 1983; Schebeck, 2001; Zorc, 1986). The Yolŋu languages belong to the Pama-Nuyŋan family of languages.

Although there has been a concerted effort to document sign languages, many are still unknown. We know that sign languages are languages used by deaf people. When a deaf person acquires a sign language from birth, this language becomes their mother tongue or first language. Sign languages can be also acquired and used by hearing people to communicate. This is seen in many communities around the world. In Indonesia we have 'Kata

Kolok' (Marsaja, 2008) and in Thailand 'Ban Khor' (Nonaka, 2004) that are shared by hearing and deaf people. In Australia we see a similar situation across Arnhem Land. In all these contexts we refer to the communities using both spoken and sign languages as bimodal bilingual or 'shared signing communities' (de Vos, 2012) because the population uses a spoken and a signed language.

This development although natural is not widespread. In the case of Europe, most hearing people do not usually sign. This means that most hearing people use spoken languages only and deaf people use sign languages. An exception comes from the case of children who have one or two deaf parents and who grow up with both a spoken and signed language. These children are known as CODAs (Children of Deaf Adults).

In this paper we prefer the term 'bimodal bilingual' community to describe Galiwin'ku. Although YSL does not have an official status, it is used in many Yolŋu communities, including Elcho Island, Milingimbi, Yirrkala, and Ramingining. Based on the sociolinguistic data gathered by Adone in 1994 and in 2012 in interviews and questionnaires as well as first-hand information provided by Maypilama, YSL is usually acquired from birth along with other spoken languages, thus making the population typically bilingual bimodal. Linguistically, YSL provides a fascinating case study because of the way it emerged in the community (Maypilama & Adone, 2012b). Although we cannot discuss its origins here, there are reasons to believe that this language or its precursor has been around for a long time. Aboriginal culture has a rich gestural system with gestures forming an integral part of the communicative system used by Aboriginal people. There is also evidence for the use of signs by all the tribes in north eastern Arnhem Land (Warner, 1978). Warner calls one of them 'Murngin Sign Language', and this is probably the precursor of YSL. Furthermore, in hand stencils of the pre-estuarine period (c.50,000 BCE) found in various places in Arnhem Land (Chaloupka, 1993), we find hand shapes such as the three middle fingers

closed and the more common open hand form that are still seen in present-day YSL and other Indigenous signing systems of the region.

In linguistics we distinguish several types of sign languages according to their origin, structures and social functions. Kendon (1988) distinguished between primary and alternate sign languages. YSL fits well into the description of an alternate sign language because it is used by the hearing community as an alternative language or as an adjunct to spoken languages in some contexts. Its use has been observed during mourning periods when a ban on speech was being practised. Maypilama gathered evidence from the elders of the community that this was very much the case before the arrival of the missionaries (Maypilama & Adone 2012b, 2012c, 2012d). Although some of the contexts of usage have changed, there are still many contexts in which silence is culturally requested.

For the sake of clarity we have listed some types of sign languages that have been distinguished in the field. This list should not be considered exhaustive as this area of study is a work in progress.

- Primary sign languages are those sign languages that are acquired by deaf people as their first language and are officially recognized in the country concerned as the national sign language. Examples of these languages are British Sign Language (BSL), American Sign Language (ASL) and Australian Sign Language (AUSLAN).
- Alternate sign languages are those sign languages that are used as adjunct languages by hearing people. In many cases these alternate sign languages are used when speech is not appropriate. Examples of these languages are the Aboriginal sign languages of Australia and those of the Plains Indians of North America.
- Urban sign languages are those sign languages that are used by signers living in cities and urban areas. The term ‘urban’ overlaps with primary

sign languages as many urban sign languages are acquired as primary sign languages.

- Rural sign languages or village sign languages, used by signers living in rural or village communities: ‘Konchri Sain’ is an Indigenous sign language of Jamaica (Cumberbatch in Lanesmann, Meir, Cumberbatch & Adone 2012); ‘Ban Khor’ is an Indigenous sign language of Thailand (Woodward, 2000; Nonaka, 2004).
- Homeland sign languages are those sign languages that are used in Aboriginal homelands. We classify homeland sign languages as a subtype of the so-called rural sign languages. They differ from other types of sign languages in the contexts of use as observed by Maypilama and Adone (2012b, 2012c).
- Emerging sign languages are languages that have recently emerged and are still developing: ‘Nicaraguan Sign Language’ (Senghas, 1995), Mauritian Sign Language (Gebert & Adone 2006; Adone, 2007) and ‘Al Sayyid Bedouin Sign Language’ (Meir, Sandler, Padden & Aronoff, 2010) are the most well-known emerging sign languages.

YSL is an example of a homeland sign language. One main characteristic of homeland sign language is its use in all domains of communication, public as well as private. During data collection in 2012, we found differences at the lexical level between the signing of YSL employed in Galiwin’ku and the variety used in the surrounding outstations or homelands. One example is in the use of signs for colours. Many rural signers used index finger pointing, a strategy used by signers all over the world to refer to something they do not have a sign for. When they did not know the sign for the designated colour, they pointed and touched an object in their surroundings with the same colour. Signers from the outstations used signs for RED, WHITE and YELLOW. This finding together with others lead us to conclude with caution that there are structural as well as sociolinguistic

differences between the rural and homeland signing, an area that will be investigated by the authors in the near future.

Are There Studies on Aboriginal Sign Languages of Australia?

Although Aboriginal languages of Australia are well known in Linguistics, the focus has so far been on spoken languages. These have been studied quite extensively, while studies on the sign languages of Aboriginal Australia are sparse.

Kendon (1988) offered the first comprehensive study on Aboriginal sign languages used by seven Aboriginal groups of the North Central Desert, focusing on three sign languages of the region, Warlpiri, Warumungu, and Warlmanpa. Although there has been no systematic study of the sign languages of the Northern Territory, Kendon

noted that sign use is widespread there.

A first attempt to describe the structures of YSL was undertaken by Cooke and Adone (1994). At that time Cooke and Adone were interested in establishing whether signing at Galiwin'ku was mere gestures or a language. Based on the data collected at that time from a deaf person and hearing people the authors concluded that the signing system at Galiwin'ku displayed all the structures of a natural, fully-fledged language. This means that when YSL was used as a sole means of communication it met the full burden of communication. In those contexts where signing was used, there was no miscommunication or communication breakdown. As is the case with both signed and spoken languages, there was a high degree of variability depending on the sociolinguistic variables of *who* signs *what* to *whom*, *when* and *where*. Recently, more studies have

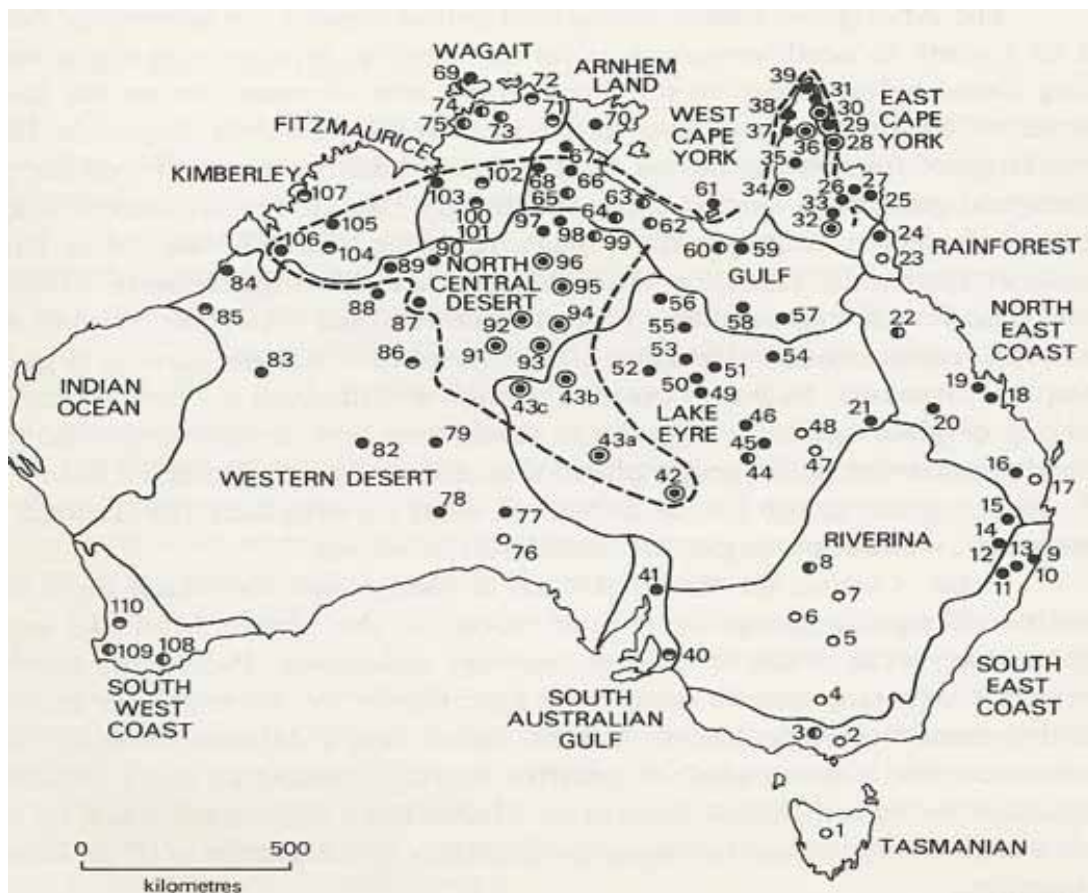


Fig. 1: Map of Australia showing various Indigenous sign languages (taken from Kendon 1988).

been conducted on YSL (Adone, 2001; Adone & Maypilama, 2012a, 2012b). In the current EuroBABEL project on 'Endangered Village Sign Languages', funded by the European Science Foundation (ESF), the EUROCORES Program and the German National Science Foundation (DFG), both a dictionary and a grammar for YSL are underway.

What Do We Know about Yolŋu Sign Language?

As already mentioned in the previous section, studies on the Indigenous sign languages of Australia are rare. Warner (1937) was the first to document the use of a sign language in north east Arnhem Land. In his description of 67 signs and meanings he states 'all the tribes in northeast Arnhemland have a very elaborate sign language which is used between peoples who do not understand each other's spoken languages, between the deaf and dumb, and by young men who are observing taboos of silences after certain initiations' (Warner, 1937, p. 515).

In 1992 and 1993 Adone visited Galiwin'ku and became interested in signing that she observed hearing people using. Cooke and Adone started collecting data to determine whether the signing system they found on Galiwin'ku deserved to be called language or was just gestures used arbitrarily and unsystematically by hearing people. The data was collected from one deaf person and three hearing people who were using signs in communication with the deaf person. Two results became clear from the linguistic and sociolinguistic analysis of the data. First, that there was a wide range of signs that could be used in several domains, implying the existence of a fully-fledged grammar. Second, that there were specific contexts in which the signing system was used as an alternate system when speech was culturally not appropriate.

