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Ties that Mobilise

The relational structure and wellbeing dynamics of
collective action

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Submitted for the qualification of
Doctor of Philosophy (PhD)

University of Sussex

August 2017

I hereby declare that this thesis has not been and will not be submitted in whole or in part to another university for the award of any other degree.

Signature:

Acknowledgements

To my grandparents Vivien and Paul. Volunteer lifers who taught me to wonder at the world all the while seeing opportunities to improve it.

This thesis would not have been possible without the work of the core research team – Rachel Dawn Alejan, Bethel Jane Magincol and Fatima Leya – or the willingness of People's Organisations, VSO volunteers, VSO staff and Local Government Unit staff working in the watershed. Thank you! Special thanks to Piso Freemantle, Maristela Abenjojar and M'am Adette Albarando for taking a chance on the research in its early days. Thanks also to Theresa Magdua, Nanay and Tatay for welcoming me into their home for several weeks while we waited for the rain to come.

I'd like to mention the work of Geoffrey Gulay at Guindulman LGU, Manang Adette in Cambugsay and Basdio Youth Group. You were a constant inspiration to me and I will treasure the time we spent re-connecting with nature long past the end of this research journey.

I'd like to thank my supervisor, Danny Burns. Your ability to communicate clarity in the face of complexity is a gift. It has been a pleasure learning from you. I'd also like to thank Tom Tanner – I was truly disappointed when you had to stop being my supervisor, but I can't thank you enough for giving me a chance in the early days! Thanks to Jeremy Allouche for taking over the reins and to Linda Waldman, who takes such a conscientious approach to supporting Doctoral students at IDS.

In so many ways, completing this PhD has been a team effort. I'd like to thank my husband, Dave. Of all the endeavours you have unselfishly encouraged, I think this one has been most demanding. Thanks feels like too small a word for all the sacrifices you've made. Your turn next? Thanks also to Mum and Dad for your belief and help with childcare. And to Isaac. When things got difficult, I would just look at what you achieved in your first three years of life, and this was enough to spur me on.

A note: Aside from the core research team, I have used pseudonyms for all other contributors. While the time and perspectives of every actor was integral to the findings of this study – and greatly appreciated – I felt it was more important to protect anonymity when reporting your contributions.

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Glossary

Barangay	An administrative district in the Philippines and the native Filipino term for village.
BYE	Basdio Youth Environmental Defenders, sometimes calling themselves Basdio Youth Group.
CWMFMC	Carood Watershed Model Forest Management Council.
ICS	International Citizen Service, a UK government-funded volunteering initiative.
IDS	Institute of Development Studies
Participatory Action Research	A research methodology which embeds reflection, planning, action and evaluation into an iterative process. The process is participatory because it emphasises collective inquiry and experimentation to understand the world and change it.
Participatory Systemic Inquiry	A research methodology that allows a system of actors to reflect on how people, processes and the environment they are situated within influence one another and the path to change.
People's Organisation (PO)	Independent associations of citizens with identifiable leadership, membership, structure and capacity to promote the public interest.
Purok	A political subdivision of a Barangay and the smallest unit of governance in the Philippines.

Social learning	Used in this study to denote learning that is social. Knowledge generation and sense making takes place with the use of participatory processes that encourage actors to interact and share experiences.
Valuing Volunteering	A global research project led by the Institute of Development Studies and VSO .
Volunteer Placement Supervisor	A locally based individual who supports volunteers in their work placements.
VSO	Voluntary Services Overseas.

1. Introduction

“We shape ourselves to fit this world
And by the world are shaped again”

David Whyte

1.1 Introducing this study

This thesis is about how complex change processes requiring collective action happen. Its concern is with connecting the technicalities of change (doing X to influence Y) to the human factors that move people to act. It draws learning from the efforts of a diverse group of volunteers and residents to protect a water ecosystem on a disaster-stricken island in the Philippines. It analyses the relational structures and wellbeing dynamics of people’s interactions to bring new insights into the interpersonal experiences that mobilise and sustain collective endeavours.

Despite long-standing interest in the psychology of individual motivation and group dynamics, the integration of these fields to consider the role of motivation in rewarding and adaptive interpersonal interactions is a very recent focus (O’Hara & Rutsch, 2013; Weinstein, 2014). The way individuals approach one another – and the emotional effects of interpersonal interactions on motivation – is not recognised in rational and cognitive conceptualisations of collective action (Hoggett, 2000) in social-ecological systems (Head, 2016; Anderson, 2017). To address this gap, the research is concerned with the existence of social networks, their wellbeing qualities and the interplays which contextualise collective action. The core questions driving this research are:

- How are networks for collective action built and strengthened?
- Which network experiences motivate individuals while building their momentum as a collective?
- What qualities sustain a network of people?

Looking at how volunteering works, when it works, the study examines the social networks of volunteers and the patterns of wellbeing created through network interactions, tracing what possibilities relational structures and the wellbeing dynamics they amplify create for social-ecological systems change.

To accomplish an examination of ‘relationships for change’, I use a participatory methodology informed by system and complexity concepts to illuminate interrelationships between context, experiences and relationships, which helped me and co-participants to understand and build from what works. To accomplish an analysis of the data generated, I integrate two fields of research: social networks with human wellbeing to understand collective action. I also integrate research from natural resource management and volunteering to situate an examination of collective action in a real-world context. Both the data collection and sense-making processes are anchored in a belief that human development and the challenges that stand in its way – climate change, inequality and poverty – are inherently complex phenomena (Ramalingam *et al.*, 2008; Apgar *et al.*, 2009; Marks, 2011; Bellagio Initiative, 2012; Ramalingam, 2013) requiring that we increase our capacity to work with this complexity rather than simplify the way things are (O’Hara & Lyon, 2014).

This introductory chapter begins the story by briefly describing my own history with complexity, psychology and social change. I then describe the opportunity that came from my involvement as a VSO volunteer in a large action research project called *Valuing Volunteering* to design a social learning process that would explore whether wellbeing could be broadened from an individual-level concept to characterise important qualities of social networks. Finally, I restate the research objectives and questions before providing a summary of the chapters that follow.

1.2 Research context and motivation

My first real exposure to complex processes came through my study of consciousness in philosophy and psychology at university. While there is still much to understand, there was increasing agreement that consciousness was an emergent property of distinct but interrelated brain states. The first large-scale piece of research I conducted was to understand the neurobiological basis of drug addiction for my MPhil back in 2002. Here I found support for sensitisation – a model for understanding how variability of experience at the micro-level (e.g., the experiential highs and associated neurotransmitter release of irregular drug taking) can have stable effects on neurochemical processes and drug seeking behaviour. Seemingly paradoxically, a person is more likely to become addicted if their use is more occasional than regular, and this non-linearity of effect catches a lot of people out.

At the same time as being exposed to neurobiological complexity, I was spending 20 hours a week working with a small charity in Sheffield supporting destitute asylum

seekers, with no rights, no access to income and no secure place to live. Despite our good intentions, I slowly came to the realisation that our own attempts to help the Kurds, Iraqis, Iranians and Eritreans inadvertently dehumanised them. We did a lot better than the authorities, but the charity was forever short of money so people had to apply for our support and then assemble once a week to receive it. Despite all the effort we were expending to keep the charity going and the emotional fatigue that came with reading case files and granting applications, I began to see myself through the eyes of the people I was trying to help. This changed what I wanted from the world and my role in it. I needed a more radical idea of progress, more human ways of designing interventions and more helpful ways of helping. To do all this, I had to acknowledge that other people's problems – and the forces that shape their problems – are never as simple as they look from the outside.

This took me to the Commission for Racial Equality, a quasi-governmental organisation, where the research I commissioned informed policy about the vast array of disadvantages experienced by ethnic minorities and the double disadvantages experienced by ethnic minorities who were also women, gay, or living with disabilities. My residing impression from the research we did at the Commission for Racial Equality was that inequalities manifest along divisions of identity, but the root causes of disadvantage and prejudice were more systemic. They lay in the socio-economic structures and systems we have created. When the commissions were asked to unite under the Equality and Human Rights Commission, I observed from afar what looked to be an orderly but no less tribalistic fight to the death for funding and decided my patience for silo mentality and surface-level policy making had run out.

So, I joined the New Economics Foundation (NEF). Here I found imaginative and innovative thinking around systemic issues, which exposed myths and artefacts of our current economic paradigm. Through this work some of the underlying attractors and hidden feedbacks directing our attention and focus at a societal level began to emerge more clearly – and with this clarity, clear signals on what's important. I joined the Centre for Wellbeing to carry out policy-focused research on human wellbeing. Nic Marks championed the integration of wellbeing and environmental indicators into indices of progress to rival GDP, and we led conceptual thinking around wellbeing as a dynamic process, whereby external circumstances, inner resources, actions and feelings can all build on one another to support good lives (Thompson & Marks, 2008; Abdallah *et al.*, 2011). This means there are multiple points of intervention within a wellbeing system, which present as opportunities to create a positive effect, which in turn is the cause of another positive effect and so on.

As a body of work the wellbeing paradigm has successfully challenged uni-dimensional understandings of poverty (Chambers, 1997; Abdallah *et al.*, 2012) calling into question the idea that quantity equates to quality (Easterlin, 1974) or that development befits a linear process of moving from “poverty, deficiency and ill-being on the one side, to wealth, abundance and well-being on the other” (Schimmel, 2009). Research also gave credence to the psychological and social determinants of welfare outcomes not captured in material and economic analyses (Rojas, 2008; Friedli, 2009). A big knowledge gap remained, however, to describe what a wellbeing approach to welfare provision or international development looks like (Bellagio Initiative, 2012). We ran some great events and deliberative processes to involve people in the definition of wellbeing and the design of indicators, but we weren’t working alongside communities to try and improve quality of life. My head was turned by the people at NEF – Liz Cox, Natalia Fernandez and Chris Pienaar – who were ‘doing’ change. They were deeply connected to people’s pathways around life and there was mutual respect for an approach to theorising and facilitating progress that built from what people had, not what they lacked.

With the publication of the Stiglitz *et al.* (2009) report, National Accounts of Wellbeing (Michaelson *et al.*, 2009) and the first World Happiness Report (Helliwell *et al.*, 2013), I felt the rhetorical argument had largely been won; now I wanted to figure out how to operationalise the concept, so it made a difference to the reality of people’s lives. Can an examination of wellbeing provide clues about how and why change happens? Can wellbeing insights humanise the development process to make it more effective? Can well-being improvements kindle human energy needed to change the system? I left NEF and went to Nicaragua for a year in 2011. I had always wanted to go back since I travelled there in 2004-5. I volunteered for a couple of NGOs as a way of exploring how wellbeing might fit a community development context. This is when I realised that the toolbox of the wellbeing researcher came up short. Surveys, cross-sectional data and time delays for analysis were not going to make the concept of wellbeing come alive for communities living on the slopes of an active volcano and at the fringes of a sugar plantation. I needed ways of exploring wellbeing *with* people because their involvement was paramount to achieving useful meaning and improvements. It was becoming clear that a wellbeing approach didn’t just need to be systemic; it called for a contextualised, reflective and participatory research process.

It was Violeta Vajda at VSO who first introduced me to the idea of Systemic Action Research as a methodological approach that could present a way forward. She had partnered with Danny Burns at IDS on an ambitious research project to understand

how, where and when volunteering affects poverty and contributes to sustainable development. Following some work I did for United Nations Volunteering in 2011, I was aware of the need for the research. While the impact of volunteering has been extensively researched, the study of its effects has largely concentrated on the volunteer, rather than the social change that the volunteer brings about. Nowhere is this trend more evident than in the volunteering and wellbeing literature. Here studies have focused on volunteer experience, motivation and retention (Aked, 2011) but have neglected to extend the boundary of inquiry beyond the individual volunteer into the wider social systems in which they interact (Wilson, 2011). In the evidence report I wrote on the links between volunteerism and wellbeing commissioned for the UNV, I concluded that:

“Research and policy often assumes that the mere existence of volunteerism will automatically create a civil society that works for the public interest. In reality, the relationship between volunteering and wellbeing is more complex than this with research finding that volunteer activity influences the wellbeing of individuals and groups within a society differently. This is because volunteerism takes place within existing social, cultural and economic contexts. Its contribution to the ‘public good’ is, in part, therefore dependent upon its ability to subvert the power dynamics, social pressures and inequalities which influence the distribution of resources and opportunities available to people. Attempts to improve human wellbeing through volunteerism are therefore inseparable from a pro-active commitment to social justice” (Aked, 2011: p50).

The relationship between volunteering and wellbeing is undeniable, but this doesn’t make it straightforward. The relationship is emergent, non-linear, bi-directional and contextualised to actors and their circumstances.

For me, Systemic Action Research represented a radical departure from methodological individualism and reductionist social research methodologies (Hoggett, 2000). Burns’s 2007 publication on whole system change was describing a systemic but participatory learning process which would allow wellbeing to act as a “compass” (O’Hara, 2001), or heuristic (Aked *et al.*, 2008; Marks, 2011) rather than a prescriptive framework. The artist, David Hockney, was interested in painting water because it was a surface that allowed you to decide where to look:

“With water, you can look at a reflection, or look at the surface, or take the reflection away and look through it” (Wright, 2014).

And this challenged him to think of artistic devices to depict the reality. In a similar way, conversations about wellbeing are ways of gaining good insights into the social realities and meaning systems that may at first appear perplexing or go unnoticed to the

outsider. In an essay on wellbeing across different ethnolinguistic groups in the Philippines, Paz (2008) wrote:

“Knowing how a group of people view well-being, what they aspire for, are willing to fight for, what gives them peace and contentment, is one way of knowing about them” (Paz, 2008).

But to work in the space between the systemic and the subjective, and between the apparently fixed and highly changeable is as much art as science (Bok, 2010). In the words of poet David Whyte, it is to embrace the “conversational nature of reality”: the 1000 different conversations that unfold in ecosystems between interconnected elements whose realities are “bonded to, flying away from or catalytic with one another” (Whyte, 2016; 4.41 mins). Rather than let the strategic part of my mind see myself – and my understanding of wellbeing – “as a piece of ammunition that you are going to fire at the target of existence” (Whyte, 2016; 7.46 mins), I wanted to introduce wellbeing, and all its prisms, into the conversation and find out where this learning took me. I found the space created in Danny’s methodological approach for sense-making to organically emerge and unfold between a group of invested people truly exciting.

In 2012, I joined four other VSO volunteers posted to Kenya, Ghana, Mozambique and Nepal at a training led by Danny at IDS on Systemic Action Research. This was part of my preparation to take up the post of Lead Researcher in the Philippines for the *Valuing Volunteering* project (Burns *et al.*, 2014). I spent the next two years working as a VSO volunteer hosted by the Centre for Leadership, Citizenship and Democracy at the University of the Philippines, in close collaboration with the Philippine National Volunteer Service Coordinating Agency (PNVSCA) and VSO’s in-country federated member, VSO Bahaginan. Working across multiple research sites in Luzon, Visayas, Mimaropa and Mindanao regions of the Philippines, I used participatory action research methodologies to ask local partners, communities and volunteers to reflect on how and where volunteering contributes to positive and sustainable change. Within this much larger project, I was given space and time to develop my own, independent and intellectually distinct PhD inquiry. A wellbeing lens was unique to the PhD inquiries, and it shaped the direction and methods used in this study. The formal auspices of the *Valuing Volunteering* research programme were an exciting context for the PhD because I could feed learning into *Valuing Volunteering*, both to validate and influence thinking. This gave the PhD a practical and applied dimension to complement the more academic aspects of doctoral research.

The research site for the PhD inquiry was the island of Bohol in the Visayan region of the Philippines. Here, volunteers and local actors were striving to protect a water

ecosystem, which local residents, farmers, and fishermen relied upon for food and household income. In many ways, their efforts represented the particularities of development challenges in the Philippines. Composed of over 7,000 islands situated on the Pacific 'Ring of Fire' and in the Pacific typhoon belt, the country has experienced 270 natural disasters over the last two decades, which is more than any other country in the world (UNDP 2012a). These disasters, exacerbated by the effects of climate change, are considered to explain in part the slow progress towards Millennium Development Goals, including on poverty and environment (UNDP, 2012b). Efforts to conserve and manage natural resources are a way of securing the economic base of rural communities, who are dependent on the services provided by natural ecosystems for their day-to-day livelihoods (Conservation International – Philippines, 2007; IPCC, 2014). Volunteering is increasingly recognised in the Philippines as a means of enhancing government-led efforts in disaster preparedness and agricultural development (Congress of the Philippines, 2007; VSO Bahaginan, 2012; Department of the Interior and Local Government, 2013). International and national NGOs and volunteering organisations use volunteers to help reduce vulnerabilities and exposure, and particularly to promote conservation and education. Volunteering is also used by higher educational institutions in the Philippines (Aked, 2014e) and international programmes like the UK's International Citizen Service (ITAD, 2011) to increase people's interest and capacities to become more active citizens in the face of significant development challenges.

Over the course of the *Valuing Volunteering* project – and this research – I witnessed time again the disconnect between theories of change and the complexity of change realities on the ground. I was fortunate to be working among Filipinos, who had greater capacity for appreciating volunteering and its non-linear effects than comes naturally to programme evaluators and funders in the West (Chapter 3). But this did not negate the fact that volunteers in the Philippines were working squarely within the myriad tensions between ecological and human dynamics, and these tensions represent one of the most pressing, but stymieing, undertakings of our age. The upshot was that volunteering and natural resource management provided a fantastic context for a research agenda interested to explore how people take action together in complex change scenarios.

This study's focus on the how and why of change precluded detailed analysis of outcomes. I was to learn from the reflections of people engaged in the change process about what was working, but I was not intending to evaluate their efforts. The study is concerned with earlier phases of human behaviour: the complex relational and

psychological processes that move people to act. This meant that analysis of the impact of human behaviour on bio-physical processes in the watershed was beyond the remit of this study. Despite this limitation, the study's focus plugs an important knowledge gap in the field of volunteering and natural resource management. Snapshot evaluations can tell us that people worked together effectively, but they can't trace the antecedent processes – the personal and relational experiences that determine how, when and in what ways people use their links and relationships for a wider social good. When in the field I deliberately set this research apart from monitoring and evaluation approaches, and this helped co-participants to explore their experiences more freely.

Within the two years I led the *Valuing Volunteering* research in the Philippines, the inquiry for this PhD took place over 14 months of fieldwork and analytical sessions and ten visits to the island of Bohol. Under the broad banner of Systemic Action Research, I developed a methodology by combining Participatory Systemic Inquiry and Participatory Action Research into a nested research design that enabled me to analyse wellbeing across systemic, relational and interpersonal levels of the social-ecological system. Using the networks and access granted to me through my position in the *Valuing Volunteering* project I established a group of co-researchers, critical friends and participants to focus on building an understanding of three areas of learning and practice: collective action in complex change scenarios, the use of networks and relationship building, and the influence of wellbeing dynamics – specifically the satisfaction of relatedness, competency and autonomy. Insights were then applied to a specific change context in an action research inquiry with a local youth group. Finally, an in-depth analysis which followed fieldwork synthesised important interplays between relational structures and wellbeing dynamics to specify the study's main theoretical and practical contributions.

1.3 Chapter summaries

I have organised the conceptual framework, methodology, data and synthesis over the following nine chapters.

Chapter 2 develops a conceptual framework for examining the relational and psychological antecedents of collective action. This is accomplished through reviewing literature from social networks and human wellbeing as two fields of research that have something to say about social arrangements that motivate people to move together. Once the complex systems foundations of the research and the specifics of the

conceptual framework are identified, I introduce the research questions and main knowledge contributions.

Chapter 3 describes the methodological approach and research process. It sets out my reasons for combining participatory and systemic methods to understand and build from what works. I also explain why and how I structured inquiries and analysis into a nested research design to analyse wellbeing across systemic, relational and interpersonal levels of the social-ecological system.

Chapter 4 provides an overview of the Carood watershed, describing the local context within which this study was undertaken. I use ethnographic observations, stories of change and secondary sources from the systemic inquiry to interpret the complex realities of natural resource management. I explore the collective action challenge posed by a landscape approach to natural resource management from a psychological and relational perspective, and what this meant for volunteers coming from outside the system to influence change.

Chapter 5 describes the intentional networking approach taken by volunteers and its mobilising effects. It also presents qualitative evidence from participatory social network mapping exercises to show distinct stages of network development for collective action. I extend previous network conceptualisations to capture the way volunteers built and strengthened networks for more complex change tasks.

Chapters 6, 7 and 8 explore the wellbeing dynamics of network and relationship building for collective action. Using network case studies, story network maps and interview data, the chapters look at three components of Self-Determination Theory: relatedness, competency and autonomy respectively. The chapters identify the importance of these wellbeing enhancing experiences for networks that display collective action tendencies.

Chapter 9 explains the process and findings of an action research inquiry with a local youth group to test whether the wellbeing insights identified in Chapters 6-8 could be picked up and used in an intentional way.

Chapter 10 provides an integrated perspective on the relational structures and wellbeing dynamics found to influence collective action. I conclude the thesis by reflecting on the complexity approach I took to understand social networks and wellbeing and how I have advanced understanding of volunteering and natural resource management, as well as the horizon of future wellbeing research.

2. Conceptual framework

2.1 Introduction

This chapter develops a theoretical framework for undertaking an analysis into how volunteering affects the collective change processes of natural resource governance. In the first section, I present an overview of key research concepts, and how they relate to each other theoretically and practically. I introduce the central research dynamic under investigation and the research questions that formed inquiry streams. In the middle part of the chapter, I situate the whole body of work in a complex systems account of reality and explain the implications of this ontology for the epistemological stance I take. Then, I consider systems and complexity concepts in my examination of two discrete literatures on social networks and human wellbeing. At this point I unify the literature into one conceptualisation of relational wellbeing, explaining how a complexity-aware approach of the interplays between relational structures and wellbeing dynamics is a useful starting point for analysing collective action. Once the conceptual framework is developed, I explain how my research questions translate theory into an applied setting. I use the conceptual framework to explore what is known about the governance of natural resources and the role of volunteering, highlighting knowledge gaps the research is addressing. I conclude with a summary of the research agenda to emphasise the academic and practical contributions I expect the study to make.

2.2 Research questions

The overarching concern of this thesis asks: “What relational structures and psychological dynamics amplify collective action?” The question emerged at the intersection of the applied research context and my own research interests. Figure 1 shows how natural resource management provided the change context for this study. It represented the nexus between poverty, vulnerability and environment which characterises a lot of rural poverty in the Philippines, and which became a focus of the wider *Valuing Volunteering* study this thesis was linked to. Within this context, the management council and VSO had introduced volunteers into the watershed. As a development tool predicated on human exchange, rather than aid or technical intervention, volunteering was a fitting intervention for my own interests in human wellbeing and positive social change. Both the nature of natural resource management and the choice of volunteering as an intervention brought the quality of human

relationships into focus. So, my interest in human wellbeing and social change formed around a central dynamic: the interrelationship between relational structures, salient psychological dynamics and collective action tendencies (Figure 1).

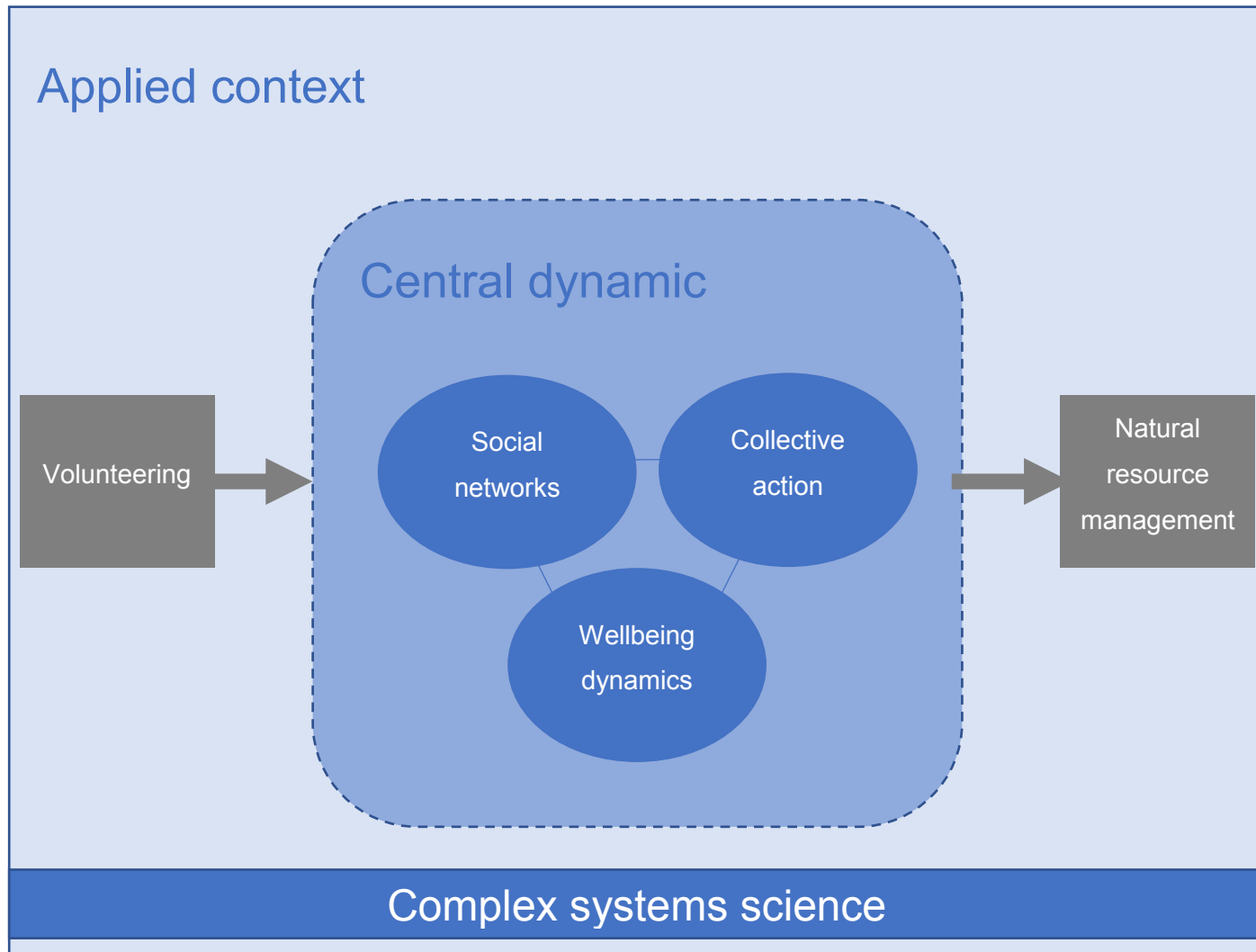


Figure 1 Situating the central dynamics under study in an applied research context

To understand the relational and psychological processes accompanying and influencing collective action to protect natural resources, I developed six research questions over the course of the fieldwork, which I answer in Chapters 4-10 of this thesis:

1. What are the systemic, relational and psychological dimensions of complex change environments?

2. What is the relational structure of volunteering in the watershed, and how are networks used to mobilise collective action?

3. How is collective action influenced by the experience of relatedness?
4. How is collective action influenced by the experience of competency?
5. How is collective action influenced by the experience of autonomy?

6. In what ways do relational structures and wellbeing dynamics interrelate to influence collective action?

Question 1 was intentionally wide-ranging, seeking to understand the broad psychological, social and ecological landscape that volunteers were operating within. It responded to a knowledge gap that emerged from *Valuing Volunteering* inquiries about the inherent complexity of the social change volunteers seek to influence in the Philippines (Aked, 2014b). The particularities of how change happens in natural resource contexts is not widely known or understood, even though volunteers are used in protection and conservation efforts. This is because few studies have provided ethnographic detail about what volunteers *do* once in placement, and what their role might be in the context of natural resource management. How was volunteering part of the solution in the management of the watershed, both in terms of what VSO and the management council were expecting and how it was working? A relational wellbeing lens also revealed that psychological factors affect complex social behaviour like cooperation and collaboration, even though psychological perspectives are rarely discussed in research informing natural resource governance policy.

Question 2 was focused on how volunteers work *through* relationships. The way volunteers use social networks to affect change is a known gap in the field of volunteering research (Lough & Matthew, 2013). I experimented with participatory approaches to mapping social networks to understand the number, diversity and use of social ties to mobilise collective action. I devised two processes for looking at how social networks developed through time and for exploring how social networks formed around social action. This was different to a lot of social network studies which provide a 'snap-shot' picture of a network, without accompanying analysis about how it came in to being, how it was strengthened or undermined and how it related to social change

objectives. The design of a participatory mapping process to analyse networks through time helped relational structures to become visible, meaningful and useful to the actors involved.

As I discuss in more detail in the literature sections, I didn't just want to document whether, and in what form, social networks existed; I wanted to be able to identify some of the salient features of the relationships that influenced how and why change happened. This led to the formation of research questions 3-5, and it represented a significant departure from most social network studies, which do not consider network structure and individual motivations in combination (Siegel, 2009). In the inquiry I undertook to answer Question 1, I learned that positive mental states and resilience were not aspects of wellbeing systems generally lacking in a Filipino context; much more intriguing was the extent to which different actors were fulfilling important psychological needs through their interactions at home, school, work and with community and nature. Self-Determination Theory describes how optimal development and growth are contingent on a sense of relatedness, competency and autonomy being experienced. The inquiry suggested that volunteer relationships might be doing something quite different in this psychological space than the relationships local actors had with one another. The difference may in part explain the increase in willingness to participate in volunteer networks, but not much is discussed in existing literature about how self-determination theory functions as a motivational process relationally, interpersonally and dynamically over time, especially outside of romantic relationships (Hadden *et al.*, 2015). Can satisfaction of relatedness, competency and autonomy in social networks help to explain how people find ways to act in complementary and reinforcing directions? To test the explanatory power of Self-Determination Theory in collective pursuits, I used interviews to reflect on the qualities of interactions in volunteer networks and I opened an action research inquiry to apply insights to a new context.

I circle back to a more systemic focus in Question 6, when I ask how relational structures and wellbeing dynamics affect one another, and how relatedness, competency and autonomy interacted with one another. This analysis took place after fieldwork had come to an end when I had the opportunity to sit back and consider the data I had collected, as one body of work. Surprisingly, efforts to integrate the field of human motivation and interpersonal relationships is still novel, even though discrete studies have recently indicated that motivation is relevant and important for interactions among strangers (Weinstein, 2014). I also look at the relationship from the other way around, exploring whether interactions among strangers affected personal motivations.

As illustrated in Figure 1, I used my interest in human wellbeing and social change to make sense of context-specific insights. From this analysis, I identified fruitful lines of inquiry, which could respond to knowledge gaps while remaining relevant to actors within the watershed. In some cases, I carried out rapid reviews of literature to support inquiry development. For example, early on I looked into collective action and found little work on wellbeing or relational perspectives. I also studied natural resource governance and the use of volunteering to increase participation in environmental governance in the Asia-Pacific region. This emergent approach to defining the research focus and its interdisciplinary nature are archetypal of research which embraces complexity theory. In the next section, I outline the beliefs I have about the nature of reality and the implications of these beliefs for the epistemological framework I use in this study.

2.3 A complexity-based research paradigm

The epistemological stance that guides this research is based on a complex view of reality. The critical concepts of complexity thinking are not new (Boulton *et al.*, 2015), but their use as an epistemology and methodology – a way of knowing about our social world and finding out about it – has little precedent. In this section, I show why and how a complexity worldview is anti-positivist like other paradigms in social research (e.g., constructivism and critical theory), but nevertheless a distinct starting point which influences how I have approached this study across four domains:

- Ontologically, to frame how I think about how change happens in human systems
- Epistemologically, to direct my focus away from piecemeal knowledge generation towards the creation of knowledge at the interplays and interdependencies of a system;
- Methodologically, to design an approach which would help me create a social learning process which could work with non-linearity and emergence;
- Analytically, to reflexively and systemically interrogate what I see and experience.

In the sub-sections that follow I show how a complexity-based understanding of human systems – like any ontology – affects how I feel, think and act as a researcher (Kuhn, 1962; Guba & Lincoln, 1994; Thompson & Perry, 2004). Table 1 summarises how key complexity concepts have contributed to an epistemological standpoint for this study, which required a specific methodological approach and analytical frame to make sense of the social processes under examination.

2.3.1 A complexity worldview

A complexity worldview sees the world – and specifically in the case of this study the human systems shaping it – as interconnected and interdependent (Boulton *et al.*, 2015). The nature of reality is “conversational” (Whyte, 2016), making our being and our becoming a continual, emergent and adaptive process. As such, a complexity perspective doesn’t assume one can predict the future based on prior knowledge or hypotheses as a “mechanical worldview” steeped in positivism does (Boulton *et al.*, 2015). Rather, the nature of human systems – and our understanding of them – is affected by the way any number of variables – e.g., social norms, values, historical context – combine and recombine in unpredictable ways.

Within psychological theory, the mechanical worldview can be traced back to Weber’s *Economy and Society* in 1922. Weber (1922) argued that social phenomena should be explained by showing how they result from individual actions. This action-theoretic level of explanation necessarily elevates the importance of intentional states, which only individuals (human agents) possess. Weber’s methodological individualism does not discount the idea that human psychology is social at its roots, but interpretations popularised by Popper and Watkins have been critiqued for asserting a commitment to metaphysical or ontological individualism (Heath, 2015). There is a psychological reductionism and rationalism in these accounts of reality that asserts you can know how a group of actors is going to act through the study of individual actions and the intentions behind them. This way of viewing and studying social phenomena was popularised by game theory or “rational choice theory” in the 1980s. Rational choice theory assumes that individuals will always act in their own interests – and that these actions will shape outcomes in a predictable way. It underpins a lot of social and economic theory to this day, side-stepping evidence to the contrary (Dawnay & Shah, 2005) and simplifying the inherent complexity of human dynamics:

“Human agents are conscious and self-conscious, they feel emotion and spontaneously improvise; they exercise imagination and spin fantasies; they experience and act upon values and on societal norms, they conflict with each other and often seek to deceive and manipulate each other in the ordinary politics of daily life; they act out their neuroses and psychoses in leadership and other roles they take up and they are essentially interdependent” (Stacey, 2010: p73).

In this description, Stacey eloquently refers to some complexity concepts important to this study (Table 1). The nature of things is **emergent**, contingent on the unique way actors in a system (e.g., a family or workplace) interact with one another. These interactions are **interrelated**, because one action – or reaction – is not separate from

the action of another, so the qualities and behaviour of a system (e.g., a functional family unit or an innovative workplace) are about how all the moving parts affect and get affected by one another. Certain ideas or behaviours (referred to as **attractors**), which can be very particular to a time and place (known as **sensitivity to starting conditions**), organise the way individuals interact (e.g., expressions of love or team work), which can promote stability in what people can expect from one another, while other **feedbacks** in the system – e.g., a new idea about what is fair or acceptable – move actors and their relationships in new directions.

These complexity concepts have their roots in the physical and natural world. Prigogine's research at the intersection between Newton's mechanical physics, non-equilibrium thermodynamics and evolutionary theory identified that most situations of interest are open, not closed systems (Prigogine, 1947). So, rather than emphasise separateness, Prigogine's work began to emphasise how a system can exchange information and energy with its environment. Boulton *et al.* (2015) describe how Darwin's thesis on variation and selection is a rejection of the positivist and reductionist worldview that reality is constructed as a linear process, which is predictable, controllable and ultimately knowable. His theorizing didn't lead him to think you can learn things about species evolution in one context and translate that knowledge to a similar context and expect things to play out in a similar way. Contrary to the positivist paradigm, he essentially concluded that the future is unknowable because new species and variants emerge at the interplay of environmental constraint and individual adaptation. It is totally possible that there is an element of surprise to the way individuals co-evolve with their environment and other species into a good fit. Applying these ideas to human systems, Boulton *et al.* (2015) argue that change is traceable through looking back rather than forwards, through focusing on discernible historical and contextual patterns. This attention to the path-dependent nature of reality involves exploration of social and historical processes, similar to approaches taken in constructivist and critical theory research paradigms (Guba & Lincoln, 1994), but it's the importance of context alongside consideration of interrelationships, emergence, attractors and feedback which defines a complexity-based epistemology.

2.3.2 A complexity-based epistemology

A complex view of reality has a very distinct epistemological starting point. This is because the complexity concepts described in Table 1 have some important implications for how we know things. For example, interrelatedness suggests that knowledge is held at interplays and interdependencies, elevating the importance of the

'co' space in the study of human dynamics. In prioritising knowledge of systems in the 1980s, systems thinkers reacted against reductionist methodologies rooted in positivism and their limited success in helping people deal with complex problems (Checkland, 1984). The word 'system' comes from the Greek verb *synhistanai*, meaning 'to stand together' (Ison, 2008: p140). Systems thinkers in biology considered there to be limited value in reducing organisms to their constituent parts to make sense of them. Rather than analysing the building blocks, they were more concerned with understanding connectedness, relationships and context (Capra, 1996). Systems engineers were concerned with feedbacks and circularity in evolving communication theory and the design of self-automated equipment (Ison, 2008). In human systems, these principles are expressed as reflexivity – the capacity for situations to be shaped by outputs – e.g. a change in behaviour – feeding back on inputs (e.g., a thought) which goes onto affect behaviour in a different context (Boulton *et al.*, 2015).

To think systemically is to seek out patterns of connections between elements in an effort to see as much of the whole as possible (Boulton *et al.*, 2015). This is a different starting point from seeking to make sense of social phenomena through acquiring knowledge of individual actions and intentions – e.g., discerning the quality of team performance by assessing the performance of individuals. Rather, interrelatedness points to the value and distinctness of knowledge flowing from collective processes and co-evolving relationships. One cannot hypothesise in advance what the pertinent reflexive processes and interrelationships might be; but a more inductive approach allows light-touch hypotheses to emerge from direct interaction with the situation and the multiple realities it contains. So, it's not incongruous for a complexity-aware research process to sit between existing social research paradigms – essentially to seek a way of navigating a path between the multiple realities of a constructivist paradigm (Guba & Lincoln, 1994) and discernible patterns of interconnection and causality, which we can claim are in some ways real (Mingers, 2011).

The complexity concept of attractors also has important implications for how we know things. Attractors infer that there is an overall shape to the happenings of a system, even when it is unpredictable in detail (Table 1), elevating the importance of pattern recognition across time and space in knowledge production. Pattern identification enables the researcher to identify what's driving behaviour and what's driving it to change. For example, the complex systems thinker expects that the interaction between internal dynamics and externally-derived events could lead to fluctuations in the way the system self-organises around different patterns of behaviour (Allen, 1976). By understanding the flexibility in a complex systems' boundaries, propensities and

dispositions, we learn something about the stability of behaviour and how best to influence the processes and interactions that unfold within it (Snowden & Boone, 2007). Combine the interest in patterns with a focus on interplays and interdependencies and a complexity-aware researcher gives primacy to the nature of interrelationships rather than bounding inquiries to the elements that do the interacting. The focus on a system's constituent parts is an epistemological outlook more common to mechanistic worldviews, and their positivist and reductionist tendencies.

2.3.3 A participatory path into complex systems dynamics

To navigate a path between multiple realities and patterns I can claim are in some way real, I borrow from the epistemological stance taken by participatory research paradigms. Beyond the theoretical knowledge of academia, a participatory worldview argues for an “extended epistemology” which seeks a richer, deeper, truer to life knowing (Heron & Reason, 2007). There are four ways of knowing that Heron and Reason identify:

- Experiential knowing – is through direct face-to-face encounter with person, place or thing; it is knowing through empathy and resonance
- Presentational knowing – emerges from experiential knowing and is expressed through imagery, poetry, story, drawing etc
- Propositional knowing – is knowing through ideas and theories and is expressed in abstract language or mathematics
- Practical knowing – is knowing “how to” do something and is expressed in a skill, knack or competence.

When seeking to navigate complexity, using all ways of knowing is helpful. As Boulton *et al.* (2015: p35) say, “many diffuse factors come into play and affect outcomes – mood, likes and dislikes, beliefs, culture, history, and power” and these factors interact, by amplifying and dampening each other in complex ways. Some are tangible; others less so. For example, in wellbeing research, the emphasis given to subjective experience has made explicit the importance of emotions and positive relationships in theory of change work (Maguire & Vardakoulis, 2014). A participatory worldview also elevates the importance of practical engagement – with others – in trying to reach an explanation about what is happening and why. This collaborative form of inquiry is useful to the complexity-aware researcher who is seeking to bring different perspectives, interrelationships, emergent effects, dynamics and feedbacks into collective awareness for interrogation and validation.

It's important that I am explicit about the central role a participatory worldview plays in the complexity-based research paradigm I'm adhering to because a lot of studies within complex systems science are based on mathematical modelling. These models run on simplifications and assumptions, which are not necessarily tested in the real world. The critique of this 'social physics' approach to understanding human systems (sometimes referred to as the Santa Fe approach) is that the abstraction misses important dynamics in human systems and fails to enhance knowledge through collaborative meaning making processes (Byrne & Callaghan, 2013). The simplification involved in identifying the variables of the models is, in effect, a form of reductionism. The efforts I go to in order to create a learning process that is inherently social (Methodology) can be traced to a belief that a more accurate picture of human dynamics is reached through collaborative and deliberative knowledge generation processes.

2.3.4 A complexity-aware methodological approach

In Table 1, I identify the methodological implications of the complexity concepts informing the ontological and epistemological starting point of this study into wellbeing and social change. As I touch on above, the situation of knowledge at interplays creates a need for methods that proactively bring together many perspectives into some form of sense-making process (e.g., a multi-stakeholder workshop). In the methodology chapter I talk about the importance of making knowledge generation and learning a social activity, which is a significant departure from the use of surveys and laboratory studies which dominate the landscape of wellbeing research. It is here that participatory approaches really helped me craft a way of engaging with an experience as subjective as wellbeing, while being able to validate generalisable patterns. Boulton *et al.* (2015) and Burns *et al.* (2012) advocate the use of participatory research methodologies like action research in complexity-aware research paradigms because of the space that is created in these open-ended and participatory inquiries for collaborative knowledge-generation. Burns and Worsley (2015) also argue that action research is flexible enough as a methodology to embrace emergence and meaningful engagement with the non-linear dynamics of human systems. The capacity to engage with the unexpected in research is contingent on methods that do not overly constrain what is being explored. These methods place greater emphasis on good quality processes than the rigid adherence of the researcher to a hypothesis, framework or set of inquiry questions (Burns, 2007).

Part of a good quality process, from a complexity perspective, is one that finds out about context, so the uniqueness of a situation is recorded alongside data which

seems to point towards commonality of experience. This balancing act can be aided by the systemic use of participatory research methodologies. As we shall see in the methodology section, the design of a research process which had multiple starting points enabled me to work at multiple scales – and with the interrelationships between different scales – of a system (Ramalingam *et al.*, 2008). In so doing, Boulton *et al.* (2015) argue that the details – of context, history etc – matter as much as seeing the big picture. This could make the research process endless, but it's surprising how quickly you reach saturation points, where an issue keeps surfacing, or find resonance, the 'ah-ha' moment that makes sense to people. Human centred design practitioners looking to design social systems at scale emphasise the importance of going "micro with the human factors" to get specific behavioural insights that provide clues about what to change and where in the system actors should start (Dust & Prokopoff, 2009).

Complexity researcher Eric Berlow's explores the fate of endangered species in Yosemite Park and the U.S. counterinsurgency strategy in Afghanistan to show that the spheres of influence that matters most are one-to-two degrees removed from where the problem crops up:

"for any problem, the more you can zoom out and embrace complexity the better change you have of zooming in on the simple details that matter most" (Berlow, 2010).

Another big methodological implication of a complexity-based epistemology is the focus on processes of change (Senge, 2006; Boulton *et al.*, 2015) versus snapshots of change. As I discuss in the methodology chapter, the ability to stay with a situation to see how the dynamics unfold is more immersive than cross-sectional surveys or one-off case studies typically allow. But if the epistemological starting point is that knowledge about human systems is held at interplays of continually adapting and evolving interrelationships, then the researcher needs to engage with feedback loops if they are to know something useful about how things are – and how they might change (Snowden & Boone, 2007).

2.3.5 A complexity-aware analytical lens

As well as these ontological, epistemological and methodological influences, complexity concepts also shape how I analyse empirical data. Boulton *et al.* (2015) make a compelling case that complexity concepts are relevant to the study of human systems. In their practical application, Scoones *et al.* (2007) propose that complexity concepts are used as a heuristic, as in 'soft' systems traditions (Checkland & Scholes, 2000; Burns, 2007; Burns & Worsley, 2015). In this sense, complexity concepts are

ways of interpreting data. This is how I set out to use the ideas of interrelatedness, emergence, attractors, feedback, sensitivity to starting conditions to trace patterns and processes in the data I was collecting. So, in the documenting of observations, experiences and quotes, I set out to look for examples of emergence, attractor basins, path-dependency, oscillations, and amplifying feedbacks, and the creation of this analytical frame informed the inquiry questions I asked while researching. Examples include mapping dynamics to get a picture of what was influencing what to probe further, seeking to understand what surprised me and why, looking into the detail of a situation to explain an experience, and attuning to similar processes in different contexts. These sorts of practices were intended to help me and my co-researchers explore the complexity of human dynamics without getting lost in them.

With the concepts of complexity science so recently applied to the empirical study of human systems, it's easier to illustrate how key concepts formed an analytical lens by example. In Table 1, I refer to passages of text in the empirical chapters where I found examples of attractors, starting conditions and amplifying feedbacks influencing interdependencies and emergence of wellbeing and social change in the watershed.

2.3.6 Summarising a complexity framing

The inclusion of Complex System Science at the base of Figure 1 in Section 1.5 illustrates how a complex systems view is foundational to this study. It frames my understanding of reality, what I think can be known about this reality and how I approach finding out about it.

To view our world and its development as consisting of more than individuals carrying out rational social actions, is to proactively seek a more holistic understanding of humans and their wellbeing. In her recent study of happiness, Bok (2010) took a different approach from the dominant social research paradigm, combining the new findings of natural and social scientists with reflections from philosophers, religious thinkers, historians and poets to learn about the role it plays in people's lives. She articulated what, in effect, I have described as a complexity-informed worldview:

“Through shifts in perspective, we can learn to move between the past and the present, the particular and the general, the tree and the forest, the microcosm and the macrocosm ... trying to see both surface and depth while losing track of neither” (Bok, 2010: p33).

Later in this chapter, I outline a model of wellbeing which departs from positivism and methodological individualism. I suggest wellbeing systems are complex adaptive processes influenced by dynamic interplays between environment and individual. This

theoretical framing necessarily means there is no way of explaining the presence or absence of wellbeing through a beautiful equation containing a handful of variables. Any attempt to do so is a simplified distortion of a complex reality. So, I have adopted a complexity-based research paradigm, which offers a distinct epistemological starting point for social research.

In the sections above, I have broken down a complexity approach into some key concepts to explain how it has affected the approach I took to this research. Below, Table 1 summarises how complexity is more than a worldview: each complexity concept has ramifications for how I approach this study across epistemological, methodological and analytical domains.

Table 1 Key complexity concepts and their relationship to this research study

Complexity concept	Key idea as it relates to human systems – ontological perspective	Implications for epistemological outlook	Implications for methodological approach	Implications for analytical lens
Interrelatedness	A complex system is made up of multiple elements, dimensions and levels which are connected and interdependent on each other and their environment (Ramalingam <i>et al.</i> , 2008).	Knowledge is held at interplays and interdependencies – and in the ‘co’ space	Methods that include many views as to what is happening and why, and sense-making processes for the bringing together of many perspectives (Boulton <i>et al.</i> , 2015: p113)	Interdependent vs independent action between human & ecological systems (Section 4.2) Interplays and amplification (Section 7.7) Important interplays (Section 10.6)
Emergence	New properties, possibilities and capacities arise in systems (e.g., a family, a workplace, a network) from actors connecting and interacting in new ways – and which are distinct from the properties held by the interacting parts (Boulton <i>et al.</i> , 2015)	Prepare to be surprised and engage with the unexpected	Methods that do not overly constrain what we are viewing – and allow the researcher to refrain from defining an initial hypothesis (Boulton <i>et al.</i> , 2015: p113)	Emergent effects of a relational approach (Section 5.2) Emergence of volunteers as core network actors (Section 5.3)

Complexity concept	Key idea as it relates to human systems – ontological perspective	Implications for epistemological outlook	Implications for methodological approach	Implications for analytical lens
Attractors	Social landscapes are “made up of ideas or positions or activities around which people and activity are centred” (Burns & Worsley, 2015; p27). For example, we each organise our lives around our identities. Attractor basins are stable configurations of interacting variables, mutually reinforcing one another (Boulton <i>et al.</i> , 2015).	Seeking patterns of connection, boundary conditions, dispositions	Methods that can balance general applicability while remaining alert to the uniqueness of a particular situation (Boulton <i>et al.</i> , 2015: p113)	Attractors to explain emergence (Section 10.4) Patterns of relatedness by actor & social tie (Section 6.3) Patterns of thin and thick relatedness (Section 6.4) Positive emotional attractors (Section 6.8) Combination of experiences to reinforce collective action tendencies (Section 7.2) Oscillations in expression of competency (Section 7.2) Vulnerability of volunteers created a new attractor pattern (Section 7.3) Tipping point into new attractor basin (Section 7.4) Creating a new attractor basin (Section 7.5) Boundary conditions of relationships (Section 7.6) Wellbeing attractors of collective action (Section 10.4) Social interactions as harmonisers (Section 10.5)

Complexity concept	Key idea as it relates to human systems – ontological perspective	Implications for epistemological outlook	Implications for methodological approach	Implications for analytical lens
Feedback	Loops of information back to the system enable it to adapt, evolve and learn (Marks, 2011). Negative feedbacks re-establish standard conditions promoting stability (e.g., the status quo) while positive feedbacks are characterised by amplifying loops, moving the system in new directions (Flood, 2010).	Seeking factors that amplify (reinforce) and dampen effects	Methods that can open up multiple inquiries to explore causal relationships. (Boulton <i>et al.</i> , 2015: p113)	Positive disturbances triggering new forms of organising (Section 4.1; Section 4.4) Reinforcing feedbacks (Section 7.6; Section 7.7; Section 10.4)
Sensitivity to starting conditions	Change is path-dependent so “once something happens – even something very small – it has a big influence on what happens next” (Burns & Worsley, 2015: p29). This relationship of happenings across time is not linear but it is an indication that the long-term behaviour of a system is affected by small changes, increasing the importance of details, realities and locally-grounded explanations.	Knowing by looking back and learning vs predicting the future with bold hypotheses	Methods that trace the development of situations over time, and which give attention to detail – of context, history and processes of change (Boulton <i>et al.</i> , 2015: p113)	A focus on processes and stages of network development (Section 5.5; Section 10.2) Processes of change and the legacy of relatedness (Section 6.6) Path dependency of interaction patterns (Section 7.3; Section 10.2)

It might be helpful to use a real-life example to bring to life complexity concepts across the four domains in Table 1. In a human system, like a workplace, there are many different variables influencing organisational performance in non-linear, complex, ways. Each workplace and worker are unique, and so are the interactions between workers, and between workers and the organisation. There are a lot of moving parts, some hidden (e.g., whether an employee is thinking of leaving) and some explicit (e.g., company values) and these parts are always changing. Some of these moving parts combine and recombine to produce emergent behaviour which does not obviously relate in time or space to its causes, making it difficult to plan and control for every eventuality. Think how often an employee's decision to leave an organisation seems abrupt, but when you take a closer look you realise the decision has been a long-time coming. Perhaps they have been working too many hours for too long, perhaps they are bored, perhaps they feel they don't have the influence they should. Perhaps it's a combination of all three. It's by looking back rather than forward that the event – the employee's resignation – can be properly understood. And think how often we fail to anticipate all the ramifications of the employee's departure to the workplace system. Everyone feels a little unsettled. Someone in the team assumes the leaver's responsibilities while someone in HR recruits another employee. Everyone adapts to a new personality and flexes around a new set of skills. Perhaps things feel better in three months' time. Perhaps they feel worse. One thing is for certain: the team and the workplace is fundamentally different from what was before.

In an attempt to embrace, rather than simplify, how all the moving parts affect one another in the description above, a complexity approach says it doesn't make sense to examine a situation by looking at individual causes, or by adding the effect of one action to the effect of another as reductionist worldviews would be comfortable with. Rather, I believe in the importance of exploring interplays because this is where the properties of the workplace are situated; not in the action of an individual or the specific effect of a policy. I don't find new knowledge derived from verifying or falsifying a specific aspect of the whole convincing as proponents of positivism would, if the inquiry remains detached from a bigger picture analysis of context and dynamics. Rather than begin by mapping individual acts like the resignation and the recruitment; a researcher with a complexity and participatory worldview would begin by looking for patterns of interaction between different parts of the system. She would zoom out to consider things like career history of the individual, the current HR policy, the client projects, company culture, and team dynamics, before making decisions about where to focus inquiries.

In Chapter 3, I develop a methodological approach in tune with my epistemological ambitions to embrace the complex nature of human dynamics, which draws from participatory approaches. And in the empirical chapters that follow I offer reflections on the decisions I made as an engaged participative researcher. I also highlight when and how the use of complexity concepts have enhanced an interrogation of what I have seen and experienced, as a heuristic for understanding key insights in empirical chapters 4-9 and with a more explicit focus in chapter 10. In recognising that a complexity-based research paradigm is fairly new – especially in researching wellbeing (O’Hara & Lyon, 2014) – I offer a final reflection on how I found its use at the end of the thesis.

2.4 Development and complexity

“Technical fixes like irrigation systems are rarely the whole answer. This is something we have known for a very long time... But we persist with the idea that technology will solve complex social problems ... Technology matters but when development projects succeed they succeed because of the intricacies of social innovation” (Moore, 2015).

In 2015, anthropologist Henrietta Moore added her voice to a chorus of dissent about the primacy given to technical fixes over social innovation in development interventions designed to make a tangible difference to people’s lives. Her argument is that our approach to development is out of touch with the social realities of complex change processes. We see development as a problem to be fixed, but we don’t look behind the problem to understand the social, cultural, economic and political systems that create poverty, inequality and environmental degradation. At the heart of all these systems are people and their relationships, which determine who has – and keeps – power to change the status quo.

The underlying problem is the way methodological individualism has permeated our understandings of power, participation, and social change (Devereux & McGregor, 2014; O’Hara & Lyon, 2014; Green, 2016). For example, the focus of empowerment programmes on improving self-confidence and sense of rights and entitlement (Rowlands, 1997) overlooks the social context and networks which support – even structure – the action that is taken (Boyle & Harris, 2009; Burns & Worsley, 2015). As a form of power – “power with” (Rowlands, 1997) – collective action has similarly been treated in an individualistic way. Collective action has been defined as:

“a set of behaviours that are performed with others to meet a goal or strive to make progress on a desired outcome” (Zak & Barraza, 2013: p42).

Despite the inherently interpersonal nature of collective action evident in definitions, Mancur Olson's (1965) model presumes individuals act in an economically rational way, so that the financial and social costs of contributing are wholly tied to personal gain and personal intentions. Maximising one's expected return in hypothetical games like game theory (Romp, 1996; Hoggett, 2000: p183 for overview) is assumed to explain whether people work together or whether they act in their own self-interest. In her attempt to understand situations where the protection of common pool resources (e.g., forests, water sources) is reliant on many people sharing the costs of action (Ostrom, 1990), went beyond the personal intentions of individual actors to consider the role of jointly determined norms and rules in regulating individual and group behaviour. This marked a departure from explaining collective behaviour through individuals, but the emphasis on group rules still leads to a transactional account of behaviour. To get to these norms and rules, people need to feel motivated to form into associations and networks, find common purpose – often across political, religious and cultural divides – and find ways of working effectively together.

Psychological models have brought personality psychology (Corning & Meyers, 2002; Bizer *et al.*, 2004) together with social psychology (van Zomeren *et al.*, 2008) to describe how individual differences contribute to a politicised group identity, including awareness of a group's position in power structures, and how the emotional content of this group consciousness can, in turn, motivate collective action (Duncan, 2012). These variables are presented as fluid rather than fixed, as groups and individuals are changed by the process of engaging in collective action. But even in these integrated and dynamic models the focus is on the distinction and relationship between person and situation interactions (Duncan, 2012), when mediating the success of groups and the behaviour of individuals within groups are a complex array of human relationships – and their capacity to evoke mutual understanding, empathy and trust (Krzmaric, 2007). Hoggett (2000) argues that to understand collective action we have to switch our focus to the “person-in-relation” and realise that everyone is socially – and not just personally – motivated:

“It seems tiresome to have to continually point out to economists in particular that we are social beings and as social beings we do not require a motive to interact with each other” (Hoggett, 2000: p188).

Relationships are important possibility spaces because we fall into them effortlessly – and because they change how people think and what they do. As Foucault intimated in his conceptualisation of power as a dynamic process, the patterning of relationships can define fields of action for all actors (Foucault, 1984). Social networks are

containers of customs and social norms which determine how people relate and behave with one another. As Burns and Worsley point out relationships often come before action in complex change processes (Burns & Worsley, 2015: p49).

Hoggett (2000) also questions psychological assumptions made about personal motivations in collective action, arguing that giving is not always accompanied by the experience of loss of time, money, energy etc. It can, he says “make me more whole again in some way” (Hoggett, 2000: p189). This view is supported by research into the psychological benefits of volunteering (Andreoni, 1990; Thoits & Hewitt, 2001; Musick & Wilson, 2003; Greenfield & Marks, 2004; Post, 2005) and advances in evolutionary psychology suggesting humans have a deep-rooted propensity to feel the emotions of others, which leads to helping behaviour even when there is nothing expected in return (de Waal, 2008).

There is a psychological complexity to these expressions of concern and solidarity: we are more likely to feel this way about people like us (Tajfel and Billig, 1974). But the permeability of our boundaries and identities (Wheatley & Kellner-Rogers, 1996; Meadows, 2009) also brings opportunities to focus on “here-and-now relations” (Hoggett, 2000) and the power of human connectedness to introduce a “currency of social solidarity” (Singh, 2011) and reframe understandings of self-interest (Green, 2016; p37):

“From this perspective, reciprocity is concerned not with the maximisation of outcomes of self-interested actors but with *the maintenance and reproduction of social relations themselves*” (Hoggett, 2000: p187).

How we characterise what it is to act together, and how we understand what makes collaborations effective, requires that we situate psychological dynamics (Backer, 2011, p4), within a field of relationships (Burns & Worsley, 2015: p135). In a similar vein, Maureen O’Hara has articulated a need for researchers and practitioners to recognise “the dialogical links between the macro-level of large-scale social changes, the meso-level of organisational and group psychology and the micro-level of individual psyches” (O’Hara, 2001: p13). And a very recent systematic review the psychology of participation in collective action found a lack of analysis on the relationship between different sorts of activism and type of change and a lack of research into the social and psychological processes behind types of change (Vestergren *et al.*, 2017).

Of course, investment in people’s interconnectedness and interdependence is unpredictable and tricky because it is contingent on the simultaneous effectiveness of individuals and collectives. This is a lot of moving psychological and relational parts

and the ‘coming together’ of these parts has implications for the way development unfolds (Green, 2016). But the urgency to understand the interconnected situational, relational and individual forces that motivate people to act together is evident in countries like the Philippines, which are experiencing the effects of climate change at a scale which swamps government resources. It has proven much easier to catalyse citizen action in disaster response than in efforts to “build back better” (Department for the Interior and Local Government, 2011; p28). People’s lives and livelihoods are at stake in disaster situations but the reversal of rapid species loss (e.g., depletion of fishing grounds) and the protection of ecosystems for long-term sustainability doesn’t galvanise support in the same way.

This discrepancy may exist because collective behaviour over short, often highly emotive, time periods is different to repeated and sustained engagement in a process which is more protracted and uncertain. Human interaction research suggests collaborations that begin in response to a crisis or an injustice typically function at first, but need to move to a different level of commitment and organisation once the initial trigger has subsided (Backer, 2011). Some work underway to understand the psychology of crowds (Drury *et al.*, 2012; Drury, 2014; Stott & Drury, 2017) and the psychology of political activism is emphasising the interwoven nature of emotions and social embeddedness (Stekelenburg & Klandermans, 2010), but the role of negative emotions – like anger and fear – triggered by grievances or extreme events seem less relevant for the social innovations we need to support more protracted change contexts. Arguably, shared positive emotions – like expressions of solidarity and trust – may be more important here.

In the following two sections I introduce the study of social networks as a perspective which can illuminate the relational structure of collective action. I then introduce the study of human wellbeing as a perspective that can help explain individual motivations to take part in collective action. Social networks and wellbeing are established disciplines in sociology and psychology with long research histories, so I focus on the frameworks and approaches within these paradigms which are systemic and complexity-aware.

2.5 Social networks

A social network has been described as a social structure that is neither individualistic nor holistic, but fundamentally relational (Rowson *et al.*, 2010). From a social or community capital perspective, social networks are sets of relationships – between

family, friends, community members, interest groups and work colleagues – that support complex and dynamic systems of interaction, influence and exchange (Gilchrist, 2001). In this section, I make the distinction between networks as explanatory structures and networks as tools for facilitating change, and discuss what a relational approach to understanding and influencing change has revealed about the nature of collective action.

2.5.1 Networks as explanatory structures

“Networks introduce an entirely different dimension into the policy picture ... Network theory allows the social dimensions of human activity to be taken into account when trying to understand how agents behave, and when thinking through the policy implications of their behaviour” (Ormerod, 2010: p14) .

Social capital theorists popularised the importance of social networks in policy making, by virtues of the benefits networks accrued to individuals and communities (Putnam, 2000; Woolcock, 2001; Halpern, 2009). Putnam’s social capital theory focused on what individuals could gain from social networks, bringing empirical rigour to the adage “It’s not what you know, it’s *who* you know” (Putnam, 2000). Whether it’s getting ahead, support through difficult times, or general happiness and wellbeing, those who have a network of friends and family generally fare better (Morris & Gilchrist, 2012).

Social network science is the study of how social networks form, how they work and how they affect us (Christakis & Fowler, 2009). In this discipline, networks are also seen as mechanisms which cascade attitudes and behaviour making networks an important site of analysis for policy-making (Ormerod, 2010; Rowson *et al.*, 2010). Some of the most interesting studies show how individual behaviour – e.g., eating and exercise habits – are subtly influenced by social context (Helliwell & Putnam, 2004; Friedli, 2009). For example, an interesting study showed acts of cooperation moving through networks (Fowler & Christakis, 2010), which illustrates Bandura’s theory that we are social learners (Bandura, 1977). From a complex systems perspective, networks serve as ‘hidden’ structures influencing what becomes familiar and attractive to people, thus influencing the decisions they make.

A useful way of typologising social networks is to distinguish between the influence of strong ties and weak ties (Granovetter, 1983) on psychology and behaviour. Strong ties are also referred to as “bonding” ties connecting peers to one another. Weak ties are typically described in two ways. Vertical “linking” ties, which connect people at different levels of society are opportunities, usually to access and leverage institutional support or new employment. Horizontal “bridging” ties connect people with dissimilar identities,

backgrounds and interests (Woolcock, 2001). The focus of social network studies tends to be on huge webs of social ties of hundreds, thousands of people rather than the smaller constituent interactions (e.g., husband-wife dyad, pairs of friends, neighbours). Understanding how patterns of connection influence outcomes like health and environmental behaviour is useful for designing policy (e.g., our choice architectures). But these statistical patterns of connection are snap-shot pictures. They can't explain how the networks came about or what is occurring within or through them, which is less use to the practitioner (i.e. the volunteer) working within relational systems to mobilise collective action.

2.5.2 Networks as tools for facilitating change

So, I turn to the practice of social networks, to examine how networks can be used in an intentional way. For an increasing group of practitioners (Bailey, 2006; Schiffer & Hauck, 2010; Burns & Worsley, 2015; Holley 2016; Mohn, 2016), network and relationship building is a legitimate place to start when setting out to influence complex change processes. Sennett (2006) argues that the existence of social networks and relationships among people who live and work together has a fragility without practical engagement. My favourite definition of social networks is presented in a report on the practice of social networks by the Annie Casey Foundation:

“Social network theory and literature may define social networks differently but a simple read of the dictionary helps answer the question, why do social networks matter? Webster's offers us the following definitions:

- Social—“tending to form cooperative and interdependent relationships”;
- Net—“an open meshed fabric woven together at regular intervals”;
and
- Work—“sustained effort to overcome obstacles and achieve an objective or result.”

From this we understand that a social network is: a sustained effort to build and support the cooperative and interdependent relationships in a community, woven together but open to allow for ease of access and freedom of movement, that are necessary to achieve results” (Bailey, 2006, p4).

In this definition, the Annie Casey Foundation are asserting that social networks are living processes which evolve through time. The forming and reforming of networks can increase propensity in communities for cooperative and interdependent relationships. According to Alison Gilchrist and the RSA's work on Connected Communities networks support the formation of positive relationships by functioning as a basis for shared

identity, sources of support and advice, communication webs and mobilising vehicles for collective action (Gilchrist, 2000; 2001; Gilchrist & Kyprianou, 2011; Morris & Gilchrist, 2012).

Other practitioners have talked about the way intentional network and relationship building is central to complex change processes. Burns and Worsley (2015) argue that “activities flow from the relationships” and Ramalingam (2013) asserts that “the network is the development”. The emergence of behaviour in social networks is often used to explain complexity science principles like self-organisation: multiple adaptive agents act according to their aims, based on knowledge available to them and in relation to one another so that macro-patterns of behaviour emerge (Marin & Wellman, 2011). The implication is that to be effective, change initiatives are better creating an architecture that supports interconnections than working with one issue or one population group at a time.

Tools are being created to help people reflect on their practical engagement in networks so they can learn about the sorts of networks that drive change (<https://kumu.io/>). One of my favourite tools is Eva Schiffer’s participatory social network mapping process – Net-Map – which is a low-tech way of visualising and discussing an intentional approach to networking (<https://netmap.wordpress.com/about/>). I use a version of Schiffer’s process to enable volunteers and actors within the watershed to do their own analysis of the relational systems they were constructing, and spot opportunities for influence and action (Chapter 3).

Intentional networking approaches are beginning to yield important insights, with implications for collective action. The first insight is that weak ties are important for enhancing the effectiveness of change:

“One of the more neglected aspects of the weak ties argument is that a wider network of very different people allows people to ‘see’ the system more effectively from multiple perspectives ... They are able to see the fault lines and the flows of power, and the different interests and perspectives in ways which people who don’t have a range of weak ties cannot do. So a key task of the systemic facilitator must be to develop ways of extending those networks, and reaching across these” (Burns & Worsley, 2015: p49).

Increased network diversity supports systemic approaches to change, because multiple perspectives avoid ‘group think’ (Janis, 1982) and make it possible to reveal assumptions preventing more effective action. Researchers in the field of organisational development have similarly argued that, while knowledge creation is

often an individual endeavour, its amplification and expansion are social processes that take place between individuals (Nonaka & Takeuchi, 1995).

The second insight is that social networks are effective transmission mechanisms, scaling up and accelerating the spread of influences (Rowson *et al.*, 2010). The Network Weavers Handbook emphasises the importance of people and organisations working *with* relational structures that are specifically designed to mobilise energy in the change process (Holley, 2016). From psychology, it's known that weak ties can be used to mobilise more people to support an endeavour, through behaviour influence principles like social proof. For example, people readily pay attention (Milgram *et al.*, 1996) and accept ideas and view behaviour as correct (Cialdini, 2003; 2009), the more they see people thinking and behaving in this way.

A third important insight is that connection is not enough to initiate or sustain social change processes. Social contact theory in psychology has known for a long time that contact is insufficient to explain changes in attitudes and behaviour, especially when people are interacting with those they perceive to have different worldviews from themselves (Fiske, 2008; Hogg & Vaughan, 2008; Hoffman, 2011). A few theorists have emphasised that people have a subjective relationship to their social networks, which determines how they respond to the latent opportunities network connections present. Sennett (2006: p63-64) suggests social capital is only as strong as the judgements people make about their own participation in networks and associations. He argues that "social capital is low when people decide their engagements are of poor quality, high when people believe their associations are of good quality". People's subjective relationship to their social context is not only cognitive; it is emotional. In systemic action research with community broadcasters in southern Ghana to investigate the impacts of climate change, researchers and communities identified the importance of linking broadcasters with climate researchers to corroborate findings and lend credibility to their arguments amongst outside actors (Harvey *et al.*, 2012).

However:

"This step highlighted an important challenge, which was that many broadcasters did not feel comfortable initiating contact with researchers and were unsure how to proceed, even after an initial connection had been made for them" (Harvey *et al.*, 2012: p111).

The addition of the connection to climate researchers in community practitioner networks was not sufficient to make interaction, or collective action, possible. Bourdieu referred to social spaces as 'fields' when he made the point that an individual can feel and act very differently, according to who the interaction partner is and the social field

in which it unfolds (Bourdieu, 1993; Hilgers & Mangez, 2014). Moncrieffe (2006) argues that Bourdieu can explain apparent contradictions in social network behaviour: for example, where a person resists power in one field and expresses complicity in another. Other research has shown that levels of support experienced in network interactions is much more likely to predict people's participation than how poor or rich they are (Wilson *et al.*, 2009). Put another way, the more we feel connected to others, the more likely we are to act collectively (Schaaf, 2010). Other research has shown that people are more likely to say yes to people they like (Cialdini, 2009), which may explain the finding that personal relationships are more important than formal rules and regulations (Gilchrist, 2001; Bailey, 2006) when people come together to achieve something they could not do on their own. In applied research, time spent in informal exchanges has increased the effectiveness with which people support one another towards a common objective (Pelling *et al.*, 2008). In complexity science it is theoretically the case that small is big, in the sense that "tiny local interactions" affecting what people do and how people feel could have a big influence on "the long-term trajectory of what follows" (Burns & Worsley, 2015: p30). The inference is that the quality of social spaces and interactions are an equally important site of analysis as the size, shape and structure of the social networks that contain them.

2.5.3 Summary

Social networks provide useful information about social relationships, but connectivity alone does not determine that people will work together. Invisible in social network science is analysis of the deep psychological dynamics that influence complex social behaviour like collective action. In a real-world context, it's the difference between knowing that two people know each other, and having some clues as to why and how they get along.

I have referenced psychological studies to illustrate the psychological dynamics affecting people's behaviour in social networks, but I found no established approach for combining psychological and social network perspectives, even though researchers are beginning to call for a more interdisciplinary approach (Rowson *et al.*, 2010; Weinstein, 2014). In the next section I introduce insights from the study of human wellbeing, and what this research has revealed about the sorts of subjective experiences that motivate and develop capacities within individuals to participate in proactively shaping their environment.

2.6 Wellbeing and human motivation

“People are the essential agents that make up complex social systems. Knowledge about social systems dynamics is rooted in their experiences and is held by them” Burns & Worsley, 2015: p46).

In this section, I introduce theories of wellbeing as an alternative psychological approach to understanding collective action. Psychology seeks to understand people – how they feel, what they think and how they behave. During its first century, the discipline focused on human suffering, particularly psychological disorders like anxiety and post-traumatic stress disorder. Interest in what makes lives go well came comparatively late, with the introduction of “positive psychology” in 1998 with the explicit aim of studying “positive human functioning and flourishing on multiple levels that include the biological, personal, relational, institutional, cultural, and global dimensions of life” (Seligman & Csikszentmihalyi, 2000). Within the social sciences, positive psychology is known for elevating the importance of positive subjective experiences, like a sense of wellbeing and happiness, in policy making (Stiglitz *et al.*, 2009). Most recently, it has been argued that insights from the science of happiness, strengths, flourishing and positive institutions could be used to mobilise social change (Biswas-Diener & Patterson, 2011).

Compared to most discussions about wellbeing and international development, I use wellbeing research in an unorthodox way in this thesis: not as the end goal of change but as an experience which creates reinforcing spirals of positive feelings and behaviours which help change processes along. The attention that wellbeing theories give to how people *feel* in their day-to-day lives has scope to help us understand why, how and to what effect people take action in complex systems. In this section I present a complex understanding of wellbeing and I discuss the motivational and developmental processes that flow from the experience of wellbeing. I present two theories – Self-Determination Theory and Broaden and Build Theory – and explore what they have to say about the psychological dynamics of collective action.

Studies of human motivation explore the preparatory phases of human behaviour; the complex emotional and cognitive landscape that moves people to act (Reeve, 2004). Motivation systems have both approach and avoidance outcomes. Aversive motivational systems – pain, hunger, distress, fear, dissonance, anxiety, pressure, helplessness – do not ready us to approach environmental opportunities to improve upon our lives (Isen & Reeve, 2005). Instead, they lock our attention around very narrow, often inwardly focused goals that ensure survival. By contrast, motivational

states that encourage people to approach new situations enthusiastically are flooded with positive emotions including joy, hope, interest, self-actualisation and an overall sense of wellbeing (Fredrickson, 1998; Fredrickson & Losada, 2005; Jarden, 2011).

As an everyday, low-level state of feeling good a sense of wellbeing has subtle influences on cognitive processes – what we think about, the judgements and decisions we make, the creativity and flexibility of our thoughts (Chen & Isen, 1992; Isen & Levin, 1972; Isen, 1987; 2001; Isen & Reeve, 2005). In the model of wellbeing developed by the new economics foundation (NEF) while I was working there, the experience of wellbeing is presented as a non-linear dynamic system. Unlike the linearity of hierarchical theories of human need (Maslow, 1943) and the reductionist nature of domain-based theories of wellbeing (Royal Government of Bhutan, 2012), NEF's model (Thompson & Marks, 2008) articulates complex interplays. This means that the subjective experience of wellbeing does not equate to any individual component (e.g., local environment or self-worth) or dimension (e.g., material, social, psychological). It emerges as something qualitatively different from the sum of its parts. The wellbeing system is also depicted as being highly functional and adaptive, providing feedback to individuals on the activities they give their time and energy to (Figure 2).

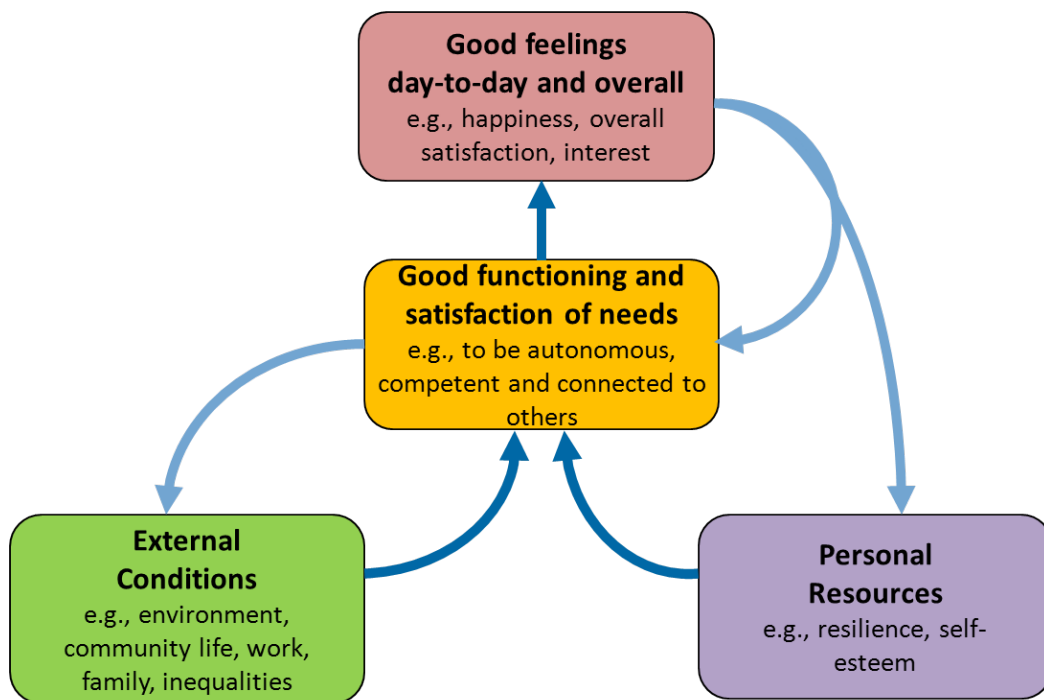


Figure 2 Adapted version of NEF's model of wellbeing (Thompson & Marks, 2008)

Both feedback loops represent well-established theories in the wellbeing literature. Together, they illustrate how interactions with the world are more rewarding (and therefore motivating) when they satisfy psychological needs and elicit positive emotional states.

2.6.1 Self-Determination Theory

The arrow to the left of the diagram indicates how people who function well – e.g., with a sense of relatedness, competency and autonomy – are better at shaping their environments. In their articulation of self-determination theory, Ryan & Deci (2000a) maintain there are three cross-culturally universal qualities of experience that provide feedback to people that things are going well:

- feeling a closeness and psychological connectedness to others (relatedness);
- feeling able to master challenges and influence circumstances (competency);
- feeling free from unwanted pressure to make choices important to you (autonomy).

Collectively these needs provide people with natural motivation for learning, growing and developing (Ryan & Deci, 2000a; Isen & Reeve, 2005). As Figure 2 illustrates, the emergence of wellbeing – and its attendant positive mental states – is considered to be co-dependent upon opportunities created by our environment and our own bank of resources to meet relatedness, competency and autonomy needs (Thompson & Marks, 2008; Aked *et al.*, 2009; Michaelson, 2014).

A large majority of studies contributing to the science of wellbeing are carried out in the West, even though most people are not WEIRD (Western, educated, industrialised, rich and democratic) and WEIRD people are some of the most psychologically unusual on Earth (Henrich *et al.*, 2010). This is usually a significant limitation encompassing a lot of psychological theory. The interesting aspect of Self-Determination Theory is the cultural and geographical reach of studies using this model to understand human behaviour (Ryan & Deci, 2000a; Ryan, 2009). From a complexity perspective, it could be possible, that relatedness, competency and autonomy serve as three simple rules of human experience, which influence more emergent emotional and behavioural outcomes with surprising stability and reliability.

2.6.2 Broaden and Build Theory

The arrow to the right of the diagram explains research showing that positive mental states move us to act in more pro-social and explorative ways, by virtue of the thought-action repertoires they initiate. NEF's model gives special prominence to positive

emotions that flow from the satisfaction of psychological needs. Early research showed that the experience of wellbeing facilitates our willingness to help others (Isen & Levin, 1972), act cooperatively and persist in the face of failure (Chen & Isen, 1992). Low-level feelings of wellbeing create the opposite behavioural reaction to the fight or flight response elicited by unsafe learning environments (Coleman, 2011).

Fredrickson's Broaden and Build Theory argued that positive emotions are evolved psychological adaptations to widen the array of thoughts and actions (e.g., play, explore, connect) that facilitate behavioural flexibility (Fredrickson & Branigan, 2005). Studies indicate that this process is characterised by variability and complexity at the micro level: people are less predictable when feeling positive, partly because they report feeling many more urges to do things. But at the macro level this positivity manifests as more capacity to deal with problems and more resilience to adversity (Fredrickson, 1998; Fredrickson *et al.*, 2003; Cohn *et al.*, 2009). Negative emotions, by contrast, promote avoidance and reduce opportunities for learning (e.g., through correcting false impressions) (Fredrickson, 1998; Fredrickson & Losada, 2005), limiting opportunities for participation and adaptation.

2.6.3 Summary

In my review of social networks, I indicated that people's subjective relationship to the network will be important for understanding collective action. In this section I presented evidence to show the importance of psychological processes for guiding people's behaviour. Wellbeing systems have a self-sustaining dynamic: when actors *feel* they are doing well and *experience* positive relationships they are more able to participate effectively, and a positive connection to their participation amplifies their motivation and resolve, bringing more opportunities to shape a life that will bring them wellbeing. The activation of wellbeing systems – and their cumulative effects on thought and behaviour – may prove an important route to social change, especially in reinforcing the value of participation among actors experiencing multiple disadvantages, competing life priorities or complex change scenarios.

2.7 Towards a conceptualisation of relational wellbeing

The strength of NEF's wellbeing system is that it holds the tension between individuals and the wider environment in which they interact. Efforts to understand and support wellbeing need to work at the interplay between 'internal' (e.g., psycho-social) and 'external' (e.g., structural) change (Aked *et al.*, 2009), echoing Kurt Lewin's early theoretical assertion that "in a dynamic theory of psychological processes, the

problems of the environment and of the person are inseparably bound up together” (Lewin, 1935: p241). Similarly, complex systems thinkers would anticipate that when we seek out one another, our experiences become something different, something more complex which needs to be understood (Wheatley & Kellner-Rogers, 1996). Applied to notions of collective action, the experience of wellbeing could serve as latent potential for change in a system. It acts as a disturbance to existing norms around power and participation by virtue of subtly changing the identities and capacities of individuals (Aked, 2012). Of course, by the same processes, wellbeing gains could also reinforce inequalities of power and capacity, depending on who gets to feel what, with whom, making the wider social context a powerful determinant of wellbeing gains that result in more equitable and socially just development (Devereux & McGregor, 2014).

As I mention above, theories of individual personality and group behaviour have been applied to collective action (Duncan, 2012) but the relational perspective has not been incorporated into models of individual and situational factors. Through the application of wellbeing concepts to social change efforts, discourse among wellbeing researchers is slowly shifting towards a focus on phenomenological experience situated within a relational landscape. When Nic Marks and I summarised the Government’s Foresight report on Mental Capital and Wellbeing into five personal actions – Connect, Be Active, Take Notice, Keep Learning and Give – we intentionally situated Connect and Give at the beginning and end to emphasise the social nature of wellbeing (Aked *et al.*, 2008). Within a development context, Deneulin and McGregor (2010) argue that you cannot separate the individual from the collective nature of wellbeing because people construct what is important for wellbeing through their relationships with others in society and in norms about what is fair and just. For the most part, however, studies examining wellbeing and motivation focus on the individual as an isolated unit. The patterning of individual systems of wellbeing have not been explored at larger scales and research practice has not situated an analysis of wellbeing in people’s social interactions.

Barbara Fredrickson is one exception. In 2005, she theorised that wellbeing systems of groups should demonstrate a similar structure and process to wellbeing systems of individuals (Fredrickson & Losada, 2005). She characterised ‘structure’ by four components: good feelings & functioning; behavioural flexibility; growth in personal and social resources; and resilience. She described the ‘process’ as nonlinear and dynamic. Since writing this paper, Fredrickson has moved her study of positivity into the relational space by studying “interpersonally situated experiences”. From her study of “positivity resonance” – essentially synchronous experiences of positive emotion

between interaction partners – she has concluded that mild positive emotion experienced with others is more nourishing than individually experienced positive emotions (Fredrickson, 2013). In one of her studies with implications for collective action, she shows that people are more likely to think in ‘we’ as ‘I’ in shared moments of positive emotion. To my knowledge, an analogous examination of relatedness, competency and autonomy as “interpersonally situated experiences” has not taken place. In a previous study I carried out with an NGO supporting teenagers in Brazil I learned that connections and trusting relationships motivated young people to participate in community development, which in turn encouraged them to think about improving their own lives (Aked, 2012). The starting point was not empowerment; it was a positive relationship, which enhanced the young peoples’ sense of competency and autonomy.

The fact that wellbeing researchers have largely overlooked the way individual wellbeing systems are open and permeable to relational dynamics seems more an accident of western science than an approach with any ontological merit (O’Hara & Lyon, 2014). Interconnectedness and relationality define individual experience and outcomes in Asian psychology. For example, in Filipino, *Pagkataong Pilipino* expresses the dynamic relationship between *loob* (inner being or inner self) and *labas* (external dimensions or others). *Kapwa* represents shared identity or “the self in the other” and *Pakikipagkapwa*, “the holistic interaction with others who are treated as fellow human beings” is a core value defining positive social interactions (Aguiling-Dalisay *et al.*, 2004). This interconnected view is also shared by thinkers in systems intelligence, who argue that inter-subjectivity precedes subjectivity. They are concerned that the treatment of individuals as isolated beings has de-emphasised innate human capacities to attune to the feelings, thoughts and behaviours of others. In an interview about her research into empathy, Maureen O’Hara (2013) articulately expresses an interest in the ‘person-in-relation’ or the ‘I in the we’ as she puts it:

“to be empathic with a whole field of human beings ... not in a crowd sort of way where we are carried away with fellow feeling... – the war bunker kind of bonding – but a bonding where we can know each other as a group but also know each other as individuals within the group so there is a possibility to attune with a group but act as a responsible agent within that group ... How does one attune to a group? ... to align with it ... but at the same time maintain one’s own sense of agency, and responsibility and individuality ... that dance between being a part of and being able to stand as an individual within” (O’Hara & Rutsch, 2013).

The dance O'Hara is describing is between the individual and the collective. It points to the sort of relationship that can support people to do well, and do well together. To use complexity language, psychological dynamics and social networks both act as attractor basins, pulling the behaviour of individuals and collectives within a system towards more or less collaborative ways of working. It is likely that the structure of social networks – who is connected to who – and individual psychology – who feels what with who – influence how people work together in a co-evolutionary (rather than an ordered and sequential) manner.

In response, this study situates a study of wellbeing in a relational context, and examines relational structures from a wellbeing perspective. It examines how actors subjectively experience social interactions that comprise their social networks, and whether these experiences interact with social network structure to influence collective action. By combining analysis of social networks with the subjective experience of people's real world face-to-face interactions, it seeks to understand whether wellbeing qualities of network interactions amplify the power of human connectivity in complex change scenarios.

2.8 Theory into reality: The case of volunteering for natural resource management

This study takes place within the context of a volunteering intervention to help conserve and manage a water ecosystem on an island in the Philippines. I discuss how complexity science, collective action, social networks and wellbeing have been conceptually applied to research and practice in the fields of natural resource management and volunteering. In so doing, I argue that both disciplines would benefit from an analysis of collective action which sits at the intersection of social network and wellbeing perspectives.

2.8.1 Natural resource management

The variety of natural resources that affect livelihoods and poverty outcomes is extensive. They include: forests and woodlands; mangroves, rivers and lakes; coastal areas and marine ecosystems; farming landscapes; biodiversity rich areas; and bodies of natural resources in urban areas (Pimbert, 2004). The complex and adaptive nature of social-ecological systems – “a class of systems whose macroscopic behaviour emerges from self-organised local interactions, such as actors interacting with ecosystems and with other actors” (Stockholm Resilience Centre, n.d.) is increasingly affecting how natural resource management is being thought about (Dodds, 1997;

Folke *et al.*, 2005; Folke, 2006; Bodin & Tengo, 2012). Practically, this conceptual expansion has resulted in greater emphasis on human and social aspects of change, to complement technical constraints and considerations. The crux of the issue is often framed as a collective action problem (IPCC, 2014) which requires getting various individuals, groups and organisations to work collaboratively toward achieving a complex set of environmental objectives. Where all users restrain themselves, the resource can be sustained. But as soon as one actor fails to adapt their behaviour to ecological limits, the resource still collapses. This scenario was explored in Elinor Ostrom's seminal research on the "tragedy of the commons" (Ostrom *et al.*, 2002).

An interest in social connectivity quickly followed more complex accounts of natural resource management. For example, adaptive governance evolved into an interdisciplinary field of research and action (Termeer *et al.*, 2010) to tackle natural resource management in a more collective and agile way. Within this paradigm shift, research started finding that governance systems with high adaptability have a diversity of actors operating at different social and ecological scales with the capacity to self-organise in response to changing conditions and deal with disturbance (Folke *et al.*, 2005; Walker *et al.*, 2006). Self-organisation is dependent on social connection and action across multiple institutional linkages, including communities, government and non-government actors (Bodin *et al.*, 2006; Lebel *et al.*, 2006; Carlsson & Sandström, 2008; Weiss *et al.*, 2012; Platform for Agrobiodiversity Research, 2013). These networks are different from communities because they do not comprise associations between like-minded individuals but relationships that cross boundaries of identity and hierarchy (Carlsson & Sandström, 2008; Pelling *et al.*, 2008). For example, a study looking at a programme to manage an agricultural development project at a watershed level in Timor Leste found the involvement of both government actors and traditional leaders to be necessary (Friday & McArthur, 2010). This was partly because the government's influence does not extend so far from the towns, making effectiveness of upland management contingent on local people, local social structures and traditional leadership.