A closer look at Cooke and Adone's work (1994) and the subsequent work of Adone (2001) and Adone and Maypilama (2012a, 2012b, 2012c)

reveals that YSL shows more similarities with other sign languages around the world than was first assumed. It may bear some similarities with the spoken languages in its environment, but it is most importantly a language in the visual modality. When compared to other rural sign languages YSL exhibits typical sign language characteristics. Similar to other sign languages we find that signers use space in front of them, next to them and even behind them to express meaning and grammatical markings. Different hand shapes are thus combined with different types of movement to express different meanings. The combination of the hand shape (closed fist with index extended) and the movement of the index finger repeatedly flexed and extended in an upward position from left to right with the palm oriented away from the signer refers to SNAKE (a non-Aboriginal person). The same hand shape combined with the index finger placed horizontally in space expresses SNAKE. YSL's use of space is larger and wider than is seen in established urban sign languages such as AUSLAN (Johnston & Schembri, 2007), but it is similar to that seen in the rural sign language Kata Kolok (Marsaja, 2008). In YSL we find the discrete combinations of hand shapes, movement and location in every sign expresses meaning. In this respect it behaves like other sign languages.

Another feature of YSL is its use of non-manual features such as facial expressions, mouth gestures and eye gaze, that play an important role in the internal structure of signs (Sutton-Spence & Woll, 1999; Valli, Lucas, & Mulrooney, 2005). Two further non-manual features found in YSL are lip pointing and eye pointing. These seem to be closely related to their role in Aboriginal culture and interaction. Interestingly, lip pointing is also common in Kata Kolok and Konchri Sain, while eye pointing does not seem to be. Recent work by Maypilama and Adone (2012a, 2012b, 2012c) has also highlighted much variability in the language, a natural development in the life cycle of an oral and limitedly conventionalized language (Adone, 2012). An example is seen in the use of the sign

LIQUID which is commonly used to refer to GAPU 'water'. Signers use the index finger to touch the puffed cheek or the Blax or the B curved touching the puffed cheek repeatedly. The level of variability is linked to the issues of speed, fluency, and precision of signs produced by hearing people and deaf people (Maypilama & Adone, 2012a).

The Future of YSL

Similar to many other Aboriginal languages, YSL should be regarded as an endangered language. UNESCO reports the following figures on the world's languages: approximately 97% of the world's population speak about 4% of the world's languages; of the 6,700 existing languages approximately 50% of them are likely to disappear soon (www.unesco.org/new/en/culture/themes/endangered-languages/language-vitality). In the field of endangered languages several studies have documented the fragile status of Indigenous languages. When looking at language vitality and endangerment, languages can be classified as being safe, vulnerable, endangered, severely endangered, critically endangered or extinct. The general consensus is that a language is generally classified as endangered when it is being replaced by another language in the private and public domains, and/or is not being transmitted to children, and/or the size of the speaker community is reduced, and/or when the special registers, ritual languages or speech levels are reduced, thus showing loss of Indigenous knowledge. UNESCO has listed nine major factors crucial to the evaluation of language endangerment (see website above). Of these nine factors we find the following relevant to YSL: 1) intergenerational transmission of language; 2) absolute number of speakers; 3) shifts in domains of language use; 4) response to new domains and media; and 5) availability of material for language education and literacy.

Although it is beyond the scope of this paper to discuss these factors, shifts in domains of language use have been observed in YSL (Maypilama & Adone, 2012). For example, the use of time-

lines has changed. Early observation of YSL in the nineties by Adone showed that Yolju signers represented time both from an unanchored and anchored perspective (Adone, 2001). This means that in the unanchored perspective the transverse axis (left = earlier, right = later) was used. This is still attested in the data of hearing middle aged and older signers. In the anchored perspective, the front-back axis (front = past, back = future) was used, which is different from many western cultures. In 2012 we found the reverse front-back axis (front = future, back = past), which is very much a western perspective, replacing the former front-back axis (front = past, back = future). Although we have not yet conducted a systematic analysis, it is possible that the western perspective has been transferred from English. Further, many young people seem to use the western front-back axis only.

Moreover, many children learn YSL but do not use it when they leave the community to go to secondary school in urban areas. We also found that most signers are not aware that YSL is a language. This lack of awareness was reflected in their lack of positive or negative attitudes towards the language. In many cases signers were skeptical that YSL should be regarded as a language with Indigenous knowledge.

Conclusion

To recapitulate, we have looked at YSL, an Indigenous sign language which is taken for granted by many of its users and is not recognised as a language of its own. Many people still think it is dependent on one of the spoken languages in its surroundings, but there is linguistic evidence that it is not. It is normally acquired from birth along with spoken languages. This makes the community typically bimodal bilingual. Based on the work done so far, we believe this Indigenous sign language is best classified as a homeland sign language, a subtype of rural sign languages. Although YSL has kept many of its structures, some of them are gradually fading away.

If signers of YSL want to keep their language strong in the future there are some measures that need to be taken. One of them is to raise the awareness of YSL users. Maypilama has started talking about YSL to young and older people on Galiwin'ku. Various joint papers and presentations by Maypilama and Adone have been produced and circulated. In 2013 a dissemination workshop is planned to raise awareness among the public as well as the scientific circle on the existence of this language. Further steps will have to be taken with the relevant authorities to address the endangerment of YSL and its survival in future. If we move now, there is a good chance we will save this language. Although YSL is not critically endangered, measures have to be taken now to preserve its existence. We have started working on it, will you join us?

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Following Actors: Enrolling the Vocabulary of Actor Network Theory to Talk about Internet Banking in a Remote Indigenous Town

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Abstract

Actor Network Theorist, Bruno Latour, advises Actor Network Theory (ANT) practitioners in the pursuit of ‘new, unexpected actors’, to travel slowly and take unfrequented roads. In this article, this advice is taken seriously in Ramingining, a remote Indigenous town in northern Australia. It follows a family endeavouring to get access to money in their bank accounts and in so doing allows a mutual and enlightening interrogation between both Ramingining and ANT.

Introduction

Ramingining is a remote Indigenous town in north east Arnhem Land, in the Northern Territory, Australia. For four years it was also my home, while I taught at the school, grew friendships, fell in love with a camp dog, and studied hard to learn a local language. I left Ramingining at the end of 2005, but had plotted my return, this time as a researcher with the time (and permission) to get involved with people in the context of an issue which I had become aware of over the years I had lived there: the issue of access to computers and the things computers can provide access to, like internet banking. Another issue which concerned me was the idea of research as a hazard. I knew it was possible to use it as a means to inure myself against the complexities and challenges which often parade as messes in towns where people endeavour to negotiate very different worlds. Was it possible to be a researcher in such a situation and

not try—as the Actor Network theorist John Law says—to ‘distort it into clarity’? In *After Method: Mess in Social Research*, Law seemed to be saying, yes (2004, p. 2). Moreover, he and fellow Actor Network theorists have said a great deal about what we might be doing usefully in such situations and they were adamant that the first step was to set aside foundational dichotomies—things vs people, technology vs society, white vs black—and to try to follow the actors, all and any actors, to see where they lead, and what they might tell us.¹

While Law and his colleagues were developing these ideas in the 1980s, translating the agencies of Portuguese ships, French mud and scallop fishermen into the iconic stories which still act as lessons to new students of ANT today, this work was seen to be meticulous and slow (Callon, 1986a;

¹ These ideas were developed in a prolific decade of writing. Latour (1987) is a helpful early text and Law (2008) provides a good recent overview.

Latour 1983; Law 1987). As Latour said, many years later:

When you wish to discover . . . new unexpected actors . . . which are not yet bona fide members of 'society', you have to travel somewhere else and with very different kinds of gear. . . . There is no question that ANT prefers to travel slowly, on small roads, on foot, and by paying the full cost of any displacement out of its own pocket (Latour, 2005, pp. 22-23).

It is not language which sounds familiar in talk to do with the fast moving and swiftly changing entities which now constitute our modern socio-technical worlds. And if slowness is strange, complete stillness is anathema. It is the othered nothing between events. Appelbaum says otherwise.

No theoretical construct, the stop is an actual moment, the moment of poise. . . . It shuns the spotlight yet exerts a definite and important control over what takes place. Furthermore, it gives us a key to a deeper engagement in a meaning that unfolds our lives. For it offers a choice. (Appelbaum, 1995, p. xi)

This article takes seriously both of these insights. It accepts the need, at times, for slow methods; to travel by foot on small roads, and sometimes even to stop. Annemarie Mol also managed to evoke this necessity in her account of the curious object, 'atherosclerosis', in a Dutch hospital (Mol, 2002). In the same way that she induces us to slow down to the pace of weary, painful legs trying to climb a set of stairs, we too have to make this commitment in order to visit the complex socio-technical site which was the Ramingining I returned to as a researcher in 2006. In doing so, two interlaced aims become possible. ANT's gentle but persistent following of actors allows us to see something of the complexity of a remote Indigenous town in a modern world, where computers, mobile phones and encrypted codes are as much a part of daily life as ancient customs for ushering young men into manhood. At the same time the town, its

people, computers and customs will do something for ANT, in that every evoking in turn of its vocabulary, concepts and methods is an inherent test. If ANT passes the test it is thereby just a little different from its former self, in being richer, stronger and in having travelled.

In this case it has travelled to Ramingining, a town in north east Arnhem Land, where it has become a participant in a research project documenting the life of computers there.² Ramingining is home to 700 Indigenous Yolŋu and fifty non-Indigenous people, locally known as 'Balanda'. The latter are employed as teachers, nurses, mechanics, book-keepers, pilots and managers of the various institutions which nowadays are integral parts of such towns: the school, clinic, stores, workshops, etc. The list does not generally include researchers. At the time of the story that follows I lived in a caravan and ran an internet cafe in an adjacent tent. I had also participated in the reestablishment of a library/computer access service known as the Knowledge Centre. The much longer stories of the emergence of these entities, remarkable in themselves, are told elsewhere (Nicholls, 2009).

In this article, in the story that follows, I take the advice of both Latour and Appelbaum. The story will stay close to a family in Ramingining, as they endeavour to get access to money in their bank accounts, and to negotiate the choices inherent in every 'stop'. It is an opportunity to explore the affordances of ANT in a complex socio-technical situation (which it has never before visited) and observe how they affect each other.

The key human actors in this story, Glen Dhamarrandji, Daisy Gaykamangu and I are present using our own names. Other human

2 This article is adapted from Chapter 3, 'Following the Actors: Glen and Daisy', of my PhD thesis (2009). My introductory chapter, 'Following Actors', provides an over-view of the ANT vocabulary explored in this article. Note that at the very heart of ANT is the acknowledgement of the role of all actors, whatever their (im)materiality, so this has to include itself; the whole network of writers, stories, actors within those stories, and so on, which constitute and perform what we call ANT.

actors are participating through pseudonyms.³ The account begins with a glimpse into a day mid-way through the story.

4 June 2007

Glen and Daisy are waiting for me at the Knowledge Centre. It is a small portable building located behind the derelict ruins of a former Council Building. I unlock the door with a key attached to my belt. I turn on the light and the air conditioner and they transform the small, dim, stuffy space. Glen comes in and sits down, Daisy following but sitting further from the computer. I take the lead from the phone and plug it into the back of the laptop which is sitting on the table. I open it and switch it on. It blossoms into life, but without that little tune. It is an old IBM with an older version of Windows and no built-in speaker. As the internet screen appears we slip into a procedure with an albeit brand new familiarity. Up comes the Westpac screen, the prompts for the customer number and password. Glen has unfolded a small piece of paper which we have both written on, with his numbers. I have encouraged him not to write his password on the same piece of paper and we have torn up copies of it written on other bits of paper, but he has written it anyway. We log on and easily follow the steps. His daughter Wamuttjan's account is in his list of payees and we quickly transfer money from his account to Wamuttjan's.

The whole procedure, the internet, the computer, the Knowledge Centre space, and we, too, have all become well-behaved actors in a scene we are re-enacting, and we know how it goes. All the bits have worked as we expected and so, although we feel a little trepidation and then relief, there has been little energy expended. The goal, moving the money to Wamuttjan's account, has stayed in focus. No-one tells me, this time, what the money is for.

3 Glen Dhamaranydji and Daisy Gaykamangu chose to be identified by their own names in this research, as they were aware that the arduous means by which they got access to their banks accounts, using computers, was an important story. The pseudonyms used for other Yolŋu are *mälk* or 'skin' names.

On another occasion, with some excitement, they had told me it was for a son's initiation ceremony, his *dhapi*. Nor do they spell out how they will get the money from Wamuttjan's account, but it is a Traditional Credit Union (TCU) account.⁴ We have a TCU branch in Ramingining, our only bank outlet. They can withdraw money there. Or at the ATM (Automated Teller Machine) at the store, because Wamuttjan has a card for this account.

But why were we just a little nervous and relieved when it worked? That is because it wasn't always so. Today all the actors (all the bits and pieces, all of the people and things) have behaved predictably and together enacted what Latour would call an intermediary. Last week we would have had to describe them differently, as mediators.

Here is Latour again.

An intermediary, in my vocabulary, is what transports meaning or force without transformation: defining its inputs is enough to define its outputs. . . . Mediators on the other hand, cannot be counted as just one; they might count for one, or nothing, for several, or for infinity. Their input is never a good predictor of their output; their specificity has to be taken into account every time. . . . No matter how apparently simple a mediator may look, it may become complex; it may lead in multiple directions which will modify all the contradictory accounts attributed to its role (Latour, 2005, p. 39).

The week before all this we were in a tangled web of mediators.

Friday 25 May - 10.20 am

Glen, Daisy, Wamuttjan and baby Njarritjan come to my caravan. They indicate they want to transfer money

4 TCU specialises in providing banking services to remote Indigenous communities in the Northern Territory.

from Glen's Westpac account to Daisy's TCU account.⁵ As I don't have a fax machine—the usual means of requesting bank transfers in Ramingining—I suggest they go to the Women's Centre.

But it doesn't end there. They linger. They have more to tell me and at some stage I recall, Westpac doesn't do fax banking. I find out Glen has a three-digit telephone banking access code—which could be used to get an internet bank access code online—so I realize I may be able to help. We go over to the Knowledge Centre and I try to use Glen's three-digit code to register him but we get no further than the first step. The registration program rejects his three-digit code. We have to phone a number given on the screen. I tell Glen and Daisy the phone costs fifty cents and they say they will bring the money later. I write it down.

On the phone, we learn that Glen has failed a phone ID process at some stage and has been suspended from telephone banking. But the person on the line is helpful. They suggest calling his branch and we are given the Nhulunbuy Westpac number. We get Jan, another helpful person, and she tells us we can send a fax after all, with all the ID details we can muster, and his signature, and put our request in writing. I prepare a fax for them and include his driving license number. I add my own mobile phone number as a contact number.

At 3.30pm Jan calls us. She can't find Glen on the records. Does he have another name? What is his customer number? I realize we left that off the fax! By the time we get back to her it is close to 4.00 and it is Friday. TCU is closed for the day and the week. Monday, says the family, and moves away, slowly.

That evening I get a delayed voicemail on my mobile. Jan says there is another problem with account numbers. The one Glen has given isn't working.

Saturday 26 May - 9.30 am

Glen and Daisy come to the van with a dollar for the phone calls. It is all in five and ten cent pieces. I tell them about Jan's message; that we need to call on Monday. There's a problem with the numbers. I say, 'When your ID is fixed I'll help you to get an internet banking access code. Then it will be easy.' But I remember other stories and so I hedge my optimism and add, 'You may have to go to a branch.' I don't remind them of what we all know: that that would mean a trip to either Nhulunbuy (400km east) or Darwin (560km west).

Monday 28 May - 9.30 am

Daisy, Glen, Wamuttjan and Njarritjan arrive at the van. I call Jan on the mobile and she says she will try the account number again and call me if it doesn't work. I make cups of tea and discover I have met Glen's mother. I know her from computer workshops at the university. We are excited to find these connections. Glen tells me more about his family and their country.

11.00 am—Daisy and Glen return to the van. They tell me the money hasn't gone through. I feel a stab of disappointment, recalling the length of other sagas. Glen suggests it takes two days, and we grasp at straws. I get cold water and we sit and talk about their son whom I used to teach, the importance of being strong in Yolŋu Matha and English and about the banking problems people are having. I say that internet banking may be the solution and that we will get Glen's access code at the Knowledge Centre this afternoon. Daisy indicates that she has a new three-digit code, too.

1.00 pm—They come to the Knowledge Centre and I try again to register Glen for internet banking, but his three-digit code is still not working. We call Jan and she is busy; she will call back. When she does, she tells us that the suspension on the three-digit code is a different issue from the faxed transfer request. She will have to organize for it to be lifted and get a new code and fax it. I give her

⁵ Westpac is one of Australia's largest banking institutions.

the school fax number as we don't have one at the Knowledge Centre.

Meanwhile Glen and Daisy remind me that Daisy has a three-digit code too and make signs that we should work on her account. She gets out a little piece of paper with what looks like a customer number and a three-digit code. I am sceptical. We have worked fruitlessly on Daisy's account in the past, but they tell me it is a new number. They get out a bank statement for the account dated March.

I enter the numbers into the online registration page, and they work. We proceed to the next step. It's a question for which Daisy needs her Handy Card⁶. She has six cards with her but not the right one. She will need to get it from home. I do some rapid mental calculations and offer to drive her while Glen minds the Knowledge Centre.

As we drive, Daisy, who almost never speaks in my presence and speaks little English, tries to tell me, 'I don't understand much English.' I try to think of a way to say, 'Me too,' in Yolŋu Matha, but let the comfortable silence state the obvious.

When we get back to the computer we have been logged out and have to start again. I have a lot of trouble getting back to the starting screen, and when we finally get to the questions page, this time it is a different question. Daisy doesn't need the Handy Card number anymore but needs to know her balance! I ask them if the statement is the last one they got and tell them that we need to know the balance exactly. If we get logged out again I am afraid Daisy's code will get suspended again. They have a quick exchange and tell me the balance; a larger sum than that on the statement. I am nervous. I put in the amount and it works again. We start to choose a password and alas, I have forgotten to prepare them for it. We have a discussion which we have to hurry, because we don't want to get logged out for delaying. We

decide on a dog's name with the numbers 123. We get through the process, but the screen then tells us it was too obvious. We try again, but the cursor, which has been increasing in unreliability, chooses this time to go crazy. We can't get through the password selection which requires pointing and clicking on numbers and letters. The screen freezes and tells us we are blocked. I quickly change to another laptop and start again but we are blocked.

In the middle of this, Jan has called us back. She has managed to organize the transfer for Glen and it will go through the next day. I don't pay attention to the details and thank her rather too hastily because I want to ask about our new problems: Glen's three-digit code and this problem with Daisy's password. She tells me she will fax Glen's new code but for Daisy's problem we have to call the internet banking number. We get through to Bronwyn and find she is helpful too. We are on a good run!

She has to speak with Daisy. We have been through this before. On that occasion the woman at Westpac overheard Wamuttjan helping her mother say her date of birth and had refused to ID her. It had set in train a futile attempt to get her signature accepted. So with my heart in my mouth I tell Bronwyn that Daisy has real problems with speaking English. She reassures me that if she can just get through her ID she will be able to give permission for me to speak for her. She also tells me she will ask her for her access code, so with Wamuttjan on one side and me on the other, and her access code on a paper in front of her, I introduce her within Bronwyn's hearing and give her the receiver.

Daisy looks nervous, almost trapped. She says, Hullo! Hullo! and hands the phone back to Wamuttjan who hands it to me. Bronwyn is understanding. We try again, with me asking the question. Daisy holds the paper away, trying to read it. Wamuttjan starts to say it quietly and I signal for her to stop. Remembering! Somehow she gets to say the three numbers and gives the phone back. Bronwyn accepts it! We also have to

⁶ Handycards are one type of card issued by banks in an effort to promote access to modern banking facilities.

get her to say Yes, to the question, Can Anthea talk for you? She says, YES! Her body language hinting at the courage it takes.

Bronwyn gives us a temporary password and we get through the rest of the procedure, despite the hurdle of the Terms and Conditions. I have learnt to say, You can read all of this, about the bank rules, or you can trust them. Everyone says, Trust them! And we click, Accept.

But Daisy is on her feet at this stage. It has gone on too long. When we finally get through to her account only Wamuttjan is at the computer with me. It shows the amount that they knew was there. Daisy and Glen come back into the room with little Njarritjan who has been handed from arm to arm throughout this long procedure. They seem pleased but dazed. Glen is wondering about the fax. And they also add that word, 'Transfer.' That's what it is all about. They want to transfer money into Wamuttjan's TCU account. Yes, I say, but then my heart sinks. Quickly I go into 'Manage Your Accounts' and check the daily transfer limit. It is set to zero. Damn! I had forgotten. I set it to the next level, click submit and start to try and explain: there is one more step when you use Westpac internet banking. You have to set the daily transfer limit and that involves waiting in the mail for an activation code! One more number! We need one more number. It will come in the mail. Maybe Friday, maybe Tuesday.

I try hard, but I feel defeated. Their body language says they are tired and they are turning towards the door. I try to detect signs of understanding. I do detect signs of acceptance: that it is in my hands and that OK, they still have to wait. They ask about the fax again and I suggest they go over to the school. They come back ten minutes later. It hasn't come. I tell them I'll check later and I try one more time to summarize where we are up to with Daisy's account and Glen's transfer, but everyone is turned to go. The baby in arms has been incredibly patient. They all leave together.