There is increasing recognition in the literature that "not all social networks are created equal" (Newman & Dale, 2005; Crona & Bodin, 2006), either in terms of their effectiveness or the distribution of benefits that flow. But it's not fully understood why some are more able to energise people to work together in ways that are mutually rewarding (Bodin, 2017), without inadvertently or intentionally exploiting individuals with least power (Pimbert, 2004; Pulhin & Dressler, 2009; Fabinyi *et al.*, 2010; Foale, 2013; Apgar *et al.*, 2016). This is partly because rational actor models are typically used in

natural resource management models (Schultzer *et al.*, 2017). Given what we have learnt from the science of human wellbeing and motivation about the influence of emotions on thinking and behaviour, overly cognitive perspectives are too simplistic to reliably account for how people make decisions about their participation and engagement in pro-environmental behaviour. In response, psychologists are increasingly lending their perspectives to issues of climate and natural resource governance. For example, the Climate Psychology Alliance is comprised of psychologists seeking to help illuminate the complex individual and cultural responses that affect how prepared individuals and communities are for change (<http://www.climatepsychologyalliance.org>). Others have begun to employ psychological constructs to understand people's perception and response to disasters in efforts to reduce vulnerability to natural hazards (Harris, 2010; Nathan, 2011) and most recently to marine protected areas (Martin *et al.*, 2017).

Researchers who have applied wellbeing frameworks to environmental governance have emphasised the need to understand people's wellbeing and "the processes in which they engage to achieve" wellbeing (McGregor, 2009; Coulthard *et al.*, 2011; Coulthard, 2012a). Otherwise the implications of environmental interventions are not adequately considered for people. As one tangible example, researchers found that fishers do not conceive of fishing as a livelihood, but as a way of life. For them, a change in livelihood from fishing threatens a core aspect of their social identity and personal wellbeing (Coulthard *et al.*, 2011). Another study revealed that an individual's belief in their own abilities to manage water stress played an important role underpinning intentions to adapt (Kuruppu & Liverman, 2011), emphasising findings from other psychological research that we participate when we *feel able* to participate (Rowson *et al.*, 2012). This finding is echoed in a report on the human dimensions of low carbon technology, which highlighted the combined importance of awareness, membership of a community of practice and a sense of agency for enabling change (Reason *et al.*, 2009). The importance of building individual and collective capacity in the face of significant change suggests that psychological dynamics deeper than rationalisations and cognitive appraisals are at play: it's about how people feel individually and together.

To date, social network studies of natural resource management have remained distinct from studies exploring wellbeing. I'm not aware of a single study that has integrated wellbeing perspectives into social network studies of behaviour, power and

elite capture in a real-world management context. This study provides a unique opportunity to examine how wellbeing dynamics intersect with the structure of social networks to explain why some collective action scenarios are easier to navigate than others.

2.8.2 Volunteering

Volunteering frequently entails “doing with others” (Aked, 2015) but it has been distinguished from collective action in the literature because definitions of volunteering do not mention the politicising of a group identity, intentions to change political or social systems, or the power struggles inherent in transformative change (Green, 2016). The reality – a few steps removed from academic definitions – is that volunteering is being used in a very instrumental way: as an intervention to affect some sort of change. For example, NGOs and governments create volunteering opportunities to promote greater citizen engagement and participation in environmental issues. In the Philippines, Peace Corps places international volunteers in coastal resource management postings, Oxfam facilitates multi-stakeholder approaches to climate change adaptation, and WWF and VSO place youth volunteers to help with protection and conservation efforts. Educational institutions and governmental agencies are also using volunteering platforms to mobilise more citizen action (Department for the Interior and Local Government, 2013; Aked, 2014b). In a forum I organised to bring Government and Volunteer organisations together in April 2013 in the Philippines, Secretary Joel Rocamora of the National Anti-Poverty Commission (NAPC) explained that the government’s focus on asset reform, particularly for coconut farmers, fishing communities, indigenous peoples, informal settlers and urban poor, needed to be supported by volunteering in civil society because:

“helping the poor is not just helping them to participate effectively into invited spaces. It is about supporting the poor developing capacity for collective action. The more capacity the better because poverty reduction is not a picnic, there are many contentious issues. The poor have to have capacity in those contentious spaces.”

In this quote, the Secretary is emphasising a role for volunteering in capacity building poor and marginalised groups, as individuals but also as collectives.

It is clear to anyone who has been a volunteer or involved in volunteer programmes, that the use of volunteering is a different way of doing development (Devereux, 2010). The assignment and support of volunteers is an investment in human connectivity and exchange rather than aid or agencies. Volunteering is fundamentally a relational activity, which could be re-conceived as an explicit enabler of collective action, which

facilitates the awareness and collaboration of people from different cultures and communities to work together on difficult problems. Within the volunteering sector NGO's have gotten good at articulating this type of volunteerism - for example, Volunteering Services Overseas (VSO) positions its role as a development agency as "bringing people together to fight poverty" (VSO, 2014) – but they can't say how or why funders should care about this approach. This is manifest in recent trends to reduce core funding to many long-standing international volunteer cooperation organisations (United Nations Volunteers, 2011; Lough & Matthew, 2013).

There is a large body of existing research in Western social science on volunteering, but very little seeks to understand it as collective action or a tool for change (Wilson, 2011). Social science research has identified that volunteering is pro-social (Putnam, 2000) – and an indicator of a healthy social fabric (Boyle & Harris, 2009; Halpern, 2009) – but the way social arrangements and relationships get affected by the introduction of volunteers to the development landscape is not clear. In 2011, the State of the World report actively called on the research community to extend its work "to cover the impact of volunteer action on the wellbeing of communities and societies" and asked that organizations supporting volunteering "look at the overall contribution of their efforts" (United Nations Volunteers, 2011). Psychological perspectives, including wellbeing, are used to understand volunteering, but their use is focused on the emotional, social and developmental effects of volunteering on the volunteer. Studies have concentrated on volunteer experience, motivation and retention (Aked, 2011) but have neglected to extend the boundary of inquiry beyond the individual volunteer into the wider social context in which they interact. For example, Self-Determination Theory has been used to understand volunteer motivation (Bidee *et al.*, 2012; Halvas *et al.*, 2012; Oostlander *et al.*, 2014) and performance (Millette & Gagné, 2008), as well as the sorts of work contexts (Gagné & Deci, 2005) and relational styles (Simões & Alarcão, 2013) that support satisfaction of relatedness, competency and autonomy but their analysis is restricted to impact on the volunteer.

Within Filipino psychology, academics have been calling for a more collective focus in the design of volunteering interventions. Researchers measuring Filipino well-being have warned that "the expectations riding on people empowerment programs may require a lot more ground work" and suggest volunteer efforts would be more effectively harnessed if they increased a "collective identity" (Asis & Luna, 2000: p68-69). The prominence of *kapwa* – "shared inner self" – in volunteer accounts of their motivation to help without expectations of rewards or gains has prompted other psychologists to infer that volunteering is an interactive and bi-directional relationship,

which would be better understood “through a more holistic study on how volunteers and the people they serve contribute to one another’s development as persons and active Filipino citizens” (Aguiling-Dalisay *et al.*, 2004: p187). This is similar to the conclusion that Lough and Matthew arrived at in their report on the value of international volunteering:

“In the immediate future, metrics and indicators employed to assess the value of volunteers must include more interpersonal, relational and process-oriented concepts” (Lough & Matthew, 2013: p26).

In response to this research gap, this study begins with volunteer relationships and it focuses on some of the more intangible psychological experiences which characterise their interactions and networks – from both the volunteer and the community perspective.

2.9 Summary of research contributions

Above, I outlined the key literature that informed this research. I provided a background on complex systems science because its concepts and its views on the fluid and systemic nature of power, participation and social change are the foundations upon which my research questions and inquiries are built. I rejected the reductionist way action in complex change contexts are examined through the perspectives and experiences of disconnected individuals, arguing that human relationships are a legitimate place to start thinking about how to catalyse and sustain collective action more effectively. Through a review of social network science and the study of human wellbeing, I argued that an interdisciplinary approach is needed to more comprehensively understand what motivates people who do not know each other to take action together. Through focusing on relational wellbeing I intended to make the following contributions to academic knowledge:

- 1) Develop an understanding of complex social behaviour like collective action.
- 2) Contribute a psychological perspective to the study of social networks.
- 3) Contribute a ‘person-in-relation’ perspective to the study of wellbeing.

To fulfil a personal interest to make the research as applied as possible, I developed the research agenda within a real-world context. I presented natural resource management and volunteering as two areas of practice that would benefit from a relational and psychological examination of collective action. In so doing, this study has two further contributions:

- 4) Contribute a psychological perspective to research examining the adaptive governance of natural resources.
- 5) Help the volunteering sector articulate how, when and why volunteers contribute to change..

In the chapter that follows, I introduce the methodology I developed to explore the way development is realised as a process with other people. I describe how I examine the relational and wellbeing patterns of volunteer-initiated social action through five interlocking inquiries.

3. Methodology

3.1 Introduction

This chapter outlines the methodology, methods and research process. It deals with the theoretical and practical methodological concerns that arose during the process of conducting fieldwork.

In the previous chapter I explained how to position human wellbeing solely as a desired outcome of development is to miss something important about the human dynamics of systems change. Rather, I see the experience of wellbeing as an essential component of social-ecological dynamics with feedbacks to individuals – and potentially collectives – that move systems in a positive direction. In the first part of this chapter I briefly outline some key methodological limitations of the classic social research paradigm, which has artificially constructed how we position wellbeing in our mental models of how change happens. These arguments bolster the anti-positivist stance I take in Chapter 2. I then explain how I translate a complexity framing I used in Chapter 2 into the design of a social learning process which combines the use of Participatory Systemic Inquiry and Participatory Action Research. I situate this methodological approach in the context of how others approach action research, making explicit my interest in using these methodologies to understand and build from what works. I also describe how a nested research design helped illuminate interrelationships across different levels of the social-ecological system.

In the middle part of this chapter, I describe the research process, including how I selected a research site, who was involved, and the key steps of five interlocking inquiry streams. This leads into an explanation about how data generated in each inquiry was synthesised through a participatory and iterative approach to analysis. In the explanation of the enquiries, I describe the combined use of ethnography, storytelling, participatory social network & experience mapping, interviews and group analysis sessions, to bring my methodology to life. The aim was to create a learning process which was social and which could be responsive and accountable to the social-ecological system of which I became a part. For example, it was important that actors could derive meaningful and action-oriented insights from their experiences. The final part of the chapter discusses the practical, conceptual and ethical issues that arose during the research and the important steps I took to make sure that my research practice was credible and ethical.

3.2 Researching complex systems

“When in unknown and confusing territory a compass is more useful than a map. In our view such a compass is not located in our abstractions, algorithms, models, ideology, objectivity, machines or even skills, but in Being that finds its expression in bodies, hearts and minds of men and women who are fully alive and awake and are engaged in concrete challenges” (O’Hara & Lyon, 2014: p23).

In chapter 2, I situate this research in a complex and participatory epistemological framing. This anti-positivist stance has implications for the way I think wellbeing and social change should be explored. The theoretical notion I explore in Chapter 2 that wellbeing systems are adaptive processes influenced by dynamic interplays between environment and individual means that I am researching a complex, not a simple phenomenon. In Table 2 I summarise the differences in approach between treating wellbeing and its relationship to social change as a simple problem context versus a complex problem context.

Table 2 *Studying simple and complex realities*

Simple realities	Complex realities
X leads to Y	What happens and why?
Cause and effect relationships between variables	Interrelationships, feedbacks, multiplier effects between elements
Cross-sectional surveys providing snap shot in time and space	Agile feedbacks providing continuous flow of ‘information in’ and ‘lessons out’
Bias towards individual attributions and effects	Working across personal, relational and systemic levels of a system
Western bias	Bringing socio-cultural logics into analysis
Methods are extractive	Learning is a social process

In wellbeing research, and social science more broadly (Snowden & Boone, 2007), there has been a mismatch between our understanding of the sort of system we are researching and the methodological approach we have been taking. And this has led to some very real gaps in our collective knowledge and understanding.

For example, the over-reliance on social indicator studies and their positivist approach has dissuaded critical engagement with the complex human interdependencies which make well-being “an integral dimension of the holistic capacity for life” (O’Hara & Lyon, 2014). The centrality a lot of wellbeing research gives to subjective human experience is an important addition to the policy landscape, but the research can also be overtly theoretical and evaluative, focused on people’s assessments of fixed life domain categories (e.g., household income, health), rather than learning about the different subjective relationships people have to their experiences, and why this relationship might be non-linear. While non-linearity is inconvenient because it makes predictions about the proportionality of an outcome, (i.e., improvement in well-being) to an input (e.g., an intervention) difficult, it can explain why there are diminishing returns for factors known to correlate or support well-being (Tay & Diener, 2011) and why wellbeing research can’t substantiate claims that “more is automatically better, and maximised indicators necessarily mean optimised well-being” (Schimmel, 2009).

Secondly, a focus on the emotional and experiential aspects of life has inadvertently led to the treatment of people as separate, functional units with specific needs especially in western psychology (O’Hara & Lyon, 2014). The concern here is the same as that articulated by Danny Burns: initiatives put a boundary around the individual and discount the importance of the relational or fail to take action at the wider system level. Complexity approaches recognise that the way in which we frame situations focuses our attention, influences the actions we take and how we assess their effectiveness (Burns, 2007). There is some support for this concern among some researchers of wellbeing. As early as 1935, Lewin refers to a study on the incidence of anger, reflecting that the investigation of emotions extends necessarily to an investigation of environmental structures. Within a development context, researchers have argued that you cannot separate the individual from the collective nature of well-being (Deneulin & McGregor, 2010). And, yet, we don’t have tools at the ready to make the boundary of emotional and experiential inquires more permeable. For example, there is an abundance of research examining the wellbeing dividends of volunteering to the individual (Aked, 2011) and very little examining the social implications, and the feedback of these implications on the individual (Aked, 2012).

What unifies positivism, reductionism and methodological individualism is the way they separate the relationships between things, including between the object of study and the subject of its learning. In social indicator studies, it is the researcher or policy maker that learns. In day reconstruction methods or laboratory studies, the individual participant may learn something but they are not involved in analysis and none of the

participants and researchers are learning together. Few studies are taking place with actors who could benefit most from efforts to understand and improve wellbeing:

“In the field of positive psychology and social change ... which is itself in the very early days of emergence, there is very little that has as yet been done to take positive psychology out of the “ivory tower” of academic research labs, and into the potentially less salubrious environs of underprivileged communities where social change could not be needed more desperately” (Linley, 2011: p142).

And this research approach is very different to how people learn in real life. In most real-life situations when people aren't certain of a particular course of action – whether it be family life, work life, or community life – they learn from others, they learn as they go, by trying things out, seeing what kind of reaction they get and making small adjustments (Marshall, 1999). Arguably, it is the lack of learning that is applied or inherently social that leads to solutions that are detached from the empathetic concern and practical insight needed to craft solutions that eloquently fit the realities of people's pathways around life (Greenwood & Levin, 2007). A complexity framing suggests it makes more sense to design a research process that is inherently social, so knowledge is co-generated at a collective rather than individual level. This way, interplays and interdependencies between different aspects of the system can be surfaced and explored.

While social learning is a concept with roots in work on the psychology of individual learning and theories of situated learning, I use ‘social learning’ in this study to simply mean learning that is social. This common-sense use of the term ‘social learning’ is distinct from Bandura's Social Learning Theory in psychology, although it is informed by studies showing that people learn from one another, via observation, imitation and modelling (Bandura, 1977). And my notion of social learning is different from the way current practice in natural resource management and climate change adaptation use the same terminology to denote a process that (a) intentionally takes learning and change into communities, networks and institutions and (b) enables shared ways of knowing to emerge (Rodela, 2011; Ensor & Harvey, 2015). In the current literature, there is debate about the effectiveness of a social learning process for enabling adaptation and change in social-ecological systems. It's beyond the scope of this thesis to engage in critiques of social learning because I'm not using social learning as the basis for change: I'm simply emphasising the importance of a learning that is social and interaction-based to set this research approach apart from the positivist approach typically adopted in wellbeing studies (O'Hara & Lyon, 2014).

The first major milestone of this PhD was finding a methodological paradigm that would help me craft a learning process, which elevated the importance of learning through interaction with others. In Chapter 2, I reached the conclusion that I needed a methodological approach which would help me to bridge the systemic and synergistic properties of complex systems with a social, more participatory, approach to knowledge generation. I identified the following methodological criteria:

- Being able to include many views as to what is happening and why in sense making processes
- Having the freedom to not feel overly constrained by hypotheses which define what we're viewing
- Being able to balance general applicability while remaining alert to the uniqueness of a particular situation
- Having the capacity to open up multiple inquiries to explore causal relationships
- Being able to trace the developments of situations over time, including an understanding of context and starting conditions
- Being able to include multiple forms of knowing – including experiential, presentational, propositional and practical

I couldn't find a methodology and collection of methods in the wellbeing literature. As O'Hara and Lyon (2014) explain, an over-reliance on social indicator studies has dissuaded critical engagement with the complex human interdependencies. Similarly, I found the surveys and computational modelling of classic social network studies too removed from the focus I wanted to give to actor experiences and flows of affect between people. Neither had the participatory focus I wanted in order to design a social learning process that met all the methodological criteria my epistemological stance was specifying.

Luckily the integration of systems and complexity concepts into development discourse means that new methodologies are being developed to “see” the system and its complexities and act meaningfully within it (Fuller & Moran, 2001; Phelps & Hasse, 2002; Ramalingam *et al.*, 2008; Guijt *et al.*, 2011; Befani & Stern, 2015; Burns & Worsley, 2015). I was excited when I first read Danny Burn's (2007) book on systemic action research and my work with Danny since 2012 (Burns *et al.*, 2014) has influenced the way I brought Participatory Systemic Inquiry and Participatory Action Research together into one methodological framework for this study.

3.2.1 The action research tradition

Both Participatory Systemic Inquiry and Participatory Action Research have their roots in the action research tradition. Reason and Bradbury (2008) describe action research as an “orientation to inquiry” with a broad base of influences ranging from liberal humanism, pragmatism, phenomenology, critical theory, systemic thinking and social

construction. As such it challenges assumptions of objectivity and positivism by proactively opening spaces for learning about subjective human experience. Action research has been employed in many different disciplines and practitioner fields (Henry & McTaggart, 1996) as an approach which directly involves people's wisdom in solving real life problems.

At its core, action research is a process involving on-going cycles of planning, action and reflection on the results of action (Lewin, 1946), which often brings a range of research methods – both qualitative and quantitative together (Reason & Bradbury, 2008). Rather than start with hypotheses seeking objective truth, action research starts with everyday experience to create living knowledge. This focus on the process of knowledge creation is helpful to a researcher seeking to work in an emergent and reflexive way. Action Research became more participatory in focus as trends formed in Germany and Latin America to use cycles of action and learning in emancipatory ways (Rahman, 1991). For those interested in political change the validity of Participatory Action Research rested in good dialogical processes that arrived at consensus (Moser, 1980) and enabled people to have a sense of ownership over inquiries so they develop their own analysis of the reality they are living (Fals Borda, 1988). The emphasis of Participatory Action Research, then, is on the full and active participation of powerless groups in the entire research process - so they are part of defining the problem, analysing and solving it (Rahman, 1991). Participatory notions extend to the researcher, who is a committed participant and learner rather than a detached observer.

Being able to treat research as an emergent process, with no fixed theoretical starting point, but which can bring multiple forms of knowing to the fore answered a lot of the methodological criteria I created for this study. But it's the joining of complex systems perspectives with the observation, experimentation, active participation and self-awareness of Participatory Action Research which has developed ways of opening up multiple inquiries, including multiple perspectives and balancing general applicability with specificity of context (Burns, 2007). This situates knowledge generation in the interplays and interdependencies. Whereas other types of action research may focus on one particular group, Systemic Action Research is loyal to the issue under investigation, bringing diverse groups of actors together to probe systems dynamics across distinct, but interconnected, streams of inquiry. It therefore shifts the emphasis of knowledge creation towards an emergent and co-created understanding of the order of a complex system, rather than towards particular positions or realities within it (Burns, 2012).

For this research, I use Participatory Systemic Inquiry as the methodological basis for social learning about the wellbeing processes that affect collective action on the environment from different perspectives (e.g., volunteer, community, institution) and across different social and ecological scales (e.g., personal, group, organisation, watershed, volunteering sector). I then use cycles of Participatory Action Research to ‘test’ whether wellbeing insights could influence the course of change in one small part of the social-ecological system.

3.2.2 Participatory Systemic Inquiry

To understand complex wellbeing interplays, I needed an inquiry approach that could look at the emergent whole as well as the parts. Participatory systemic inquiry is an approach committed to “open-bounded inquiry” (Burns, 2007) encouraging actors to work across the whole system, opening up inquiries around issues that resonate and pose important questions. Participatory Systemic Inquiry is described by Danny Burns as:

“an approach to learning and deliberation which involves multiple stakeholders in generating deep insights into the dynamics of the systems” (Burns, 2012: p88).

Burns (2012) differentiates Participatory Systemic Inquiry from traditional research and other forms of action research by the following characteristics:

- Multiple inquiry streams
- Different starting questions for each of the inquiry strands
- Direct seeding from one group to another
- Collective analysis and co-written outputs.

In my research, I incorporated these principles in the following ways. I had multiple inquiry streams running at different levels of the system (Section 3.3.3). For example, the generic inquiry involved 100s of actors – from the political arena, volunteering sector, governmental offices, farmers, fishermen and children – to understand how people experienced environmental problems in the watershed and volunteer efforts to help natural resource management. The relational inquiry was more focused, involving volunteers and volunteer staff associated with the International Citizen Service (ICS) programme – the biggest volunteering initiative operating in the watershed comprising British and Filipino 18-25-year-old volunteers – to understand the relational approach volunteers took. The interpersonal inquiry involved institutional and community-level actors who had interacted and worked with ICS volunteers to understand relational and psychological dynamics from a volunteer and local perspective. The action research

inquiry comprised a smaller, but multi-stakeholder, group involving a local youth group, a local people's organisation, parents in the community, VSO volunteers (myself included) and a government officer. The aim was to use and validate some of the relational and psychological insights within a specific change context. The linking inquiry comprised learning spaces outside the watershed, which brought other researchers, policy makers and volunteering practitioners into the research process and created an opportunity to draw insights from the watershed into a sectoral-wide learning process.

Like other practitioners working in a systemic way I sought to understand the connectedness, relationships, contexts and feedbacks that help to explain why some patterns of behaviour are resilient, some re-establish themselves and some change altogether (Ison, 2008). Participatory Systemic Inquiry shares a number of principles with other interpretive approaches to research which seek to understand what is happening and why (Bell & Aggleton, 2012). One example is the approach Participatory Systemic Inquiry takes to exploratory inquiry, which attempts to go beyond 'thin description' (what you can observe) to generating 'thick description' (focusing on the meaning behind actions) (Geertz, 1973). The objective is to search for patterns in thought and behaviour (e.g. by identifying social norms), which may explain energy for or resistance against change. I looked for 'thick' descriptions by involving actors in the data collection and sense-making processes. Whether it was a story they told, a social network map they drew, or a conversation we were having, my processes always went one step beyond data collection to asking actors to reflect and analyse the responses they gave. It was through these deeper reflections that new intentions often arose (Ison, 2008).

Once new knowledge had been created from considering multiple realities at different points of the social-ecological system, I intentionally seeded insights from one actor to another and from one inquiry to another. This usually involved sharing theoretical or practical insights that related to the insights participants shared, so we could consider what they had found out in relation to other research and discoveries made elsewhere in the watershed. This sometimes led to outputs that were co-written. For example, representatives from local youth groups authored a prototype for an improved approach to collective action in the watershed based on the research findings. But most of the collective analysis sessions were discursive in attempts to validate and build from wider patterns in the data, which I presented through story boards to ICS volunteers, VSO staff and representatives from local youth groups (Appendices D and E). After leaving the watershed, I undertook a further layer of analysis of all the data

collected in this study so some of the insight in this thesis are from my own efforts to understand the interrelationships between systemic, relational and personal dynamics in the social-ecological system.

3.2.3 Participatory Action Research (PAR)

"The essence of knowledge is, having it, to apply it; not having it, to confess your ignorance."

Confucius

Participatory Action Research was a useful complement to Participatory Systemic Inquiry because it provided an architecture for using wellbeing insights to improve social-ecological dynamics. A key strength of action research is the explicit link between the action research process and changing things for the better (Greenwood & Levin, 2007). Social change is about moving towards a more desirable future. Wellbeing is, by its very emphasis, about what works. The synergy between action research as a methodology and a research focus on well-being and social change is aptly captured by Reason and Bradbury:

"A primary purpose of action research is to produce practical knowledge that is useful to people in the everyday conduct of their lives. A wider purpose of action research is to contribute through this practical knowledge to increased well-being – economic, political, psychological, spiritual – of human persons and communities, and to a more equitable and sustainable relationship with the wider energy of the planet of which we are an intrinsic part" (Reason & Bradbury, 2001: p2).

By bridging action research and systemic thinking, efforts are made to bring to light the assumptions and relationships that structure the way things get done, while supporting actors within the system to continually make sense of their efforts and the (intended and unintended) effects they have (Burns, 2007; Ison, 2008). This way, analysis of wider systems dynamics (e.g., political processes, institutional practices and the social and cultural systems of a community) is incorporated into the action research process. And theories are built and contextualised by the process.

Participatory Action Research can be carried out by individuals who adopt an enquiring approach to their assumptions and actions. It can involve people joining together to explore issues of mutual interest or it can be used more systematically as a tool to prompt a whole community, organisation or network to engage in experimental cycles of action and learning. The latter is how I use Participatory Action Research to support a social learning process focused on surfacing synergistic and systemic dynamics.

Some of the characteristics of Participatory Action Research (Stringer, 2007) which I used include:

- The use of experiential learning at the group level to facilitate learning by doing with others towards a common goal (Greenwood & Levin, 2007)
- Iterative cycles of action and reflection, so tacit knowledge not easily codified or verbalised, could be passed from one person to another (Burns, 2007)
- The use of self-reflection to understand and learn (Leitch & Day, 2000)

The focus on action made Participatory Action Research a good addition to Participatory Systemic Inquiry in the methodological framework. The emphasis on tacit knowledge transfer and self-reflection helped actors co-explore and strengthen more intangible and subjectively experienced wellbeing processes like relatedness, competence and autonomy.

3.2.4 A focus on what works

Contrary to the way Participatory Systemic Inquiry and Systemic Action Research is often used to solve a problem or resolve an issue, I use these methodologies as a wellbeing researcher would: to understand and build from what works. Conceptually, the focus on what makes lives go well, beyond the absence of problems or illness, has been championed by wellbeing researchers for the past decade (Hupper *et al.*, 2005). And the rationale for focusing on what works is itself an application of complex systems thinking. In 2011, John Helliwell wrote:

“The common policy concentration on the repair of negative outcomes...and the creation of laws and regulations designed to avoid bad outcomes...can at best restore the system to stasis” (Helliwell, 2011: p260).

Helliwell's concern is that policy prioritises one kind of feedback, focused on fixing problems. This de-emphasises the importance of promoting positive experiences in the system, which make the task of repairing the worst things in life a whole lot easier (Marks, 2011). The idea is that an approach which starts from 'what is going right' creates a different energy and focus to an approach which focuses on 'what is going wrong'. This idea has a long history in appreciative inquiry methodologies. Appreciative Inquiry questions are framed around the positives to discover personal stories, experiences and successes. The dialogue between interviewer and interviewee searches for best practices and opportunities for improvement (Cooperrider & Whitney, 2005). Likewise, the Positive Deviance approach (Pascale *et al.*, 2010) is based on the observation that in every community there are certain individuals or groups whose uncommon behaviours and strategies enable them to find better solutions to problems

than their peers, while having access to the same resources and facing similar or worse challenges. I used the principle of Positive Deviance to explore the reasons behind any positive patterns identified in the research enquiries. It was particularly useful for identifying why volunteers were able to have the effects they did on collective action.

The notion of channelling researcher energy to the identification and amplification of what works has been discussed by practitioners seeking to adopt a complexity aware approach. Ramalingam *et al.* (2008) argued that a legitimate approach to international development is to strengthen 'wanted' patterns and weaken the 'unwanted' ones (Ramalingam *et al.*, 2008). Dave Snowden recently spoke about 'wanted' patterns being strengthened by giving energy to them and 'unwanted' patterns are weakened by ignoring (rather than fixating) on them (Snowden, 2016). Rather than start from a position of what actors lacked or what made them vulnerable, this study started with understanding the experiences people had. A wellbeing framework was then used to interpret these experiences, giving actors a way of recognising and augmenting the positive aspects of social-ecological change. It was intentional, therefore, to create a social learning process that could bring into focus, and then amplify, those aspects of the change process that were helping actors to feel good and do well together.

3.3 The research design

In Chapter 1, I described how my PhD research was a discrete study connected to a much larger research programme called *Valuing Volunteering*. This was a global action research project in Kenya, Mozambique, Nepal and the Philippines exploring how and why volunteering contributes to poverty reduction and sustainable positive change (ref). I led a two-year multi-sited inquiry in the Philippines between May 2012 and May 2014, which is outlined in the purple zone to the left of Figure 3. I conducted five community inquiries and three national-level inquiries to explore volunteering in the context of natural resource management, higher education and volunteering sector practice. This fed into a learning process I designed across three forums within the Philippines and a learning process designed by IDS for VSO and the global volunteering sector. The systemic and participatory methods employed – and the results of the inquiries – have been published in a series of research reports (Aked, 2014a; 2014b; 2014c; 2014d; 2014e).

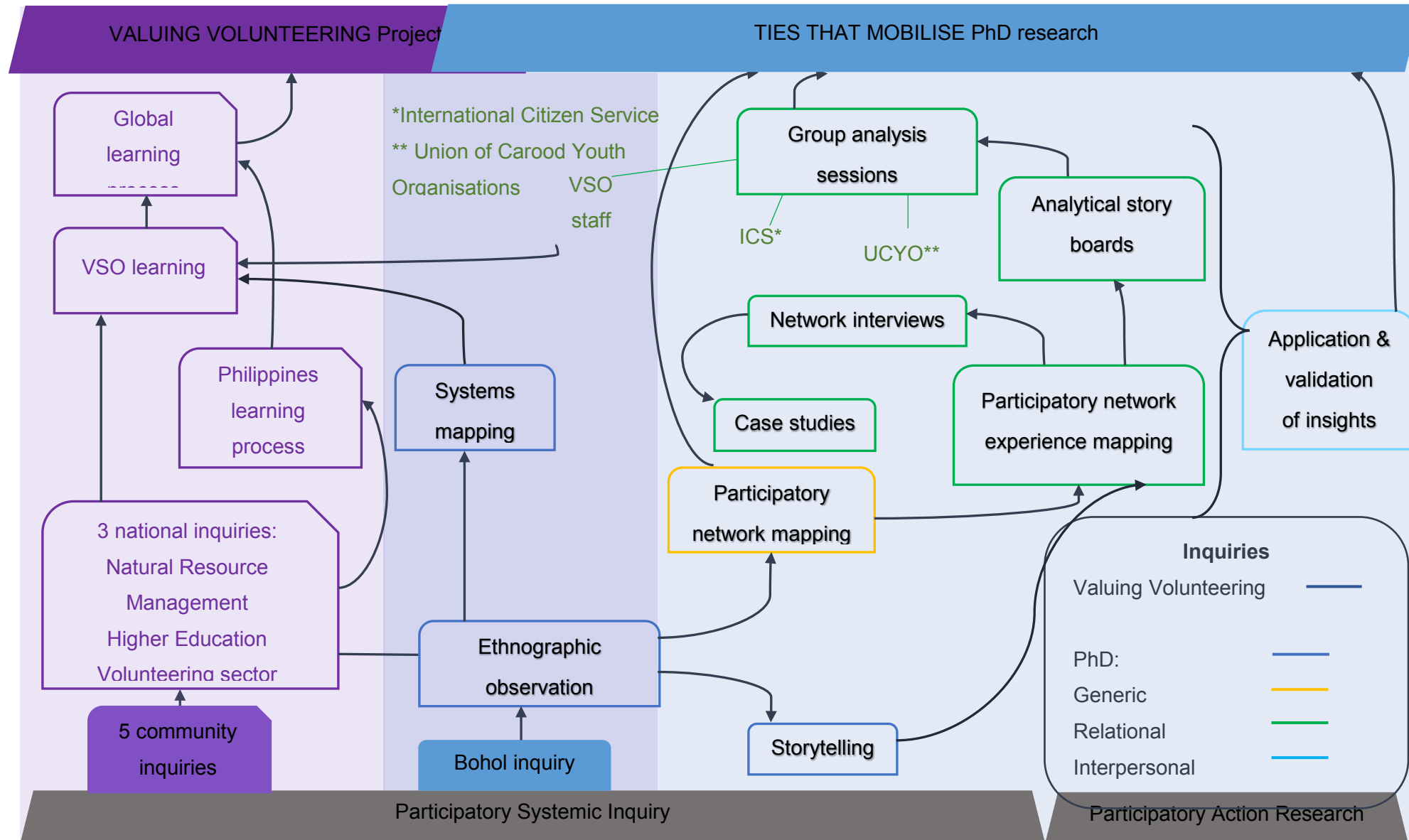


Figure 3 Research design

One of the community level inquiries took place in a watershed ecosystem on the island of Bohol. It focused on generating a multi-actor perspective on volunteering and its impact and its results are documented in a discrete research report (Aked, 2014c). Under the auspices of the *Valuing Volunteering* project, this ecosystem also became the community-level research site for this PhD research. This overlap is represented in the middle section of Figure 3. Through the partnerships I established as a *Valuing Volunteering* researcher, I formed relationships with individuals who could help me assess the viability of a suitable research site and link me into the action. In the weeks and months that followed November 2012, the PhD research evolved into five distinct but intersecting inquiry streams. Four of these inquiries took place within Bohol and are represented in the blue section on the right of Figure 3. The fifth inquiry took insights into national and international learning spaces. This learning stream is not fully represented in Figure 3, but it comprised some of the participatory sessions designed by me and IDS for the *Valuing Volunteering* project as well as my personal engagement in discussions, research & writing projects and conferences with individuals and organisations working on volunteerism and development.

In this section I describe how Bohol was chosen as a community-level research site for the PhD and outline the main actors who participated in the study. I then provide a detailed description of what each inquiry entailed, including the methods employed. While there was some overlap to enable analysis of cross-linkages – and not every activity happened when originally planned – I outline the inquiries and associated activities as sequential phases for ease of presentation.

3.3.1 Selecting a community-level research site

As a *Valuing Volunteering* researcher, one of my first tasks arriving in-country was to set up a multi-agency in-country reference group comprising the national volunteering agency (PNVSCA) the University of the Philippines and VSO's in-country affiliate office, VSO Bahaginan. The role of this group was to advise on thematic and practical research considerations. Under the broad banner of "poverty alleviation", the in-country reference group chose environment-related issues as a main sub-theme. This aligned with the objective of VSO Bahaginan's Country Strategic Plan to use volunteering to enable people living in poverty to have control over natural resources – for example, fishing grounds for fisherfolk and watershed areas for rural families (VSO Bahaginan, 2012). This process of identifying national priorities and building trust with national agencies was an important preparatory phase of the PhD study because it elevated my understanding of economic and environmental realities, country policy, and cultural

nuances (Aked, 2014b). It also paved the way to channel research findings to non-academic audiences.

The findings of this thesis are based on data collected through eleven visits comprising 76 research days in Carood Watershed between November 2012 and February 2014. The Carood Watershed on the island of Bohol in the Visayas region of the Philippines (Figure 4) was identified as a site for research by the in-country reference group because of the rich volunteering landscape and the high ranking of Bohol on PNVSCA's vulnerability index. In Table 3, I provide some information about the watershed, its governing body, the conservation and management objectives as well as a profile of the volunteers active and involved in this study. I discuss the workings of the watershed in more detail in Chapter 4, where I describe political, economic and social dynamics affecting how volunteers and local actors worked to protect the water ecosystem.

The watershed was of immediate interest to me because the management of natural resources spanning political, residential and topographical boundaries is considered a complex social-ecological process (Olsson & Folke, 2001; Olsson *et al.*, 2004). The watershed also provided a 'live' intervention to study because it had been using volunteers since 2010 and was set to continue through to 2014. This continuity was important for tracing processes, rather than just snap-shots of change (Senge, 2006). It also meant that I had a specific intervention (e.g., volunteering) and a diverse group of actors (e.g., volunteers and actors living within the watershed) to learn with.

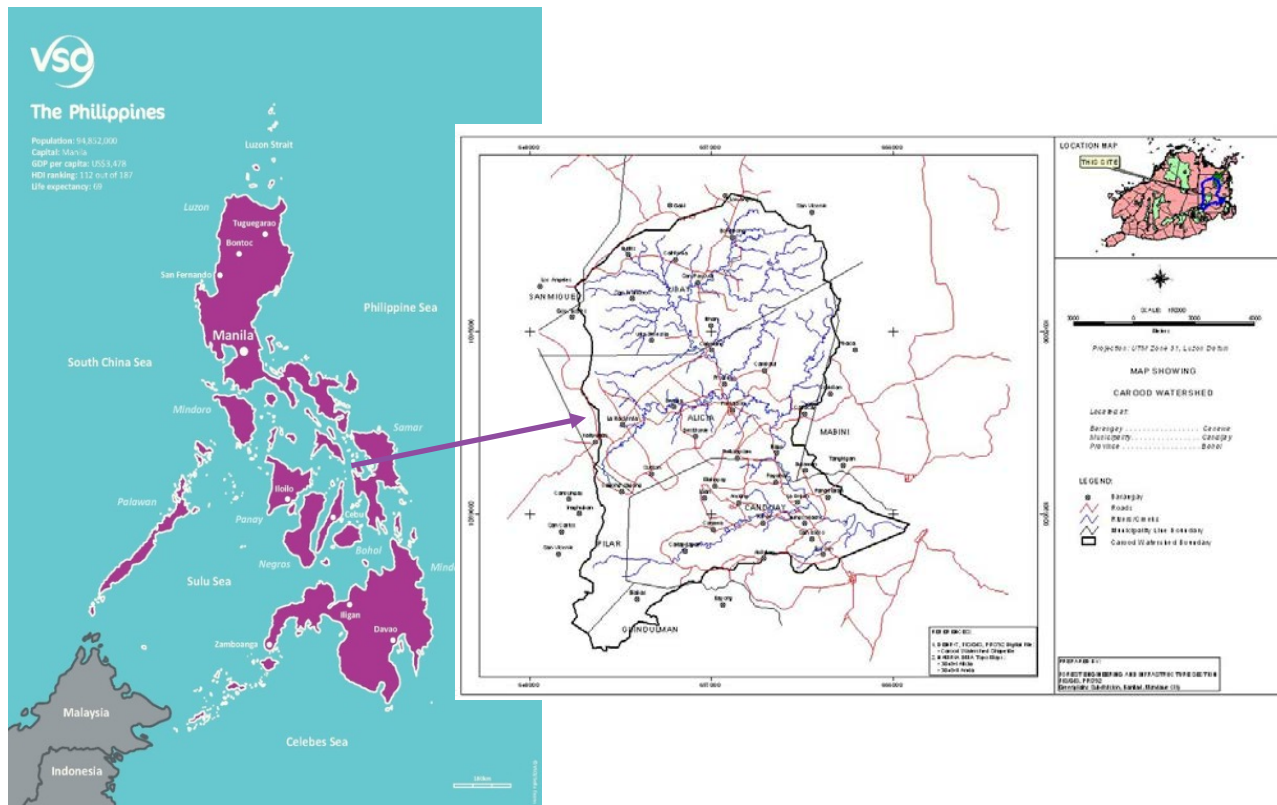


Figure 4 Location of Bohol and map of Carood Watershed



Panel 1 Community-Based Forest Management area in Ubay and a coastal neighbourhood, home to seaweed farmers in Guindulman

I made connections through the VSO country office to VSO support staff working in the watershed. After an initial visit in November 2012, I got invited to the Annual Partnership Review between VSO Bahaginan and the watershed management council in February 2013. Here I was able to introduce myself to the management council responsible for the stewardship of the water ecosystem known locally as Carood watershed. In a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis at this meeting, this study – and its participatory ways of working – was listed as an opportunity to improve research and development components of the council's plans. After the February 2013 Annual Partnership meeting, I didn't have much access to the management council as a group. As I discuss in later chapters, it turned out that the group did not meet very regularly. So, the process for identifying exactly who I would be working with, and when, was entirely relational.

Table 3 Community-level research site

Name and information about the research site	Conservation and management objectives	Type of volunteer and work focus	Volunteer numbers (2010-2014)	Volunteers engaging in research (2013-2014)
<p>Carood Watershed, Bohol</p> <p>Covering 20,472 hectares, encompassing upland to coastal ecosystems, straddling parts of 6 municipalities: Ubay, Alicia, Candijay, Mabini, Pilar and Guindulman. The primary policy-making body for the water ecosystem is the Carood Watershed Model Forest Management Council (CWMFMC). Established in 2003 its members include the six mayors representing the municipalities, representatives from people's organisations, national government agencies, academe, NGOs, the Eskaya Tribe and the private sector.</p>	<p>A geographical and partnership-based approach from 'ridge-to-reef', the major focus of the CWMFMC is:</p> <ul style="list-style-type: none"> • Sustained community enterprises • Ecological goods and services • Partnership development • Sustainable management of resources 	<p>1) International long-term volunteers (6-24 months) carrying out research & development; organisational capacity-building; resource management; enterprise / livelihoods development</p> <p>2) International Citizens (ICS) volunteers (7 placements lasting 3 months each) working to raise awareness & behaviour change; environmental protection; capacity building of youth groups</p> <p>3) National volunteers (2 months) providing organisational capacity building; enterprise / livelihoods development</p> <p>4) Diaspora volunteers (3 months) working providing organisational capacity building; enterprise / livelihoods development; monitoring & evaluation</p> <p>4) Local adult volunteers – adults working on environmental protection; mobilisation; assistance in project activities</p> <p>5) Local youth volunteers – young people working on environmental protection; awareness raising; mobilisation</p>	<p>5</p> <p>Approx. 130</p> <p>3</p> <p>2</p> <p>Members of 7 POs</p> <p>19 youth groups</p>	<p>3</p> <p>36 across cycles 5 and 6</p> <p>1</p> <p>1</p> <p>Members of 4 POs</p> <p>3 different youth groups + the Union of Carood Youth Orgs</p>

3.3.2 The principle actors

The core research team was made up of myself, Rachel Dawn Alejan, Bethel Jane Magincol and Fatima Leya, who all lived on the island of Bohol. I recruited these women as volunteer researchers through my local VSO contacts. I worked mostly with Dawn but Bethel and Fatima also helped out when Dawn was unavailable and when group sessions were particularly large (more than 30 people) or when research periods were particularly intense. They helped plan and facilitate sessions, translate and analyse insights. They all had local knowledge and previous experience being a volunteer on the ICS programme. Dawn and Fatima had volunteered in different projects in locations outside the watershed, and Bethel had volunteered within the watershed.