4.15 pm—I see Glen and Daisy on the road outside the school. They are still looking for the fax and it still hasn't come. I say I'll check. That night we end up at a ceremony at the house of family whom we are all close to. I can't recall if I tell them then or not, that the fax still hasn't come.

In this article I can say, 'And so we continued in this vein'. The reader may be tired and relieved to jump to the end of the story, but they are not yet exhausted. Daisy and Glen have no such choice. They cannot get around the obligatory passage point (Callon, 1986a) which still stands between them and their money, and what it will buy, including food.

The story continued to unfold, day by day throughout June. When we finally managed to access Glen's account, he and Wamuttjan grew in confidence as they transferred money from his account to accounts they had access to in Ramingining. But we waited in vain for the letter with Daisy's activation code. Finally we phoned and found her address was registered at another town, another remote community where Daisy has close family. The activation code had been sent there. A new letter was sent. When it arrived we used the code to activate her daily limit and a progressive process of transferring her money began, as with Glen's, into accounts they had access to.

The family's relief was palpable and they became frequent users of the internet café and the Knowledge Centre. But their harrowing story of getting access to funds in a remote town such as Ramingining was not by nature unique and as I scribbled furiously in my field notes to keep pace with these personal dramas, I also toyed with the concepts and vocabulary of ANT, 'testing' it for its usefulness in telling these stories. If I was unlocking a door, to which I alone had a key, or more dramatically when I couldn't open a door (or an account) because a key (or password) was lost, I was grateful for an antidote to the frustration which I would have felt if I hadn't recognized the agency of keys and numbers, if their materiality and

'technicity' meant that they were only a nuisance and that the 'real' action here was somewhere 'social', in human failings perhaps. If only these annoyances were out of the way could we get down to business! Instead, while practising the language of ANT, I could parlay with these players in a way which somehow redeemed them, reinserted them as actors worthy of serious consideration.

Translation

Callon has described what was happening as a series of translations within actor-worlds (Callon, 1986b, p. 32), where whole networks, reduced to apparent single entities may be translated into new networks, transforming each other. But while it was helpful (if perhaps trivial) to describe what happens at a locked door in translation terms, there was nothing trivial nor innocent about the banking stories like Glen and Daisy's, which occupied so much of my time and that of the residents of Ramingining. They were veritably throbbing with implications. Banks have translated 'holus bolus' into their own networks other functioning networks: whole worlds of computing and telecommunications, and the idea of a number as an identity. Westpac, in this story, also translates Glen and Daisy into little suites of numbers: a birth date, a remembered balance, a customer number, a three-digit telephone code, account numbers and internet banking passwords. Not just the numbers but the relationships between them are crucial. Glen must be able to produce them all, at one time and in one space, even though that space is only a functional space. If he can, the bank recognizes him as Glen and equates him with his money. If he passes to them numbers which the computer equates with Wamuttjan, it can then translate the numbers (representing amounts of money) in their computers into numbers in another bank's computers, which appear on the screen of the computer in the TCU room in the Council building here, where young women have been trained to see and recognize those numbers and translate them into cash in hand. They hand it

out through the grill, which enacts the space in which cash can be kept safely in a place hungry for it. That cash is then translated at the store into food.

(Im)mutable mobiles

This is putatively a story of immutable mobiles, of objects created strategically to travel, supposedly unchanged, across other changes whether they be changes in geography or scale or discourse (Latour, 1987, p. 227; 1990, p. 26). The people on the phone at Westpac, the Jans, Kerrys and Bronwyns, accepted the equivalence the numbers represented to them. We were in our little Knowledge Centre space behind the devastated old Council building with all the stories it entailed for us. They were sitting in some office in Sydney or Hobart. The numbers travelled, indifferent to this geography and scale. Jan et al went through procedures to convince themselves the equivalence was valid. 'We' said we appreciated that, that we understood it; I spoke on behalf of Glen and Daisy. I tried to translate the idea of security into terms I thought they would understand. But we too were translating in another way. The numbers were recorded on various bits of paper, transcribed from old much folded pieces to new sheets, and stored in purses and wallets. (In some stories, just in pockets and hands or heads.) They were recited and rehearsed and discussed.

But in this way, while they were presented to the bank as the immutable mobiles which would faithfully translate identity into a form the bank recognized, they were for us potentially very mutable mobiles (de Laet & Mol, 2000), in more than one way. On the one hand we were aware of their fragility; they could disintegrate, lose their potency, their ability to identify. They could get lost, forgotten, transposed. (I saw that happen quite often; two numbers reversed, say.) But more importantly, the translation at this end was not number equals personal ID. It was shared family ID. The numbers were commodities with exchange value here. Certainly banks and villains recognize this potential too and hence the massive

architecture of the computer security networks, but in Ramingining that commodity status is not seen as villainous per se. Potentially problematic, yes, and people have numerous and fascinating strategies for that, but not the ones banks envisage with their campaigns to encourage people to guard and secretize their passwords. Here people do other things: they create multiple accounts and perhaps keep one number ‘unannounced’, or deliberately destroy the card associated with that account. Alternatively, they may employ ingenious ways to get the bank ATM to retain a card, temporarily.

Material Semiotics

The terms ‘material semiotics’ and ANT are often used interchangeably. It would be better of course to be more precise, as Law is, when he calls ANT ‘a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located’ (Law, 2008).

I saw Daisy and Glen, throughout this story, as determined and optimistic and yet always at a disadvantage. As a team, they trudged back and forth between their home, my van and the Knowledge Centre, day after day; their only weapon their persistence and the balance they knew was there in the bank, and their faith in me; their belief that justice exists and that it can be asked for with dignity. They were created mendicant by their relationship to numbers, their differing skills in English, their limited access to phones and understanding of the protocols of banks, signatures, numbers and computer language. All of these actors in turn came out of those transactions as powerful, as arbiters of what happened next . . . and yet, the four of us also managed to reshape some of them. As we sat around Daisy and the phone, miming to her the day she had to pass her phone ID, we did something we had failed to do previously. We didn’t take away from the bank the role it

performs every day, all over the planet, which every client reinforces as they engage in the protocols. However, we did ‘undo’ that assemblage just enough to see something of its creation and what holds it together, and to make it work for us. Certainly, at other times we undid it enough to render it useless.

This semiotic relationality was everywhere of course. The network and our compliance didn’t just give Daisy and Glen their temporary dependency, but it also gave those numbers, otherwise just meaningless strings, their powerful agency. It gave the computers their usefulness; me, my ability to ‘help’, and so on.

The most obvious of the non-human actors here were the numbers, and the computers and all their supporting physical networks, but at every touch of these tangible elements we ran into people. And every encounter with people involved us with more things, both tangible (purses, bits of paper, pens, tables and chairs, doors and keys, cars) and intangible. Languages were obvious actors, but motives too became visible: the money was needed for the ceremony, they said. Sometimes, in other parallel stories, people said things like, ‘Anthea, we’re hungry!’

In this story there is an insistence on process and its precariousness. As Law puts it, ‘all the elements need to play their part moment by moment or it all comes unstuck’ (Law, 2008, p. 146).

Certainly there are networks around which have more flexibility than this one, and beyond ANT 1990, the ‘fold’ began to include them: networks that behave more like waterways. But this particular network demonstrated this dependency on each link, again and again. It is a classic heterogeneous actor-network. (Law 1987) Then too, it demonstrated that parts of networks can be remade. As Latour meticulously illustrated in *Science in Action* this usually requires phenomenal work, (Latour, 1987) and in our story too these times of reshaping were laborious and time

consuming. It took weeks, courage, coaching, practice, before Daisy and her team were able to convince Westpac that this team was her, Daisy, customer number di-di-di-dah.

Obligatory Points of Passage

It is also a classic story of action at a distance, through the agency of immutable mobiles and 'obligatory passage points' (Callon, 1986a, p. 205),⁷ of how the scales of large banking corporations and tiny, tinny, outposts at the end of a phone line, become irrelevant, through the intermediation of the well behaved assemblies of computers and internet service providers and understandings and practices to do with numbers.⁸ It is the agency of architecture. A few of the elements could have been moved a little in time or space, but most of what we did would have been impossible if a piece or a sequence had been swapped around. We were a story, not a lexicon of concepts.

And we were never far from the political. It takes very few links in the network to reach events, people, things, which have been active in setting the scene for the disempowerment and the dependency of Daisy and Glen on the one hand, and on the other the sense of remoteness and the fragility of the chain I had to tap into to 'help' them. At any point of that story I could have veered off on other legitimate trails, revealing the way the Council operated, the events which had left us with such a minimal internet access point, the events and people and things which had created the Council in its present state.

New actors have entered the story here. They are not people or material things but discursive concepts:

⁷ Callon uses this term to describe the effect of networks designed to control actors in particular ways; to channel their movements through particular points of geography or behaviour (Callon 1986a).

⁸ Latour calls the process of translating into numbers, of creating 'a world inside which facts and machines can survive', metrology (Latour 1987, p. 251). He also develops the idea of scale in his work on Pasteur (Latour 1983).

disempowerment, dependency, remoteness, fragility. By giving them a name—by allowing them—I give them a role.⁹ I have enlisted them. I have translated a set of events into a new potential intermediary (or mediator) in the story. They immediately lead us to the periphery of an arena which has another discursive label: political.

ANT was always adamant that it was about 'how', as opposed to 'why'. How networks held together, shaped their components; how they could make a centre and peripheries. In short, how differences get generated in a semiotic relational logic (Law, 2008, p. 146).

I was able to watch this banking story, under the influence of ANT, doing this. By going through the actions described here; by acting out the translations:

this number = this person

these numbers = money = food

this space in the Knowledge Centre = an extension of Westpac

this computer screen = Westpac

this room which we opened with a key = a safe space

this action here on a computer screen = a transfer of money somewhere else

this person (Anthea) = someone who can speak for this person (Daisy)

this set of actions = dependency (or perhaps, independence, immediacy, convenience).

We were all performing the inherent differences in this story, the centre (Westpac) and the periphery (Ramininging).

⁹ Take the concept of 'remoteness' for instance. If I allow and use it, I am acknowledging a reference wherein nearness and remoteness can be judged. Ramininging was never remote in Yolŋu terms.

Rejecting dualisms

ANT always insisted that it represented an erosion of foundations, that is, of dualisms such as human-nonhuman, big-small, macro-micro, social-technical.

(They become) effects rather than explanatory foundations. This is not to say that they are not real—they may indeed be made real in practice—but they offer no framework for explanation (Law, 2008, p. 147, emphasis in original).

In this story too, (and the larger story it was embedded in, particularly the story of the Council) people and things had power to undo the networks: keys, leads, numbers, signatures, alliances, moods, beliefs, spaces.

There were big banks and small numbers. Size didn't matter. As in the games of solitaire which had proved to be our computers' most successful acts of enticing, it didn't matter if the missing card in an otherwise complete sequence was a Queen or a two. Either would bring the game down.

Concepts of closeness and distance were also eroded. Banks translated people in their homes into the vastness of the internet, numbers represented people at a distance; banks spread out and became obligatory passage points for storing and moving money.

But perhaps the most resilient of the explanatory, foundational dualisms is that of the social versus the technical. In this story it would be easy to slip into this divide. If a person loses or withholds a key, or forgets a number, it would be easy to argue that the human is the real actor here.

In response, ANT has suggested otherwise. If a person forgets a password, but not their classificatory relationships, then the number has contributed its own affordances—a difference—into the transaction. The person was not the only actor.

Stability—After Dualisms

But if foundations have been eroded, what endures? ANT has steered its work away from 'why' and eschewed foundational, stable agent explanations, but how does it deal with continuity? Is it going to endlessly tell stories and not notice the themes? Law asks what might replace the foundations that have been so cheerfully undone (Law, 2008, p. 148)?

He says that ANT answered this question by addressing architecture and configuration but insists on only 'relative stability', which in turn can be located in the material (in the end it is the configuration of the web that produces durability, not the materials themselves), in the strategic (deliberate strategies to create durable networks), and in the discursive (discourses defining conditions of possibility) (Law, 2008, pp. 148-149).

These are apposite concepts in Ramingining—ways to translate actors and activity which feel right. The configurations of people and things and their stories were indeed relatively stable throughout the story told here, though we were able to demonstrate how, with a great deal of work, we could shift some of the relationships. And how easily, carelessly, the repetition of certain actions (like the losing of numbers) acted out and stabilized one set of configurations (which were labelled with words like dependent, helping) and undid others (the chain of events which could result in money being withdrawn).

We were in no doubt that the configurations of parts assembled in the computers were essential to their durability, as were the procedures which constituted that of the banks. And the strategic intentions, the creation of the obligatory passage points which the banks represented, were never questioned. However the discourses which act to stabilize those configurations and strategic arrangements within one setting were shown to be far from stable here in Ramingining. The understandings (the stories/discourses) behind concepts such as personal

ownership, material value, the power of secrecy, were all destabilized in these stories. Whatever their role in the intermediary behaviour of banks in, say, Darwin, in Ramingining the network is stabilized by different stories, different conditions of possibility. In Ramingining it is possible to pass passwords around, to be different people over the phone. It is possible to tell these stories as epistemological aberrations in the fixed ontology of western banking. Or to find evidence that ontology is never a given.

Performance

During the ANT 'diaspora' post 1990 (as celebrated in Law & Hassard, 1999), several themes developed into strong leitmotifs. 'Performance' was one of these. It was not a new concept; it is inherent in the material semiotics at the heart of ANT and we have already watched Glen and Daisy, the banks and computers performing the heterogeneous actor-network we called internet banking in Ramingining. But the idea grew in its influence and significance. Law actually calls it a 'seismic shift' (Law, 2008, p. 151).

Crucial to the new material semiotics is performativity. We are no longer dealing with construction, social or otherwise: there is no stable prime-mover, social or individual, to construct anything, no builder, no puppeteer. . . . Rather we are dealing with enactment or performance. In this heterogeneous world everything plays its part, relationally . . . (all the actors) assemble and together enact a set of practices that make a more or less precarious reality (Law, 2008, pp. 150-151, emphasis in original).

This understanding has particular cogency in a place where so much is performed, not just in the sense being used here, but in the particular popular sense the word carries. Visual art and performance (in this case music and dance) is used to keep the Yolŋu world intact (Tamisari, 1995). It is an easy move to shift focus to the even more complex and heterogeneous community by adding

in the Balanda and the Government institutions which bring them here, the houses they live in, the services they work through (but which equally enable them to be here). Obviously, without the daily exercise of the relations between all these 'new' elements and the Yolŋu, the town, the 'community' wouldn't exist, but its precariousness and fragility is demonstrated daily; you only have to walk into the space (the shifting space) which gets called 'the Council', where expectations regarding the roles one plays to keep something recognizable as a 'Council' are continuously rubbing against each other, like a swirling tide in a pool where certain life forms develop the capacity to cling onto other more stable things.

Mail spreads and spills across tables and onto the floor. Telco and bank logos (usually meaning 'important') get stamped with footprints. People sit here and there on a continuously moving tide of chairs. Kids wander into spaces where finances are dealt with. A phone has a sign: DON'T USE WITHOUT PAYING \$5. But it is used anyway. Brochures and newsletters in a language local people don't read spill out of a display case. Someone in the Community dies and tips the balance. Suddenly there is fighting outside; people carrying knives and axes and spears as symbols of grief, fear, determination to protect and avenge. Law's words (his 'precarious reality') could have been generated here, and of course that is a proof of their veracity or usefulness.

Co-Constitution

We have followed Glen and Daisy as they have endeavoured to get access to their money and in the process encountered the plethora of heterogeneous actors ANT predicts or rather prepares us to notice. We have used the language of ANT to watch these actors being translated, enrolled and caught up in performing the heterogeneous network we recognize as internet banking with its computers, users and money, within the larger networks of the town and its Council, of telecommunications providers and

banks. Akrich takes up this idea of performance and emphasizes that these performances are actually and always a co-constitution. We can watch the way humans and objects define each other, she says, and indeed make each other.

She directs us to question:

. . . the extent to which the composition of a technical object constrains actants in the way they relate both to the object and to each other . . . [and] the extent to which [the human actants, in turn] are able to shape the object, and the various ways in which the object may be used (Akrich, 1992, p. 206).

But if we want to actually see this adjustment taking place, to describe it, she says, ‘we have to find circumstances in which the inside and the outside of objects are not well matched. We need to find disagreement, negotiation, and the potential for breakdown’ (Akrich, 1992, p. 207).

Akrich predicts that at times like this we may see various outcomes. We may see objects being changed or even dismantled. Or we may see them at work changing their users. She says that not only may new technologies lead to new arrangements of people and things, they may even generate and ‘naturalize’ new forms (Akrich, 1992, p. 207).

Was this evident in Ramingining? Did I observe the computer adjusting to Yolŋu? Did I observe Yolŋu adjusting to computers? I certainly was there at the ‘right time’; a time when introductions were new, when there was ample ‘potential for breakdown’, for mechanisms of interaction and reciprocal adjustment to be laid open. But what did I see?

I saw Glen and Daisy coming up against the ‘inscription’ (Akrich & Latour, 1992) in the assembly of banks and computers which we called ‘internet banking’. This inscription read: You will present as an individual; you will identify yourself by numbers and codes, and you will guard your identity. You will mistrust others.

I saw Glen and Daisy created mendicant in this relationship, but I also saw them utterly determined to learn the script, and persistent, day after day, in their efforts. I saw that while they did not resist the inscription in the computer, they nevertheless subverted it. They found out its weaknesses. They presented as individuals with number names but they acted as a family. As a family they coached each other and shared their information and money. They acknowledged that some people are untrustworthy and thus understood the role of passwords, but went on trusting each other. They also demanded that the banks speak to them, if not in Yolŋu Matha, at least in English.

This negotiation took a month. Day by day the computer in its role as an internet bank and Glen, Daisy and their daughter put each other through the trials by which they came to know each other and made the adjustments which eventually settled into a semi-stable working object, by means of which Glen, Daisy and their family continued to get access to their money in the months that followed.

These adjustments—enabling this stability—hadn’t all been made by Glen and Daisy. I also had the opportunity to watch the bank-computer alliance as it negotiated this relationship and many others over the months of this research. While the computer steadfastly held to its inscription, You shall present as an individual identified by a code, the banks made more adjustments. Despite their wholesale annexation of computers and computer language (the language of databases and algorithms) in their creation of internet banking, they had had to maintain and even perhaps to ‘re-insert’ people into their interactions. The many hours we spent in Ramingining in 2006–2007 talking our way through transactions with bank staff must have been a small fraction of the times these conversations occurred across Australia. This was so for the large national banks as well as the smaller credit unions, specifically targeting Indigenous clients. One of the latter went further, in 2007 introducing pictorial codes for passwords. In this interaction-transaction random sequences

of symbols were presented to clients—from which they chose a personal sequence—and while they were invariably classic Balanda symbols for people (nurses, policemen, firemen, etc) and things (tools, office and household objects), they nevertheless held enough significance at this cultural interface for people to respond positively. While I observed that these sequences could be forgotten, I also saw that people enjoyed the process of choosing them. In contrast I recalled when we sat at computer screens, the clock ticking, and struggled to create passwords that conformed to specific formula—no more or less than so many numbers and so many letters—more than once our choices were rejected by the computer.

But what of the computer-parts in these complex alliances? Did they do any adjusting? I never saw them adjust their dependence on databases and algorithms, but I did see them restrained; restrained in their capacity to seduce, to invade other areas of Yolŋu life-worlds. While they demanded that Yolŋu approach them and declare themselves as individuals, Yolŋu responded by acting out the code for an individual and staunchly maintaining, performing and so reinforcing, their connections. Lines of demarcation were drawn beyond which the computer could not reach.

Beyond the scope of this research, the question remains: How will this negotiation proceed? What will be the outcome, in time, of the inscriptions: Mistrust others? Guard your individual property?

A Conclusion

Within its scope, this research took Latour's advice about travelling through back roads, on foot. In Ramingining it proved all too easy to use stories to illustrate ANT concepts but in turn the vocabulary and insights of ANT, as a 'semiotic toolkit', provided a means to encounter the complexity of Ramingining as a socio-technical world—and so to engage with it thoughtfully—without the need to tidy it into an illustration of classic explanatory categories. It thus allowed me to go on, to stay with Yolŋu in our snail-

paced work without being bogged down in goodies versus baddies, Yolŋu versus Balanda, human versus machine and so disengaging myself (and the Yolŋu I worked with) from the potentialities—the opportunities for tinkering and for insights—inherent in those parts of our networks which would have thus been othered. Moreover, while ANT helped me to identify, support and theorise the emergent actor networks which would work and did work, Yolŋu were enabled to work across classic Yolŋu-Balanda divides, working ways to mobilise technologies for their own purposes.

And in turn again, Ramingining enlarged ANT. This actor network in its own right becomes richer each time it is taken to a new place and brings back stories: the kind of stories which demonstrate the work it can do. While it can travel to places that appear to be clockwork paradigms—and help us to see what is hidden—it is even more useful when it goes to work in places where complexity parades as mess, where it can teach the art of not 'distorting into clarity' and the virtue of preserving complexity. The stories it brings back from these places can illustrate, play with and potentially extend or question its practices, 'growing' and even changing them.

In the research, of which the story in this article is only a chapter, there are stories that show how ANT went even further in its work than is described here (see Nicholls 2009). It draws on the insights of *AfterANT* and writers such as deLaet and Mol (2000), to watch socio-technical objects in Ramingining which behaved more like fluids than networks, or even more like fires (Law & Singleton, 2005). It came to agree that this sort of 'ontological choreography' (Cussins, 1998) also supports the work of finding a way to go on, no mean feat in worlds where getting money from a bank account can take a month.