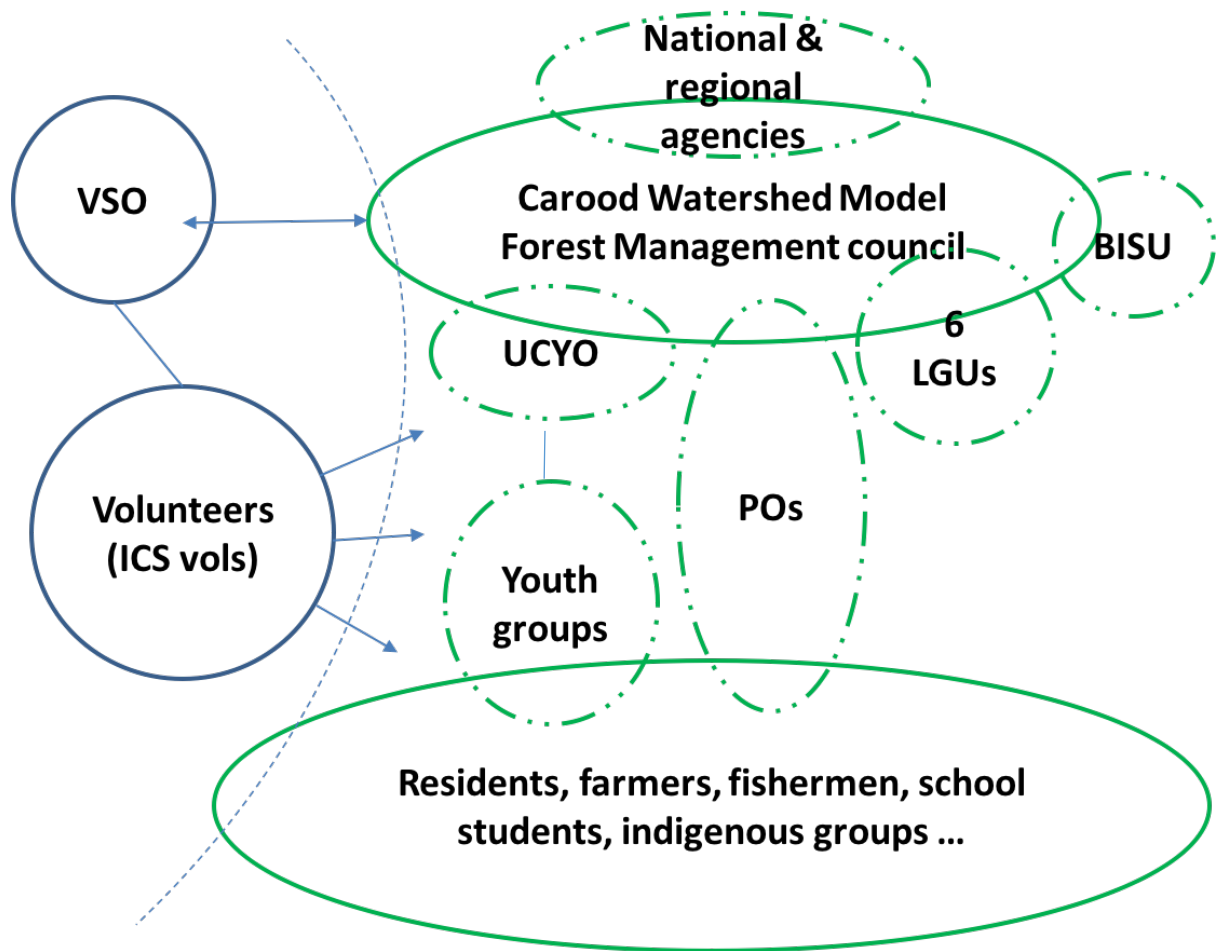


Panel 2 Jody, Rachel Dawn Alejan, Bethel Jane Magincol and Fatima Leya

I also discussed logistical issues and emerging insights of the research regularly with an informal group of “critical friends” consisting of long-term volunteers, staff at two Local Government Units, the Chairperson of a People’s Organisation who had worked with volunteers and VSO Programme Supervisors. The action research inquiry had its own multi-stakeholder group of actors, who worked together to enable the social action of a local youth group in the municipality of Guindulman (Chapter 9). My records indicate that the research process in Bohol involved over 300 individuals through interviews, participatory learning sessions and the action research process. A diverse group of volunteers, institutional actors and community-level actors participated repeatedly, in both individual and group reflection and analysis sessions.

The volunteers

The study engaged an array of volunteers coming from outside the watershed – international, diaspora, national volunteers – who were active in conservation and management efforts (Table 3). The relational and interpersonal inquiries involved 36 volunteers on the ICS programme and actors in their social networks. At the time of the research, ICS was a £60 million three-year (2012-2015) programme funded by the UK Government’s Department for International Development for 18–25-year-olds. The initiative was designed to have a community development impact as well as an impact on the volunteer (ITAD, 2011). Following recruitment, assessment and selection, up to ten British volunteers are paired with ten Filipino volunteers for three months. They are supported by two locally based programme supervisors who find host homes for the volunteers and liaise with volunteer placement supervisors to agree work programme and role descriptions. The three-month rhythm around volunteers coming and going was known as a ‘placement cycle’ locally. I worked with the fifth cycle of youth volunteers between March and May 2013 to examine the relational structures of their social action. I then worked with the sixth cycle of volunteers, who arrived in June 2013 for three months, to explore the quality of volunteer network interactions.



*ICS vols – ICS volunteers

UCYO – Union of Carood Youth Groups

POs – People's Organisations

LGUs – Local Government Units

BISU – Bohol Island State University

Figure 5 Actors in the research from outside and from within the watershed

Community-level actors

The research also involved a diverse group of residents and local volunteers from within the social-ecological system, who interacted with VSO volunteers and other institutional actors on the management council. The group involved fishermen, farmers, school children, teachers, youth groups, university and college students, and *barangay* (village) officials. Residents were formally represented on the watershed management council by community-based organisations called People's Organisations (POs). Of the four POs I interacted with most, two were actively engaged in the management and

stewardship of designated forestlands in Ubay and Alicia. Most of their work was focused on restoring at least 20% forest cover, to meet stipulations in Community-Based Forest Management Agreements. The other PO on the management council was a fisherfolk association based in Candijay, which was working on projects funded by the Department for Environment Natural Resources and Bureau for Fisheries and Aquatic Resources. A fourth PO did not have representation on the management council but it worked with ICS and university volunteers through its connection to Bohol Island State University (BISU). They were focused on alternative livelihoods because of dwindling fish stocks and diseased seaweed crops. While these POs were all run slightly differently, they typically have between 30 and 60 members, although levels of activity among members differed greatly. The chairpersons, treasurers and dedicated members who kept the organisations going, even when there were no funding or active projects, considered themselves to be volunteers.

Institutional actors

The other group of actors who participated in the research were political actors (e.g., mayors) and officers working in Local Government Units. I worked most closely with Volunteer Placement Supervisors in the agricultural teams in Guindulman and Pilar because there was a lot to learn from their approach and practices around the use of volunteering to affect change. I also worked closely with professors and community extension workers at Bohol Island State University, who granted me repeat access to their experiences and learnings as their work with fishing communities unfolded.

3.3.3 Five inquiries

In this section I describe what I did in each of the inquiry streams, including which research questions I set out to answer, the steps I took and the methods I employed. Figure 3 and Figure 6 describe how the inquiry streams related to one another.

The work in Bohol started with a generic inquiry employing ethnographic observation and storytelling to engage many different actors with the broad research theme. It became clear that relationships were important to the way change processes unfolded. So I opened up a relational inquiry with ICS volunteers to understand how volunteer networks grew and changed. This led to an interpersonal inquiry using network experience mapping and network interviews to examine how different actors experienced their social interactions in these networks. I analysed emergent findings and created story boards to run a series of group analysis sessions with representatives from local youth groups, ICS volunteers and VSO staff to validate and

deepen insights. Finally, I used the Participatory Action Research to work intensively with a smaller group of participants to test the application of the insights generated. The learning from the water ecosystem was seeded into other national and international forums beyond Bohol, including those part of the *Valuing Volunteering* project.

Each of the inquiries employed its own tools and techniques, depending on the issues it followed and the level of conceptual understanding I could reasonably expect different actors to have. In Table 4, I outline the methods I used in the PhD research. I have mapped each method to the corresponding inquiry and the codes I use in the empirical chapters to illustrate how insights were generated.

Table 4 A summary of methods and data used in this thesis

Method	Data	Inquiry	Code
Ethnography	17 journal notebooks of field notes, community meetings and 13 electronic files of field reflections	Generic	Ethnography
Story telling^a	Transcripts of 67 stories of change from volunteers and community actors + responses to 17 analytical questions for each story	Generic	Story
Participatory network mapping^b	15 before and after volunteer social network maps comprising significant actors, degree of closeness and content of exchanges 1 collective map detailing new and strengthened connections over one volunteering cycle	Relational	Network map
Participatory network experience mapping	21 hand-drawn network maps Transcripts of 21 facilitated mapping exercise and analysis from 31.5 hours of video / audio recordings	Interpersonal	Experience map
Network interviews	Notes from 20 network interviews, focus group sessions and drawing exercises resulting in five network case studies, three of which are reported on in this thesis	Interpersonal	Network interview
Group analysis sessions	Written notes from a session with ICS volunteers during the relational inquiry Written notes from three sessions with ICS volunteers, VSO staff and local youth group representatives using the story boards	Relational; Interpersonal	Group analysis

^a Adapted from www.globalgiving.org/storytelling

^b Adapted from www.netmap.wordpress.com

In the sections that follow I explain how I used the methods to answer inquiry questions.

Generic inquiry

Most of the work for the generic inquiry took place between November 2012 to May 2013 to answer this research question:

RQ 1. What are the systemic, relational and psychological dimensions of complex change environments?

The main aim of the generic inquiry was to gather important contextual information to situate subsequent inquiries, establish relationships and participatory protocols and develop suitable methods. The months leading up to March 2013 involved a substantial amount of relationship building and making myself relevant to actors by adding value to their efforts. I also spent time working out the logistical practicalities of conducting the research. After March, I spent time identifying, adapting and designing methods which would facilitate actors to reflect and act on their relational experiences. The benefit of developing the methods in situ was that I could evolve them to suit the issues and the actors. This emergent approach seemed fairer and more responsive to other actors involved. Conceptually, the generic inquiry was important for learning about what was happening in the watershed because of volunteering alongside how people were experiencing volunteering. Each step is detailed further to provide an overview of the generic inquiry phase:

- 1) I spent the first two visits in November and February participating in mid-programme and partnership reviews, and visiting municipalities in the watershed to establish direct contact with People's Organisations.
- 2) In March 2013 I began context-setting interviews with key stakeholders (including long-term volunteers, chairpeople of People's Organisations, ICS program supervisors). I collected and analysed secondary sources of information (including governmental statistics on watershed demographics, the watershed management plan, institutional theories of change, and end-of placement volunteer reports) and I reviewed academic literature on natural resource management.
- 3) I conducted a three-day training on participatory systemic inquiry for 18 ICS volunteers. This helped them conduct a capacity assessment of local youth groups and it also generated good quality peer research on local issues and dynamics, which we mapped systemically.

- 4) In April 2013, I spent two and a half weeks living with members of a community-based organisation (People's Organisation) represented on the management council to deepen ethnographic insight into the social realities, experienced wellbeing and involvement of community-level actors in watershed protection.
- 5) During this period I began collecting 67 stories of change among volunteers and local actors, to understand where change efforts were being focused and what effects they were having.
- 6) I also developed the methods I would use to map social networks and wellbeing experiences, conducting a pilot with 6 ICS volunteers and one long-term volunteer.
- 7) In May, I facilitated a group session for ICS volunteers to map stories of change to the watershed management plan and VSO's theory of change for the volunteering programme.
- 8) Finally, I conducted interviews with a VSO long-term volunteer, a local youth group and a chairperson of a People's Organisation to explore how actors interacted with one another in the watershed.

The General Inquiry was informed by **ethnography** and systemic inquiry principles, using interviews, informal spaces, focus group discussions, observations and note-taking to examine the combinations of social, cultural, economic and political factors, or "socio-cultural logics" (Bell & Aggleton, 2012) that affected the relationship between well-being and social change. As well as the specific activities above, I stayed with long-term volunteers and Programme Supervisors. I walked around neighbourhoods and market, engaging in what local people called *chika-chika* (informal chats). I took part in various community action days (e.g., coastal clean-ups, talent shows) and facilitated theatre workshops for People's Organisations. All these engagements were opportunities to learn about how volunteering was experienced by different actors in the socio-ecological system. I documented ethnographic insights in journal notebooks, and then transcribed relevant sections and captured key insights in electronic files, usually at the end of a research day. I filed my notes with photos and other relevant supporting documentation chronologically.

To understand people's experience of change interventions in their community, and how they are supportive of or influenced by well-being, I evolved with Marc Maxson a version of a **story telling** technique that was designed as a community- and complexity-based feedback tool (Maxon, 2012). One of the aims of the tool is to move away from a linear depiction of the link between action and effects or a narrow understanding of attribution of efforts. The technique uses an open-ended question

(e.g., “Please tell a story about a time when a person or organisation donated their time to help someone or change something in your community”) to elicit a set of anecdotes combined with follow-up questions, which enable the storyteller to codify their story’s meaning along different reference frames (Appendix A). Analytical questions included:

- How much is the story about problems and how much about solutions?
- This story makes me feel: happy, hopeful, inspired, indifferent, disappointed, frustrated, angry
- The events in your story happened mainly because of: the circumstances people found themselves in, the resources people had available to them, the actions people took, the way people felt
- What would have made a difference in your story?

The story telling method keeps the initial boundary around the inquiry purposefully wide leaving open the possibility of capturing new and useful unknowns or finding stories which describe interrelationships I would not anticipate (Maxson, 2012). But it also allowed me to take a wellbeing perspective on why and how they took the action they did. As a research group using stories to explore routes to a low carbon future emphasise, stories provide a context for learning:

“Theories show the relationship between abstract ideas ... On the other hand, a narrative retains the character, detail and drama that engages us on the level of human experience” (Reason *et al.*, 2009: p12).

I tended to collect stories from volunteers first and then invite others (e.g., officials, community members) to add their stories, either to corroborate perspectives or introduce a new perspective on change efforts. This aligned with the diversity sampling technique used by Global Giving to deliberately add perspectives (Maxson, 2012).

Relational inquiry

The relational inquiry took place between March 2013 and August 2013 to consider this research question:

RQ 2. What is the relational structure of volunteering in the watershed, and how are networks used to mobilise collective action?

The inquiry sprung from a key finding in the generic inquiry, and validated through engagements with the wider *Valuing Volunteering* project, that volunteers take a relational approach to social action. The idea that volunteering builds social capital is generally accepted. But the way volunteers influence social cooperation and collaboration in complex change contexts was poorly understood by the sector or

academia. The steps I took to explore the way volunteers used social networks are detailed below:

- 1) In March 2013, 18 volunteers from cycle 5 ICS volunteers drew their social networks, as they looked two weeks into their volunteer placement.
- 2) In May 2013, three months on, the same volunteers drew their social network maps again.
- 3) The volunteers also drew a collective map of all the relationships they had formed and strengthened as a group of actors.
- 4) I then facilitated a group session to analyse how the personal and group social networks had changed in size and shape over the duration of their volunteer placement.

I found the surveys and computational modelling of classic social network studies too removed from the focus I wanted to give to actor experiences and flows of affect between people. So I adapted a version of Schiffer's Net-Map approach (Schiffer, 2007; Schiffer & Hauck, 2010) to approach the **participatory network mapping**. I invited the volunteers to draw links on a large piece of paper to represent who was involved in their efforts to protect the watershed. We considered which actors were 'closest' and most 'supportive' to the volunteer to explore the positionality and influence of actors in the networks. The technique of drawing a map at the beginning and end of the volunteer assignment was simple and effective at conveying network diversity and growth. The group map was used by VSO staff in meetings with Local Government Units and the management council to convey the relational effects of volunteering.

Interpersonal inquiry

The interpersonal inquiry took place between August 2013 and Jan 2014, with a focus on combining social network analyses with deep psychological insights to answer the following three research questions:

RQ 3. How is collective action influenced by the experience of relatedness?

RQ 4. How is collective action influenced by the experience of competency?

RQ 5. How is collective action influenced by the experience of autonomy?

For this inquiry, I used the stories collected in the generic inquiry as the basis for examining relational structures and wellbeing dynamics. The process combined one-on-one sessions with research participants and group sessions to examine patterns. The steps I took were as follows:

- 1) **Participatory social network mapping** with 15 ICS volunteers from cycle 6 towards the end of their 3-month placement in August. These sessions incorporated interviews about volunteers' subjective experience of each network interaction (Appendices B and C).
- 2) Analysis of maps and interview recordings.
- 3) The development of five story boards comprising a key relational issue, related concepts, evidence, quotes, illustrative diagrams and photos.
- 4) At the end of August, I facilitated a **group analysis session** with 18 ICS volunteers and 2 VSO Programme Supervisors from cycle 6 to analyse findings and implications. The design of the session combined World Café principles to examine the story boards with a causal mapping exercise to identify linkages between wellbeing components and natural resource management characteristics.
- 5) Development of criteria to select five volunteers and sub-inquiries. Sub-inquiries were identified as interesting if patterns of social interaction seemed positively deviant for the way they promoted wellbeing; if the story of change or challenges experienced were reflective of a collective experience; and it was logistically possible to do follow-up with actors.
- 6) Between September and January, I carried out **network interviews**, focus group sessions and drawing exercises with adults, young people and children appearing on five of the ICS volunteers' social network maps. This data was collated into network case studies.
- 7) In January 2014, I facilitated a "Volunteering Jam" event for youth groups. This **group analysis session** used a human-centred design process to take us from analysis into rapid ideas generation and prototyping. The goal was to reimagine volunteering in the watershed based on the insights we had gathered (Appendix E).

For the **participatory network experience mapping**, I asked ICS volunteers to draw what Schiffer (2010) refers to as a process map. After collecting a story of change from volunteers, I invited them to draw links on a large piece of paper to represent who they interacted with and when. I then asked the volunteers to number the interactions sequentially. At this point, we discussed the purpose of each interaction as it related to their story of change. The volunteers noted the outcome of each interaction and they used symbols to mark how they experienced each interaction. I devised three questions based on the three psychological needs of Self-Determination Theory to ask

volunteers how they felt in relation to their interaction partner. Volunteers used different coloured pens and different symbols to illustrate their experiences. See Appendix C.

The question on relatedness was designed to prompt reflections on psychological connectedness between actors in their efforts to take collective action. The phrasing of the question was not about trust in general, as asked in social capital studies; it was asking about how they felt about each other in relation to their collective effort. The question on competency was designed to get volunteers thinking about the space in their interactions for people to share roles and responsibilities in the collective effort. The question on autonomy was designed to understand the orientation of their motivation and the extent to which actors had internalised the importance of the collective effort (Appendix B). By considering the wellbeing qualities alongside the outcomes of each interaction, the volunteers reflected analytically on the sorts of interactions that felt good *and* helped positive change happen, as well as the patterns of experiences that ended up being counterproductive to the change they were looking to bring about.

I created five story boards to synthesise some of the key findings from the social network maps and interview recordings (Appendix D). Five themes were identified and illustrated with pictures, quotes, diagrams and ethnographic insights:

- Feeling that people trust in us influences our role in the change process
- Roles with responsibilities support wellbeing
- Not all interactions are created equal
- Self-esteem affects how people interact with those different to them
- The legacy of relationships

The story boards were used as a tool to reflect back data in an anonymised way, acting as a starting point for reflection and discussion with three groups: ICS volunteers; VSO Bahaginan and *Valuing Volunteering*; Union Carood Youth Organisations (Appendix E). The design of the group analysis sessions involved a World Café (The World Café, 2008), causal mapping (Burns, 2007) story analysis and prototyping (IDEO, 2015) to support participants to see interlinkages and consider what they would do differently. It also enabled the core research group to identify the insights that struck other volunteers, VSO staff and community level actors.

I then took five stories of change and associated network maps and sought to interview and run group sessions with the majority of community and institutional actors mentioned by the volunteer in their map. I started these **network interviews** by asking

the actor to tell me their story of events and then I sought to understand how they had experienced a sense of relatedness, competency and autonomy through their interactions with volunteers (Appendix F). I was then able to compare how volunteers and actors in their networks talked about the change and their experience of it, and compile the volunteer's experience map and follow-up network interviews into one case study. Three of these are included in chapters 6-8.

Action research inquiry

The action research inquiry took place over 8 half day workshops between April 2013 and February 2014 with a core group of local youth group members, a Local Government Officer, myself and co-researcher Dawn. It was designed to explore whether reflections on wellbeing could provide actionable insights that could improve the contribution of volunteer efforts to natural resource management. We were all more personally involved in the action research than the Participatory Systemic Inquiries because the focus was on whether I could intentionally nurture wellbeing through my social interactions with the local youth group and whether they could do the same to get the help and support of people in their own networks. In Chapter 9, I present the key workshops and interactions chronologically alongside the conceptual journey we took and the key things we learned about satisfying relatedness, competency and autonomy needs through our social interactions. This integrated presentation of method and learning contextualises what we discovered. The transparency enables recoverability of process, which is considered important for ensuring methodological rigour in action research (Burns, 2007).

Linking inquiry

The linking inquiry wrapped around the research taking place within Bohol. The intention was to create and use invited spaces to seed insights into learning spaces beyond the community-level inquiry to layer additional perspectives to aid the sense-making process. These spaces comprised national, organisational and global learning forums. Some of the key inquiry spaces included:

- A workshop exploring Active Citizenship in Asia Pacific region, hosted by VSO in Bangkok, January 2013.
- Presentation and discussion of model of wellbeing to faculty staff in the Department of Psychology at University of Philippines.
- Other case study locations in the Philippines under the *Valuing Volunteering* project 2012-2014 (ref national report).

- A series of meetings and workshops every couple of months of 2013 with a consortium of volunteering agencies.
- Four international workshops with *Valuing Volunteering* researchers from Nepal, Ghana, Kenya and Mozambique between October 2013 and July 2014.
- Two international workshops with representatives from the volunteering sector in 2013 and 2014.
- Three national forums in 2013 and 2014 to discuss findings with representatives from volunteering and poverty alleviation agencies.
- Presentations at three conferences: International Society for Third Sector Research, July 2014; Post-Graduate Research Conference on Institutions in International Studies October 2014; Voluntary Sector and Volunteering Research Conference, 2015.
- Documenting and discussing emergent insights with the *Valuing Volunteering* community on an online platform called Eldis platform and the IDS blog.

In two cases, the storyboards used with ICS volunteers and local youth groups were seeded into the linking inquiry. In October 2013, I ran a session with staff from VSO Bahaginan and VSO International to explore and analyse the data. Each storyboard was supported by mini-reports, including more detailed quotes, to aid understanding of key issues among an audience who was not privy to the watershed context. I also ran a follow up session with two researchers from the *Valuing Volunteering* project to explore how the findings resonated in Nepali and Kenyan contexts.

3.3.4 A nested research design

“Complex systems frequently have multiple levels of organisation. The degree of connectivity between these elements, dimensions and levels has a profound influence on how change happens within the broader system” (Ramalingam *et al.*, 2008: p9).

Participatory Systemic Inquiry and Participatory Action Research provided the methodological architecture for structuring inquiry streams but I also needed a way of connecting multiple inquiries together. I describe the over-arching research design as “nested” because I strove to connect each level of the system to the other levels, examining “the spaces in between, the interrelationships” (Burns, 2007) between the systemic, the relational and the psychological (Figure 6).

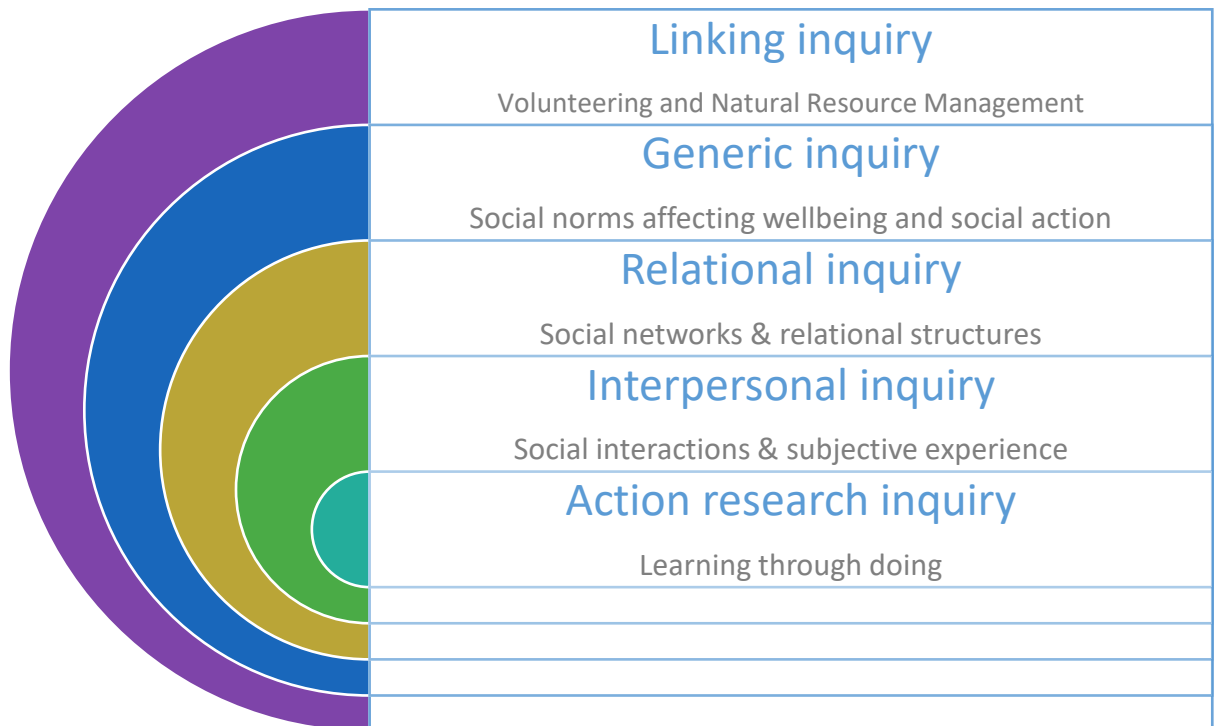


Figure 6 A nested research design

While there was some linearity to the way the research proceeded (Figure 3), it was also important that the research design could facilitate overlap. Moving up and down, in and out, and through the different levels of the system allowed the study to trace the differential effects of wellbeing across the whole system. For example, it was important that I attempted to see how a personal dynamic affected how a volunteer was perceived in the social network or how a cultural norm affected the relational power of volunteers. Rather than look at what was desirable for a specific group of actors, the goal was to identify patterns – or simple rules – that predisposed the whole system to move in positive and complementary directions. As much as possible I presented cross-linkages directly to participants to prompt their own reflection and analysis. Seeding data from one individual or group to another, and documenting these reflection points, created further opportunities to bring relational and structural issues to bear on the deep psychological insights we created.

3.3.5 Synthesis

Data synthesis was a critical process for a nested research design, and for answering my final research question:

RQ6. In what ways do relational structures and wellbeing dynamics interrelate to influence collective action?

While the methods of this study were detail-oriented, so as to identify the “tiny local interactions” (Burns & Worsley, 2015) or the “micro human factors” (Dust & Prokopoff, 2009) that affected the nature of social change, the approach I took to analysis focused on pattern generation and resonance-testing. Analysis was a continual process broken into two definable stages: “analysis-as-praxis” and “analysis-post-praxis”.

For analysis-as-praxis, I always had a period of reflection or a conversation with a critical friend on the evenings of heavy data collection days to consolidate what I had observed and learned. Following key chunks of data collection, I analysed transcripts and fieldnotes to organise findings into key insights and themes. Analysing-as-you go a common approach in iterative research designs, because the research facilitator assesses at each stage what is necessary for the next stage, asking questions like (Burns, 2007: p86):

- Are we still ‘on track’ with our underlying research purpose?
- What new questions do we need to ask?
- What new data do we need to collect?
- Which new organisations and people do we need to involve?
- What practices and methods do we need to use at this stage?
- Do we need to produce any outputs or feedback from our work at this stage?

I then took two approaches. First, I would seed this analysis into group analysis sessions to refine, adapt and validate my interpretation. The rigour of participatory systemic work depends on incorporating multiple stakeholder perspectives and methods, and the subsequent use of the knowledge generated from each of these to interrogate the other. To this end, sense-making sessions were spread out across the study’s timeline and the same data outputs (e.g., the story boards) were used in different data streams, to layer perspectives into analysis. These sessions required a lot of thought and preparation but they were effective at broadening and deepening my understanding. For instance, it was ICS volunteers in the World Café event who identified that a sense of relatedness travelled through networks and through time.

Second, I would see whether insights applied to other actors and other contexts in more of an ad-hoc way. For this approach, I relied on my head being 'in' the research findings so I could 'see' potential linkages in different experiences and improvise mini learning loops by asking actors to reflect on accounts that seemed similar or different to their own. This approach helped me identify key interrelationships, where variables were co-dependent on one another, affecting the course of change. For example, in chapter 8, I explain how autonomy protected wellbeing when there was an asymmetry in the sense of competency experienced in social network interactions.

For analysis-post-praxis, the linking inquiry was important for giving the data anchor points outside the watershed research site. This gave me confidence that the findings were doing more than referencing psychological or cultural artefacts of the social-ecological system under close examination. For example, Marc Maxson at GlobalGiving facilitated the digitalisation of the story forms so the 67 stories and analysis from the watershed could be compared electronically with 57,000 community stories collected in Uganda and Kenya in 2010-2013. I was able to see that my story collection was slightly more positive than the average, and over-represented in the fun category. This allowed me to speak more confidently about the impact and nature of the volunteers' approach. Similarly, through work on other islands examining volunteering and natural resource management, I knew that the approach taken to manage natural resources in the watershed was concordant with a lot of practice in the Philippines. And the *Valuing Volunteering* project enabled me to test on-the-ground realities of volunteering for social change with a wider cohort of experienced practitioners. It was easy to get feedback on community level insights that illustrated a bigger dynamic, because participants would instantly relate or contrast the finding to another circumstance.

Finally, there was a whole track of analysis that happened in the writing of this thesis. At this stage, I re-looked at the whole data set to identify the most significant findings and the common threads between them. I also considered the findings afresh against previous theorising and research in my conceptual framework. The interdisciplinary nature of the study meant I considered how my findings related to the fields of wellbeing, volunteering and natural resource management. The main goal was to identify where my data aligned and extended previous work, to tease out its unique contribution.

3.4 Reflections on the research process

3.4.1 My positionality

Participatory Systemic Inquiry and Participatory Action Research dismantle the distinction between the researcher and the researched (Reason & Bradbury, 2001; Burns *et al.*, 2012), which effectively requires an immersive, fully engaged participation, which is both energising and demanding! From a knowledge-generation perspective, this makes the unique assets, skills and assumptions I brought to the process alongside the reflections and experiences I had along the way a valid part of the empirical picture (Pettit, 2012). It's also the case that my own identity – as a volunteer, westerner, outsider – granted me certain kinds of power, which affected both how I perceived phenomena and was perceived by others. This was another interplay worthy of reflection and analysis because my own relationship building and interactions influenced the course of events under study. It required self and interpersonal awareness and a process for documenting feelings and experiences in field notes. Robertson (2000) sums up the way reflexivity was integral to my research practice:

“In action research, the researchers are constantly being transformed through keeping diaries of reflections, sifting through data, re-reading the literature to make new decisions as to the next action, involved in continual discussions, all of the time becoming more aware of themselves and the processes they are utilising” (Robertson, 2000: p321).

Reflecting on how I was affecting and affected by the research process was a continual conversation with myself as I made decisions about what to do and share with whom to generate new knowledge. Some of the most important aspects of my own position to the research are conveyed up front here because they influenced the direction my inquiries took and the empirical findings of the study. I also reflect on my positionality at relevant points in the empirical chapters to make explicit how the insights generated related to the choices I made and the experiences I had as an active participant in the research process. This is especially the case in Chapter 9 when critical reflection on what I could specifically bring to the youth group's environmental action informed how we approached certain activities like fundraising. I write less about aspects of my positionality I have been dealing with my whole life – e.g., gender – in favour of those aspects of my positionality that were unique to this study – being a volunteer, being an outsider, being well versed in field of wellbeing research, and championing a complexity-aware research approach. This is because these aspects intrigued me most and offer greater potential for fresh insight.

3.4.2 My relationship with other actors

My relationship with the various actors in the research differed, depending on whether they were integral or peripheral to the inquiries. But it is worth noting that while I was a researcher, I was first-and-foremost a VSO volunteer to most people in the watershed. This is because Filipinos tend to celebrate the civic orientation of volunteering work, more than most cultures. As I explore in more detail in Chapter 6, I was greeted with more warmth if I said I was a volunteer rather than a researcher. And this was important because I felt that initial engagement in the research was predicated on trust – either trust in me or more commonly trust in my link person.

The warmth did not negate how hard I had to work to build trust. The psychology of Filipino social interactions suggests a strong cultural tendency to immediately categorise someone as a *taga-labas* (outsider) or *taga-loob* (insider) affects social behaviour (Table 5, adapted from Santiago and Enriquez, 1976, discussed in Aguilino-Dalisay *et al.*, 2004). There is a depth to interactions with insiders not experienced with outsiders, making relationships with insiders qualitatively different from relationships with outsiders. The implication of this binary distinction between outsiders and insiders is that an outsider has to be re-categorised as an insider before interactions evoke personal involvement.

Table 5 *The psychology of Filipino social interactions*

	Interaction partner is an outsider	Interaction partner is an insider
Level of interaction	<i>Pakikitungo</i> (amenities / civility)	
	<i>Pakikisalimuha</i> (mixing)	<i>Pakikipagpalagayang-loob</i> (mutual acceptance / rapport / trust)
	<i>Pakikilahok</i> (participating / joining in)	<i>Pakikisangkot</i> (getting involved)
	<i>Pakikisama</i> (getting along)	<i>Pakikiisa</i> (level of trust/fusion/oneness)

It was my experience that I felt an outsider because I was a westerner. And the Westerner label spurred myriad perceptions about me as wealthy, a ‘fixer’ and very well connected. An inflated sense of what it is possible for an outsider to do was

something many volunteers experienced and I reflect on the negative impact this perception of power could have on relationship building in Chapter 6.

To use Herr and Anderson's typology of researcher positionality in action research (Herr & Anderson, 2005: p31), it meant that I often felt like I was an outsider working in collaboration with insiders. In this mode, the way I worked was a microcosm of some of the larger research patterns we went on to identify. I largely built the research using a relational approach. I strove for my interactions to generate the sort of psychological connection that would get people interested. Developing a sense of relatedness involved being approachable, authentic and accountable. I tried to make initial engagements rewarding or relevant by having open conversations about community expectations of me, the research and the amount of time likely to be involved. I also discussed that this time commitment meant it was important that they participate if they deem their participation important or beneficial to them or their communities in some way. Some of my sessions with community members ended up dual function. Half of the time I spent on my research and the other half was spent doing something fun or of value to participants. In this interaction mode, I was often asked to support local actions in some ways. And this follow-up action was important for making the research process reciprocal and cementing my relationship. For example, in the course of discussions about their work and the environment, People's Organisations asked me to write project progress reports for funders or they asked me translate documents from government departments written in English. I was also asked to facilitate sessions and run activities to energise membership of local associations. The results of these are not factored into this PhD, but they were integral for levelling out perceived power imbalances so our engagements felt more reciprocal.

I also had to make the research relevant to VSO and the management council. I had expected that these actors would be interested in learning more about how, why and when volunteering seemed to help protect the watershed, but the reality was quite different. The management council was barely functioning as a multi-stakeholder body and VSO Bahaginan was experiencing a major restructure. Staff on the ICS programme were incredibly busy in the day-to-day responsibilities of running volunteering and development initiatives. I sent summary emails to VSO offices and I made sure that insights from the generic inquiry phase relevant to VSO international, the ICS programme, VSO Bahaginan and the management council were written up and shared. And I was very fortunate to find locally placed VSO programme supervisors who were keen to understand how volunteers were working. They became champions of the research to incoming volunteers and actors in the watershed.

While I did some of this extra work because I considered it instrumental to the success of the research study, I did some of it because I wanted to express my appreciation to participants and help out people who became good friends. This happened when volunteers were perceived at once as visitors and people embedded in local life. In Chapter 6 I describe the transition from cooperation to closeness as the move from “thin” to “thick” relatedness. I see my own positionality in this research as a small-scale version of this wider pattern documented in the research. As a sense of relatedness deepened between me and other actors – and they became people I admired and people I cared about – I was spurred to do more. This was hugely energising. In these cases, I had developed what the *Valuing Volunteering* project referred to as insider-outsider status (Burns *et al.*, 2014).

The challenge with Participatory Systemic Inquiry is that you can’t hide from the systemic forces that are always working to reverse your efforts. As I became more embedded in local life, I felt more directly the frustrations, injustice and inescapability of global (e.g., international fishing practices), political (e.g., corruption), and institutional (e.g., organisational change) dynamics, which threatened to undo the work of a small group of international, national and local volunteers. In these moments - which neared despair – there were a few people who re-opened my heart and mind to the challenge. Geoffrey in Guindulman was tirelessly inspirational. His energy and commitment were unwavering and, for this alone, I wanted to carry on. Manang Adette in Ubay had a similar effect on me. I treasured the walks we took around the community-based forest management area, trading insights about volunteering and agro-forestry. They provided me a much-needed space for reconnection – with nature and the realities of depending on it. And then there was Piso, Mariz, Maidy, Jay, Maloy and Peter Devereux who were so deeply committed to the ethos of volunteering and the need for it in this world, that they were a constant source of education and inspiration. In the moments when systemic forces felt too big or too difficult it was the relationship, and the sense of relatedness that I experienced, which kept me motivated. As I discovered about volunteering in general, it was me in combination with others that energised and shaped the direction of this research.

3.4.3 My biographical relationship to the research focus

In Chapter 1 I explain the series of life events that led to this PhD and my interest in doing a piece of research on wellbeing and social change. My in-depth knowledge of the field of wellbeing research – and the limits of its application to supporting and enabling social change – undoubtedly influenced the way I approached the study. It

affected my choice of methodology and how I integrated emergent findings from people's experiences of collective action into pre-existing wellbeing theory.

While I remained committed to open-bounded inquiry which built knowledge from the ground up, and actively created spaces for co-actors to deliberate and make sense of their experiences, I still played the role of interpreter at some key stages of the research process. For example, at the end of the generic inquiry phase, I brought all my data, observations, reflections on wellbeing together, making a decision to apply the needs of Self-Determination Theory – relatedness, competency and autonomy – as an analytical frame for exploring the quality of people's social network interactions. I didn't know if this would result in useful insight as I couldn't find studies in the literature that had studied these psychological experiences and their motivational and behavioural effects in the interpersonal sphere. But I was sure that the things I kept hearing about – chronic shyness interacting across bridging and linking social ties, an absence of individual and collective confidence dealing with people in positions of power and limited opportunities to relate environmental outcomes to personal goals and interests – went to the heart of Self-Determination Theory.

It was my own competency with Self-Determination Theory and wellbeing theory more generally which made it possible for the inquiries to experiment with new methods to explore and expand the concepts of relatedness, competency and autonomy. Without this level of competence in the field of wellbeing, and a commitment to open-bounded inquiry required of complexity-aware approaches I think I would have struggled to do as I had intended and use wellbeing as a heuristic rather than a prescriptive framework.

In the post-praxis phase of analysis, it was just me spotting trends and patterns in the data from my own theoretical frames of reference. These frames of reference had expanded significantly over the course of carrying out the study, but they also built from my past experience working with wellbeing models and frameworks to make sense of human experience. So, my own skills and experience was integral to the direction the research took but this also meant I had to be mindful of the assumptions I was bringing to the process, which may go unchecked by co-participants who didn't share this research history.

3.4.4 My relationship to the methodology

One of the biggest challenges of my methodological approach was its intensity. Over 14 months, it required a lot of energy and flexibility. Visits to Bohol varied in length from three days to a month. When I was in the community I was always 'on'. The need to be

fun, charming and sociable from the moment I left my room before 7am to my return in the evening was surprisingly exhausting. I remember wondering whether this was how local people felt interacting with volunteers as visitors in their place. Boulton *et al.* (2015: p55) refer to this research mode as “subjective empiricism” – immersion in real life rather than in theory.

At the community level, I tried as much as possible to work round fishing, agricultural, school and fiesta schedules but the mix between my timescales, the community's timescales and the timescales of institutional actors proved a tricky one. The core research group and I would go to great lengths to plan visits to justify the cost, knowing that all the plans would likely unravel on arrival as people cancelled commitments or natural events like typhoons and heavy rains prevented access to some areas of the watershed. We had to manage this uncertainty so it didn't become too much to bear! We would plan and calmly re-plan when things changed. But this process was in itself useful, because it made us reflect on which processes and bits of data we could do without, and which we felt was central. For example, it was logistically difficult to connect retrospectively with actors who appeared on volunteers' social network maps (once the volunteers had themselves left the watershed), but this was an aspect of the interpersonal inquiry we were reluctant to give up. To maintain the flexibility needed to collect sufficient data I usually worked every waking hour while I was in Bohol. As plans changed or were lost, new opportunities (e.g., invitations to community events or dinner on an evening) cropped up – and every interaction was an opportunity to learn something new or validate something old.

The intensity of the approach got easier as my competence with the mixed methods approach I adopted increased. During sessions I usually had to improvise a lot. Sessions usually started late, they were almost always disrupted by food half way through (which takes precedent in Filipino culture!) and small sessions could end up large and large sessions could end up small. Sometimes the energy people had around a particular insight would shift the focus or order of a workshop. Sometimes it would mean an impromptu site visit, where I and other actors would leave a workshop or interview setting to go see something with our own eyes. So, while I would plan sessions, their success was reliant on adapting an approach and tools to suit the direction in which the community took the conversation. As my own experience and sense of competency grew, along with that of the researchers in the core group, we developed a back pocket of tried and tested techniques (e.g. with young people, in interview settings, with institutional actors) which could be relied upon quickly to gather insights and move thinking and action on. With this growing confidence, it is probably

fair to say we became the primary stewards of the research process, which potentially crowded out the possibility of other actors getting so deeply involved. The decision to run the action research process with the local youth group offset this bias in some ways, as well as providing a valuable 'testing' ground to apply insights from other inquiries (Chapter 9).

An added layer of complexity was that I was in the watershed working as a researcher for the *Valuing Volunteering* project and as a researcher for my PhD. In some ways, the boundaries between these two pieces of work were very clear – the focus and analytical frame were totally different. But to those I was working with, it couldn't have always been clear which hat I was wearing. In many ways, this didn't matter where my relationship with other actors was strong. For people's sense of relatedness – trust, warmth, closeness – trumped the formalities of signing ethics forms, which specified the specific study they were involved in, in more detail. The bulk of the work maintaining the boundary between the PhD and the *Valuing Volunteering* project came in the generic inquiry phase of the research process, because I had to analyse the data wearing two hats: both to make decisions about the direction of the *Valuing Volunteering* inquiry and the direction of the PhD inquiry. Essentially this meant long evenings after long days of data collection to review notes, pictures, photos, and other pieces of data, to reduce the risk that key insights would be lost. On the flipside, the engagement with *Valuing Volunteering* meant the hours I was putting in using Participatory Systemic Inquiry and Participatory Action research methodologies within a Filipino context extended beyond the collection of my PhD data. These hours of practice, alongside the ready access to a group of *Valuing Volunteering* researchers working in a similar methodological paradigm, meant my competence as an action researcher grew much faster than it would have done through the doctoral research alone.

As an action researcher – actively building relationships and generating insights about the watershed management process – my presence was itself an intervention. I tried to critically reflect on my presence so I could use my position responsibly. This seemed especially important given my use of systemic action research, which meant I traversed lots of different levels of the system, gaining access to information which local actors were not privy to. For example, the ICS programme in Bohol was perpetually under threat of being axed by organisational dynamics within VSO Bahaginan and VSO International. I faced a dilemma: to share this information with local actors who were part way through a complex change process or say nothing. I opted for a middle ground which did not betray actors in the VSO office who had confided in me, but

which did not sanction the removal of the programme because of organisational issues rather than because it had been properly evaluated. I decided the most constructive way I could intervene was to keep up communications with VSO about emerging findings to highlight where the programme was working. In the national report I wrote for the *Valuing Volunteering* project (Aked, 2014b), I highlighted and legitimised the importance of fostering long-term partnerships with actors working in highly complex change contexts, even when results were not immediate. In the end, the ICS programme in Bohol ran to its designated finish date.

As a complexity-aware researcher, I found Filipino academics and professionals far more comfortable with emergence than western counterparts. In a volunteering workshop in Bangkok about the theory of change for the ICS programme, I felt like I sat between two worlds. Staff from head office were pushing for a log frame which linearly depicted the relationship between volunteering and outcomes of active citizenship, like participation and civic mindedness. Filipino representatives drew a circle to represent 'incubator' spaces in the middle of the theory of change. This circle was the cause of a lot of debate. For the western participants, it didn't feel exact enough to say a lot of inputs combine in unpredictable ways, but by focusing on the inputs and the creation of the space for them to combine, chances are active citizenship outcomes will emerge. Even though this is much truer to the way volunteering works, the participants from head office had to pivot quite a lot to be able to process this representation of change. And a few had a pragmatic "try explaining that to funders" look on their faces.