Moreover, it also found ways to allow ANT to work heuristically, to frame questions which challenge non-Indigenous researchers and developers in remote Indigenous towns to aspire to good faith, fully understanding what that could mean.

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Regulating Responsibilities: Income Management, Community Engagement and Bureaucratic Learning at Mäpuru, North East Arnhem Land

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Abstract

The blanket implementation of income management in prescribed Indigenous areas under the Northern Territory Emergency Response (NTER) and in the absence of community consultation or negotiation processes, was informed by a view of community engagement as preventing action and failing to deliver outcomes. However, the outcomes of income management documented by the authors at Mäpuru, a homeland centre in north east Arnhem Land, demonstrates policy failure as a result of poor policy design and objectives inappropriate to the local context. Outcomes included centralisation, reduced food security and the perpetuation of disengagement and marginalisation. This paper discusses the ramifications of the NTER approach to policy formulation and implementation, arguing that this approach robs policymakers of important opportunities for bureaucratic learning and perpetuates a cycle of policy experimentation and failure. Community engagement, local partnerships and appropriate communications methods may lead to more appropriate and effective policy responses to issues in Indigenous communities.

Introduction

The inherently political process of public policy development and implementation in Indigenous affairs was exemplified by the Australian Government's Northern Territory Emergency Response (NTER), a unilateral attempt to address perceived inappropriate behavioural norms in Northern Territory Indigenous communities. Following a series of reports on Indigenous child abuse and a subsequent inquiry culminating in the *Little Children are Sacred Report* (Anderson & Wild, 2007), in June 2007 the Australian Government announced this dramatic attempt to reconstitute social norms in Northern

Territory Indigenous communities, without consulting Indigenous communities or leaders and bypassing established processes. Emergency measures included alcohol and pornography bans, compulsory land leases, the instalment of Government Business Managers in communities, child health checks, the abolition of customary law provisions from sentencing and welfare reform measures. A key measure was income management, involving the compulsory administration of 50% of people's social security payments by Centrelink¹ for expenditure

¹ Centrelink is an agency of the Australian Government which is responsible for administering social security payments (Centrelink 2009).

on Government-defined priority needs, and the prohibition of the use of these funds to purchase alcohol, tobacco, and pornography or for gambling (Brough, 2007a).

It was argued that engaging in consultation and negotiation processes would prevent or delay action and create bureaucratic barriers to the adoption of strong measures by NTER proponents (Mundine in Karvelas, 2008; Pearson, 2009). Former Prime Minister John Howard justified the decision not to consult with communities: 'I don't think you can respect power structures in these communities when clearly those structures have failed to deliver the right outcome' (Jones, 2007).

It was also suggested that the unexpected nature and speed of implementation would deliver a necessary rearrangement of affairs in Indigenous communities (Sutton, 2009; Toohey, 2008). The NTER and in particular the income management component emerged from discourses which had taken place over the past decade on inappropriate behaviours and unfulfilled responsibilities in Indigenous communities (Jarrett, 2009; Johns, 2008; Langton, 2008, 2009; Nowra, 2007; Pearson, 2000, 2007; Sutton, 2001). These discourses fuelled further debate about the failure of Indigenous self-determination (Altman, 2004; Behrendt, 2007; Kowal, 2008; Sutton, 2001, 2009; Wooten, 2004) and led to a questioning of Indigenous customary practices and ways of being (Nowra, 2007; Sutton, 2001, 2009), thus providing the necessary context for the emergence of new policy agendas targeting individual responsibilities (Manne, 2007; Pearson, 2000; Sanders, 2009; Wooten, 2004). The NTER and income management provided an unprecedented response to perceived inappropriate norms of behaviour in Indigenous communities, particularly to Indigenous people's expenditure decisions and caring responsibilities (Brough, 2007b; Howard, 2007). Problematic behaviour, seen to pervade Indigenous communities (Langton, 2008, 2009; Sutton 2001, 2009; Toohey, 2008), gave rise to a policy response which bypassed local solutions and the targeting of individuals.

Debates about past policy failures have led to a shift towards functional questions of 'what works' and a greater emphasis on evidence-based programs by government (Dillon & Westbury, 2007; Neill, 2002; Pearson, 2009; Sanders, 2009). Somewhat paradoxically, little evidence existed at the time of implementation of the likely outcomes of new policy approaches targeting individual behavioural norms such as income management (Sanders, 2009). Like Ferguson's anti-politics machine (1994), the rendering of political issues of poverty and marginalization into technical problems to be solved using an evidence-based approach obscures the fragmented, incomplete and political nature of knowledge that informs public policy development. Many different kinds of knowledge inform the policy development process, of which research findings form only one component (Bridgman & Davis, 2004). Academic research alone does not always provide complete or comprehensive answers to social policy questions due to the unpredictable nature of human behaviour and the importance of contextual factors (Pawson, 2006).

In this context, we discuss bureaucratic learning, or the production of bureaucratic knowledge about the scope and nature of problems, their causes and the implications of potential solutions in Indigenous communities. Bureaucratic learning, an inherently political process, is influenced by ongoing interactions between the state and communities through service delivery, in addition to a variety of other non-local factors (Lea 2008). This paper analyses the ramifications of the NTER approach to policy formulation and implementation for bureaucratic learning. Using a case study of the impacts of income management, a key aspect of the NTER, in the homeland² community of Mäpuru in north east Arnhem Land, we demonstrate how this approach has failed, resulting in heightened food insecurity and contributing to increased disengagement and

² Homelands, also known as outstations, are small, decentralised Indigenous communities located outside major centres. Homelands usually consist of a single family group, with a population of around 50-100 and are often in very remote areas.

marginalisation of community members. We argue that the unilateral NTER approach perpetuates a cycle of policy experimentation and failure. Community engagement processes and local partnerships provide a key forum for bureaucratic learning and are likely to offer a more appropriate and effective method for addressing issues in Indigenous communities.

Contextualising Income Management

The objectives of income management are to promote socially responsible behaviour, ensure that priority needs of families are met, and reduce the amount of cash in communities available for excluded items (Australian Institute of Health and Welfare AIHW, 2009). Income management operates through the licensing of food outlets to accept managed income (FaHCSIA, 2008b). Income management was initially applied by the Federal Liberal/National Coalition Government in a blanket manner to prescribed Northern Territory areas, consisting of all Indigenous land held under the *Aboriginal Land Rights Act 1976* (Cth) and town camps, for a period of five years, through the suspension of anti-racial discrimination legislation (Department of Parliamentary Services, 2007)³. Subsequent Federal Labor Governments have continued and extended the operation of income management in the Northern Territory to recipients of most forms of social security payments (FaHCSIA, 2012), reclassifying income management as a 'special measure' under racial discrimination legislation (Australian Government, 2009). Exemptions are now possible in certain circumstances, based on criteria such as participation

3 'Prescribed areas' represent all Indigenous land held under the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth) and home to over 70% of the Indigenous population of the Northern Territory (Northern Territory Emergency Response Review Board 2008). Prescribed areas have only been subject to limited NTER measures, such as income management and alcohol and pornography bans. 'Prescribed communities' are 73 Northern Territory Indigenous communities subject to more intensive intervention, including compulsory leases and the direct oversight of Government Business Managers. Prescribed communities have also had access to new funding made available under the NTER for improved infrastructure and service delivery (Northern Territory Emergency Response Review Board 2008). Homelands, including Mäpuru, have generally been included in prescribed areas but not prescribed communities.

in paid employment or study and demonstration of responsible parenting (FaHCSIA, 2010), and there is no sunset clause for these changes. These changes were based on community consultations conducted in 2009 (Macklin 2009a).

However, the consultation processes used to inform income management reforms have drawn some criticism. Participants in the consultation process attended community and regional meetings and were asked to discuss a limited range of future options for income management (FaHCSIA, 2009a). Observers at meetings have pointed to a number of irregularities such as mediator bias, inadequate or misleading information and failure to provide professional interpreters in many instances (Central Land Council, 2010; Cultural and Indigenous Research Centre Australia, 2009; Nicholson, Behrendt, Vivian, Watson, & Harris, 2009).

Additionally, the NTER occurred in the context of changing governance arrangements to infrastructure and essential services provision for homelands which resulted in significant budget cuts as both Federal and NT Governments have sought to channel funding into larger communities (Australian Government & Northern Territory Government, 2007). Reforms to the organisation of local government in the NT, a key mechanism for service delivery to remote areas, occurred concurrently with the implementation of the NTER. These changes interacted with the implementation of income management in homelands and, most likely, influenced the way income management was perceived by homeland residents, as will become clear in the following section.

Outcomes of Income Management: A Brief Review of the Literature

A small amount of research into the outcomes of income management exists, with mixed findings. Much of this comprises government conducted or commissioned evaluations, which generally present more positive findings overall

(AIHW, 2009; Bowchung, 2011; FaHCSIA, 2008a, 2008c, 2009c, 2011), although these may reflect general government bias and a need to demonstrate that income management comprises a form of positive discrimination to satisfy racial discrimination legislation. Analysis of the impact of income management on sales in 10 stores in prescribed communities has also been undertaken by Brimblecombe and colleagues (2010) and the Equality Rights Alliance (2011) has undertaken qualitative research of the experiences of income management of Indigenous and migrant women in urban areas of the Northern Territory.

Government conducted or commissioned reports have found that the availability of food at community stores has improved (FaHCSIA, 2008a, 2011) and expenditure on food has increased (AIHW, 2009; Bowchung, 2011; FaHCSIA, 2008a, 2009c), although small reductions in gambling and expenditure on alcohol and no change in cigarette sales were also reported (Bowchung, 2011; FaHCSIA, 2009c). However, Brimblecombe and colleagues (2010) found that income management had no impact on total store sales or on tobacco sales and attribute increases in store sales to government stimulus payments, while most women surveyed by the Equality Rights Alliance (2011) reported little impact on the goods purchased. Many studies reported increases in food prices (Bowchung, 2011; FaHCSIA, 2008a, 2008c, 2009c, 2011), potentially limiting peoples' ability to take advantage of the greater availability of food. Possible causes of this are attributed to anti-competitive outcomes of the store licensing regime and increased fuel prices (FaHCSIA, 2011). A small number of women surveyed by the Equality Rights Alliance (2011) also reported benefits in saving and budgeting and reduced incidence of 'humberging'.

Difficulties in using managed income for travel and to fulfill customary obligations have been reported (FaHCSIA 2008a, FaHCSIA 2011), in addition to a reduced ability to travel to and reside in homelands (FaHCSIA 2008a). Income management has been associated with perceptions of disempowerment

and lack of control over finances (FaHCSIA, 2008a, 2011) and a loss of dignity and respect (Equality Rights Alliance, 2011). Women surveyed by the Equality Rights Alliance (2011) also reported a rise in petty crime in order to obtain cash.