In the watershed, a complex systems lens meant I spent a lot of time with young people – Filipino and British – because they seemed to be more natural system thinkers than the adults I came into contact with. This is also partly why I worked exclusively with young Filipina co-researchers. They were able to map out issues and connections without worrying what to put where. They could deal with feedbacks, uncertainties and paradoxes, and comfortably hold the quiet disconcerting spaces that arose when others were re-evaluating their assumptions. Perhaps, there is a bigger study in this observation about the way the world of work in western societies has trained us to think and learn, predict and control, which is of limited use when it comes to understanding and influencing complex landscapes. But the point about positionality here is that my research interests structured who it was easier to work with, which affected the insights we generated and the routes to influence that were available to the research and its participants. For example, it was much easier for me to gather groups of volunteers and young people than it was to organise workshops with the management council. Ways round this – e.g., one-on-one meetings with individual

members of the management council – are more fully discussed in the empirical chapters.

3.4.5 Keeping an open mind

As an example of my positionality, some of the boundaries of this research study were undoubtedly defined by my own interests; systems and complexity approaches; a focus on what works, and a focus on human rather than natural processes in the social-ecological system. Despite these parameters, I worked hard to ensure a lot of the focus emerged in an organic way.

Even though I have a long history with wellbeing research, I was totally open to what I might learn in an Asian context. Perhaps, unsurprisingly, an understanding of Filipino society and psychology educated me in a relational perspective on wellbeing, which I see few western psychologists effectively grappling with. Filipinos have a language for expressing their interconnectedness – for example in Filipino, *kapwa* represents shared identity or ‘the self in the other’ (Aguiling-Dalisay *et al.*, 2004), which Western social science has overlooked in a lot of research (Rojas, 2008; O’Hara & Lyon, 2014).

Somewhat paradoxically, I ended up examining people’s experiences through Self-Determination Theory, which is one of the most established theories of human motivation and wellbeing in Western social science. Despite my open mindedness, I was continually struck in the generic inquiry phase by how Filipino and British people’s involvement in a change process was contingent on feeling personally driven, collectively capable and socially bound. By building a systemic picture of the wider ecosystem of factors influencing wellbeing and collective action, I was more able to confidently zoom into the psychological details that seemed to matter most to the change process. The experiences of relatedness, competency and autonomy are rarely treated as relational dynamics, and yet they seemed essential to collective progress as much as individual pursuit. It was this conceptual journey that challenged me the most to stay open minded. I was prepared to put established theory to one side to learn from the ground up about what was important; I was less prepared to end up back where I had started, albeit from a slightly different, more relational, outlook. To end up more, and not less convinced, by the power of Self Determination Theory to explain human motivation was analogous to the reverse cultural shock I experienced coming home from the Philippines after two years.

3.4.6 Language and translation

From a practical perspective, one of the most important parts of this research puzzle was language and translation. While Filipinos are exceptional linguists and generally speak great English, they are often shy to with native speakers. And in more remote communities English is less fluent. When I arrived in the Philippines, I spent the first six weeks working with a Tagalog teacher provided by VSO in Manila. And then my study ended up being on the island of Bohol where Visayan is spoken. I quickly realised from my time spent in the provinces that Tagalog could alienate people, because culturally it was perceived to be a more superior language, which introduced power dynamics I wanted to avoid. It was better to toggle between Visayan and English than use Tagalog. Aside from interactions with institutional actors who were fluent in English, I decided that all sessions would be conducted in Visayan. I learnt enough to introduce myself and take part in straightforward conversations and I was very lucky that the people of Bohol were so gracious in the presence of my minimal skill! And I emphasised how important it was that people expressed themselves in their own language because it is easier to convey our experiences that way.

This approach did create an enormous amount of work for my co-researchers who were native Visayan speakers, as many of my interactions were conversational in nature. We tried to minimise the strain by co-preparing and co-designing sessions. And we talked about the importance of translating after every sentence or two, so I could be involved in the interactions. We also had debrief sessions where I could clarify my understanding of a translation. Luckily, my co-researchers had recent experience working in groups of English and Visayan speakers through their engagement with the ICS programme. And for those actors I became closer to, the demands of translation lessened as actors would slip in and out of English and Visayan, much as they would do in their own interactions.

3.4.7 Reflections on ethics

The primary loyalty of Participatory Systemic Inquiries is to the issue rather than to an actor or group of actors. The actor – and the suppression of their wellbeing – may become the issue, but the process of carrying out Participatory Systemic Inquiry could also catalyse exploration with a tangential or rival group. The synthesis of different world views requires the construction and facilitation of group analysis sessions at regular and opportune moments in the research process (Burns, 2012). Making these analysis sessions safe for the individuals required a particularly sensitive and lively engagement with research ethics. In most of the Participatory Systemic Inquiries I have

seen written up (Burns, 2012; Burns *et al.*, 2014), the Lead Researcher has had the ability to move relatively freely within the system, much like an investigative journalist would do. VSO – and its standing as an international NGO – offered us an automatic invitation into places local people would find it difficult to access. At the same time, it was easy to get invited into spaces that were highly contentious. For example, I was on the bus with the Chairperson of a People's Organisation when we noticed the trees in their protected area were on fire. I accompanied her until she had located a member of the People's Organisation with a gun to protect her while she went to investigate the fire, and then I stayed behind.

I was also asked to accompany a People's Organisation to the negotiating table with local government and national government representatives, following a very uncomfortable interaction with an individual who was pressuring the Chairperson to continue a land deal which didn't look favourable to the organisation's members. I had to make judgement calls about what was safe, for me and co-researchers. Protecting the environment is provocative for some population groups – e.g., miners, loggers etc. Global Witness has labelled the Philippines as one of the most dangerous places in the world to be an environmental or land defender¹. One environmental activist was found dead under a tree in suspicious circumstances in the watershed while I was working there. In February 2017, an environmental lawyer with the NGO Environmental Legal Assistance Centre was shot dead in front of her children on the island.

I found that the ongoing process of ethical deliberation about what to share with whom, and in what form, as well as what to take part in, was itself a form of systemic inquiry about power and relational dynamics in the system. It both generated data and made research ethics more than a tick box exercise. It did help that I was plugged into a group of researchers on the *Valuing Volunteering* project using Participatory Systemic Inquiry, because I could take specific cases to this group and get timely feedback. As a rule of thumb, I decided I would anonymise any insights I shared, whether in reports or conversation. For this thesis, I have used pseudonyms for anyone other than the core research team and the individuals who inspired and helped me in Section 3.6.1 above. I also decided that I could only share watershed-wide patterns of environmental degradation or community-level experiences interacting with the management council because I didn't want to risk exposing anyone. Access to resources was often determined on relational grounds rather than rights or due process in Bohol. For

¹ (<https://www.globalwitness.org/en/campaigns/environmental-activists/filipinos-front-line/>).

example, I learnt of examples where project funding and municipal waste services seemed to be dependent upon who was friends with whom.

The use of a nested research design to illuminate what Mittleton-Kelley refers to as “intricate and multiple intertwined interactions and relationships, and of multi-directional influences and links, both direct and many-removed” (Mittleton-Kelley, 2003: p6) accentuated a creative tension that exists between the systemic and participatory aspects of my methodological approach (Burns, 2012). It was difficult to ‘see’ all the links Mittleton-Kelly refers to without sustained and proactive engagement in all aspects of the research. This level of engagement wasn’t feasible or useful for most research participants, which meant we had to demarcate different roles and responsibilities in the research process.

For volunteers and community level actors, it was important that they fully participated in their reflection and practical engagement, providing good quality insight and analysis. For systemic design principles, it was important that I continually looked at these insights and analysis as a whole, stewarding the focus of inquiries so they remained “on track” with the underlying research purpose (Burns, 2007: p86). This could involve asking new questions, opening up different inquiries, introducing different methods and convening groups of people together. Managing an iterative research design was an intensive research process, which by virtues of the demands it placed on researchers (Burns *et al.*, 2014) precluded comparable and sustained involvement of actors from one part of the system into another part of the system. For one, there were environmental disasters to contend with, which naturally took the attention of actors away from this research. I lost access to ICS volunteers in cycle 7 because they were evacuated from Bohol after an earthquake on 15th October and returned home within 48 hours. A matter of weeks later, I also lost the opportunity to engage the management council in the research findings, after weeks of planning, because Typhoon Haiyan devastated Bohol on 8 November 2013. The quick succession of these disasters necessarily changed how people in the watershed engaged in the research, because they had bigger concerns supporting affected households and getting their own lives back on track.

Notwithstanding the disasters, I didn’t feel that participants expected to be a part of the whole knowledge generation and analysis process; what they wanted was involvement in a research process that felt accountable. When participants trusted I would bring the most relevant insights to them, systemic and participatory research principles seemed to complement, rather than detract, from one another. So, it was the governance of the

research design, rather than the research design per se, which determined whether systemic and participatory principles could co-exist. In Tandon's (2000) assessment about how to pro-actively include marginalised groups in the knowledge generation process, he talks about the dynamic relationship between citizenship, participation and accountability, arguing that they need to move in "an integrated, inter-linked, and synergised manner" for meaningful participation (Tandon, 2000). Similarly, Burns (2007) emphasises the active development of distributed leadership in systemic action research processes, so change is derived from people's passion and energy, rather than their co-involvement in all aspects of the process.

3.5 Conclusion

The way complex systems and participatory principles underpin the methodological approach to examining wellbeing is a unique contribution of this study. I created a nested research design that used Participatory Systemic Inquiry and Participatory Action Research to examine interrelationships that cut across systemic, relational and interpersonal levels of the social-ecological system. The research would not have taken the shape or journey it did, outside of a Filipino context and the relationships I formed. In this way, the study itself makes a stand against positivist tendencies in social science research, because the knowledge we generated was contingent on our lived experiences.

In this chapter I outlined the research design and methodology. It was my goal to innovate new ways of researching wellbeing that could more effectively engage and leverage positive experiences as concrete challenges were being worked through in practice. I blended participatory network mapping with reflections on wellbeing to consider the qualities of social interactions that made a difference to change processes. This was novel, both in its relational examination of wellbeing and in its experiential examination of social networks. The study was not without its practical and ethical challenges, but it was my experience that these challenges intensified a focus on accountable process rather than diluted it.

The following five chapters present findings from the five inquiry streams, where more detailed descriptions of research processes provide context for the data and analysis presented. In the next chapter, I begin with an exploration of the social-ecological system that volunteers were stepping into. I report on data mainly collected through the generic inquiry phase to examine how human systems, relational systems and natural systems interrelated to create a collective action dilemma. This dilemma was a focal

point of social change, orienting volunteer efforts toward raising and sustaining levels of collaboration in natural resource management.

4. A collective action dilemma

4.1 Introduction

This chapter provides an overview of the Carood watershed, describing the local context within which this study was undertaken. While natural resource management is an inherently complex change process involving natural systems, relational systems and human systems, few studies have examined how systemic, relational and psychological processes interrelate to shape the trajectory of change. It is also the case that very little academic work has described the particulars of natural resource management with a view to what this means for volunteering interventions. This is the case even though volunteering is used to support environmental management, especially in the Philippines (Aked, 2014b). Natural resource management researchers examine change at the geo-political (Feldman, 2011) or network level (Bodin *et al.*, 2016) and volunteering researchers examine motivation at the individual level (Isen & Levin, 1972; Post, 2005; Shye, 2009). But it's rare to combine all these perspectives into a single analysis of a change context using a complexity focus on interrelationships and interplays. This chapter seeks to address this gap by answering the first question of this research:

RQ 1. What are the systemic, relational and psychological dimensions of complex change environments?

First, I use a complex systems lens to interpret the realities and challenges of natural resource management. I then use a psychological perspective to understand how inactivity and inertia emerged in the intersection between ecological and social systems. Finally, I argue there are integrated relational and psychological dimensions to intervening in complex systems dynamics, which do not receive enough treatment in theories of change about volunteering and natural resource management. I show how a complex systems lens which incorporates multiple dimensions – the systemic, the relational and the psychological – in its examination of natural resource management makes it possible to see volunteers as positive disturbances that trigger new forms of organising in social-ecological systems.

The data in this chapter is based mainly on ethnographic observations and stories of change as well as secondary sources of information collated during the generic inquiry phase, including governmental statistics, the watershed management plan, institutional

theories of change and end-of-placement volunteer reports. The results follow my own analysis of the watershed context so I could uniquely combine complex systems principles with a wellbeing focus to characterise the nature of change in the watershed.

4.2 The social-ecological system of Carood watershed

In Chapter 2, I refer to the socio-ecological systems framework as an example of a complex system perspective on natural resource management. In this section, I describe Carood watershed, presenting data that corroborate the social and ecological interdependencies of socio-ecological systems theory. In so doing, I describe the complex nature of the social, economic and political dynamics that volunteers from outside the system were stepping into.

A watershed is an area of land connected by water, which inextricably links people inhabiting the land through their use of a common water course (Pepper *et al.*, 2006). Carood watershed is a 20,749-hectare area serving the rivers, basins and coastal waters of 64,962 people on the island of Bohol in the Visayas region of the Philippines. Watersheds are commonly used as the planning and management unit for natural resources in the Philippines. Carood, like many watersheds in the Philippines, comprises terrestrial and marine ecosystems, because the water outlet defining the boundary of the watershed is the sea. This means the watershed comprises agricultural and fishing communities, living in upland and coastal areas. These actors, while geographically dispersed, are jointly affected by almost everything they do by virtue of their physical interdependence (Ostrom, 1990).

The diversity of the communities connected by the watershed is made more complex by levels of poverty and vulnerability. The difference in wealth between a mayor and a seaweed farmer or between a university student and a member of a local youth group is often considerable with more than 50% of households within Carood watershed living below the income threshold (Aked, 2014c). Many individuals rely on the water system for their food security. This is reflected in the make-up of economic activity of communities, which is generally limited to small scale, irrigated and rain-fed agriculture and aquaculture as well as grazing livestock (Aked, 2014c).

The watershed spans six municipalities, making its protection a politically coordinated exercise. The Carood Watershed Model Forest Management Council (CWMFMC) is a cross-political, multi-stakeholder body which includes the mayors of each municipality, officers from each Local Government Unit, NGOs, representatives from government agencies, Bohol State Island University and independent community-based

associations called “people’s organisations”. The council’s objective is to realise a sustainable management system, where the benefits of ecological services are enabled and shared by people. The inclusion of people’s organisations on the management council is intended to ensure the interests of farmers and fishermen are represented in decision-making. Ethnographic observations through home and community visits confirmed that the people’s organisations represent some of the poorest, most active and most affected residents of Carood watershed.

The social dimensions to natural resource management in Carood watershed are evident in the priorities identified by the management council. The technical work to conserve and rehabilitate forests and mangroves is only one component of a long-term management strategy that comprises myriad objectives for the social systems intersecting with bio-physical aspects including:

- governance;
- knowledge management and networking;
- capacity development;
- enterprise development;
- research and development;
- monitoring and evaluation.

In accordance with social-ecological systems theory, the above list shows that environmental activity is considered by local actors to be contingent on integrated action in the social systems too. The social, economic and political realities of natural resource management in Carood are congruent with the focus given to human capacity and intent in social-ecological systems theory (Folke *et al.*, 2005; Folke, 2006; 2010) and the emphasis Ostrom gives to interdependent vs independent action (Ostrom, 1990; Dietz *et al.*, 2003). These approaches say there is a need to consider how social arrangements structure human action, which dynamically affect the sustainability of natural resources (Folke *et al.*, 2005). In turn, work on the social systems of Carood watershed was contingent on the relative stability of environmental systems. During the year of my research, there was a serious earthquake, a devastating typhoon and localised flooding, all directly affecting residents. The scale of these natural disasters diverted the attention and resources of local institutions and communities towards disaster relief (e.g., psycho-social recovery, immediate shelter, food, re-housing) and away from long-term management. Each event served as reminder that achieving watershed objectives was reliant on the interdependent relationship between human and ecological systems.

In the next section I discuss how a collective action problem emerged from the socio-ecological interdependencies of the watershed system. This was a dilemma that volunteers and local actors seeking environmental change had to engage with proactively.

4.3 The dilemma of collective action

Before I visited Carood watershed, I had high expectations for its sustainable management. Firstly, I took the acceptance of Carood watershed to the International Model Forest Network (IMFN) in 2010 as an indicator of effective management. IMFN is a global community of practice adopting a landscape approach, broad partnerships and a commitment to sustainability. Secondly, the multi-stakeholder composition of the management council, which included actors at political and agricultural levels of the social-ecological system, seemed to indicate an inclusive and collaborative approach characteristic of “good” (Transparency International, 2015) and “adaptive” governance (Folke *et al.*, 2005).

The reality was different. Rather than step into a buzz of pro-environmental activity, momentum had stalled. More engaged actors complained about inertia, inactivity and cancelled management meetings. A British long-term volunteer who had not long arrived in the watershed in June 2013 described a council meeting she had attended:

“There is no discussion at the council meeting. And with 30 people this is difficult. There are no actions in the minutes, even if there are resolutions. There has been discussion about doing them differently. But this hasn’t happened”.

Issues that were mentioned by actors in the watershed as examples of inactivity included:

- long stretches without council meetings and no forward-looking schedule of fixed dates
- low attendance at meetings / trainings
- outdated MOAs outlining management responsibilities of volunteers
- absent and overloaded placement supervisors and work counterparts
- lack of capacity development of council members (e.g., People’s Organisations)
- delays in operationalising the framework for Technical Working Groups to drive forward the management plan

To validate these concerns, there was visible evidence of a poorly functioning management system. Illegal logging, quarrying, poor waste management and mangrove cutting were evident and openly discussed with me in villages, as if they were common practices. And these behaviours directly mapped onto a group of seven major risks to the watershed identified by the management council.

I observed that the major challenge hindering progress was collective action. Within the field of natural resource management, collective action problems are typically characterised by individuals acting independently - sometimes selfishly – in a way that is ineffective or harmful to the environment and other actors (Ostrom, 1990). ‘Selfish’ acts did happen in the watershed, but I also saw that they happened for very real social reasons. For example, individuals often had to prioritise the week’s household income over long-term protection of resources for everyone’s benefit. During local elections, politicians focused efforts and resources on municipal issues rather than inter-municipal projects. But I also identified a dynamic that extended beyond the private / public and selfish / selfless dimensions of collective action problems.

The ecological parameters of the watershed created relational and psychological challenges, which hindered collective action. Figure 7 shows how the scale of the ecological system demanded actors work with people they don’t know or trust. Working across hierarchies and different social groups isn’t considered to be easy in any social situation (MacInnis & Page-Gould, 2015). It was made harder by socially exclusive governance practices that threatened the wellbeing of community-level actors engaging in activities and projects to protect the environment. In addition, any incentives - e.g., threat of ecosystem collapse; more reliable household income - that may have encouraged actors to work together under normal circumstances were dampened by sub-optimally high levels of individual and group resilience. The consequence was a collective action problem.

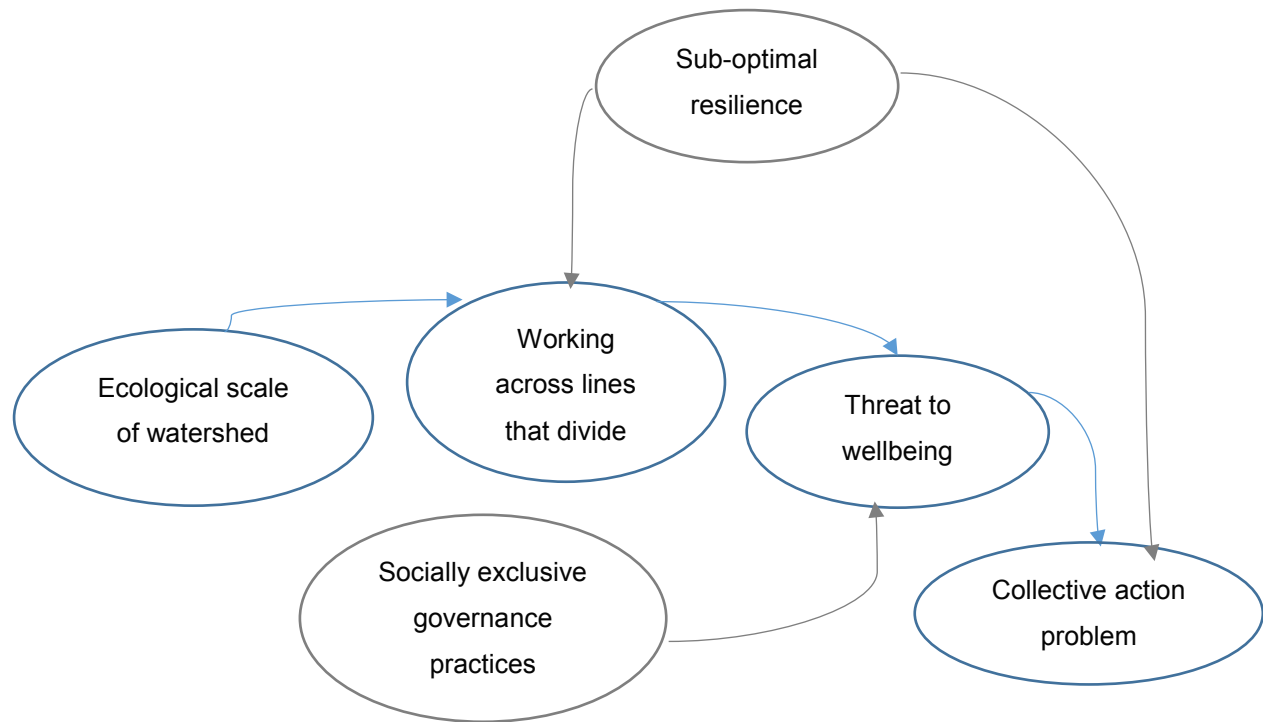


Figure 7 Key dynamics affecting collective action in the watershed

I discuss each aspect of this integrated social-ecological dynamic in more detail below, before considering the space this dynamic left for volunteers coming from outside the system to do something meaningful.

4.3.1 Ecological scale of watershed

The ecological boundary of the watershed extended way beyond that which makes problem solving at a human scale easy. On my first visit, I hired a motorbike and driver to visit the six municipalities of the watershed. I was instantly struck by its geographical scale and the interconnectedness of the different geographies. For example, the watershed incorporated actors in six municipalities (Alicia, Candijay, Ubay, Mabini, Pilar and Guindulman) and while some of the municipalities (Pilar, Mabini and Guindulman) have a very small geographical area that falls within the boundary of the watershed, the ecological significance of these localities is still high. For example, Pilar is at the headland, so residents and institutions of this municipality can greatly affect water provision in neighbouring municipalities through forest cover and solid-waste management.

To give an indication of the diversity of actors involved, I personally spoke with over 300 individuals involved in environmental action on the watershed over the course of

this research. The diversity of actors who appear in stories and network maps in the following chapters encompass residents, fishermen, farmers, school children, youth groups, government officers, university and college students, private businesses, barangay officials, NGO staff, members of People Organisations, Department for Environment and Natural Resources (DENR) staff and politicians straddling every one of the municipalities within the ecological boundary of the watershed, and some political actors based in the island's capital. There is nothing in the existing literature to suggest the scale and complexity of the relational infrastructures influencing the management of the watershed was unusual. For example, Bodin and Crona (2009) identify municipalities, farmer organizations, consumer organizations, state agencies and industry as different sectors of society influencing the governance of common access resources and public goods like water quality, forests and fishing grounds.

However, there is less discussion in the existing literature about the strain a landscape approach (e.g., whole watershed) creates on social systems. The fact that the watershed did not represent a close-knit group of neighbours looking after a local resource was significant. It meant that natural resource management required collective action on a grand stage with a large ensemble of actors, some of whom didn't know each other. In social capital terms, collective action was dependent on the health of 'weak' or 'thin' social ties as well as the 'strong' or 'thick' social ties of familial and friendship groups. In practical terms, it required getting an array of individuals, villages, institutional actors and politicians moving together at roughly the same time towards common objectives.

4.3.2 Working across lines that divide

The importance of 'weak' social ties for protecting Carood watershed made collective action difficult. For example, deforestation in upland regions was creating soil run-off, which was affecting the health of corals and marine livelihoods in Mabini. Poorly managed waste in some villages was causing localised flooding in others. Villages located above the elevation of springs that fed the irrigation systems had the opposite problem: water scarcity. At the individual level, it was hard to conceive how local behaviour could affect different communities. At the institutional level, it was difficult to get visibility on all the action taking place and it was difficult to pull the threads together in ways that emphasised rather than obscured the concerns that this diverse group of actors had in common.

The first indications that the existing system of governance could not foster collective action at the scale required surfaced in the partnership meeting I attended between the

management council and VSO in February 2013. During a Strengths, Weaknesses, Challenges and Opportunities analysis issues of strategic coordination, logistical support and stakeholder participation were raised. The management council was finding it difficult to synchronise provincial and local government efforts to its watershed management plan and resources were non-existent to support coordination or logistical movement between locations in the watershed. In addition, a mini-inquiry with VSO revealed they were placing, supporting and evaluating investment in volunteering according to the specifications of funders rather than local needs (Aked, 2014c).

The result was incoherence. For example, solid waste management campaigns initiated by volunteers and Local Government Units were not complemented by structural investment in dump trucks to enable waste collection. As has been argued by other researchers, this incoherence was psychologically demanding (O'Hara & Lyon, 2014) and it encouraged distrust between stakeholders. Distrust was one of the reasons a coastal people's organisation gave to explain why they had disengaged with the watershed management council. Incoherence also affected the motivation of ICS volunteers. On being asked how the solid waste management issue made them feel, ICS volunteers reported feeling "frustrated" and disillusioned ("what's the point?"):

"It feels like we came here to tell them what they already know and don't help them to do anything about it"

[Group analysis session]

This quote was taken from a group discussion in May 2013 when the ICS volunteers reported feeling "sceptical" about the sustainability of genuine stakeholder participation in environmental action.

As well as the institutional challenges, there was a cultural dimension making collective action difficult. Even within a Filipino cultural context where social connection comes relatively easy to people², including to mobilise mass demonstrations, cooperation was still considered to be a difficult and unresolved issue among academics in the Centre for Leadership, Citizenship and Democracy at the University of Manila and practitioners in the volunteering sector. At a workshop hosted by VSO in January 2013 on active citizenship in the Asia-Pacific region, Filipino representatives described the in-country

² To indicate the sociability of Filipinos it is often cited more cellphone texts are sent in Manila than in any other capital in the world. Text messages have also been used for organising public demonstrations - <http://blog.textrecruit.com/business/two-surprising-countries-with-the-most-sms-and-texting>

focus on volunteerism as currently being about enlarging civil society space to get citizens to take collective rather than individual action. There was a focus on social capital related concepts including trust, belonging and “norms that extend beyond the self” (author’s workshop notes). This view is also reflected in a paper on societal wellbeing in the Philippines, which argued that community development work should emphasise the importance of collective benefits rather than individual empowerment to negate a societal bias to look inward at the household level, rather than outward towards the community (Asis & Luna, 2000). This position was echoed by Undersecretary Jose Mari Oquiñena on 5 March 2013 at the Volunteering Expo on ‘The Future We Want for Volunteering’:

“Filipinos are known to have the spirit of Bayanihan but for some reason we have difficulty working together ... There are so many organisations because when someone is not elected as president, they create another one, with their wife as president ... How do we cross the lines that divide us?”

Actors within the watershed reported similar challenges around collective action. An Assistant Volunteer Placement Supervisor working at Pilar’s Local Government Unit in the watershed explained the same phenomenon to me as:

“The inductive way of thinking. We are taught the family is the basic unit of society so if we improve the household, the community benefits. This is how most of us are thinking so we think less about the bigger picture”.

It was this way of thinking, she said, that made it difficult for local government to engage individuals in community-wide action to protect the environment.

As a nation of multiple languages and ethnic groups, a vast variety of livelihoods, geographical divisions from the islands and vast disparities of wealth, social class and educational attainment, I found Filipinos to be socially astute and exceptional linguists. But what I learned from my time in the watershed and with academics and practitioners in the volunteering sector, is that this social awareness didn’t make purposeful, coordinated action towards a common goal any easier psychologically.

4.3.3 Threat to wellbeing

The psychological burden associated with participating in collective action was high in the watershed, especially for groups that already felt marginalised. The threat to wellbeing was less rational than the cognitive appraisals presented in classic prison dilemma experiments (Hoggett, 2000). It was more of an emotional burden associated with feelings of discomfort, shyness and low self-confidence.

Examining actor experiences across bridging social ties, local youth groups told me about the importance of ice breaker activities to get to know youth groups from neighbouring municipalities before they started working together. In the “*Evolving youth group*” case study in Chapter 6 we learn how local youth groups sometimes felt paralysed in interactions with ICS volunteers they didn’t feel close to. In the action research, we explore how the intentional widening of youth group networks created strain across bonding social ties (i.e., between the young person and a parent). All these relational experiences presented various degrees of threat to the wellbeing of the young people involved.

Examining actor experiences between community level actors and actors in positions of authority, POs reported feeling negative about themselves in their interactions with authority figures on the management council. I explore the effects of this in Chapter 8. Map 1 raises the often-cited issue that young people are not listened to by adults. As has been documented elsewhere in the environmental resilience literature, young people in Carood watershed were not conceived as actors who could take direct action to reduce risks (Haynes & Tanner, 2013), so for a long time they were not taken seriously. In the “*An unexpected thing*” case study in Chapter 8, the age of youth group members directly affected the level of social support and encouragement they received from adults in the community.



Map 1 Systems map drawn with insights gathered by ICS volunteers from their interactions with community actors

Negative interpersonal experiences were not a strong foundation of collective action. When the difficulties of interacting with unfamiliar actors and across power differentials was deemed too uncomfortable, community-level actors would disconnect and withdraw from the change process (Chapter 6). This behaviour has been documented in other research that indicates people find it more demanding psychologically to interact with people perceived as different to them (Fiske, 2008; Hogg & Vaughan, 2008; Hoffman, 2011; Sennett, 2012; MacInnis & Page-Gould, 2015). The negative emotions that reduced people's willingness to engage in collective action started as interpersonally situated experiences, so they were not easily detached from the specific actor or group of actors they were experienced with. For example, community level actors reported feeling less willing to work with volunteers after a negative experience with a previous set of volunteers. The effects of negative interpersonal

experiences, even when subtle, would carry from one interaction to the next. These findings are easily explained by the model of wellbeing I present in Chapter 2. As a motivational system, a sense of wellbeing – or an absence of wellbeing – shapes behaviour. The emotional quality of one experience determines whether we approach or avoid a situation we appraise to be similar. So, how we feel here-and-now in social interactions influences how we connect in future network interactions, and with whom. On the specifics of linking social capital, the learning from a ten-year community change initiative 'Making Connections' in the United States concluded that:

“It is not the mere presence of connections to powerful people and institutions that constitutes linking social capital, but rather the nature and extent of these relationships” (Bailey, 2006: p.7)

The way actors psychologically processed negative interpersonal experiences seemed to be the same, whether it was a bridging or linking social tie. But a hierarchical social context did seem to amplify the threat actors experienced. For example, community level actors reported feeling far less comfortable and competent in their interactions with government officials (Chapters 6 and 7), whereas they would turn to volunteers as a safer interaction partner when feeling uncertain (Chapter 7). These findings – and the wellbeing mechanisms underpinning them – may explain previous research suggesting that economically poor communities have insufficient inter-community bridging capital (ties across the borders of local communities) and little linking capital, even though they have high levels of bonding social capital (Bailey, 2006). Even among community level actors and volunteers who showed remarkable psychological resilience to the challenges of collective action, negative emotional experiences could diminish levels of motivation and participation in management efforts. People seek to move on from negative emotional experiences, not revisit them, so emotions determined whether actors would use their social capital or not. This is a similar conclusion that Richard Sennett reaches about the power of social capital resting in the value people attribute to interactions in a social network (Sennett, 2006). A wellbeing perspective suggests the value people assign is determined by how they feel as much as what they think.

4.3.4 Socially exclusive governance dynamics

The psychological burden of collaborating across bridging and linking social ties was exacerbated by socially exclusive governance dynamics. At the partnership meeting I attended between the management council and VSO in February 2013, participants raised the issue that some members of the council were no longer participating in meetings. Follow-up interviews with community-level actors and volunteers revealed

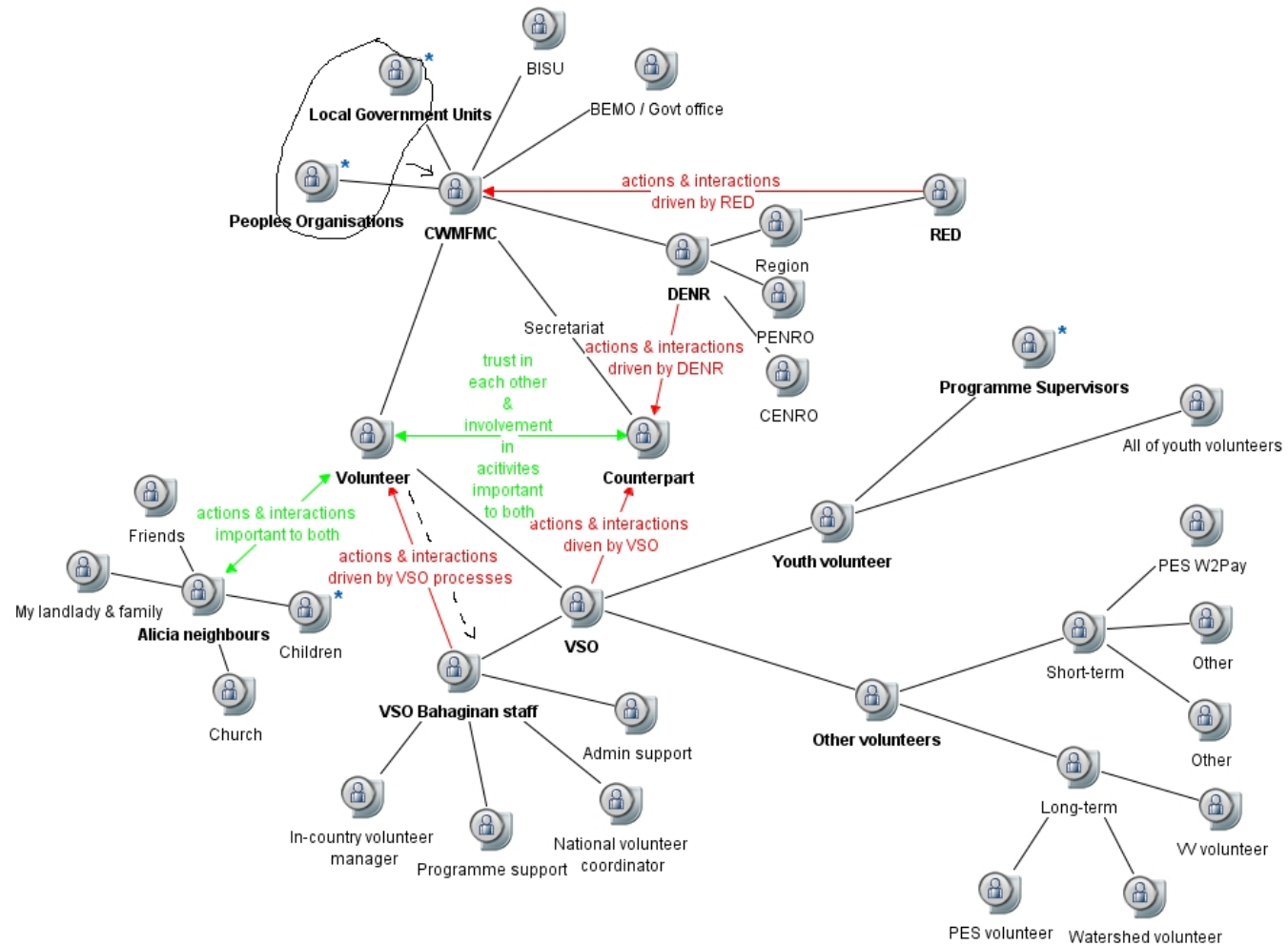
some significant power dynamics in day-to-day governance practices, which affected how actors worked together.

Firstly, council meetings were irregular. And when the council did meet, the meeting usually took place in a formal setting like a town hall, which political actors felt more comfortable working in than farmers and fishermen. The meetings also required actors from all over the watershed to travel. There was a lack of financial capacity to support regular participation of community-level actors, including members of the people's organisations with seats on the council. Local government officers also reported difficulty securing the support of their superiors to attend management meetings when more pressing local issues arose. The difficulty people's organisations and local government officers experienced participating in meetings is significant because the constitution of the management council is written to grant most power to the local government units and the people organisations, with some technical support from the Department for Environment and Natural Resources (DENR). Six local government units get three votes each and seven POs get one vote each. But the voting is contingent on their attendance and input at meetings. One long-term volunteer called Julie who was placed to work with the council suggested to me that in reality the local government units and people's organisations "are just reacting. Not coming up with ideas":

"They shoot things at the council to get the council moving ... The Regional Executive Director will shoot something out that is flavour of the month (Forest Management Portfolio; Payment for Ecosystem Services) and gets all his staff engaged even if they are not interested."

Before Julie completed her two-year placement, I asked her to draw a social network map of the main people she had affected or been affected by during her work and life in Carood (Map 2). Julie illustrated the map to explain how things tended to get done in the watershed. The grey line around the local government units and people's organisations indicated who should be leading council meetings while the red arrows showed who was really directing priorities and activities. DENR had a lot of influence in council meetings and through directing the secretary, who was the long-term volunteers' work counterpart. You can see from the map that VSO also influenced the volunteer and the Secretary of the council. These lines on the map illustrate how, in practice, the requests and ideas of DENR and VSO commanded the most attention of the staff member and volunteer; not the people's organisations and poorest members of the watershed. Both Julie and Fred, a Filipino national volunteer, explained that their work with the people's organisations was made difficult by no funding to travel from

place to place. Julie self-funded her trips while Fred limited his trips to a single visit per people's organisation.



Map 2 A digitalised version of Julie's experience map

So, while the management council was structured to give a diverse group of stakeholders representation and decision-making power, the practice of governance was less collective and inclusive. Instead, Julie described the most powerful adopting a command-and-control style of leadership. A command-and-control approach is considered an outdated model for effective natural resource management (Crona & Hubacek, 2010) but it is typical of how government has historically engaged with poor and marginalised communities in the Philippines. As one indicator, a consultation in January 2012 organised by the Northern Luzon Coalition for Good Governance (NLCGG) in the Philippines identified enhanced participation as a key challenge area for social accountability, with specific needs to promote planning, budgeting, monitoring and evaluation capacities at the village level (NLCGG, 2012). In Chapters 7 and 8 I explain how these practices of engagement – especially between community-level and institutional-level actors – frustrated the amount of competency and autonomy community-level actors got to experience in social action on the environment.

In summary, the management council was less participatory in practice than its governance rules presented on paper. With the benefit of hindsight, other research has suggested the official organisational structure would tell me little about the way the management council actually operated. A study examining how people organise into groups, associations and federations around shared enthusiasms has shown, it is the culture, rather than the structure of an association which determines the actual distribution of power between stakeholders (Bishop & Hoggett, 1986). The reliance on a command-and-control approach to watershed management made it difficult – if not seemingly impossible – for poor and marginalised groups to influence and benefit from collective action, removing any incentive for these actors to overcome negative interpersonal experiences.

4.3.5 Sub-optimal levels of psychological resilience

Another issue affecting individual and group behaviour were levels of psychological resilience among community-level actors to the negative effects of a degraded ecosystem. I argue that levels of psychological resilience were so high they were sub-optimal for incentivising collective action.

I characterised observations of psychological resilience as sub-optimal when I met actors in the watershed with surprisingly high levels of hope and positivity given the reality of their situation (Hoggett, 2000). This hope and positivity had removed the impetus to expect or demand better, and it was a wider cultural phenomenon in the Philippines. In October 2014 a commentator in *The Rappler*, a social news network,

describes the nature of the paralysis that follows high levels of psychological resilience better than I can:

“Our people have repeatedly been touted as resilient, ever-happy, and even bulletproof ... We rush past discomfort and onto acceptance as quickly as possible. We want to turn the negative into a positive all at once without much thought. This is an admirable trait to have ... except that we only do this because we know they are no solutions, and because the tasks needed for concrete change are either impossible or too much trouble to implement ... We don’t ask why there’s a flood, or why this happens every single year, or how come there haven’t been any structural changes to prevent it from happening again ... We’ve resigned ourselves to powerlessness” (Sison, 2014).

What the commentator is describing is an extraordinary capacity on the part of Filipinos to “absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks” (Walker *et al.*, 2006: p4). The strength of Filipino resilience prevents other attractors in the system (e.g., repeated disasters, unequal levels of vulnerability) from catalysing socio-ecological adaptation and transformation. Individual resilience becomes a culture of resilience through shared mental models (Ramalingam, 2013) or socio-cultural logics (Bell & Aggleton, 2012) which raise the importance of some behaviours (e.g., social support) over others (e.g., social action). Analysed through the lens of an integrative collaborative model, high levels of resilience downgrade the need for actors to work together by removing the consequential incentives for co-action (Emerson *et al.*, 2012).

The wider social ramifications of high psychological resilience have been acknowledged in policy discourse in the Philippines. In November 2014 Senator Loren Legarda argued that Filipinos must show resilience *before* a disaster, saying:

“I am glad our government has embraced the concept of building back better. In building back better, we must rebuild communities with the confidence that we are not rebuilding the risks again ... We need to restart and create livelihoods and restore normalcy to people’s lives with a stronger sense of hope and confidence for the future” (Philippine Daily Inquirer, 2014).

The “stronger sense of hope and confidence” Legarda refers to is one based on concrete effort to change things for the better, rather than sentiment emboldened by psychological adjustment to high levels of vulnerability. On analysing the nature of Filipino psychological resilience against what complex, adaptive models of wellbeing (Isen, 1987; 2001; Fredrickson & Branigan, 2005) tell us about how emotions move people to act, I noticed an important paradox. Filipinos are adept at using moments of positivity – smiles, jokes, laughter – to strengthen individuals’ stock of psychological resources during disasters. This feedback between positive emotions and resilience

building is increasingly understood in the positive psychology literature (Tugade & Fredrickson, 2004). It has been shown to explain how individuals cope in stressful events on a similar magnitude to disasters like 9/11 (Fredrickson *et al.*, 2003).

The generation of positive emotions are a good psychological tactic to deploy when times are exceptionally tough and levels of coping need to be raised. But it was an absence of the motivation to improve the social-ecological system once a shock had been absorbed that was impairing collective action in the watershed. So how can positive emotions help psychological resilience but not collective action? Self-Determination Theory explains how different kinds of wellbeing move us to act in different ways. When positive moods do not flow from relatedness, competency and autonomy, lower intrinsic motivation and less personal growth are found (Ryan & Deci, 2000b). It's the satisfaction of these core psychological needs that helps us to feel good about change. So, the behavioural tendency is to act, rather than accept, the circumstances we find ourselves in. This is considered highly functional; it's why NEF's model of wellbeing describes human flourishing as positive experiences flowing from the satisfaction of relatedness, competency and autonomy (Abdallah *et al.*, 2011; Michaelson, 2014), rather than extrinsic incentives – status, money – which enhance happiness but not vitality (Nix *et al.*, 1999). The implication is that wellbeing experiences help in contexts requiring the motivation of individuals to make behavioural adaptations and new social arrangements so long as they flow from the satisfaction of relatedness, competency and autonomy.

4.3.6 Summary

For residents of Carood, the ecological scale of the watershed determined that management efforts span inter-community and institutional-community interactions. This social reality was psychologically challenging, creating barriers which negatively affected participation in collective action. Threats to wellbeing increased further when the interactions embodied socially exclusive governance practices. In addition, high levels of resilience were a psychological adaptation that paradoxically negated the impetus to work together to build back better.

4.4 Volunteering and collective action

The complexity of the collective action problem made it quite resistant to change. In this section I discuss how system inertia shaped the focus of volunteering efforts in the watershed.

The stories of change collected from volunteers and local actors within the community clustered around three main sorts of activity:

- Raising awareness about the watershed and associated risks
- Affecting behaviour in relation to the watershed
- Building capacity for local youth action and engagement with the watershed management council

Stories about raising awareness varied from community events, fundraisers bringing residents together from across the different municipalities, informative presentations and the development of school materials to teach children about the watershed. Stories about behaviour change documented efforts to minimise waste, improve water quality, plant trees and organise coastal clean-ups. Other stories detailed how volunteers sought to support and facilitate the set-up and continuation of youth groups active on environmental issues. When the volunteers took action on the environment, it was primarily to model caring attitudes towards nature in order to encourage local participation. For example, many of the attempts to improve the social context – e.g., pro-environmental attitudes – did so by demonstrating how to look after local ecosystems – like coastal clean-ups and tree planting. So, volunteer effort was primarily directed toward shifting the social system so it could more effectively support the ecological system, so this could go on supporting the lives and livelihoods of people living in poverty.

Actors reacted to this focus on the social system in divergent ways. Volunteers and community-level actors new to volunteering expected that volunteers would ‘do’ the environmental work and solve problems. Some community-level actors thought volunteers would bring money to fix roads and introduce livelihoods. When volunteers could not meet these expectations, the trust underpinning working relationships was threatened (Chapter 6). Volunteers were also prone to feeling disappointed about what they could realistically achieve. One Programme Supervisor called Olivia who had supported many rounds of ICS volunteers in the Philippines and abroad explained to me the importance of managing expectations about what is going to be achieved during a placement:

“On previous cycles, volunteers thought they might build a school. But the communities don’t always see what you see. You cannot always take it at face value ... This is community development”.

[Ethnography]

In this quote, Olivia is describing how she coaches the volunteers to avoid “the reductive seduction” of other people’s problems (Martin, 2016), in favour of a more realistic understanding of the complexity of community development. Volunteers had a lot of freedom in the work they undertook and they were actively encouraged by the ICS Programme Supervisors to re-write volunteer placement descriptions and seize opportunities that came up unexpectedly (Aked, 2016). These efforts supported volunteers to orient themselves in non-linear change processes.

By the end of placements volunteers showed a more realistic understanding of what they could expect to achieve in a social-ecological system stymied by a collective action dilemma. During a World Café event to discuss the causal relationship between wellbeing, relationships and change, a Filipina volunteer called Wendy said:

“I have a comment on Guindulman. Some members of the community may be more receptive than others. So for those who had the experience of struggle living with the community, maybe one way of looking at it is that it [the struggle] eases the boulder. So it is not necessarily a trauma for the volunteer but a process of easing change”.

[Group analysis]

This quote highlights an importance difference in how “new” and “experienced” actors viewed the role of volunteers. Where an understanding of the value of volunteering came through actors’ practical engagement with volunteering as a development tool, they talked about what volunteers could *initiate* or *amplify* rather than what they could achieve or deliver. On asking a Filipina VSO Programme Supervisor Di if she could explain to me where the specific value of bringing volunteers into the watershed lay, she replied:

“Any community development initiative needs volunteerism to start. Someone has to take the initiative without thinking of the money involved. There will always be the question of ‘oh we don’t have money, skills, structures, an office’ ... but there are always some people who say ‘we have ourselves’. So they start something.”

[Ethnography]

Di’s view of volunteering as a perturbation to the social system, which could encourage people to move together, was shared by experienced local actors too. For example, Volunteer Placement Supervisors in Guindulman and Pilar had begun to integrate volunteering into existing work programmes to maximise their catalytic effects on plastic bag ordinances, sanitation campaigns and solid waste management initiatives. We see in subsequent chapters how they positioned volunteers as their community-facing representatives of change. With limited resource and authority, volunteers were

not conventional leaders. But, as we see in Chapter 7, they emerged as critical actors in the watershed who were able to initiate support and leverage resources for environmental action. They carried the psychological risk and responsibilities of collaborative action, making it interesting rather than burdensome for other actors to participate. Interestingly, this sort of leadership has been identified as the first of four preconditions for collaborative action, alongside consequential incentives, interdependence and uncertainty (Emerson *et al.*, 2012).

4.5 A reflection on methodology and positionality

I approached the generic inquiry, which generated a lot of the data for this chapter, with an open-mind. I approached the inquiry much like an investigative journalist would: to ask questions and follow the trail of crumbs that people's experiences and reflections created. I was surprised by where I ended up – and this surprise was an indicator of some of the values and assumptions I had taken into the research. For example, a landscape-based approach to managing the watershed had seemed like a sensible approach to me. Defining the scope of environmental action by all the connections and interdependencies of the water ecosystem would make visible systemic and synergistic interrelationships, which should have helped actors make decisions about where to exert energy for best ecological effect. When I found little energy for any kind of environmental action, I had to ask why. But it didn't occur to me to apply a relational and psychological lens to understanding why immediately. This may seem a little strange (given my research interests) but most of what I had read about successful resource management pointed to the importance of good governance processes. It was only as I talked to more actors about their experiences that I came to realise the stymieing feedbacks of a landscape-led approach for effective governance processes.

I remember feeling quite tentative writing about sub-optimal resilience, because so much of the existing literature talks about having enough resilience; not having too much! It was the Linking Inquiry in the research design and the work I was doing on case study sites for the *Valuing Volunteering* project which exposed me to similar dynamics and observations outside of the watershed in Bohol. It gave me the confidence to report this as a psychological dynamic, hidden beneath the surface, but nevertheless removing the impetus for action. I decided not to address this directly by opening up an inquiry into resilience for two reasons. Firstly, I didn't feel comfortable prompting deep reflection on a coping mechanism that was working at the psychological level, even if not at an ecological one. Secondly, I was first and foremost a wellbeing researcher. As I explain in Chapter 2, I wanted insights to be generated

from what was working rather than what was not working. In collective action, I had identified a problem context, but my energy was in finding positive deviants and ways of disrupting systems stasis rather than fixating on why the key dynamics in Figure 7 were so intractable. The direction we took, then, was a direct result of my own positionality in the research process.

A direct consequence of my interest in focusing on what works was that I worked with volunteers far more than I had anticipated. The volunteers were an obvious, easy 'way in' for me because I was also a VSO volunteer in the Philippines. But, initially, I had been more interested in working at the management council level. This is why one of my first trips to Bohol was to attend VSO's partnership review with the management council (Chapter 3). It was only towards the end of the generic inquiry phase that I realised that it was going to be difficult to interact with a council that was largely inactive. The activity was clustering around volunteers and individual members of the management council who were serving as Placement Supervisors. So, this is where I was going to learn the most about wellbeing processes and collective action.

Unexpectedly, as I got further into the relational inquiry, I realised the management council – and any obvious connection to it – would have heightened power imbalances between myself and local actors to a degree which would have made my position in the research more difficult. People would have talked to me under a feeling of obligation rather than of their own volition and curiosity, and this would have hampered participation and engagement in the research. By contrast, the positive relational effects of the volunteer and outsider status were more motivating. I discuss these in more detail in Chapter 6.

4.6 Conclusion

In this chapter I have drawn on evidence from my observations and interactions with participants in the generic inquiry to describe the challenges of natural resource management in the watershed. In the context of previous research this account is important because the relational and psychological dimensions of a landscape approach have been poorly explored. The use of complex systems principles with a wellbeing focus identified how natural resource management was presenting first and foremost as a collective action problem, rather than a technical problem. This reality took adjustment by volunteers and local actors alike. Instead of becoming an adjunct to a functioning management programme carrying out environmental work, volunteers had to begin with engaging and motivating people to join the management effort.

The ecological boundary of the water system created very real psychological challenges in the relational system. The emotional reality of collaborating across bridging and linking ties emerged as a central dynamic, increasing the burden of collective action. Additional factors including poor governance practices in the watershed and sub-optimally high levels of psychological resilience removed incentives for cooperation and collaboration. The dynamic raised important questions about the qualities of inter-community and institutional-community interactions that would make it easier for actors to engage with one another and even subvert power dynamics in the governance paradigm.

Complexity theory – its focus on interdependencies, boundaries, and feedbacks – helped to surface a more nuanced understanding of important psychological dynamics: wellbeing enhancing experiences derived from the meeting of core psychological needs may prepare individuals to act and adapt, while positivity flowing from high levels of psychological resilience reinforces system stasis. It was this delineation that focused the wellbeing lens around Self-Determination Theory rather than theories of psychological resilience. Resilience is a concept that has been explored in complex change processes (Folke, 2006; Folke *et al.*, 2010) but the potential for relatedness, competency and autonomy to provide human nourishment in social-ecological change processes remains unexplored. The significance of satisfying relatedness, competency and autonomy through the relational system is the focus of the remainder of this thesis.

5. Relational structures of collective action

5.1 Introduction

In the last chapter, I identified that protection of the watershed was hindered by a lack of collective action: the social-ecological system was in need of a perturbation to shift it into a recovery and advancing state. In Chapter 2 I highlighted how social networks have become a focus for shifting behaviour in social-ecological systems, but the way volunteers influence the relational systems that structure governance processes has not been examined. Closing this knowledge gap would help volunteering agencies and natural resource management practitioners more effectively express and amplify the value of volunteering as a tool for change in social-ecological systems. Using data from participatory network mapping and group analysis with ICS volunteers in the relational and interpersonal inquiries this chapter seeks to answer my second research question:

RQ 2. What is the relational structure of volunteering in the watershed, and how are networks used to mobilise collective action?

In the first part of the chapter, I describe how volunteers grew networks of concern, generated collective memory experiences, modelled cooperation and transferred new behaviour for imitation and adaptation. In the second part of the chapter I take a look at how collective action efforts were structured relationally, evolving from scattered fragments to multi-hub and core-periphery structures. I explain how volunteers served as attractors in a core network position, pulling the time, resources and energy of other actors into the protection of the watershed.

In the second half of the chapter I explore the limitations of core-periphery structures for some of the more complex change processes volunteers embarked on (e.g., organisation of seaweed farmers; environmental sanitation campaigns). I introduce the notion of “networked reciprocity” as a network structure which characterises a web of goal-directed exchanges spanning bonding, bridging and linking social ties, which enables a more hands-on role by community level actors. I suggest networked reciprocity is a more effective relational structure for change processes that require some stability and longevity.

5.2 A relational approach

In this section I describe the effects of network building and strengthening. It is worth noting at the outset that volunteers were not trained in intentional networking; in fact, the theory of change for the ICS volunteering programme didn't mention anything about networking and relationship building in its mechanisms for change (Aked, 2014c). What I describe in this section is a more organic than planned process. Awareness of emergence in complex change contexts helped me to explore rather than discount the effects of a relational approach. This was a fruitful line of inquiry because network building and strengthening proved effective in mobilising participation and collaboration in natural resource management.

5.2.1 Growing networks of concern

Volunteers were excellent network and relationship builders. When I asked the fifth cycle of ICS volunteers to map new and strengthened connections to their networks at the end of their three month placement, they identified they had made over 60 new connections to organisations in the watershed and strengthened a further 30 connections over the course of their volunteer activity (Map 3). They engaged radio stations, Barangay officials, Department for Environment and Natural Resources (DENR) staff, youth groups, politicians and Disaster Risk Reduction Management (DRRM) offices in their work on the watershed. The connections straddled every one of the municipalities included in the ecological boundary of the watershed, and some political actors based in the island's capital.

On comparing how their personal social network maps had changed two weeks into their placement, the volunteers all found that their social networks had grown substantially over the three-month placement period. On asking what they noticed about how their social networks of important actors had changed, a British ICS volunteer called Jessie reflected:

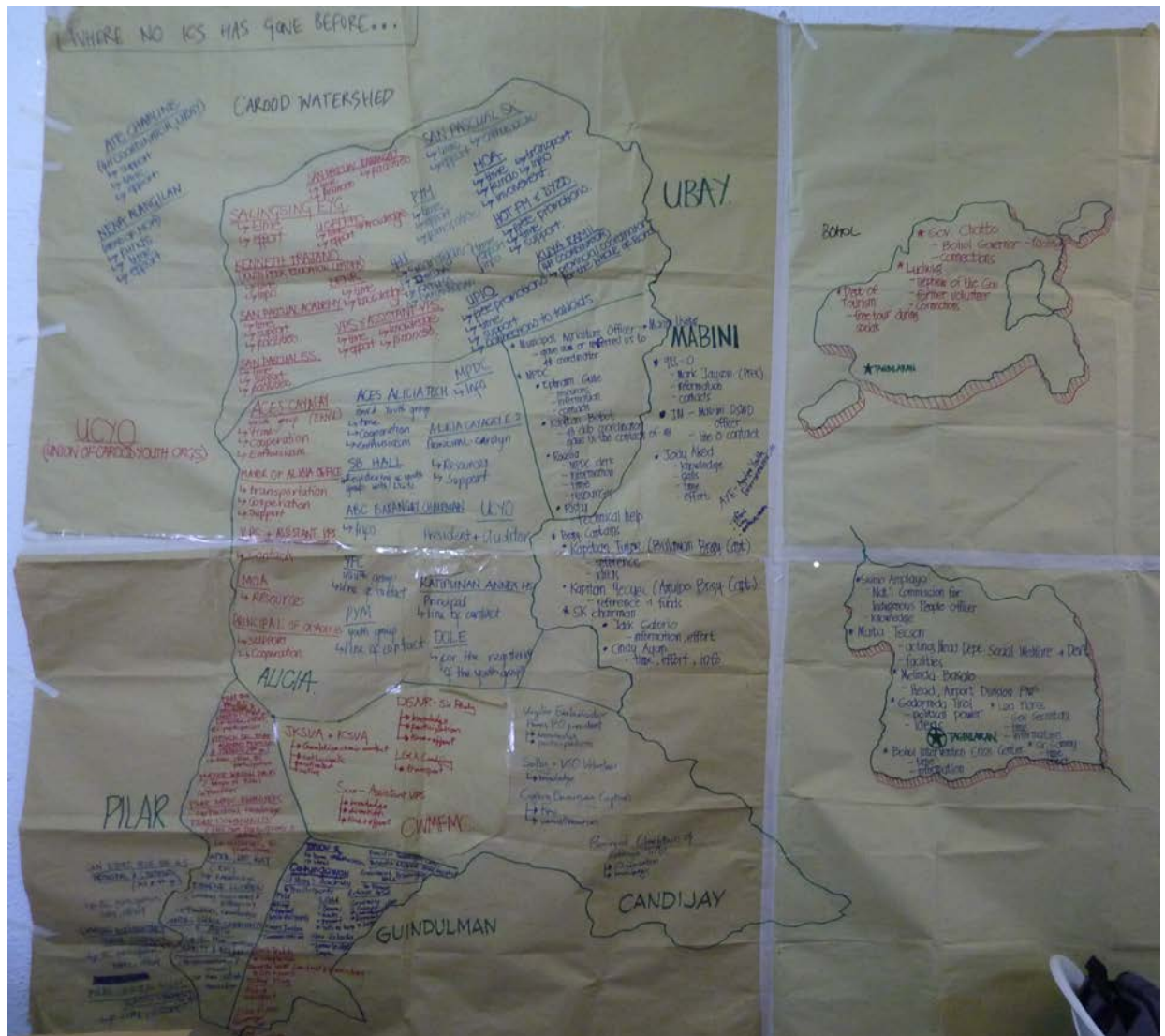
“This time there were a lot of people close to me so it was harder to eliminate people from the map”.

[Group analysis]

A Filipino ICS volunteer called Cameron suggested it wasn't just the number of connections, but the nature of the connections that had changed:

"The connections [now] are from high positions in the community ... they were able to bond with us and they supported us if we asked something".

[Group analysis]



New connections in blue. Strengthened connections in red.

Map 3 A social network map drawn by ICS volunteers of all the connections they made to individuals and organisations over the course of a 3-month placement

The names on their personal and collective network maps represented new levels of awareness and concern among actors influencing the protection of Carood watershed. In network terminology, volunteers had acted as “bridges” bringing new information and knowledge about the environment and community organising. Campaign sessions, the design of information leaflets and the development of course curriculums for schools were all examples of this (Panels 3 and 4). One of the ICS volunteers’ most important “bridges” was to community-level actors. Across these social ties, ICS volunteers were able to leverage resources like time, enthusiasm and money into the governance network. We used the term ‘pop-up’ volunteering to describe incidences where people spontaneously gave their time, knowledge and skills (e.g., translation, agricultural knowledge, contact lists, event preparation) to fill resource gaps that surfaced unexpectedly in ICS volunteer project plans. This ability to inspire others – especially community-level actors – to have concern for the environment was seen as an important ingredient of social-ecological change. As Linda, a lecturer and extension worker in environmental science at the local university explained it to me:

“No matter how much we plan there is always a loop hole in the logistics. Sustainability is with the community”.

[Network interviews]

From a natural resource management perspective, previous social network analysis suggests that increasing awareness and concern at community-level is likely to make an important contribution: the more people know and care about natural resources, the more redundancy there is in the social system to support the ecological system (Bodin *et al.*, 2006). In periods of abrupt change, “bridging organizations” have been found to lower the costs of collaboration and conflict resolution (Folke *et al.*, 2005). It is highly significant that the ‘pop-up’ volunteers were not particularly ideologically-oriented, they were relationally-oriented. Their spontaneous involvement wasn’t motivated by saving the environment, at least not in the moment. Rather, they helped out because of their connections and relationships to volunteers. I discuss this phenomenon in more detail in Chapter 6.

Previous research has characterised a role for international volunteers as “bridges” between local agencies and donor agencies, between development players and through accompanying local actors’ engagement with power holders (Devereux, 2010). This research suggests that the volunteers’ “outsider status” helps them to act as bridges. One officer from the local government in Pilar explained it to me as a Biblical effect because people tend to listen more to “outsiders”, even when they are communicating the same information as “insiders”:

“It is our idea. Our concept. Our program. But they talk for us to our constituents”.

[Network interview]

I saw local government offices in Pilar and Guindulman purposefully attach ICS volunteers to existing environmental campaigns to further drive home the message. In Guindulman, ICS volunteers worked on a ‘no plastic bag’ campaign ahead of a political ordinance banning use of plastic bags in the central market. In Pilar, ICS volunteers worked on solid waste management, designing information leaflets and giving public talks in schools and communities.



Panel 3 ICS volunteers on the ‘no plastic bag’ campaign, Guindulman

But what can I do to help?
The following are steps that you can take to help reduce the risks to the Carood Watershed:

- 1. Reduce, Reuse, Recycle.**
Reduce waste by using fewer disposable products. Instead choose reusable/recyclable ones.
Buy products with minimal packaging, e.g. economy size where possible.
Always recycle your paper, plastic, glass and aluminum cans.
- 2. Change a light bulb.**
Wherever practical, replace regular light bulbs with compact fluorescent light (CFL) bulbs. These last 10 times longer, use two-thirds less energy and give off 70 percent less heat than incandescent bulbs.
- 3. Save water.**
Recycle waste water to use on crops. Alternatively, collect rainwater using buckets which can then be used to water crops.
- 4. Compost.**
Composting is a great way to reduce household waste and it also provides a good fertilizer to help the growth of crops. Things that can be composted include: fruit and vegetable peelings, dried leaves and flowers.
- 5. Do not litter.**
Littering causes many problems for the environment, including some of the risks mentioned previously. Always use a trash bin where available, or store the litter in your bag/pocket until you arrive at a bin.

Turn your TRASH into something FLASH!

Carood Watershed & Solid Waste Management

REUSE REDUCE RECYCLE

VSQ

A watershed is all of the area where water drains to a common outlet (e.g. a lake).

It is important to maintain a healthy watershed because it can provide:

- Water supply for agriculture and domestic uses
- Fisheries
- Recreation and Tourism

Carood Watershed is made up of the municipalities of Alcala, Candijay, Guindulman, Mabini, Pilar and Ubay (a total of 21,728 hectares, with a population of 208,924). The water from these municipalities runs through the Carood and Gabayan rivers and finally drains to Cagting Bay.

Carood Watershed is the only watershed with a functioning council, namely the Carood Watershed Model Forest Management Council (CWMFMC).

The objective of the council is to help the communities within the watershed to work together to protect it and its resources and provide an organization to initiate and manage the programmes that will support protection of the watershed's resources.

The council has identified Seven Risks to Carood Watershed:

- 1. Illegal cutting of trees to clear land for farming and building, and for wood to use as fuel or building material.** Without a permit, this lumber and furniture. This can cause loss of wildlife, increased erosion and impaired water quality and quantity.
- 2. Climate Change** is brought about by the build-up of greenhouse gases in the atmosphere, which changes the normal expected weather conditions in a specific region. Climate change is caused by greenhouse gases (carbon dioxide, nitrous oxide, methane) pollution (vehicles), burning plastic which damages the ozone layer) and deforestation (see risk 1). The effects are increased temperatures, storms, floods, rising of the sea level, drought and spread of diseases.
- 3. Water quality and quantity** is affected by polluting of rivers, lakes and oceans. This in turn affects the quality of our drinking water and the quantity of it. The main water-related issues in Bulhil are water contamination (fertilizers and garbage), poor management of water systems (e.g. unsanitary construction of toilets) and flooding or droughts.
- 4. Solid waste management** is the separation of the different types of waste (household, non biodegradable, recyclable) at the source. This ensures the protection of the public health and environment. Problems with improper waste management include clogging up of canals or waterways, flooding due to clogged drainage, contamination of water bodies and soil and air contamination.
- 5. Loss of biodiversity** (the degree of variation of life forms within a given species, ecosystem or an entire planet). A habitat with many different species of animals and plants is rich in biodiversity. This is important because it means there is a high availability of potential goods and services for humans.
- 6. Poor farming practices** such as slash and burn, otherwise known as kaingin farming. This type of farming causes pollution through the release of carbon dioxide and also infertile because the minerals needed in growing are easily removed, so to substitute farmers resort to using inorganic fertilizer. Kaingin is used in response to the pressure that farmers face from the increasing population size.
- 7. Destructive fishing practices** are unsustainable and can cause the collapse of entire fish stocks and ecosystems. Dynamite fishing, fine mesh nets, trawl fishing and fishing with the use of pesticide, poison or compressors are all examples of illegal fishing techniques. These cause fewer number of fish, destruction of coral reefs and other

So what can be done to help lessen the risks that Carood Watershed is facing?

Agro-forestry: the growing of trees and crops at the same time. This helps prevent soil erosion and the crops benefit from the nutrients of the dead organic matter (e.g. leaves from the trees).

Mangrove planting: mangroves protect coastlines from the onslaught of storms and wave surges. Their crowns, trunks and stems are physical barriers that help break the wind and waves, reducing their destructive impact (by at least 70-90%).

Organic farming: farming without the use of harmful substances, such as pesticides, which damage the soil.

Reforestation: when trees have been cut down, replant endemic trees to conserve the forest.

Proper waste management: proper segregation, collection, transport, storage, treatment and disposal of solid waste through the formulation of the best environmental practice for ecological waste excluding incineration.

Illegal fishing laws: the government should have laws to identify and punish illegal fishers. Punishment should include fines and removal of fishing licenses.

Panel 4 An example of the solid waste materials, Pilar

I observed the relative ease with which ICS volunteers approached local power holders for help on watershed issues. For example, one group of ICS volunteers connected with the National Disaster Risk Reduction Management Council (NDRRMC) office looking for people to help them advertise their fun run to raise money to rehabilitate a natural park. I asked Daisy, a Filipina volunteer how she had made this link:

“I roamed around on my bike to see what organisations / offices might help with the promotion of the fun run. I passed by NDRRMC and they have a radio to broadcast to barangays”.

[Network map]

Almost 100 people ended up participating in the fun run and it made about \$100. But it felt like the real value of this exercise was in the people the volunteers had informed about the watershed, through direct approaches and radio communications. On talking about how they made these sorts of network connections, volunteers would say how nervous they felt. Sometimes they would ask VSO Programme Supervisors to join them in introductory or critical meetings to mitigate how they felt, but it's also the case that their “outsider” status provided them with a certain level of protection when compared with the relative freedom of “insiders”. Rather than get caught in silos of interest or power, the ICS volunteers had only one remit: to help protect the watershed. In some senses, this made them the only actor in the network who was free to prioritise the watershed above all other concerns – i.e., elections, local government priorities, household income. When I asked Sir Dave, the local official and storyteller of “Barangay Cansungay, kapit-bisig sa kalinisan at kalusugan” (“Barangay Cansungay holding hands together”) to explain why he thought volunteers were effective at mobilising people to act, he said:

“Bringing people from outside asks the people why they cannot do their part. It can encourage them to participate.”

[Network interview]

The fact that volunteers became part of the watershed protection network while retaining a separate identity helped them to catalyse concern. The importance of the outsider-insider dynamic for facilitating complex change processes was a familiar theme in the wider *Valuing Volunteering* project. Simon, the researcher in Kenya reflected on his own position, saying:

“The ‘outsider’ status ... aided in gaining access to key stakeholders and my perceived neutrality also meant that I could engage with sensitive issues such as ethnic affiliations and politics without being seen to be taking sides” (Burns *et al.*, 2014: p29).

As I explore in Chapters 6, 7 and 8 the kind of positional power alluded to in this quote could be used by volunteers to nurture wellbeing enhancing experiences in the networks they were actively creating. This kind of relationship building went further than growing concern, to creating opportunities for more peripheral and marginalised stakeholders to adopt meaningful roles in the change process.

5.2.2 Collective memory experiences

Network strengthening opened up space for good things to happen in the watershed. These new experiences entered the collective memory of the watershed network because the experiences people had in volunteer-involving networks stayed with them. It was as though the novelty of volunteers and the behaviour they exhibited made their social action significant. It was a counterpoint to what had gone before and this edge made them influential.

I came across young people who could produce certificates of participation they had been given by ICS volunteers months earlier (The girl at the bus stop). I went into the homes of leaders of People's Organisations to find pictures of ICS volunteers displayed in the living space. School children could 'paint me a picture' of what they did – and to a lesser degree of accuracy what they had learned – with ICS volunteers as if the interaction had happened yesterday.

The girl at the bus stop

I am sat at the bus after leaving the office today and some 13 and 15 year olds start talking to me. I say I am with VSO and a volunteer. Through broken English / Visayan I realise they know the ICS volunteers. To show me, one of the girls goes into her bag and pulls out a folder which looks like it contains her major achievements - school grades etc - and in it is a pink certificate of participation at an ICS training signed by [ICS volunteers] Helen and Leo for November 2012... she was a member of JSKVA in Candijay. So I ask if she remembers it. She told me about the environment, about protecting nature, and mentioned that the group still meets twice a month to do activities like trash bins at the school.

[Excerpt from field notes]

The practical nature of the volunteers' social action created lots of shared social experiences, which combined fun with learning. A lot of what the volunteers did was tangible and highly visible. For example, Community Action Days were often structured around activities that got people participating in the protection of the watershed, such as tree planting or coastal clean-ups. In some cases, like in the story of the girl at the bus stop, pro-environmental behaviour introduced by volunteers continued into the future.

This observation was interesting given that the creation of collective memory experiences, or ‘social memory’, has been recognised as important for embedding and sustaining knowledge transfer for adaptive governance (Bodin *et al.*, 2006). In times of difficulty or change, collective memory experiences allow actors to look back at what worked before to anticipate solutions to emerging problems (Pimbert, 2004). For example, the maintenance of collective memory through storytelling has enabled indigenous communities to make use of historical processes to deal with natural and social change (Apgar, 2010). For actors in the watershed, collective memory experiences seemed to help energise the process of collective action.

5.2.3 Increasing actor cooperation

Volunteers were particularly active in coordinating cross-municipality events about Carood watershed. The creation of these social spaces didn’t just increase participation in environmental issues; they encouraged this participation to be cooperative. For example, events like Community Action Days pooled commitments and resources from representatives across the six local government units. Interestingly, these events were contingent on commitments from Mayors to contribute resources – e.g., money, prizes, transport, venues etc., – at a time when the management council was inactive.

The ICS volunteers didn’t tackle this inactivity head-on; they organised around it. They created an alternative, altogether more public, channel for cooperative action on the watershed. Daisy, who told a story about organising a fun run entitled it “Union of municipalities for a cause” analysed her effort as having responded to a specific problem (“rehabilitation of the natural park”) with a specific solution (“event to raise funds”), but the broad need was the “bringing together of municipalities”. The fun run had created a non-threatening informal arena for all actors (residents, mayors, army officers, local radio, children, and local government representatives) to take part in the protection of the watershed. In fact, the diversity of participation in these community events was greater than the institutions and community-based organisations represented on the management council. I discuss more about the power of informal channels in Chapter 6.

Sometimes the cooperation volunteers encouraged was built over multiple cycles of volunteers. The work ICS volunteers undertook with youth groups is a concrete example of this. The volunteers sought to improve participation and learning among this stakeholder about natural resource management. Over time volunteers established and engaged 19 youth groups across the municipalities to work on environmental

issues affecting the watershed, increasing the visibility of this actor group (Chapter 7 for a more extensive discussion about how this process changed identities and shifted social norms). These disparate groups were formed into the Union of Carood Youth Groups (UCYO) in a later placement cycle. The UCYO signed a Memorandum of Agreement with the management council, which officially recognised their representation and role in the protection of the watershed. The formation of the UCYO and its more centralized representation in the principal network of decision-makers opened up the possibility of a more concrete role for young people into the future (Chapter 7 for a related discussion about the emergence of critical actors). Volunteers had brought another stakeholder group into the collective effort.

In a subtle and slightly subversive way, volunteers modelled more collaborative approaches, which did influence the behaviour of others. The spread of cooperation through networks is something that other network studies have shown. For example, the act of contributing to a group project has been shown to be socially contagious (Fowler & Christakis, 2010). When people who are not part of the initial network interaction subsequently learn about the contribution actors made it influences their future behaviour to be more outward-looking. The Fowler and Christakis study found that each contribution to the public good is tripled by other people who see or hear about it and are spurred to act. In complexity terms, the act of volunteering behaves as a possibility space from which to attract more of the same sort of behaviour.

From a natural resource management perspective, the role volunteers played modelling and triggering patterns of cooperation across the watershed network seems significant. In comparative social-ecological systems, the purposive creation and linking of actors to informal spaces where natural resource users and other citizens can share problems and decide on action have helped resource users capture power back from centralised decision-making structures and private sector actors (Pimbert, 2004; Dressler *et al.*, 2015). In the watershed, the lengths volunteers went to in order to involve young people in its protection started to become embedded 'in how things got done'.

5.2.4 Imitation and adaptation

By tracking the effects of volunteer effort over time, I found examples where local actors had replicated activities designed and run by ICS volunteers, implicating the role of volunteer network connections in the transfer of behaviour. At least two youth groups organised events in their own community modelled on events ICS volunteers had invited them to, like the Carood's Got Talent event (Panel 5). In case study "*Working*

together for Cansungay”, a regional health unit adapted the outline of a volunteer-led health sanitation day for their municipality. In Alicia, teachers were intending to re-use educational materials about climate change and the watershed in the following academic year:

“We had a lesson specific about Carood. We cannot repeat it this year but next year we can use it ... It is easy. The pupils were interested, especially the games. They also understand the lessons because the volunteers explain what they do”.

[Network interview]

Similarly, local government units had re-used environmental materials produced by ICS volunteers.



Panel 5 Youth groups imitating and adapting events designed by ICS volunteers.

Left: Basdio Coronation event, organised by local youth group BYED (September 2013). Right: Carood's Got Talent, organised by ICS volunteers (August 2013).

This imitation and adaptation process could be slow, often requiring the local conditions to be right before uptake could be realistically attempted. In this extract from *“Barangay Cansungay, kapit-bisig sa kalinisan at kalusugan”* (Barangay Cansungay holding hands together), the storyteller, Sir Dave, explains all the conditions that had to come together for him to re-use some of what he had learned from ICS volunteers.

“The search for Barangay with best sanitation began in 2008. I did not know about it then. But a grant to study at the College of Public Health at the University of the Philippines in 2011. From there I met a classmate who won the search before. So why not challenge myself to do it? When the ICS invited me to their sanitation day to speak I added it to my activities. I was touched because we are responsible for sanitation but we don't have any activities like that so it opened my mind. We have pictures. I also copied “Sanitation for Healthy Living” Day in August. Earlier this year, I approached the Barangay. The first

rejected and I was broken hearted but this one – Cangsungay – said yes”.

[Network interview]

Burns and Worsley (2015) acknowledge that the right timing for local adaptation is worth waiting for in systems change. They differentiate between scale as number of times an initiative is replicated from “scale of effect”, arguing the latter is more important for sustainable change, but necessarily contingent on the right local conditions for adoption (Burns & Worsley, 2015).

The human propensity to learn through social imitation (Meltzoff & Decety, 2003) has been successfully applied to other change contexts. For example, the Community Led Total Sanitation Approach found that imitation and social learning was an important part of the shift towards new behaviour. Once a few people start to dig holes and build latrines, others imitate and learn from them. This effect proved to be particularly powerful if “first movers” are liked or respected (Deak, 2008; Chambers, 2009; Kar & Chambers, 2008). Local actors in the watershed were often quick to feel a sense of connectedness to volunteers (Chapter 6), which made them effective “first movers” of new behaviour. Albert Bandura’s Social Learning Theory would explain the imitation and adaptation of social action as people learning new behaviours through observation of different models and the results of these models (Bandura, 1977). More recently, the effectiveness of imitation has been shown to have a neurological basis. Studies have found our brains activate neurological pathways we would use if actively doing what we are watching. These ‘mirror neurons’ begin to codify behaviours at the neurological level, making it easier for us to exhibit the same behaviour in the future (Christakis & Fowler, 2009; Iacoboni, 2009).

5.2.5 Summary

Previous research has identified that the content of relational ties between actors in social-ecological systems is different according to the sort of network. The implication is that there is different adaptive value attached to different sorts of network (Newman & Dale, 2005). For example, a network transferring ecological knowledge is different to a network which an actor can tap to access fishing gear (Bodin & Crona, 2009). This research indicates that volunteer-involving networks transfer more cooperative and pro-environmental behaviours, which is a qualitatively different outcome from networks transferring knowledge or resources.

5.3 The evolution of intentional networks

In our attempts to retrospectively piece together *how* and *to what end* a relational approach had been effective, we looked at the networking and relationship building activities of volunteers in relation to specific stories of change.

Social interaction with a diverse group of actors was a consistent feature of the social action volunteers took. When we looked at who ICS volunteers had interacted with to bring about the events in their stories, the number of actors ranged from 5 to 10. The average number of social interactions in these story networks was seven. Some stories of change were brought about by a smaller group of actors, working with the same people over and over to achieve their goals. And other change trajectories were enabled by a broader number of actors, each interacting just once with the volunteer. In Box 1 I describe the relational structures of two stories of change told by ICS volunteers Mary and Jago.

Box 1 Stories and their relational structures

This box shows two stories of change told by two ICS volunteers called Mary and Jago, and the subsequent analysis they completed of each story. Each story is accompanied by a social network map drawn by the volunteer and digitalised by me. The 'people icons' and the bold writing signify the connections they made. The numbers indicate the sequence of interactions they took part in from the first (1) to the last (6). The 'outcome icons' in red specify the outcomes of each interaction. The yellow lines signify the links that existed between contacts mentioned on the social network map.

“Awareness raising and empowerment”

We did an IEC [Information Education Campaign] activity on Solid Waste Management and Carood Watershed and environmental issues, which was in a far-away Barangay. We were the first volunteers to go to the high school in San Isidro. It was the end of school but they were present to hear us. They were aged 15-17. We did not stop there. We also promoted them joining 4H club, which is an organisation created by the Department of Agriculture. We encouraged them to be volunteers. They got excited and then we got feedbacks that they want to be like us and part of the 4H club. They realised they can contribute something even though they are young.

But the activities for 4H are done in Pilar and the transportation is a barrier so maybe the next cycle should set up a 4H arm or a Barangay-focused organisation.

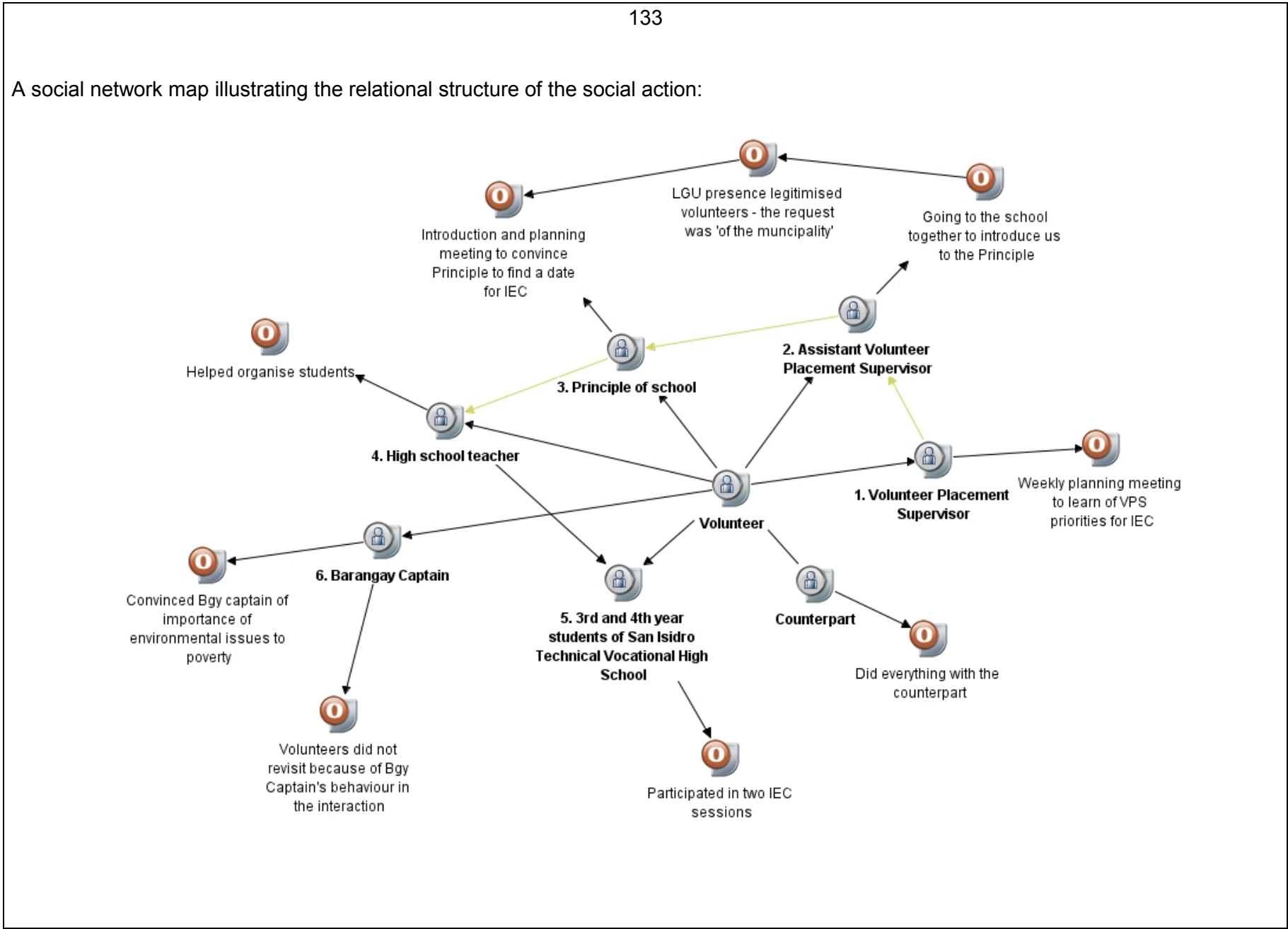
We had feedbacks thanking us and that one day they want to be like us bridging Barangay to Barangay. They had not heard of Carood before but they did well on the quiz at the end. Many did not segregate trash but the feedback said some will do segregation.

This story was told by Mary, a British ICS volunteer working in Ubay.

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A social network map illustrating the relational structure of the social action:

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graph TD; Volunteer((Volunteer)) --- LGU[LGU presence legitimised volunteers - the request was 'of the municipality']; Volunteer --- Meeting[Introduction and planning meeting to convince Principle to find a date for IEC]; Volunteer --- Principle3[3. Principle of school]; Volunteer --- Teacher4[4. High school teacher]; Volunteer --- Students5[5. 3rd and 4th year students of San Isidro Technical Vocational High School]; Volunteer --- Captain6[6. Barangay Captain]; Volunteer --- VPS1[1. Volunteer Placement Supervisor]; Volunteer --- AVPS2[2. Assistant Volunteer Placement Supervisor]; Volunteer --- Counterpart[Counterpart]; Counterpart --- DidEverything[Did everything with the counterpart]; VPS1 --- Meeting2[Weekly planning meeting to learn of VPS priorities for IEC]; AVPS2 --- Meeting3[Going to the school together to introduce us to the Principle]; Principle3 --- Helped[Helped organise students]; Teacher4 --- Convinced[Convinced Bgy captain of importance of environmental issues to poverty]; Students5 --- Sessions[Participated in two IEC sessions]; Captain6 --- NoRevisit[Volunteers did not revisit because of Bgy Captain's behaviour in the interaction];
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“Coordination and creation of a new youth group”

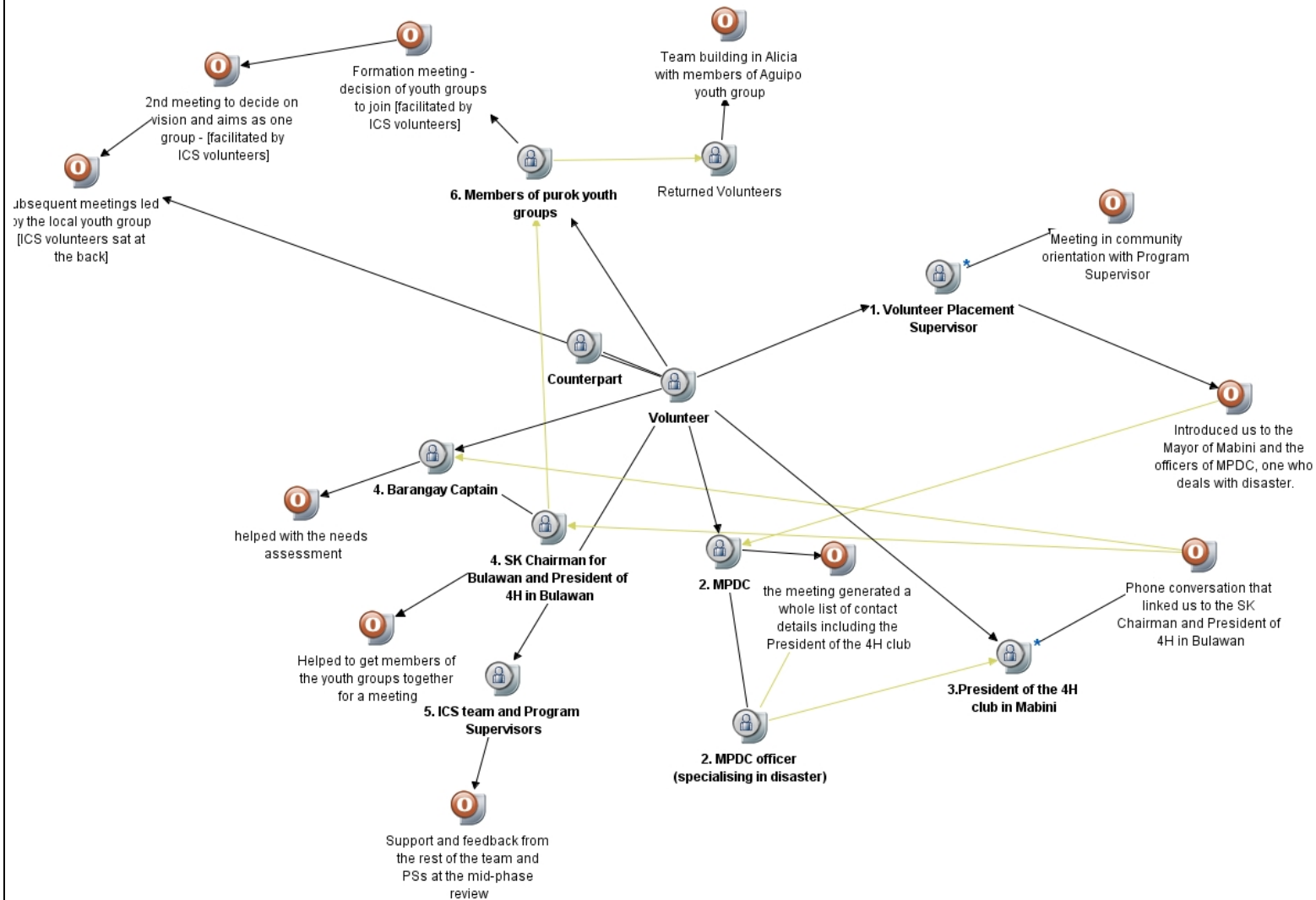
We were asked to create two youth groups in school so we had a youth meeting and we found out that every Purok (section of the Barangay) has a youth group. I went to each of six of them to find out why they had youth groups. Primarily the aim was to help the community and a sense of responsibility so we thought it would be good to integrate them into one youth group.