Outcomes of Income Management at Mäpuru

Methodology

Mäpuru is a Yolŋu homeland in north east Arnhem Land, located on Wobulkarra land and consisting of people from the Guyamirrili, Ritharrŋu, Ganalbŋu and Djambarrpuyŋu nations. It was established in the late 1960s by families that aspired to remain on their custodial estates while trading with the nearby Elcho Island mission. The closest town, Galiwin'ku, on Elcho Island, can be reached by chartered aircraft, or private boat and unsealed roads in the dry season.

Mäpuru Nŋatha, the only commercial food outlet at Mäpuru, was established by residents in order to reduce their dependence on Galiwin'ku for food and to lower associated travel costs (Arnhem Weavers, 2009). In 2004, the store operators won the *Heart Foundation's National Award for Small Rural and Remote Community Projects* for their approach to encouraging healthy diets through the range of items stocked (Heart Foundation, 2004). However, throughout the study period (September 2008 – September 2009), the store operators had two applications to license the store for income management rejected. The reasons provided for these decisions included inadequate financial management and governance processes, a lack of meat, fruit and vegetables stocked, poor understanding of income management amongst store management and the risk of 'humberg'⁴ in the context of a small family business (FaHCSIA, 2009b). This decision was later overturned through Ministerial intervention and the store became

⁴ 'Humberg' and 'humberging' refer to the exploitation of Indigenous peoples' customary responsibilities to share food and money with certain family members by their kin.

licensed for income management in December 2009 (FaHCSIA, 2009b).

Although income management remains a highly controversial issue, there is a general dearth of research independent of government into its outcomes in communities. The aims of this study were to investigate the lived experiences of income management on homelands using a qualitative case study approach, following requests from Mäpuru community members to have their experiences of income management documented (Malñumba, Gitjpulu, & Gulumindiwuy, 2009; Nñuluwidi, 2009). The research undertaken contributed towards the Honours thesis of Stef Puszka. The case study site of Mäpuru was selected as an instance of a 'unique opportunity' to explore income management (Denscombe, 2007), where residents had experienced both personal income management and store licensing and expressed desires to have their experiences publicised. John Greatorex has established relationships with people at Mäpuru over several decades through his work as an educator and Coordinator of the Yolñu Studies program at Charles Darwin University.

Research methods consisted of the analysis of public statements produced by community members to address their concerns to Government between September 2008 and September 2009, during the early implementation stages of income management at Mäpuru. This included submissions to a Northern Territory Government review of service delivery to homelands which also addressed issues associated with income management (Nñuluwidi, 2008). All statements were publicly accessible through a website (www.culturalsurvival.org.au). Residents provided permission for the use of statements for this analysis.

Five statements from five Mäpuru residents of approximately 15–25 minutes length were included in the original analysis (two individual statements and one group statement), comprising two men and three women. One statement included in the original analysis was subsequently removed following

the death of the author, according to the wishes of his family. As statements were publicly available and represented attempts to publicise matters at Mäpuru, no attempt has been made to conceal the identities of the other remaining authors.

Statements were made in audio and visual format in Djambarrpuyñu, one of the languages spoken at Mäpuru, transcribed from video and audio files by Stef Puszka, who undertook a Graduate Certificate in Yolñu Studies concurrently, and translated into English by John Greatorex, a qualified interpreter. Statements were analysed using an inductive process (Gillham, 2000) and where possible they were validated through personal communications, government documents and media reports. Stef Puszka conducted primary content analysis and developed a thematic coding framework to categorise themes using Microsoft Excel. Initial codes, representing groups of related concepts found throughout the data, were first tested on a representative selection of data and discussed by all authors before finalisation and application to all data. The dominant themes to emerge from this process were: access to income and coping with change, food insecurity, incongruence with local aspirations and disengagement and disempowerment.

Access to Income and Coping with Change

Mäpuru residents demonstrated broad compliance with income management requirements, reporting the expenditure of managed income on food, for the benefit of themselves and their children, in accordance with specified 'priority needs' and 'excluded items' (Malñumba et al., 2009; Nñuluwidi, 2008). No change in alcohol consumption was reported, although residents described a reduced ability to purchase cigarettes (Malñumba et al., 2009).

However, income management brought new complexities to the task of purchasing food. Residents described purchasing items with their three different income sources (managed Centrelink income, non-managed Centrelink income and

private income), and the need to call Centrelink to check their account balances prior to shopping trips, as a cumbersome process, particularly in the early implementation period (Maljumba et al., 2009). Additional complexity resulted from the options provided to residents of diverting managed income to either the BasicsCard, a debit card distributed by Centrelink, store cards which could only be spent at specific stores in specific locations, or both the BasicsCard and store cards (Njuluwidi, 2009).

Residents also experienced difficulties in using and accessing managed income. Problems were reported with the use of managed funds to pay for plane charter services to Galiwin'ku for shopping (Maljumba et al., 2009), despite the inclusion of transport costs for the purpose of procuring food as a 'priority need' (Social Security and Other Legislation Amendment (Welfare Payment Reform) Act 2007 (Cth)). People usually paid for transport by cash, because, according to Maljumba (2009) 'it's too hard to use the cards'. Some residents reported that their income had not been transferred to their BasicsCards or store cards, despite numerous requests made to Centrelink, and that they had subsequently become reliant on family members for food. According to Njuluwidi, (2008), 'there are stops, we don't know how to access that income management money'. Communication difficulties with Centrelink officers and a poor use of interpreting services were also noted (Njuluwidi, 2009) and are likely to have been a factor for residents attempting to access their income and in coping with the NTER-wrought changes. Residents continued to report these issues in September 2009, 18 months after the introduction of income management to the area, indicating more systemic problems.

Food Insecurity

Mäpuru was subject to significant instability as a result of the rejection of residents' store licensing applications. Food security declined as residents became unable to purchase essential items at Mäpuru with managed income. More frequent

shopping trips to Galiwin'ku and other regional centres, usually via chartered flights, resulted in greater travel costs and reduced disposable income (Maljumba et al., 2009; Njuluwidi, 2008). Some older residents relocated to Galiwin'ku in order to improve their access to commercial food supplies and avoid frequent travel in light aircraft (Njuluwidi, 2008). Others had become stranded at Galiwin'ku when they had insufficient funds to return or were unable to secure return transportation (Maljumba et al., 2009). This phenomenon whereby the population of a homeland centre, Mäpuru, has become reduced as the population of a larger regional centre, Galiwin'ku, has expanded is, in reality, a form of centralisation.

The income management store licensing regime resulted in anti-competitive outcomes in the region. Mäpuru residents discussed their lack of choices in stores where managed income could be spent and the subsequent power of licensed operators. According to Maljumba (2009), 'They can become rich there, rich from that Galiwin'ku shop and that Gapuwiyak shop. Yes, because there is lots and lots of money there, because [all] the money from the BasicsCard is spent [there] on food.' Increased prices and profit margins at licensed stores have been reported since the introduction of income management (Central Land Council, 2008; FaHCSIA, 2008a, 2008c).

The Mäpuru Nātha store continued to operate at reduced capacity as a result of declining sales revenue (Njuluwidi, 2009). According to Njuluwidi (2009), 'It's just going okay, we just order enough food to keep going'. However, he persisted in operating the store: 'I'm going to keep ordering food for the shop. . . . If you can't approve us to use the food card, I'll just keep on ordering food, so we can buy food here' (Njuluwidi, 2008). Outback Stores, a Government-owned business established to assist Indigenous community stores, was unwilling to become involved in store management, despite assuming the management contracts of other stores which have not met licensing criteria (FaHCSIA, 2008b).

Incongruence with Local Aspirations

Self-development through the ownership and management of businesses formed an important component of Māpuru residents' identities and aspirations for autonomy. Achieving self-sufficiency and greater independence were stressed by residents. The connection between local development and the trading their forebears had undertaken previously with Macassans and later with missionaries was also commented on. It was commented by Gitjpulu (Maljumba et al., 2009), 'It would be very good [if] we were able to help ourselves'. Businesses contributed to self-sufficiency both through the generation of an income independent of Government and by providing an additional food supply (Maljumba et al., 2009; Njuluwidi, 2009).

It was evident that the outcomes of income management threatened aspirations for self-sufficiency through local businesses. Centralisation as a result of income management was removing residents away from their economic base and causing a loss of political and economic independence (Maljumba et al., 2009; Njuluwidi, 2008). According to Maljumba (Maljumba et al., 2009), 'Galiwin'ku is not a good place, maybe it's good for other people, but for us it's no good'. Njuluwidi (2008) described similar sentiments: 'That place [Galiwin'ku] is not ours, not our country'. A number of factors at Galiwin'ku further threatened residents' livelihoods and aspirations, including social instability and conflict (Maljumba et al., 2009; Njuluwidi, 2008, 2009). As described by Njuluwidi (2008): 'Galiwin'ku is a mixed community. People are fighting and there are lots of problems'. In addition to obstructing residents' aspirations, the outcomes of income management evidently threatened identities amongst Māpuru people as successful, autonomous homeland residents living on their nation estates.

The policy objectives of income management bore little resemblance to the issues and aspirations discussed by Māpuru residents. Although residents

expressed clear desires for development and greater self-sufficiency, the blanket objectives of income management and the responsibilities agenda underlying it contrasted strongly with the local specificity of residents' aspirations and residents' emphasis on community control over local projects. Income management imposed a heavy regulatory burden which the store managers were unable to comply with and which sought to restrict rather than support residents' aspirations and initiatives. Local knowledge, structures, values and resources were ultimately ignored by policymakers in favour of compliance with a proscriptive business model.

Disengagement and Disempowerment

The NTER approach to policy development and implementation culminated in negligible understandings of income management at Māpuru. Confusion over the policy objectives of income management was expressed. Although there was an awareness that managed income was 'for the kids' (Maljumba et al., 2009; Njuluwidi 2009), a lack of understanding of the objectives and justifications for income management were emphasised by most residents (Maljumba et al. 2009; Njuluwidi 2009). According to Maljumba (Maljumba et al. 2009), 'We Yolŋu think we've got lots of money in income management but Yolŋu don't know the meaning of it, what it's there for'. Similarly, Njuluwidi (2009) described residents' confusion: 'We don't know that system, how it's working, what it means when there's money in income management'.

Māpuru residents described their concerns about income management as matters of process and power. The absence of community consultation and negotiation processes prior to the introduction of income management was perceived as disrespectful to residents, in addition to hampering the effectiveness of the policy. An inability to experience income management in their ŋayaŋu or inner feelings and emotions, to adapt to it and work within it as a result of being unable to understand it was described by Njuluwidi (2009), demonstrating a perspective about the need for policies and their

objectives to be properly understood in order to be embodied by people. A number of residents demanded formal negotiations about the future of income management (Maljumba et al. 2009; Njuluwidi, 2009). Njuluwidi (2009) similarly demonstrated a perception of a failure to follow proper processes: '[The Government] doesn't go through the right channels'.