We went to the municipal office to get all the contact details which was two years old as the Placement Advisor we had (with relevant up to date contact info) was not around. Instead of a one day job, it took a week.

Now they all meet up and they have aims, vision and mission in Aguipo. We had a team building activity. We wanted to do a tree-building activity but we did a needs assessment and the ground was too hard. We were going to do a coastal clean-up but the river was pristine. So we created a calendar of events which is practical: tree planting in the rainy season and coastal clean-up in the summer season when it gets dirty.

This story was told by Jago, a British ICS volunteer working in Mabini, Bohol.

A social network map illustrating the relational structure of the social action:



Most of the social networks showed high levels of diversity in the type of actor – with the ICS volunteer typically interacting with other volunteers, at least one power holder, one community-level group, a volunteer placement supervisor and sometimes a VSO staff member Box 1. Each kind of social tie had a role to play in the process of change. For example, host homes linked volunteers to host parents, siblings, cousins and family friends who provided support – “with phone, workshops, finding venues ... all sorts of practical things” (group analysis). Some actors linked volunteers on to other actors in a cascade of exchanges resulting in knowledge transfer and action. In *“Awareness raising and empowerment”* the act of tapping other actors’ networks was important for accessing a remote community. In *“Coordination and creation of a new youth group”* the volunteer used existing network connections between actors in the watershed to learn about youth group participation.

Volunteers were helped by the relational structure of the VSO placements, which automatically created spaces – e.g., meet-and-greets – for volunteers to develop bonding, bridging and linking social ties:

- Bonding: a peer-to-peer network of volunteers, which crossed municipal boundaries
- Bridging: a local hub of family (“host homes”) and neighbours, which embedded volunteers in communities
- Linking: a small group of colleagues and supervisors, which linked volunteers into institutions

The structure enabled a more emergent relational process to take hold, which built from volunteer and local actors’ inherent motivation to connect to one another. And the process was fast. Analysis of the social network maps of cycle 5 volunteers showed how they had bonding, bridging and linking social ties in place only two weeks into arriving in the watershed. In terms of influence, volunteers positioned co-volunteers and host homes close to them on their maps, while institutional actors were placed with more distance. Bonding and bridging relationships were easiest and quickest to make, while linking relationships with institutional actors like Mayors were more peripheral, but nonetheless important, for achieving placement aims. The goal-directed nature of the volunteer effort meant that networks did not stand still; they continuously formed and reformed across social ties, geographies and time in accordance with the natural resource management objective in mind.

5.3.1 Imitating a core-periphery network

June Holley (2016) has identified four stages of network development, as illustrated on Kumu’s website (Image 2) (Mohr, 2016). The four stages of network development – (1)

Scattered fragments (2) Hub and spoke (3) Multi-hub (4) Core / periphery paint a fairly accurate picture of how volunteer networks evolved in the watershed.

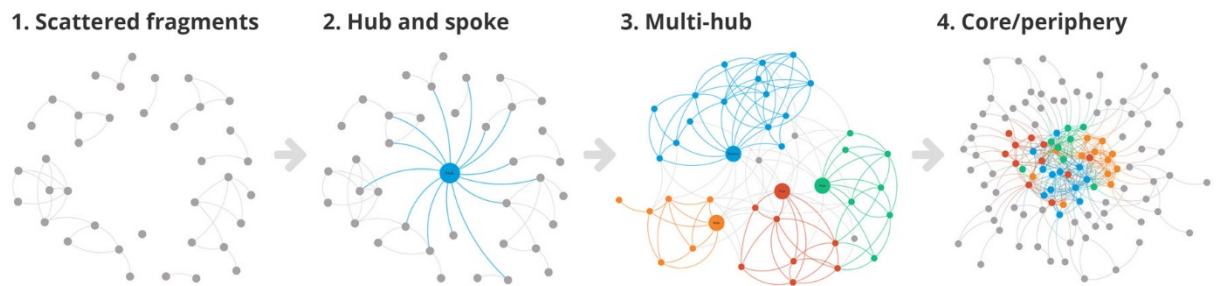


Figure 8 Four stages of network development, conceptualised by June Holley and visualised by Kumu

(1) Scattered fragments

Before volunteer placements began, the volunteers and other actors were unknown to each other. There isn't much interconnection. Volunteers had never met each other before. And actors in the watershed were either ignoring the plight of the natural resources or working in silos to protect them.

(2) Hub and spoke

As I have explored in this chapter, ICS volunteers are very good at coming into the social-ecological system and using network building to mobilise concern and participation. Volunteers played a fairly central role to raise levels of knowledge about the watershed and connect interested actors. The ICS placement structure meant that the ICS volunteers were not reliant on the management council to create social action. They were able to construct and strengthen social ties across municipalities through self-initiating projects and friendships.

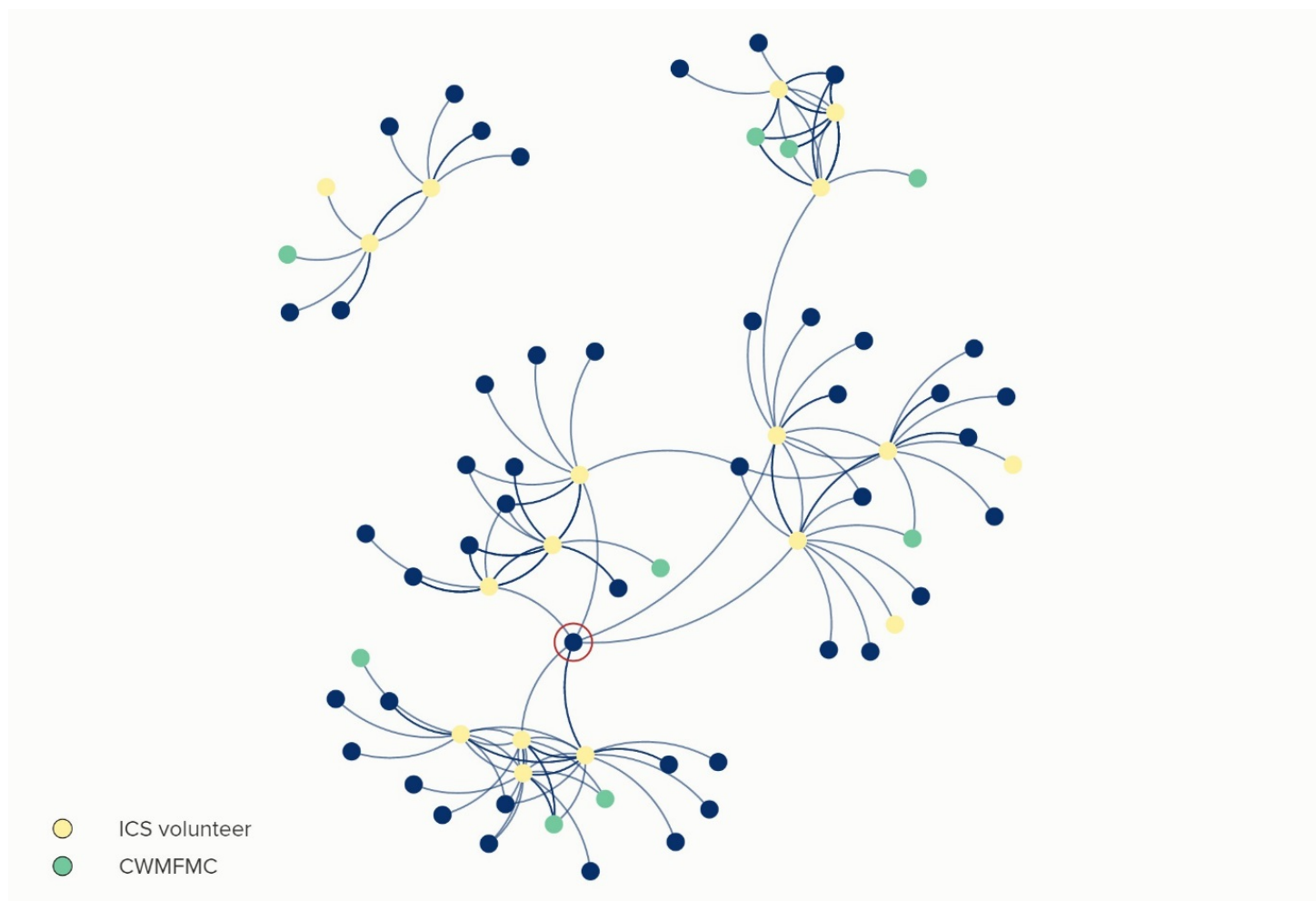
(3) Multi-hub

As volunteer action unfolded, the structure of the network began to look more like lots of smaller networks of actor working on different projects, working in quite a decentralized way from the management council. This is depicted in a global view of the network interactions ICS volunteers in cycle 6 engaged to bring about action in the stories they told (Map 4). Members of the management council were represented in the volunteers' change networks but only as individuals playing a role in their story (refer to the green dots with "CWMFMC" label in the social network map). The absence of CWMFMC as one entity on the maps reflects the fact that volunteers didn't meet with the decision-making body as a group about their plans. The node encircled in red

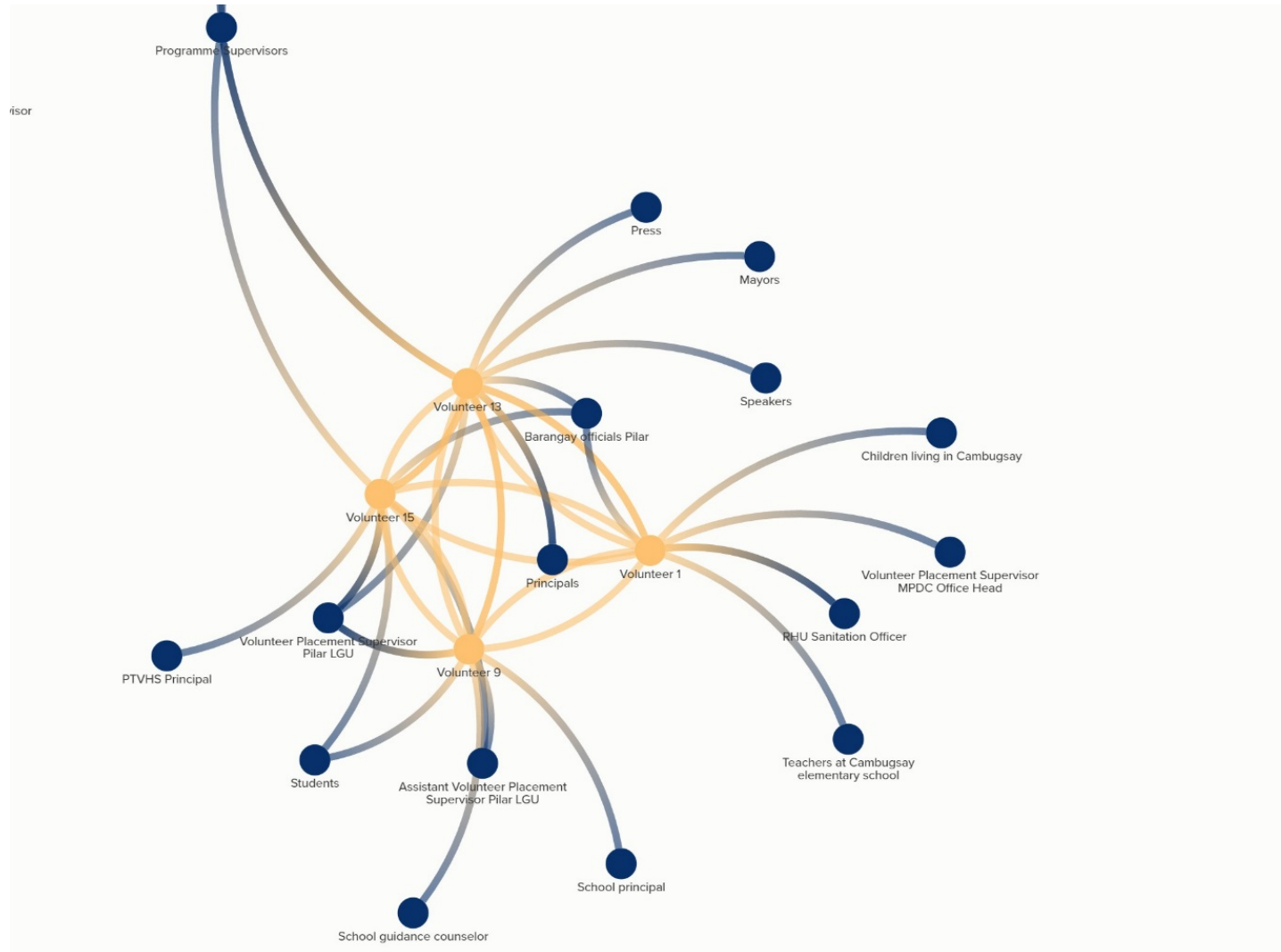
represented the VSO Programme Supervisors. Mostly Programme Supervisors entered into network maps because the volunteer had asked them for advice or support.

(4) Core/periphery

In some cases, volunteer-involving networks began to look more like a core-periphery structure. If we visually compare Map 5 with Stage 4 we can see how some clusters of social action began to imitate a dense core and a diffuse periphery of actors. All the stories in Map 5 took place in one municipality called Pilar. The map shows some dense ties between volunteers at the core of the network structure, which penetrated a larger network periphery of actors. The periphery actors are connected to the volunteers but disconnected from other periphery actors (stage 4).



Map 4 A global view of the relational structure of 15 stories of change from cycle 6 ICS volunteers working in Carood watershed, including interconnections between actors appearing in more than one story



Map 5 Imitating a core-periphery structure: the relational structure of 4 distinct stories of change in Pilar, Carood Watershed

The core-periphery structure depicted in stage 4 is considered to be efficient at driving change forward especially when the periphery is 5X the size of the core and diverse (Mohr, 2016). ICS volunteers in cycle five grew their networks by 3 times (from 20 volunteers to 60 additional groups of actors on their map). Many of these groups would have contained more than one actor, as meetings often comprised more than one individual in attendance. In addition, the fact that there was a “stickiness” to peoples’ memories of interactions with volunteers suggests actors hearing about Carood watershed through ICS volunteers would have passed this information on to others. The stories of change we mapped in cycle six showed how 15 ICS volunteers engaged 51 people in 153 connections, which is 3X the size of the core network of ICS volunteers. Each volunteer told me a second story of change we didn’t map. While these stories will have re-used existing connections, they would also have included some new ones so I feel fairly confident that the networks volunteers built to periphery actors would come close to satisfying Holley’s criteria (Holley, 2016).

Depicting the volunteers as ‘core’ actors in the watershed seems at odds with the existence of the management council, which was set up to be a central, but representative group of decision-makers. Core-periphery networks have been used to explain the information dissemination and the adoption of new innovations in social-ecological systems (Bodin & Crona, 2009) but core actors are often depicted as organizations with many ties to political, government and administrative agencies. In Carood Watershed, it wasn’t authority so much as level of activity that defined who was ‘core’ and who was ‘peripheral’ to the protection of the watershed. It was as though the level of activity within the volunteer-involving networks served as an attractor, pulling time, resources and energy into the social action volunteers mobilised. The comparative inactivity of the management council in Carood served to accentuate this dynamic.

The emergence of volunteers as ‘core’ network actors was a useful approach for disrupting the inertia that had started to penetrate the management council. There may be a role for volunteers in core-periphery network structures to propagate modes of social action and interaction that settle in equilibrium around pro-social patterns of behaviour (e.g., participation, cooperation). This needs further investigation, but it is interesting to note that core-periphery structures have been less likely to suffer from “us-and-them” attitudes among actors compared to networks with multiple centres, because there is only “one centre-of-gravity” (Johnson *et al.*, 2003). If this “centre-of-gravity” is held by a group of actors who have the motivation and freedom to prioritise

collective action goals, then it follows that they may be able to affect behaviour in ways that transcends the usual relational dynamics that hinder collaboration.

In summary, the relational approach taken by volunteers was effective and relatively quick at mobilising social action and overcoming stasis on natural resource management in the watershed, but it did require an intentional approach to relationship building across linking as well as bonding and bridging social ties.

5.4 Limitations of core-periphery networks for complex change processes

While a centralised role for volunteers helped them to catalyse collective action, a core-periphery structure was less effective in complex change processes, which were contingent on local involvement for their stability. This raises the possibility that sustainability of collective action is contingent on a qualitatively different stage of network development.

The awareness-raising work of volunteers put knowledge about the watershed and its protection into the hands of local people, but this knowledge was not enough to encourage the behaviour change needed for improved environmental outcomes. One tangible example was the absence of waste management provision by local government units (LGUs), which prevented local action on youth environmental education sessions:

“People segregate or pay to get their waste collected but the LGUs do not have the facilities to recycle or do anything with it”.

[Filipino ICS volunteer in group analysis]

Another example was the creation of livelihood projects to support the local transition to pro-environmental behaviour. ICS volunteers suggested that the path to environmental change could be hastened by “working at different levels”:

“There needs to be another level as you go up. Otherwise the youth stuff is strengthening but there is a weak next stage”

[British ICS volunteer in group analysis]

So, time spent on easier activities (e.g., Information Education Communication sessions, community events) didn’t necessarily encourage actors who connected in these networks to tackle more complex issues together. For example, efforts to help seaweed farmers in Panas to organise into a people’s organisation which could help them better control the sale price of their seaweed were derailed for political and

relational reasons in the months that followed. This was a project every ICS volunteer who was involved chose to tell me about. They were proud of their work to survey, analyse the results and coordinate seaweed farmers. While none of them could have predicted the reasons their effort stalled after their placement came to an end, one explanation can be found in Ben's reflection of how their approach to change could have been better:

"Maybe if the farmers had helped in carrying it [the survey] out they would have had more connection to their organisation."

[Experience map]

Ben is saying that if he and his co-volunteers had shared the responsibility for research, that this investment on the part of the seaweed farmers would have encouraged them to fight for the organisation. This pattern of responsibility could be seen in the sequence structure of volunteers' social network maps. If residents, farmers or local youth groups only appeared towards the end of the story maps, then it was clear that they hadn't been co-creators in the ideas, planning and operational phases of a change task. The effect was a highly defined sub-network of "doers" and "consumers" of development. On looking at the roles different actors had played in his story network map, Ben described his Placement Supervisors at the research extension unit of the university as the "managers", the volunteers as the "doers" and the community as the "recipients".

The success of longer-term, more difficult, change processes were predicated on sharing responsibilities. When ICS volunteers in cycle 6 reflected on the way they had worked with community members and youth groups, they described their approach as largely being about "exerting effort" in the community to realise some positive outcome in the hope that the message of the environment would be received and acted upon. The theory of change was that eventually local actors would take the initiative to continue the process and become doers themselves. But they knew this didn't always work, which is why youth groups stopped acting without their presence. They asked, "should the community be audience or partakers in the task?" [group analysis]. The volunteers considered whether it would be more effective for them to "walk alongside" the community "making a story together" [group analysis]. The idea was that instead of the volunteers beginning the process, they immediately shared in the process. The group of volunteers suggested it comes down to a different way of interacting with the community:

“As volunteers we need to know when to act, when not to act and when to share with the community members”.

[Group analysis]

In effect, once local actors were engaged in the protection of the watershed, Ben and his co-volunteers had to switch tack: they had to dismantle the centrality of their role in the change process to create the space for more marginalised actors to take a leading role. This supports the predictions of researchers working in the field of social networks and natural resource management. While Ernston *et al.* (2008) provide evidence that voluntary organizations have successfully formed in core-periphery networks (Ernston, Sorlin, & Elmqvist, 2008), they cite Bodin and Crona (2009)’s expectation that centralised networks are not going to be as suited for solving complex tasks:

“The degree of network centralization most beneficial for natural resource governance may differ depending on the phase of the governance process. For example, mobilizing and coordinating actors at the start of a process may require higher degrees of centralisation, while engaging various actors to resolve management of complex ecosystem processes may be favoured by less centralised networks” (Bodin & Crona, 2009: p171).

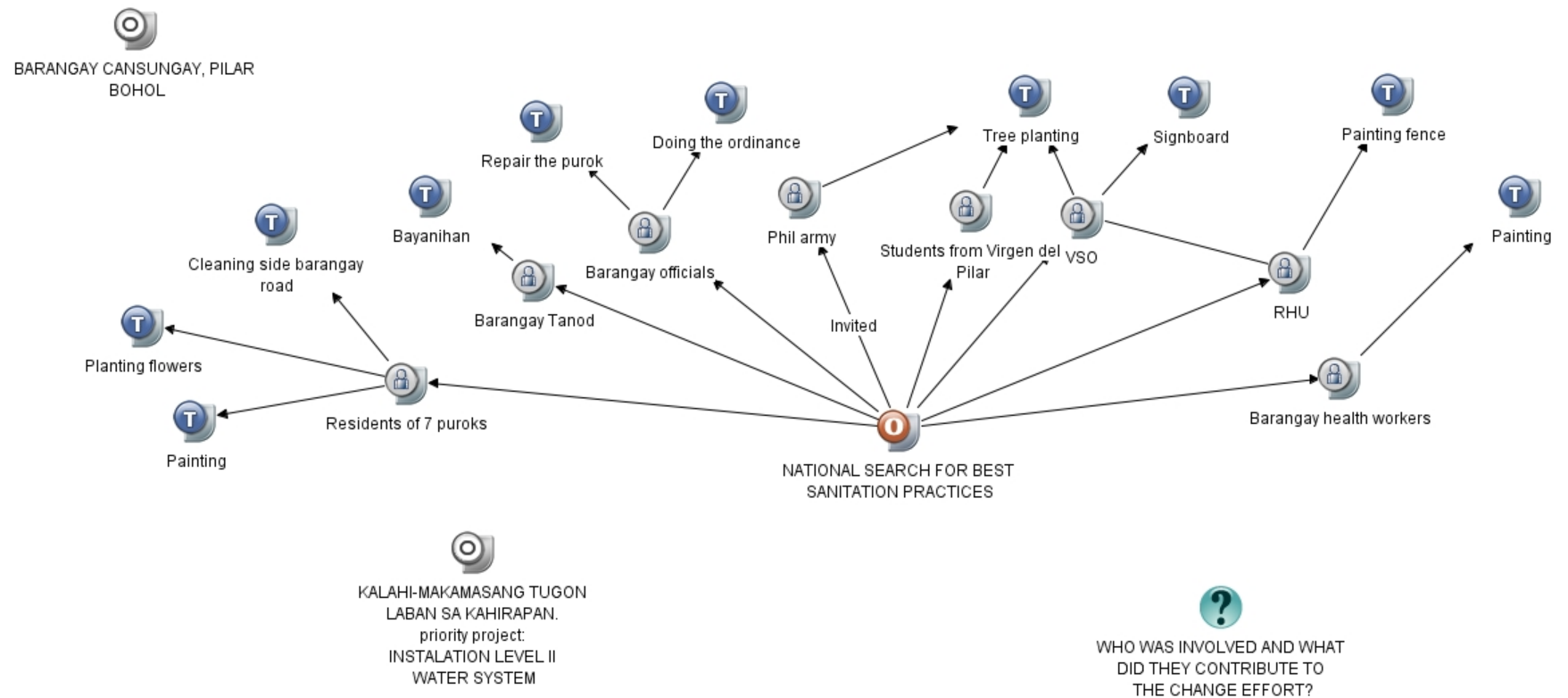
Carlsson & Sandström (2008) also argue that more decentralisation is required for effective management of common pool resources. Certainly, this research provides qualitative evidence that a core-periphery network shape seemed to contribute to the ICS volunteers’ effectiveness at mobilising people to participate and cooperate. But I found less evidence that this network shape was effective at leveraging the local political and community support required for more substantial, longer-term changes to environmental practices.

5.5 Networked reciprocity and governance of complex change

So far in this chapter I have identified an important distinction in the nature of change and the suitability of different network structures to support that change. Multi-hub and core-periphery networks helped catalyse social mobilisation on the environment, but they were less effective when volunteers and local actors got into the detail of affecting change. A focus on processes of change central to a complexity research paradigm helped me to surface an additional stage of network development. In this section I introduce the concept of networked reciprocity as a qualitatively different stage of network development, more able to support latter phases of the governance process.

In the case studies, I collated a multi-stakeholder perspective on the networks that brought about change. The story “*Working together for Cansungay*” (Chapter 7) stood

out from the collection because the volunteers had been leveraged into existing community-level networks, who were coordinating the social action. This social arrangement was very different from change stories where volunteer-initiated action pulled other actors into the change process. The map drawn by local village leaders illustrates distributed responsibilities among a range of stakeholders (Map 6).



The map shows who was involved and what they contributed (T) to a project aimed at improving environmental sanitation in the village.

Map 6 Digitalised version of a social network map drawn by 4 men and 3 women, locally elected to represent Barangay Cansungay.

It was a collective effort, which contributed from lots of people's efforts – cleaning, painting, repairing, doing an ordinance, tree planting etc. The ICS volunteers helped with the creation of signs for sorting waste and they organised a tree planting activity. But there was another, more intangible, reason the village leaders were pleased to work with the volunteers:

“We invite the volunteers for people to have a drive ... With bayanihan it is us, it is our own ... there is more potential having foreign volunteers than just the bayanihan.”

[Network interview]

For residents of Cansungay, the social action seemed more attractive precisely because the ICS volunteers were involved. So, the motivating effect of volunteers was still used to energise the change process in Cansungay, but the volunteer effect was being amplified by a range of actors also working toward the same goal. Examination of the experience map drawn by one of the volunteers involved (Map 9 in Chapter 7) shows how she experienced her contribution as equal (grey arrows) with government officials, teachers and other volunteers, less (blue arrows) than the residents (Barangay elected officials) or the Project Lead (RHU Sanitation Lead) she worked with, and more with the school children participating in environmental education. She described her identity in this story as an “initiator” and a “doer” while describing the story as being about “sharing what you have”. As the local village leaders pointed out to me, the social arrangement was similar to the native concept of *bayanihan*, where actors contribute in unique, but equal, ways. The difference being that exchanges of help extended beyond their own close-knit community.

A web of goal-directed exchanges spanning bonding (intra-community), bridging (national and international volunteers) and linking (the local government unit) ties seemed to offer more stability to the network, which helped sustain social action over a longer time frame and maintain its effects. I suggest this “networked reciprocity” is a qualitatively different stage to Holley’s four-stage model of network development (Holley, 2016), which is suited to facilitating the multi-disciplinary, multi-level actor involvement required of more complex change processes. When I visited a month and a half after the campaign had finished, the village struck me as a beautiful place to be (Panel 8 photos in Chapter 7). There was no evidence of waste, which was unusual among villages in Bohol – and most of the Philippines. From a watershed management perspective, this was likely significant because the location of the village meant its water quality and solid waste management affected people living at lower elevations.

Like *bayanihan*, the structure and influence of actors in networked reciprocity is organised around the goal everyone is working towards. It shares some aspects of the

multi-hub structure because the network forms around something specific, but it doesn't have such prominent concentrations of 'core' actors (Figure 9 as an abstract visualisation).

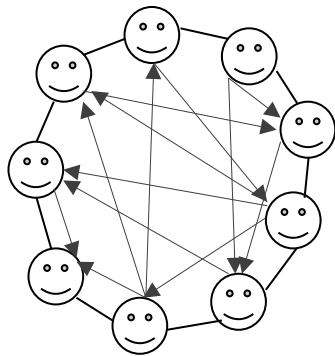


Figure 9 *Networked reciprocity: a fifth stage of network development for latter phases of a governance process*

The network is depicted as circular because network interactions – and the actors involved in them – are bounded and inextricably linked by the realisation of a particular task – e.g., an environmental sanitation campaign. This focus on a particular outcome means that everyone's efforts in the network influences everyone else's in on-going exchanges of information, behaviour and energy. The network structure is depicted on-dimensionally because the distribution of responsibilities to actors across bonding, bridging and linking social ties transcends, rather than reinforces, pre-existing power dynamics. This is different to multi-hub structures – which self-organise around existing power strongholds – and core-periphery structures – which afford some actors greater influence and responsibility in the collective action than others.

Networked reciprocity is similar in structure to the “Ring of Reciprocity” (Grand, 2014), which has been used to dismantle traditional power hierarchies in workplaces to scale up informal give-and-take exchanges, so they don't just happen in diffuse, small and closed relational loops. The networked reciprocity I have described in Cansungay does differ somewhat from how Grant's Ring of Reciprocity is used to instigate change. With the Ring of Reciprocity actors are encouraged to bring their own problem to the ring, so people can collectively solve it (Grant, 2014). In Cansungay, the focus was exclusively on shared problems. Actors came together to work on something bigger than themselves, and which they couldn't influence by themselves. So, networked reciprocity is a relational structure that blends an exact and intentional focus on social change with a very human disposition to seek out connection to – and support from – others.

It's also worth noting that the team-based effort emphasised in a networked reciprocity structure is different to common conceptualisations of volunteering, both in the volunteering literature and Filipino culture, which either place the volunteer or a homogenous community at the centre of the change process (Figure 10).



Figure 10 Two common conceptualisations of volunteerism

For example, Christian notions of charity in the Philippines where people give their “time, talent and treasure” to those who are less fortunate, out of a sense of religious duty or social responsibility (<https://www.youtube.com/watch?v=nElo-qsJ0MI>) make a clear distinction between the ‘helper’ and the ‘helped’. These sort of “pay-it-forward” models of volunteerism are contingent on cascading acts of kindness through society, which is a different approach from the goal-directed and collective nature of networked reciprocity. Pre-colonial expressions of citizenship – especially *bayanihan* (embodying mutual assistance and self-help in times of need and togetherness in a common effort) is more akin to “mutual aid”, “peer-to-peer” or “community self-help” models of volunteerism (Burns & Taylor, 1998; Burns *et al.*, 2004; Gilchrist & Kyprianou, 2011). But the exchanges of help in *bayanihan* usually take place within communities (e.g., house-building) and do not extend to multi-layered networks of exchange between actors of different power and perspective. As the local village leaders pointed out, the existence of bridging and linking social ties in volunteer networks made the relational structure qualitatively different from the mutual self-help characterising *bayanihan*, and in their eyes, this social arrangement helped them achieve more.

In summary, networked reciprocity is different in its structure to previous conceptualisations of social networks and dominant notions of volunteering. Links to networking and team-building practice in workplaces suggests networked reciprocity is a structure that holds promise for powering good governance and more participatory development processes in complex change contexts, which require collective action.

5.6 Conclusions

This chapter sought to demonstrate the effects of taking a relational approach to change in the watershed. It also explored the different relational structures that brought energy and stability to collective action. The emphasis on emergence in complexity

theory helped me to take notice of the effects a relational approach, even though this was more organic than planned behaviour.

The inquiry found that volunteers took an active and visible network role in championing the concerns of the watershed, bringing needed energy to the change process. When they embarked on network and relationship building, they acted as bridges connecting people, information and new behaviour. There was a “stickiness” to volunteer-involving networks which increased collective memory of interactions and community events. This put volunteers in a good network position to model cooperative behaviour toward the protection of the watershed and there were some examples of successful imitation and adaptation of volunteer-initiated action.

Across a diverse array of social action, the relational structure of volunteer-involving networks seemed to behave like a core-periphery network, with volunteers holding highly centralised and densely connected network positions which extended to a diverse array of peripheral actors, spanning “bonding”, “bridging” and “linking” ties. This network structure reached further into marginalised communities than the management council and was effective at disseminating knowledge and mobilising participation. A core-periphery structure was more limited in complex change processes, requiring the sustained commitment of decision-makers and peripheral actors, rather than volunteers. Longer-term, more complex change processes leveraged the mobilisation effects of volunteers into a web of multi-stakeholder exchanges around the goal of protecting the watershed. In this relational structure – which I have called networked reciprocity – responsibilities for change are distributed intentionally through the process of network development. I explain how networked reciprocity is different to “mutual self-help” and “pay-it-forward” models of volunteerism, both in terms of the diversity of social tie and multiplicity of social exchange structuring collective action.

This chapter has focused on the effects of network structure on collective action. In the remainder of the thesis, I bring the people – and their experiences – into focus. I take an integrated look at the implications of my findings – from this chapter and chapters 6-9 – with particular emphasis on interrelationships and interdependencies in Chapter 10. This is where key concepts from complexity theory are more explicitly applied to understanding the relational structures and wellbeing dynamics of collective action.

6. Relatedness and collective action - momentum and sustainability

6.1 Introduction

The last chapter showed how volunteers used network building to mobilise actors to participate in the protection of the watershed. The complexity in the relational structure of volunteer networks, spanning bonding, bridging and linking ties, reflected an important reality identified in chapter 2 about change in complex social-ecological systems: actors need to find ways of motivating people like them, different to them and with differential power to them. For volunteers and local actors seeking to catalyse collective action this was a journey of discovery about the qualities of experience that brought people together and sustained their collective effort once united.

In Chapter 2 I identified how previous research has focused on the existence and structure of networks, as they influence pro-social behaviour and natural resource management, but little attention has been given to the quality of the relationships that form in these relational systems. This chapter is the first in a series of three looking at the psychological dynamics of network and relationship building for collective action. Each chapter examines one aspect of self-determination theory in relation to collective action and explores whether the way different actors reported feeling in social interactions with one another influenced the trajectory of the action they took to protect the watershed.

This chapter focuses on a sense of relatedness between actors and the role it played in collective action to address the third research question:

RQ 3. How is collective action influenced by the experience of relatedness?

A cognitive psychology perspective would say the complexity of the relational system – spanning bonding, bridging and linking social ties – sits at tension with the fact we find it easier to relate to people who we perceive to be like ourselves. A more emotional account of behaviour says it's the *feeling* connected that matters and because of the human need to experience relatedness, people will seek out emotionally positive interactions (Ryan & Deci, 2000a), and sometimes overcome psychological vulnerability to do so (Brown, 2012). A sense of relatedness has been explored interpersonally but the research often focuses on close relationships (Hadden *et al.*, 2015; Weinstein *et al.*, 2016). I'm interested in recent arguments that the relationship

often precedes action in complex change scenarios (Burns & Worsley, 2015). So, I take my exploration of relatedness to bridging and linking ties to see what role the experience plays in helping a diverse group of people work together towards a common objective.

The chapter begins with a case study "*Evolving youth group*" to describe the experiences of an ICS volunteer and local youth group beginning to work together for the first time. As a reminder, the case studies formed by starting with a story of change and a volunteer's experience map, which plotted the series of social interactions that led to events unfolding in the story. I then interviewed the actors on the map to collect their version of events and see how they experienced the same interactions. This helped us understand the flow of wellbeing between actors and across interactions.

The chapter then goes on to look at my own analysis of the patterns of relatedness and their effects documented by participants in the interpersonal inquiry. This involved analysing 21 volunteer's social networks layered with interviews about volunteers' subjective experience of each network interaction. Story boards of key themes were then analysed by ICS volunteers, local youth groups and VSO programme staff. This data also informed the action research case study, where we tested what happens when space is created for a sense of relatedness to form across network interactions (Chapter 9).

In the latter part of the chapter I describe two types of relatedness – "thin" and "thick" relatedness – as qualitatively different psychological attractors of thoughts and behaviour in the network. I also look at how relatedness travelled through network connections and through time, making new social connections in the network easier and quicker to establish. Finally, I look at how volunteers and local actors nurtured a sense of relatedness across bridging and linking ties, exploring the use of informal social contexts and personal, small scale interactions to strengthen a sense of relatedness in the network.

6.2 “Evolving youth group” case study

The story “*Evolving youth group*” was told by Evie, a British ICS volunteer who was 23 years old. She talks about her work strengthening a local youth group in the village of Basdio in Guindulman. The youth group, called Basdio Youth Environmental Defenders (BYED) was established with the help of ICS volunteers from a previous volunteering cycle (March-May 2013).

Box 2 Story: “*Evolving youth group*”

”

“When we arrived and met Basdio they hadn’t done anything since the last cycle of volunteers. They seemed a bit lost and weren’t really sure where they were going. We went and chatted to them and asked them to think about vision, mission and goals and helped them to create them. We spoke to them about getting accredited and they attended a Community Action Day which helped with recruitment. They had a basketball tournament and they did a raffle. They have to do all this to get accredited. They seem to have an aim and a goal. They wouldn’t speak to us for a while. They were really shy. Now they are happy to chat and they seem really motivated. The leader is really motivated”.

Evie was a 23-year old British ICS volunteer working at the local government office in Guindulman.

The story doesn’t begin particularly well (Box 2). BYED had been inactive in the gap between volunteer placement cycles, and Evie found it hard to establish contact with the youth group. The challenge of mobilising action among young people was a common experience among ICS volunteers in neighbouring municipalities. Young people had expressed all sorts of barriers to youth participation in natural resource management: young people have too far to travel, they are not rewarded for environmental work, meetings are cancelled, and young people do not want to speak. Nevertheless, finding the youth group inactive and unreceptive increased the pressure on Evie to meet an objective in her placement description to strengthen the youth group.

Initial interactions between Evie and members of the youth group were initially strained. The volunteer and the youth group didn’t feel close enough to relax into working together. There were strong similarities in how actors in the initial interactions described this disconnection. Evie expressed that:

“They were really shy and hard to talk to ... They had written all their ideas down but [Sir Danilo] still had to deliver it”

The leader of the youth group, Erica, asked me, “What is wrong with them?”, reflecting that the volunteers “were trying to get close to them”. One member reflected that, “They really challenge us how we motivate as a leader” while another member commented that “We were questioned by our improvements and achievements”. Sir Danilo, the Volunteer Placement Supervisor working at the local government office shared with me:

“This group [of ICS volunteers] is not as good as the last one. They had difficulty connecting with the groups. They asked advice. Part of the things to learn is how to communicate with people. But they are developing. And getting closer to the youth group”.

These quotes reveal that a sense of disconnection was a shared social experience. And the interactions were contingent on the volunteers’ ability to build a sense of connection. But by the time of their fourth major interaction, which took place at a Community Action Day organised by ICS volunteers, Evie commented that:

“They [BYED] got involved in the workshop, everyone ... answering and asking questions. They were getting used to it”.

When I asked Erica what had changed in their relationship with Evie, the leader of BYED reflected that:

“By their adjustments and explanations, we were able to adjust to one another from our differences”.

This adjustment was a process, but it was one that changed how BYED related to environmental projects. Evie ends her story commenting that the group “seem really motivated” and this is how I would describe the attitude of the group when I began working with them (see the action research presented in Chapter 9). In the months that followed BYED went on to convene community events, raise money, organise coastal clean-ups and begin building public toilets on the neighbourhood beach.

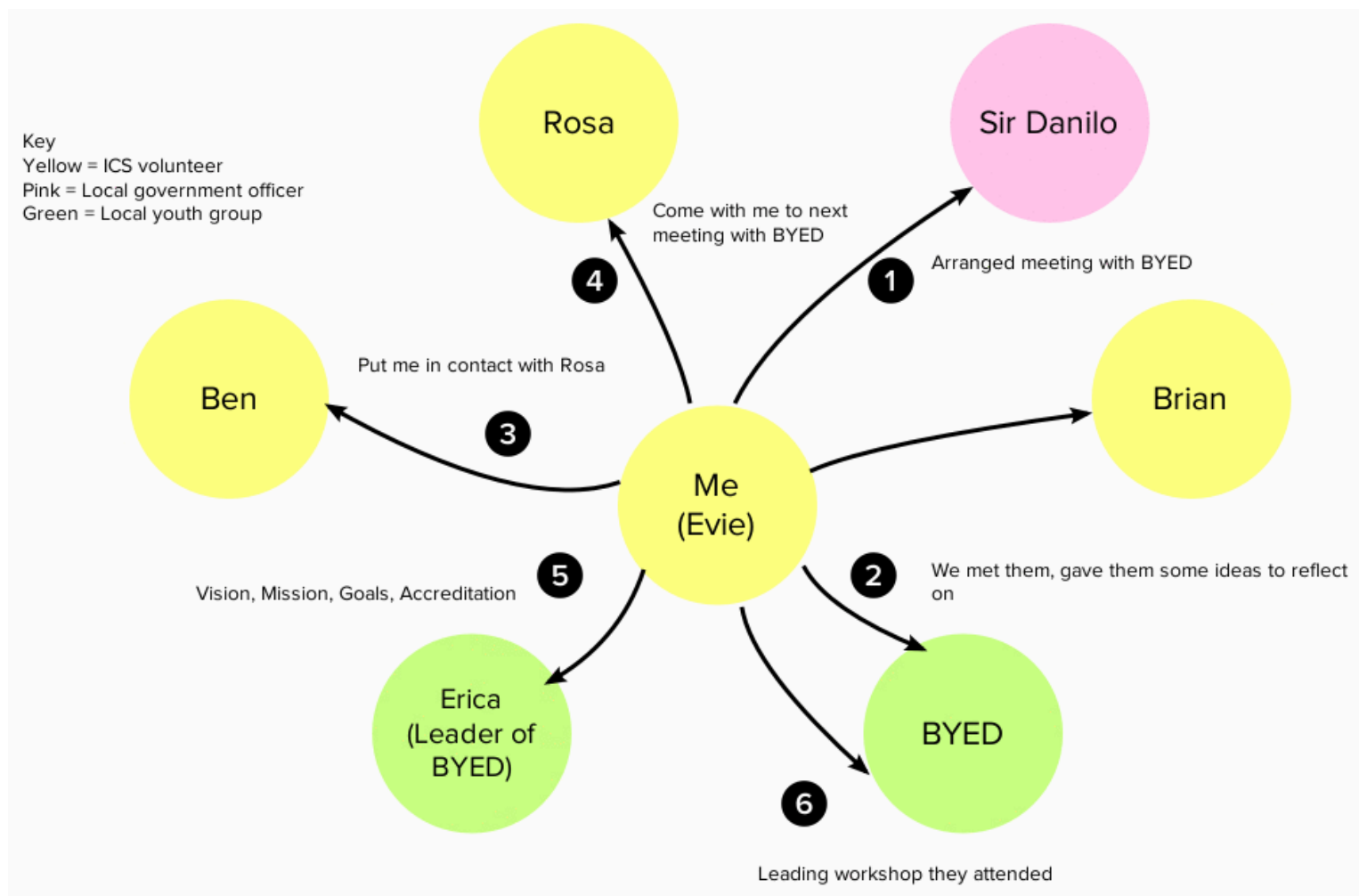
6.2.1 Critical pathways

The complexity concept of attractors was used to identify recognisable patterns that helped to explain how a sense of relatedness emerged between actors. Evie described her story as being mainly about “solutions” rather than “problems”, suggesting that the overall trajectory of change was positive. The use of social networks and informal

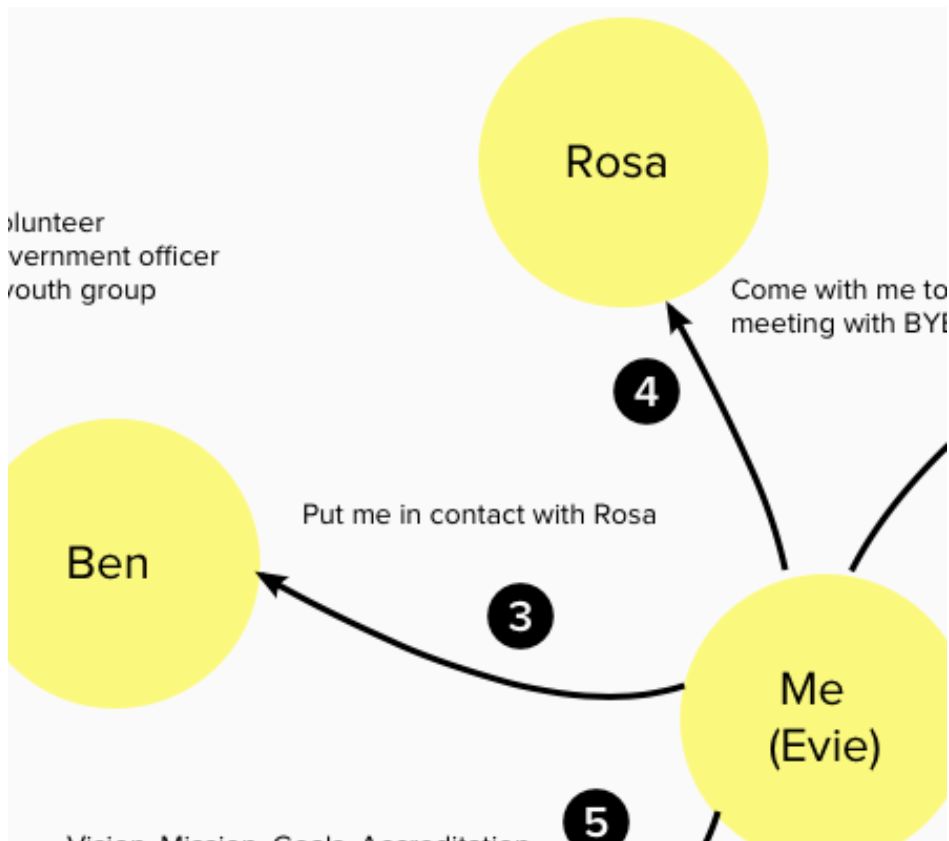
socialising were particularly important for evolving a sense of relatedness and self-belief.