The lack of external coherence of Government policies was viewed as an intentional Government strategy for maintaining power over people at Mäpuru. Residents described the continually changing nature of Government policies and the difficulties they experienced in staying informed about policies impacting on them. Njuluwidi (2009) commented, 'We don't understand the first system, we don't understand the second system and we don't understand the third system. It's all tangled up'. This contrasted sharply with perceptions of Yolŋu laws and systems as being concrete (Njuluwidi, 2009). Government was perceived as establishing and enforcing regulations according to ambiguous objectives, impeding the ability of people at Mäpuru to hold it to account. A lack of transparency in Government intentions was described: 'If things flowed easily, you could see how it worked' (Njuluwidi, 2009).

People at Mäpuru situated income management within continually changing policies and previous experiences of external control. These experiences were demonstrated by centralisation during the assimilation era, support for the homelands movement under the self-determination framework and more recent changes to funding arrangements for homelands (Njuluwidi, 2008, 2009). As was commented by Njuluwidi (2008), 'We already moved from other places and came back'.

For Mäpuru residents, income management was experienced as a threat to their autonomy (Njuluwidi 2008). The lack of choices and uncertainty produced by income management were deeply disempowering for residents (Njuluwidi, 2008). Feelings of becoming disoriented and dissociated

from power over their own lives by constantly oscillating Government positions and objectives were described, particularly in Government support for homelands. According to Njuluwidi (2008), 'So now the Government asks us to move, pulling us like [in] a net . . .'

As a result of the food insecurity it produced, income management was reconfigured as a process of centralisation and embedded in wider changes occurring to funding arrangements for homelands (Maljumba et al., 2009). It was perceived as a Government 'trick' ultimately intended to divorce people from ancestral estates, homelands and livelihoods through the extreme threats and constraints imposed through centralisation (Njuluwidi, 2008). According to Njuluwidi (2008), 'Through that food card there are lots of tricks. The Government has lots of good tricks. The Government says: you want food? Your food can come through the food card. And go and shop at Galiwin'ku.' Maljumba (Maljumba et al., 2009) described similar sentiments, also demonstrating a perception of income management as providing an additional income source which would further entrench unwanted dependencies which would produce future obligations: 'What is the truth of that income management? The Government says here's your money in income management and later they'll take our land. Maybe that's the reason they give us money for income management'.

It is evident that income management heightened feelings of alienation and perceptions of powerlessness already present to some extent at Mäpuru. Although the threat to food security presented by the failure to obtain a store license at Mäpuru has since been resolved, the manner in which income management threatened future livelihoods and contributed to uncertainty has further fuelled ongoing distrust of Government amongst residents and is unlikely to have promoted residents' self-esteem and community capacity-building efforts. The development of a productive relationship between the community and Government was significantly diminished

by income management and is likely to require significant and sustained engagement in future premised on genuine respect by governments for the social capital of remote community residents.

Improving Outcomes Through Consultation and Negotiation Processes

Other research into the outcomes of income management supports our general findings of a number of unintended consequences, including possible anti-competitive outcomes (FaHCSIA, 2011), difficulties using managed income to travel and fulfil customary or societal roles (FaHCSIA, 2008a; FaHCSIA, 2011) and the centralization of homeland residents into larger communities (FaHCSIA, 2008a). To these issues, our research contributes a further in-depth qualitative account of the cumbersome nature of income management which, in some instances, prevented people from accessing managed funds and substantiates suggestions that income management resulted in perceptions of powerlessness and a lack of control over money in communities (Equality Rights Alliance, 2011; FaHCSIA, 2011).

As Brimblecombe and colleagues (2010) and the Equality Rights Alliance (2011) found, Mäpuru residents did not report significant changes to their previous expenditure habits, as Mäpuru is a dry community, although residents did note that income management made the purchase of cigarettes more difficult. Our research conflicts with the findings of government-conducted research suggesting that income management resulted in increased availability of food (FaHCSIA, 2011); however, the government findings appear to be based only on data from licensed stores.

The failure of the interventionist policy approach at Mäpuru was underlined by disengagement between policymakers and residents. The blanket application of income management demonstrated a lack of knowledge about the general character of individual communities and specific local issues amongst policymakers, and culminated

in a number of significant unintended negative outcomes. The introduction of policies which necessitate significant lifestyle changes amongst target populations requires policymakers to inform themselves about local issues and potential ramifications of policy proposals. As commented by Njuluwidi (2009): 'We don't understand what's going on, what [income management] means, we didn't talk together'. Engaging in consultation processes may benefit both policymakers and communities through the development of better targeted solutions.

However, in order to reap mutually beneficial rewards, consultations must be based on a genuinely collaborative approach. When policymakers and communities maintain separate agendas and consultations are merely designed to legitimise Government positions, they are unlikely to be effective (Bohill & Douglas, 2000; Carter, 2010; Kennedy, 2009; Nicholson et al., 2009). Consultation processes in which communities are merely asked to choose from a limited range of options, and which are conducted for political or legal purposes, as has been suggested of the NTER Future Directions consultations (Behrendt, 2008; Nicholson et al., 2009), are unlikely to achieve these ends and may fuel further mistrust of Government. 'Consultation fatigue' through continual policy experimentation must also be avoided (Carter, 2010).

Consultation processes provide an important forum for bureaucratic learning. The development of more effective policies and programs through prior consultation processes has been well documented in the Australian Indigenous context (Hunter, 2007; Marika, Yunupingu, Y., Marika-Mununggiritj, 2009; r'Hart 2008). Engaging in genuine consultation processes may also bring the costly practice of policy experimentation as identified by Mäpuru residents to an end, and result in more concrete, lasting solutions.

The absence of an evidence base to support income management highlighted the need for prior

consultation and negotiation with communities. Despite a recent emphasis on evidence-based policy, frequent experimentation with new and untried ideas has meant that policymakers often lack information about the likely outcomes of policy proposals targeting Indigenous communities (Sanders, 2009). In the context of a lack of evidence to support new proposals, a failure to consult with communities is likely to privilege other, non-local perspectives. Public discourses of 'dysfunctionality', passivity and inappropriate behavioural norms compromise genuine consultation and overlook the local specificity of issues in Indigenous communities.

Engaging in genuine community consultation processes provides a means for improving the local knowledge of policymakers and overcoming their disconnection with communities. In particular, policymakers often lack detailed local knowledge (Lea, 2008). Engaging with communities through prior consultation processes is likely to provide policymakers with the type of localised, situational knowledge which they lack and may minimise subsequent operational issues.

Poor levels of understanding of income management among people at Mäpuru also underlined a need for greater engagement by Government. Community consultation processes are likely to lead to a better understanding of policies among intended targets, in addition to creating a sense of 'ownership'. Policies such as income management which aim to create behavioural change require effective local partnerships between Government and communities (Hunter, 2007; Webb, 2008).

This is particularly salient in remote communities such as homelands, where Governments lack the capacity to enforce coercive measures (Dillon & Westbury, 2007). For example, at Mäpuru, it took policymakers over two years to address food security issues arising from income management, despite a concerted campaign to have the store licensed by supporters of the community. The lack of Government capacity was further compounded by the unwillingness of

Outback Stores, an Australian Government company, to provide assistance or advice to the store operators.

Reducing perceptions of powerlessness and uncertainty are essential for building local capacities and self-sufficiency. To achieve the stated aim of 'resetting the relationship between Indigenous and non-Indigenous Australians' (Macklin, 2009b), a genuine undertaking to halt policies which entrench disengagement, and begin empowering communities through genuine, sustained community engagement processes, is required.

Limitations

There are a number of limitations to this study. This research consisted only of a single case study, and therefore may not be representative of other experiences of income management at other homeland communities. However, a case study methodology, providing a contextualized, in-depth account of local social relationships and processes (Denscombe, 2007; Gillham 2000), provides an appropriate framework for documenting programs of social and economic change, such as income management. It has been reported that Outback Stores have refused to provide services to other homelands-based stores in prescribed areas (Laynhapuy Homelands Association, 2007), while store licensing criteria stipulating the residence of a single family as a risk factor for 'humbag' appears likely to impact on other stores in homelands in similar ways. Although only five statements were included in this analysis, this sample included land owners, other community leaders and store managers. The sample also included a balanced representation of the genders (three women and two men) and different generations (three older or middle aged people, two younger adults).

Conclusions

The failure of income management at Mäpuru demonstrated a significant lack of engagement between policymakers and the community. Through inappropriate objectives and poor policy

design, the attempt to regulate responsibilities through constraining available choices ultimately resulted in the constraining of residents' abilities to fulfil them. The failure to improve food security and the serious unintended outcome of centralisation were a significant setback for the community's sustainability and a costly exercise in policy experimentation for the Australian Government. In addition, the resultant perpetuation of disengagement and marginalisation of residents may set back the actualisation of residents' aspirations for self-sufficiency and self-management and thus impede the success of future policies for Indigenous advancement at Mäpuru. Paradoxically, perspectives of consultation and negotiation processes as preventing action underlying the NTER have resulted in uninformed and poorly targeted policies.

Recent preferences for evidence-based policy have been underlined by a shift away from local, consultative approaches and have resulted in generic solutions to diverse circumstances. The blanket implementation of income management throughout Northern Territory Indigenous communities emerged from public discourses of inappropriate behaviour and unfulfilled responsibilities, rather than demonstrated outcomes or local knowledge, and denied policymakers important opportunities for bureaucratic learning. The application of the 'responsibilities agenda' to Mäpuru did not resonate with local concerns and was a key factor in the serious negative outcomes that eventuated. The responsibilities of policymakers to communities are conspicuously absent from these discourses, and were highlighted by the significant period of time taken to address unintended outcomes of income management at Mäpuru. As our research has shown, the dichotomisation of policy responses as either outcome-driven or consultative represents a false and damaging dualism.

While income management appears likely to continue at the time of writing, the lack of Government capacity to appropriately implement and enforce measures such as income

management in homelands and local desires for greater self-sufficiency has underlined the need for a partnership-based collaborative approach between Governments and communities in future policy development and implementation. Local approaches which address local issues in a targeted manner are required. While it is not our intention to provide a prescriptive method for undertaking consultation processes, Governments need to acknowledge and work within local governance structures in the development and implementation of new policies and programs, and in particular, work with local land owners, elders and organisations. Our research has also outlined the importance of using appropriate communications methods which enable local people to become fully informed about proposals and choices, which may include the engagement of both professional interpreters and bicultural consultants.

Acknowledgements

We are grateful to the Yolŋu residents of Mäpuru for sharing their experiences and trusting us to tell their story, particularly Roslyn Maljumba, Jackie Njuluwidi, Caroline Guluminidiwuy, Julie Ann Gitjpu and another man who has passed away and cannot be named. Thanks also to Michael Christie for comments and advice, Yiŋiya Guyula for assistance with translating public statements and Jesse Northfield for proofreading.

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