The use of social networks

The map drawn by Evie (Map 7 and Map 8) to explain the relational structure of her story shows that when she realised the first meeting hadn't gone so well with BYED (interaction number 2), she shared her experience with another ICS volunteer, Ben, working in another municipality (interaction number 3). Ben recommended that Evie ask another ICS volunteer called Rosa for advice (interaction number 4), "who had experience working with youth groups in schools". Together, they decided that Rosa would join the next meeting with BYED. Evie explained to me that she had no hesitations asking her co-volunteer for support because they [the volunteers] "help each other out".



Map 7 Digitalisation of Evie's social network map for the "Evolving youth group" story



The map shows how the ICS volunteer sought advice from a co-volunteer (Ben) and the accompaniment of another co-volunteer (Rosa) who had experience of working with youth groups.

Map 8 *Extract from Evie's map.*

The existence of bonding social ties to 17 other ICS volunteers in Evie's social network meant that she had a diversity of skills and experiences to draw from. This made it easy for Evie to ask and receive support quickly, without losing much momentum in the change process.

Evie also had a good relationship with a proactive and well networked Volunteer Placement Supervisor, Danilo, who had already gained the trust of BYED. As Evie reflected:

"[Danilo] is really important. He knows the parents. And as a Volunteer Placement Supervisor, he is really helpful".

As an illustration of the trust established between Sir Danilo and BYED, Sir Danilo told me:

“We have good contact. She [Erica] texts asking advice ... At the opening of the basketball tournament, we were there, ICS were there, parents were there talking about the environment.”

The fact that Evie was able to communicate with BYED through Sir Danilo in the initial stages of their relationship created the space and time the volunteers and youth group needed to build a sense of relatedness. The fact that Evie used her relationships to get advice, support and help from different places in her social network fundamentally changed how she was able to relate to BYED.

Informal socialising

There was an important moment in Evie’s account of her relationship with BYED, which marked a step change in how they felt about one another. She told me that on the way to the Community Action Day she “rode in the dump truck with them [BYED]”. She described how this seemed to be symbolic in showing that she was similar to members of the youth group and then “they began trusting in us. It was really good”. The power of a shared moment – usually in the informal sphere – to move relationships forward was something ICS volunteers talked to me about a lot. Interestingly, the informality of “riding in a dump truck” echoes the story an ICS volunteer in the previous cycle told me about her first encounter with BYED:

“Our [placement supervisor] was really good at taking us to events like a clam restocking. We then got to talking to people about what we do. These young people actually approached us and asked for support. It is a really good opportunity to meet people.”

It was much easier for members of BYED to interact with ICS volunteers in informal social gatherings, when they felt, in their words, less “shocked”. As BYED’s leader, Erica, explained to me, sometimes the ICS volunteers could be “too serious” in meetings. Somehow, a more relaxed and informal setting was a safer social context, which enabled actors to navigate differences in their appraisals of each other.

6.2.2 Summary

Emma and the youth group had congruent experiences of their social interactions, which changed from being socially awkward to socially rewarding. Before the actors experienced a sense of relatedness, the value of the network connection remained uncertain. The process of feeling closer evolved over a sequence of social interactions, aided by the use of networks and informal socialising.

6.3 Patterns of relatedness in the network

A sense of relatedness refers to a feeling of psychological connectedness and closeness to others (Ryan & Deci, 2000a; Ryan, 2009). Volunteers and people from Carood watershed often expressed relatedness as feelings of “trust” or “unity”. Trust is a concept that has had a lot of attention in social capital research (Putnam, 2000; Woolcock, 2001; Fu, 2004; Helliwell & Putnam, 2004) and social network studies (Folke *et al.*, 2005; Bailey, 2006; Gilchrist & Kyprianou, 2011; Morris & Gilchrist, 2012), so its use as a term in this research needs a little explaining. When I refer to trust or relatedness in this study, I am referring to a feeling of psychological connectedness and closeness to others (Ryan & Deci, 2000). I am more interested in this emotional experience than cognitive appraisals of other actors’ trustworthiness because the satisfaction of relatedness is considered an intrinsically rewarding experience, which can explain what motivates people to seek out similar social interactions and interaction partners again. Instead of asking people whether they trusted people, we explored how much trust people had in each other to contribute to the social change task at hand. I sought to capture how actors felt when engaged in here-and-now relations rather than more general cognitive evaluations about one another. This approach sparked reflections about curiosity, inspiration, commonalities, unity, oneness, expressions of care and concern, which was a more emotional language than traditional questions about trust in social networks typically evoke.

To look at patterns of relatedness in volunteer networks, I analysed 21 network maps and codified the interpersonal experiences of relatedness that volunteers reported having. This was to provide some indication of how prevalent relatedness was in the networks and with whom volunteers were most likely to feel a sense of connection. Across 153 social interactions ICS volunteers reported feeling that they and their interaction partners “trusted in each other” to bring about change 60% of the time (Figure 11). In about one in six social interactions ICS volunteers felt they trusted in their interaction partner and one in six social interactions ICS volunteers felt the other actor was trusting in them. Trust was absent in only 2% of interactions. The degree to which one social actor trusted themselves with another seems high, given the distribution of bonding, bridging and linking ties in volunteer networks. Certainly, actors demonstrated a clear preference for social interactions where trust felt reciprocal. They smiled and felt good when talking about social interactions where they felt a sense of connection to the other actor. This may reveal a social desirability effect in actors’

reporting, but it may also reveal something unique about the relational approach taken by volunteers.

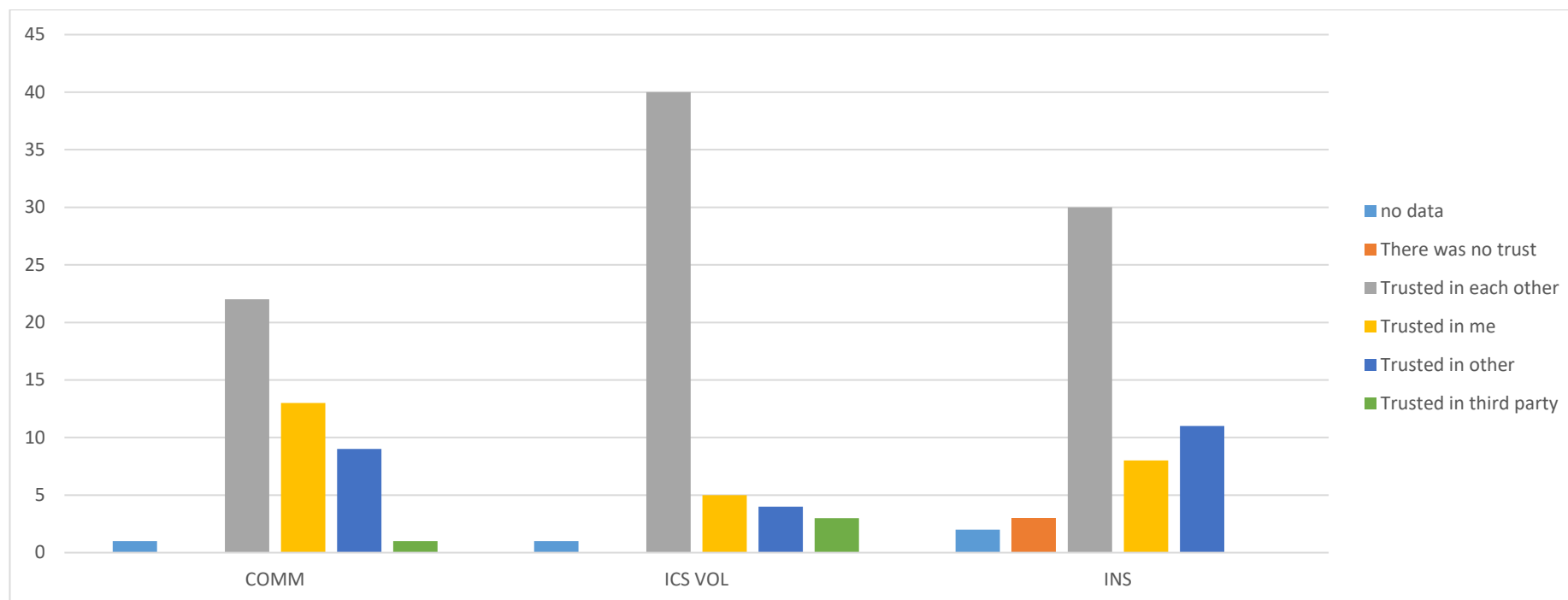


Figure 11 Frequency in reported experiences of trust in interactions between volunteers and other network actors

As I would expect from studies exploring trust and social capital, patterns of relatedness did have a different profile according to who the ICS volunteers were interacting with (Figure 11). ICS volunteers were more likely to experience relatedness with other ICS volunteers. This is not surprising given that social ties to other ICS volunteers represented “bonding” links, which the social capital literature finds are typically characterised by similarity and intimacy (Bailey, 2006). Patterns of relatedness were more variable in interactions with institutions (including placement supervisors, representatives of the management council and local government). This pattern was congruent with ethnographic observations that the quality of interactions between ICS volunteers and Volunteer Placement Supervisors varied greatly from municipality to municipality.

When I explored the network interaction from the ‘other actor’ perspective - as with the case study *“Evolving youth group”*, we found that both volunteers and community-level actors found it difficult to work with one another across bridging and linking social ties before they related psychologically to one another. This finding is similar to previous studies which have shown unfamiliarity, unequal power relations, sanctioned levels of prejudice and perceived cultural dominance can all contribute to people feeling vulnerable, stressed or anxious (MacInnis & Page-Gould, 2015). The desire to make an inter-cultural encounter go smoothly can also trigger anxiety (Hogg & Vaughan, 2008). The psychological vulnerability that has previously been found to characterise disconnection (Brown, 2012) was so powerful in the case study that youth group members were left speechless and the volunteer went looking for support. When BYED members reported that “we don’t feel close to them” [ICS volunteers], they also reported feeling “lazy” or “bored” to act, highlighting the link between disconnection and withdrawal from collective action. This is discussed in more detail in the action research in chapter 9. A similar relationship between relatedness and engagement existed with volunteers. Volunteers were motivated by the relationships they formed. Without a sense of connection to community groups, frustrations began to surface for volunteers. This made communication harder. Volunteers lost motivation when they became demoralised, making the process of working together even more difficult.

In summary, relatedness was a rewarding experience for actors in the network, which motivated connection and collaboration. A sense of relatedness was more likely to be an automatic and shared experience in “bonding” (e.g., volunteer-to-volunteer) versus “bridging” (e.g., volunteer-to-community member) and “linking” (e.g., volunteer-to-institution) ties, which is congruent with previous psychological studies on social contact (Fiske, 2008; MacInnis & Page-Gould, 2015) and empathy (Krzmaric, 2007;

Hodges *et al.*, 2011; O'Hara & Rutsch, 2013). The next section differentiates between two sorts of relatedness – “thin” and “thick” – to explain how volunteers and local actors were able to establish emotional connections with people in different positions of influence and power, beyond the closed loop of more familiar bonding social ties.

6.4 “Thin” and “thick” relatedness

In this section I explain how local actors talked about relatedness in two distinct ways: as an “instant trust” and “a closeness”. The instant trust that formed in early social interactions between actors tended to be built around how people identified each other. I refer to this as “thin” relatedness because it was powerful enough to initiate participation but vulnerable to false hopes and expectations. Where this sense of relatedness deepened to something more akin to “closeness”, actors were more likely to work collaboratively as an expression of the support and care they wanted to give one another.

6.4.1 “Thin” relatedness

“Thin” relatedness was about how actors experienced each other the first time they met. These initial encounters provoked attention-grabbing emotions. The fact that ICS volunteers elicited a range of positive emotions including curiosity and awe among people living in the watershed explained how the volunteers moved people to participate. The “outsider” status was a particularly strong trigger of this motivational process. Children, in particular, were very excited to be able to work with volunteers from outside their village and they afforded the volunteers a celebrity status.

Box 2 samples three stories from residents of an informal settlement on the shores of Candijay, three months after ICS volunteers organised a coastal clean-up activity. The clean-up activity made all the storytellers feel happy and the involvement of volunteers motivated community level actors to participate. Although one of the storytellers admits they had gone home when there wasn't anything to receive, she did also reveal that “I did clean right in front of my house ... Here is the area I clean because I don't like to see the garbage”.

Box 3 Community stories about a coastal clean up**“Connection”**

“I remember the cleaning and playing with the children. There was a talk about solid waste management & also a raffle. It is good & do it often so all the people are united. It is good to have community clean up. We used to have it once a month but not anymore. It used to be organised by that Barangay”.

The storyteller was a 31-year old Filipina mother living in Punta Pinok.

“Happy cleaning”

“We were happy because someone organised the coastal clean-up in the community. it was really interesting to clean the area because a lot of people were involved. it makes us more motivated. We were also happy even the children are involved. It is also because foreigners came in and got involved. When we do it on our own once a month we only have the members of the Purok and Barangay official. It was a bit different because only those in the Purok would contribute rather than everyone in the community. It is different when everybody is doing it. My children also helped. He is 13. We did a clean-up in September but we are in a halt because of typhoon & earthquake. After typhoon we cleaned our own area as household area as it is not good seeing it all messy. But not every household did it”.

The storyteller was a 33-year old Filipina resident of Punta Pinok.

“Happy it was cleaned”

“I participated in the coastal clean-up. I went because I thought we would be given something. So I went home when I learned we were not getting anything. I did clean right in front of her house. Here in the area I always clean because I don't like to see the garbage. But over there it is dangerous for me. If it wasn't for the typhoon I could do the cleaning. I was happy about the cleaning because I also wanted to clean my place. We were disappointed at first there was nothing given but then they helped out. It is like a rumour. Since the typhoon there is a lot of rubbish and it is difficult to clean because it is thorny”.

The storyteller was a 76-year old Filipina resident of Punta Pinok.

The amount of fun ICS volunteers injected into the design of the coastal clean-up amplified their pull effect (Box 3 and Panel 6). Residents talked about fun activities for children and competitions and raffles interspersed with guest talks on climate change and waste management. The enjoyable nature of collective action with volunteers was common to a lot of the stories told in the watershed. Benchmarked against almost 57,000 stories of change in the Global Giving story telling project collected between 2010-2013, the proportion of stories about fun (17%) in the watershed collection were overrepresented, while stories about knowledge (38%), creativity (16%) and security (17%) were about the same as observed in the story collection overall. The boost or

'lift' that volunteers brought to the collective effort encouraged the change process along. As these members of a fishing community in Panas put it:

"When the volunteers came, it gave inspiration to bring back the seaweed farming."

"Yes. It was useful ... There were more opportunities opened. We are dreaming. When helped out by BISU and the volunteers we are encouraged to do more. We have eagerness and that we can do a process for fundraising. We are thinking maybe this is a new journey for us."

[Network interviews]



Panel 6 *The Coastal Clean-up Community Action Day in the informal settlement of Punta Pinok. Photos taken by Basdio Youth Environmental Defenders*

Local actors also connected positively to the identity of ‘volunteer’. This may in part be due to the cultural context of Filipino society. Pre-colonial expressions of citizenship, such as *bayanihan* (embodying mutual assistance and self-help in times of need and togetherness in a common effort) and *pakikipagkapwa* (the holistic interaction with others who are treated as fellow human beings) continue to influence perceptions of socially desirable behaviour today (Aguiling-Dalisay *et al.*, 2004). Local actors would often seek clarification on whether volunteers were being paid and it was often put to me that they would participate precisely because pro-social acts encouraged further pro-social acts. This dynamic was strong enough to override a cultural tendency to prioritise bonding social ties in exchanges of help and support. Ate Darna, an assistant Volunteer Placement Supervisor in her twenties working and living in Pilar explained this cultural focus to me as:

“the inductive way of thinking. We are taught the family is the basic unit of society so if we improve the household, the community benefits. This is how most of us are thinking so we think less about the bigger picture”.

[Network interview]

So, I asked why she thought the community members participated in the sanitation programme the ICS volunteers helped with?

“Ate Darna: One of the Barangays and one of the schools said these volunteers were really focused and dedicated. They felt obliged to do it because the volunteers are very dedicated. To compensate their dedication considering this is not their place. This is our place”.

Me: How is that dedication noticed by the community do you think?

Ate Darna: They feel our sense of dedication”

Me: Through the way the volunteers are?

Ate Darna: Maybe. Seeing someone from a distance, from living in different ways ... it is natural for us to feel that it is insulting to think people are doing this and we are not”

Me: Is the effect the same with the national volunteers as well as the foreign volunteers?

Ate Darna: Even though they look like us, once they know where they are coming from, it automatically brings an impact to the community”.

[Network interview]

In this account, it is because the volunteers are perceived as different – rather than similar – that people are curious to become involved. But perhaps even more importantly, Ate Darna is describing a documented psychological process in the

motivation literature whereby the cognitive appraisal of the effort made by volunteers elicits an emotional response (e.g., gratitude) which encourages reciprocation and relationship building (Algoe *et al.*, 2008). This effect extended to linking social ties too. A Filipina VSO programme supervisor called Di explained that as actors in the governance of the watershed youth volunteers bring:

“Inspiration and that is very important ... They bring hope. They inspire people with enthusiasm and their young minds. They can be unrealistic and too idealistic sometimes but we need that so we don’t get pessimistic. So we don’t stop believing that things can happen ... As an older person in the process you get the chance to think if someone is this passionate and enthusiastic about this thing, would it really be too much if I go in to help”.

[Ethnography]

This help usually consisted of financial and practical support from mayors and local government units (Chapter 5). Di’s analysis gets to the heart of how effective volunteering could be at mobilising participation. A sense of connectedness did not need to run deep – it could be attached to the idea of an outsider, a volunteer, or a young person. But the very fact that volunteers affected their interaction partners emotionally, even in small ways, moved their interaction partners to act.

6.4.2 “Thick” relatedness

“Thick” relatedness usually formed over a series of interactions and shared social experiences. It usually evolved from “thin” relatedness and was based on a more authentic understanding of one another and a care towards one another. It was often the case that people would need to feel a sense of ‘closeness’ before they engaged in the practical aspects of more complex change processes (e.g., capacity building vs one-off participation in an environmental action like tree planting).

Friendship across bridging and linking ties was a common expression of “thick” relatedness. Friendships were described by ICS volunteers as a vehicle for change, making social activities like going to dinner really matter. From a sequencing perspective, the relationship came first, and work on the environment came second. As a British volunteer called Bev reflected:

“I noticed that my connections were initially emotional rather than business. They became friends and they helped with work later on, by linking me, etc. Over time they became business connections”.

[Group analysis]

The research collected examples where volunteers' friends helped out, improving the effectiveness of project activities and interventions. For example, we found that one of the volunteers' "trusted" motorbike drivers decided on his own accord to accompany volunteers into schools to translate awareness-raising seminars delivered in English for the children. "Otherwise, just the teachers understand", the motorbike driver explained to me [network interview]. We started to call these friends 'pop-up' volunteers because their help was ad-hoc and in direct response to an immediate need they saw (Chapter 5). Importantly for this analysis, their connection to the social action was primarily driven by the closeness and feelings of care they felt towards the volunteer.

Thick relatedness was also considered important for sustaining local action groups. Reflecting on how a local youth group in Ubay had continued for as long as it had, the local youth coordinator called Spencer explained that:

"It is more on the personal relations. For example, if you take the peer educator program. Before we were friends. Then we add more and they become friends. It is an extension. A web of friends. Even if the organisation will not have a funding we can re-organise and still meet each other because we are friends. When there is no funding this matters."

[Network interview]

Spencer is saying it is the quality of the personal relations – rather than the existence of the youth group per se – that affected the sustainability of their social action through time. This insight was especially poignant given ethnographic observations suggesting that the establishment of aims, mission and goals and the formal registration of groups was prioritised without corresponding attention to the relational processes that would socially bind and sustain them. Without these relational processes, the social-ecological system easily reset to a state of inactivity.

6.5 Initiating and sustaining collective action

Using the complexity concept of attractors this section argues that patterns of "thin" relatedness explained mobilisation and patterns of "thick" relatedness helped more complex change tasks. It compares the fragility of "thin" relatedness to the stability of "thick" by exploring how these different emotional currencies affected how people worked together.

While the flow of "thin" relatedness around a network was particularly effective at getting change processes going or for securing participation in short (e.g., one-day) activities, we found that when a sense of relatedness remained tethered to actor

identities, the exchanges of time, effort and resources remained fairly transactional (summary in Table 6). The transactional nature of network exchanges had their value in securing actor engagement, but this engagement didn't come with any guarantees that actors would stay committed to one another or to environmental goals. This was because social interactions were fundamentally about meeting the needs that each actor brought to the table – e.g., enjoyment, food, participation statistics for project reporting. And when the social costs of participating were not met by expected benefits or when barriers to participation seemed too high, it was more motivating at the individual level to disengage and focus efforts elsewhere. This is why local actors would become “inactive” between cycles of volunteers.

Table 6 Comparing “thin” and “thick” relatedness in the way they effected actor motivation and involvement in collective action

Emotional currency	Attendant cognitive processes	Type of network exchange	Type of behaviour in the network	Application to context
“Thin” relatedness	Identity, perceptions, false expectations	Transactional	Individual participation	Social mobilisation
“Thick” relatedness	Appreciation, understanding, mutual accountability	Transformational	Interdependent participation Complementary action	Complex change tasks

Transactional exchanges common to “thin” relatedness made the networks very susceptible to false hopes and expectations. Expectations of interaction partners could be set really high and these expectations could co-exist alongside actor interactions which communicated a different, more modest, set of objectives. In one story of change, Professor Efren, who was Director of Research, Development and Extension at the local university, describes the unravelling of his efforts to form an association of seaweed farmers (PASEFA) because of a false perception that the volunteering programme had invested in the initiative, and this investment had not been passed on to the farmers.

I spent some time with PASEFA, the organisation set up with the support of ICS volunteers and the university to try and understand where expectations about volunteering come from. The second question into the meeting was from the Secretary of the organisation:

“Can we have a donation from the volunteers? Can we ask volunteers from other countries to get funds?”

[Network interview]

It was explained to me that this had been the expectation of the members, even though this expectation didn't triangulate with any of the interviews I had done with the university and the ICS volunteers. These actors reported that they were doing a survey to provide concrete economic information about the potential benefits of organising into an association. In response to the Secretary's question, I took the opportunity to explain how ICS volunteers were funded and that there was no money for livelihood projects attached to the ICS project. My field notes, however, express concern that the meeting had reinforced, rather than re-set expectations around volunteering. I made a note that the number of participants rose from 8-10 to over 30 during the course of the discussions. I could put this down to my engaging communication style but I remember writing the following quote down because I felt like community members couldn't see past 'me' and what they thought I represented to hear the content of our exchanges (which were in the local language).

“At the end of the meeting the Treasurer revealed that membership had increased from 74 to 85 members, just during the meeting. More importantly, people were paying their membership fees. I asked the Treasurer why it was and she said because I (international volunteer) was there. She hopes I will come back”.

[Network interview]

The dismay local actors experienced when the reality of volunteering didn't meet their expectations was captured in another story about the Eskaya tribe who lived in the upper regions of Pilar. An ICS volunteer called Helen had organised a cultural exchange between the volunteers and the Eskaya tribe for UN Indigenous People Day. In her story she recounts how the elders stopped the cultural sharing to ask: “What are the volunteers doing for us? What are VSO doing for us? What is the LGU [Local Government Unit] doing for us?” Helen found it challenging to face these questions unexpectedly and she concluded that “clarifying expectations, being sensitive to community needs, and rather than asking and saying this is how we want to help, have a dialogue” would have helped to unify different levels of expectations between volunteers and the tribe.

For both the seaweed farmers and the Eskaya tribe, the nature of the change they were seeking is inherently complex and their expectations befit this reality. It was in complex change contexts that “thick” relatedness became really important (Table 6). It was accompanied by a more realistic understanding of actors' strengths and

limitations, making exchanges more mutually accountable. Other research into volunteering has described this sort of relational outcome as an appreciation of each other, as each other are, which can change how people conceive of their own role in the change process (Devereux, 2010). The appreciation fosters an alternative solidaristic conception of rights and welfare leaving no other obvious course for action than an approach which is collaborative (Dean, 2006).

In network structures characterised by “thick” relatedness, knowledge about people’s strengths and limitations was collectively held and understood by myriad actors. It resulted in interdependent action (when something couldn’t be done without volunteers and local actors working together) and complementary action (local actors doing most of the work with help from volunteers in discrete, secondary or more peripheral tasks). Both these approaches to collective action were different to volunteers supplementing the work that local people could do. As an example of interdependence, ICS volunteers and local actors worked together to shift norms about the role of young people in the protection of the watershed. Neither actor could have begun to shift attitudes without the work of the other. As an example of complementary relations, ICS volunteers were brought in to raise energy levels for an existing programme of activity in the case study *“Working together for Cansungay”* (Chapter 7). When actors settled into interdependent and complementary action processes, it became a given that co-responsibility to each other and the task at hand involved “pooling” individual efforts.

The optimal balance of “thin” and “thick” relatedness needed to energise and sustain development journeys is difficult to comment on. This is an issue worthy of more exploration than this study was able to focus on. The data seems to indicate both kinds of relatedness are found in relational structures like networked reciprocity: “thin” catalyses change and “thick” underpins actor commitment, resulting in greater network stability. The optimal blend may depend entirely on the change context. The data suggests the more complex the change context, the greater the need for “thick” relatedness among bridging and linking ties, which has implications for governance of social-ecological systems, which requires multi-actor collective action.

6.6 The legacy of relatedness

In a group analysis session, ICS volunteers added a dimension of time to my analysis of relatedness, arguing that its effects can transcend singular interactions. I found that the positive effects of relatedness lingered in the social memory of the network and this meant a positive emotional connection could be transferred through trusted brokers.

My awareness of what complexity theory has to say about processes of change encouraged me to look for data that supported this suggestion. For example, it wasn't until the ICS volunteer in the story "*An Unexpected Thing*" (Chapter 8) received an endorsement by a mutual network contact who had determined that "We have similarities. We have common intentions for the common good. They were young also" that the local youth group participated in activities for Carood watershed. The action research group made use of this insight. BYED knew doors to the houses of the rich and the political would open if they brought me along. But we also knew that the connection that really mattered was the one that got established between the local power holder and the local youth group. So, we prepared what BYED needed to convey in the meetings and we structured the social interaction so it would start off as a discussion between me and the power holder. When enough trust had been established, I introduced BYED and why I was working with them. At this point BYED would take over and explain who they were, what they were trying to achieve and what they had achieved so far. I slowly faded into the background. In one meeting, I literally became irrelevant and discussions ensued for a good hour and a half in Visayan without English translation. BYED left with money in their hands to organise a community event to raise funds for their public beach toilet project.

ICS volunteers argued that positive interactions formed bigger cycles of trust, not just between actors but also across time. The idea was that moment-to-moment relatedness influenced wider impressions of an interaction partner. They argued that the legacy of volunteer interventions to influence change depended on the image or social memory that remained following social interactions. If a previous cycle of volunteers left a negative impression of themselves with a Local Government Unit, "you have to build relationships from scratch" but if a prior experience was positive "the legacy can be used both by volunteers and people in the community in the form of new relationships" [group analysis]. It was as though relatedness was used as a psychological short-hand for deciding how to approach network interactions, suggesting its flow through the network had a causal effect on whether and how effectively actors worked together.

6.7 Catalysing relatedness

So far, this chapter has examined how relatedness helped volunteers mobilise social action. This section looks at how actors intentionally catalysed relatedness when it was absent or needed strengthening. Both volunteers and local actors used informal social

contexts and personal small-scale interactions to change the emotional currency of their network connections.

6.7.1 A volunteer perspective

For outsider volunteers, the patterns of interaction that evolved “thick” relatedness were based on time spent getting to know one another. The *Valuing Volunteering* project found that volunteering programmes facilitate this kind of relationship-building because of volunteers’ embeddedness within communities and organisations. As the summary report says:

“Living and working alongside individuals in the community and their colleagues, enables them to develop a shared understanding of each other and the challenges they face. Where this works effectively, it creates strong personal bonds and relationships which leads to a different kind of collaboration, based on mutual appreciation of each other’s knowledge, skills and networks” (Burns & Worsley, 2015: p10).

It was through being part of local life that opportunities opened up for networks and relationships to evolve a psychological depth. And these relationships made people feel different about the change process. As Manang Divina, Chairperson of a People’s Organisation put it to me:

“We experience good relations as if we are almost relatives ... what we feel, it becomes lighter because of the concern we experience”.

[Network interview]

This ‘lightness’ is important for change processes that are long or difficult. Similarly, Devereux (2010) identifies accompaniment – living and working alongside people on a constant basis – as “crucial in providing volunteers ... a credible entry point for engagement with local people”. He also emphasises that the relationship comes first:

“Accompaniment is far from the idea of simply ‘development as practice’ or ‘doing development’ but also far from the idea of simply an exciting adventure that does not analyse and tackle key and complex issues. This is because **its focus is on being with local people first** rather than just doing things for or with them. Though the ‘doing with’ usually happens as a natural outworking of being with local people and seeing first-hand what they experience and struggle with” (Devereux, 2010: p257).

This focus on “being with people first” is the approach I took to relationship building with community actors influencing the work of the youth group BYED in the action research. Even though I didn’t live in Carood watershed, and my trips sometimes felt fleeting, I made sure I spent time with the local fishing people’s organisation understanding how they caught fish and what the recent clam restocking project was all about. I went out on the boat with them to check up on the clams and take photos

(Panel 7). My enthusiasm for coral reefs was tangible to them. As a scuba diver, I was genuinely excited to learn things from them about how to maintain the health of the sanctuary. This, and the sharing of good food, is where our relationship began. At this point, none of us could anticipate what my relationship with BYED would become and what BYED would achieve. And it didn't really matter because we liked one another. This appreciation, based on knowing something about each other's interests and the particulars of our day-to-day struggles meant that we afforded each other a lot more flexibility and leniency. The peoples' organisation was happy to let us use their meeting space overlooking the sanctuary and I was happy for them to use my underwater camera to take pictures of the clams so they could report the monitoring activity to the local government office.



Panel 7 Clam monitoring expedition

Jody with another long-term volunteer, members of the Peoples' Organisation, local government and BYED

The interesting thing to note from a social change perspective is that I didn't have to be that embedded to have the sorts of exchanges that satisfied our respective needs to experience relatedness. It would have surely helped because living alongside BYED

and their community would have increased the opportunities we had to share common interests and happenings (e.g., festivals, political elections, brown-outs, earthquakes etc). But embeddedness was not essential. For relational approaches that can't use accompaniment or immersion, a more useful way of thinking about the difference between establishing "thin" and "thick" relatedness could be to conceptualise thin relatedness as being built on the things that make people different (e.g., identity, behaviour), whereas thick relatedness is built on the things people share (e.g., common interests, shared social experiences). For change efforts to benefit from "thick" relatedness, time and budgets have to be created for actors to "be with people" as well as "act with people".

In the context of their network connections to people in positions of power on the management council, such as Mayors, informal interactions, were seen by ICS volunteers to:

"blur the line of professionalism and personalism [sic] which affects the success of a programme / project".

[Group analysis]

ICS volunteers reflected that they had to find ways of breaking the formality of interactions otherwise:

"it is difficult to build a strong bond which makes it hard for us to affect their perspective".

[Group analysis]

It was considered to be more effective to intersperse group-to-group interactions between the management council and ICS volunteers with one-to-one interactions that felt more personal. A deeper sense of relatedness between individual volunteers and power holders helped to shape how people in power saw 'youth volunteers' as a group of actors in the watershed. A Filipina volunteer summed up this discussion saying:

"It is a two-pronged approach. If you build a good relationship informally it eases the barriers made by formal structures".

[Group analysis]

This approach of scaling back the collective action so it felt smaller, and in effect more personal, helped ICS volunteers advocate for the use of IEC materials in schools with the 3rd district of Bohol and the Governor of Bohol. We modelled this approach to fostering relatedness with significant actors to a smaller extent in the action learning process with BYED (Chapter 9). We intentionally created informal spaces for me to get to know adults in the community and we created reasons to remind those adults of our

progress. We asked local parents to provide food for our celebratory lunch. BYED put on events for the community, which showed their increasing effectiveness. We invited the local government officer into our analysis sessions. We kept the ICS volunteers updated with email reports, who went on to raise money back in the UK for BYED and their plans for public toilets on the beach. All these interactions leveraged support for what BYED were aiming to achieve.

Pelling *et al.* (2008) found the creation of space within and between local organisations for individuals to develop private as well as official relationships was found to strengthen environmental adaptation efforts. The informal nature of these interactions taking place in the “shadows” helped to make the implementation of new ideas and systems in work settings more effective. Ethnographic research of NGO cooperation in Cambodia found “informal networks are important in themselves, because this is where the ethos of voluntary cooperation is at its most fundamental, but they are also important for the success of more formal networks” (Brown, 2013: p105) and a contributor of collaboration (Bowen *et al.*, 2014). It is interesting how ICS volunteers and BYED moved in and out of formal group interactions and informal personal interactions, using social interactions in each space to reinforce the other. But they typically kept interactions with people they wanted to influence smaller in scale, as they felt they had more influence this way. An implication worth exploring in further research is whether a sense of relatedness is easier to foster person-to-person than in big group dynamics.

6.7.2 A local actor perspective

While volunteers worked to build trust, the burden of injecting a sense of relatedness into the network often fell to local actors. It was easier for the volunteers to exhibit a genuine interest in connecting to local actors because they were far from home and what was familiar to them. The human need to feel connection was even more pronounced in this context. As a long-term British volunteer called Wendy put it to me:

“In this job I have realised how important it is to work in a team with other people. I am more than capable getting on and doing a job by myself but you don’t give up a well-paid job to come half way round the world to sit on an office on your own looking for people to work with ... I don’t think I realised how important it was to me.”

[Ethnography]

By contrast, for local actors who engaged with the protection of Carood continuously, they had to re-establish new relationships with volunteers every time there was a new placement cycle. This was exciting but it was also demanding psychologically. Saying

goodbye to people you had emotionally invested in and welcoming others you needed to invest in took time, effort and resilience. One Peoples' Organisation that worked with volunteers over a couple of placement cycles stopped because the work it involved took the time of the Chairperson and Treasurer away from some of the key issues affecting the farmers and residents of the Community Based Forest Management Area. The Programme Supervisors also found it difficult to get families to be hosts on repeat cycles. Marianne, a host mother and teacher in the municipality of Alicia explained something to me about the time investment required to build a sense of relatedness with strangers:

"In the house we treat the volunteers as part of the family. Respect and trust is very important. Because we do not know them at first, then it is an adjustment for a couple of days. But later talking with the volunteers we can establish relationship. We can do bonding over dinner. Our time to have the talking is dinner. It takes two hours just eating. With that experience we can show them who we are in the family. We used to give them advices because they do not know people in the community. So we give them guidance. So we will talk about matters. We are their parents in the Philippines".

[Network interview]

Marianne is describing the space she intentionally created in the home environment to get to know one another and meet everyone's needs to experience each other authentically and warmly. When I asked her about how it was in the beginning, when she first became a host, she explained that it is something she had to learn:

"At first I didn't know anything. I refused to be a host. But I felt it is a challenge for me. Not only helping the community but being a part of the program itself. I learn it gradually – to ask how is your day, what is your work, and monitoring what they did. We helped the volunteers making the sashes because we feel part of the program in whatever way we can help".

[Network interview]

What Marianne also reveals in this quote is how her growing sense of connection to the volunteer strengthened her interest and contribution to environmental projects. Her practical engagement in the Carood watershed was socially motivated, mediated by the sense of relatedness she experienced in her interactions with the volunteers. I revisit this finding in Chapter 8 when exploring how autonomous engagement with environmental goals was often rooted in actors' relationships.

6.7.3 Summary

In summary, an informal and personal approach helped foster a sense of relatedness across bridging (e.g., volunteer-to-youth-group) and linking (e.g., youth group-to-local leader) social ties. We found that unstructured spaces can be created in change processes, which help actors work together in more formal action arenas. This “two-pronged” approach is a reminder that effective and more stable networks for change are as much about “being together” as they are about “doing together”.

6.8 A reflection on my own experience of relatedness

The fragility of thin relatedness played out in my own interactions with actors in the research. I felt I was instrumental to the association of seaweed farmers and I didn't look forward to my sessions with them, nor particularly enjoy the interactions. I had to appeal to my sense of responsibility as an action researcher to persist in involving and supporting them. By contrast, I had an energy for my interactions with BYED. They had got under my skin. I liked them. So I approached these interactions effortlessly, and with greater energy and enthusiasm.

6.9 Conclusions

The relational structure supporting watershed protection meant that volunteers and local actors had to find ways of motivating each other across bonding, bridging and linking ties. This chapter explored the satisfaction of relatedness as a key component of this motivational process.

I found how people *feel* towards one another to be an important psychological component of social interactions that resulted in helping behaviour. Relatedness was a discrete positive emotional attractor which predisposed actors towards collective action. A qualitative difference emerged in the data between “thin” relatedness and “thick” relatedness, both in terms of how it forms and how it affects the way actors' think about each other and the action they take together. The attention grabbing positive emotions of “thin” relatedness served as an instant feedback, powering actors' participation in environmental projects. A deeper sense of relatedness more akin to a ‘closeness’ acted as a social glue in longer and more complex working arrangements.

A sense of relatedness could travel between actors and from one cycle of volunteers to the next, reducing the time it took for people to organise and reorganise into productive networks of exchange. Intentionally fostering relatedness was a legitimate approach to making the network structuring protection efforts more stable. The most effective

routes to catalysing and strengthening relatedness appeared to make use of informal spaces where actors were naturally more relaxed and small-scale interactions that felt more personal to the actors involved. The shared social experiences and common interests that flow from these less structured interactions resulted in expressions of care and concern which enhanced how actors worked together in more formal settings.

7. Competency and collective action – moving with purpose

7.1 Introduction

This chapter extends analysis of the way psychological dynamics influenced collective action in the watershed. In chapter 6 I showed that a sense of relatedness flowing across social network connections brought momentum and stability to actors' participation in collaborative efforts. This chapter is concerned with how social network connections satisfied another important psychological need central to human motivation and a positive sense of wellbeing – competence. It answers this research question:

RQ 4. How is collective action influenced by the experience of competency?

As I discuss in Chapter 2, a sense of competency is described as feeling able to master challenges and influence circumstances. In our discussion of competency in the watershed, the concept was often articulated as “self-trust”. People talked about levels of “confidence” and “self-esteem” in relation to how capable they experienced themselves in different change situations. The subjective experience of competency is closely related to more objective assessments of “capacity” and the personal growth outcomes development programmes seek for marginalised groups. For example, VSO's people strategy states that volunteers help disadvantaged groups develop new skills to influence development (VSO, 2014). This chapter focuses on whether actors felt able to make things happen in their social networks and whether discernible patterns of competence were helpful psychological experiences for collective action.

The chapter begins with a case study “*Working together for Cansungay*” as an account of what we learned from social network interactions that distribute responsibilities for change across different actors. The story the case study is based on is interesting because the inspiration for the social action came from a previous cycle of volunteers. But the story is different to a lot of the stories we collected, because volunteers were brought in to support an existing programme of works between local government and community-level actors, rather than initiate the collective action. Volunteers' experience maps and follow-up network interviews with their interaction partners was particularly informative about how to promote actors' experience of competency across bridging and linking ties in collective efforts.

I then take a broader look at the patterns of competency that characterised interactions between network actors. I describe how, compared to the network at large, volunteer-involving interactions were more likely to feel safer to marginalised groups. I describe how social interactions with volunteers served as practice grounds for actors to experience themselves and the collective as effective. These “bridge experiences” were the start of a process that resulted in more competence among community level actors in their interactions with linking social ties.

Unlike relatedness, competency didn’t easily travel across different relationships and social spaces of the network, so community level actors needed support to build their sense of mastery in increasingly more demanding social situations. Repeat experiences of competency cumulated to forge new identities and shift social norms around participation of marginalised groups, while dynamic interplays between personal and interpersonal spheres amplified the effect of competency-enhancing experiences in the network. The chapter culminates in framing “doing together” as a psychologically important process for distributing responsibilities and sustaining collective action in complex change contexts.

7.2 “Working together for Cansungay” case study

This case study centres round a story titled “*Working together for Cansungay*” told by Taylor, a 26-year old Filipina ICS volunteer who was from another region of the Philippines. The story explains Taylor’s involvement in a project to improve the environmental sanitation of village (*barangay*) Cansungay.

Located in a remote part of Pilar, the village covers 330 hectares and is home to 182 households. For the Carood watershed, environmental management in higher elevations – especially tree coverage and reduction of waste – is important for water security in villages at lower elevations. The elected officials told me a census in 2010 put the population of Cansungay at 841 people. Most households are large consisting of between 6-11 members, which are organised into 7 smaller sub-villages (called *puroks*). The Local Government Unit was concerned about levels of sanitation (e.g., access to toilets at the household level) and solid waste management.

Box 4 Story: “Working together for Cansungay”

“The Sanitation Project is headed by the Regional Health Unit. The Head is the Sanitation Officer. He found out about an award - The Healthiest Barangay in the Philippines. He found out that there was no entry ever from Bohol. He thought it was a good time to do it in Pilar. There are 6 Barangays [in Pilar] in the Carood Watershed. One of the Barangays said they are willing to take part. This is one of the focuses of the volunteer placement. First we went with the midwives. We made signages for cans, compost. When we went back every home is using the signages. And the community has painted their fences. And each house has a compost pit. We went to do a survey with a nurse to document how many composts, Comfort Rooms etc per household and if they have a garden. We taught IEC materials in the school. The judging will begin in September. On August 27 there will be a sanitation day. We were the first volunteers to go. And we carried out the pillow making project with recycled materials”.

Taylor was a 26-year old Filipina ICS volunteer working with local government in Pilar.

In her story, Taylor describes how they made various trips to Cansungay with nurses from the Regional Health Unit to collect data, teach about the environment and initiate upcycling projects. Local village leaders told me the volunteers also helped with tree planting. These inputs were part of a network of local officials, nurses from the Regional Health Unit, students and residents actively contributing their time and skills (refer to Map 6 in Chapter 5). The participatory and collaborative nature of the sanitation project is encoded in the way the volunteer and other actors in the network experienced their interactions. There was a high degree of inter-subjectivity – the degree to which subjective states are shared – across all Taylor’s interactions. This meant that Taylor’s experience of interpersonal relatedness, autonomy and competency matched up with how other actors described experiencing the same interactions.

The bi-directional grey arrows between Taylor (Volunteer 1) and the other volunteers (yellow circles) on the network map illustrate a homogeneity of experience (Map 9). As Taylor’s experience changed from interaction to interaction, so too did the experience of other actors. For example, Taylor felt she had contributed less (blue arrow) than the Regional Health Unit Lead, who was overseeing the project. This was verified by the Regional Health Unit Lead who felt his contribution was more than Taylor because:

“They just follow. It is more on me ... Always felt it was more on me ... they were assisting”.

[Network interview]

Similarly, Taylor felt she contributed less (blue arrow) than the residents (*Barangay* officials), who named the volunteers as one group of myriad actors who took part in their own network map (Map 9).

The team effort paid off. Over the course of the sanitation programme, the village underwent a cosmetic make-over, accessed new knowledge on environmental management and improved sanitation in some fundamental ways. For example, a nurse in the Regional Health Unit told me that:

“There are big, big changes. Before, not all the people / residents had 100% toilet facility. Now every household has a CR (comfort room). But also there is not 100% water access. Now there is”.

[Network interview]

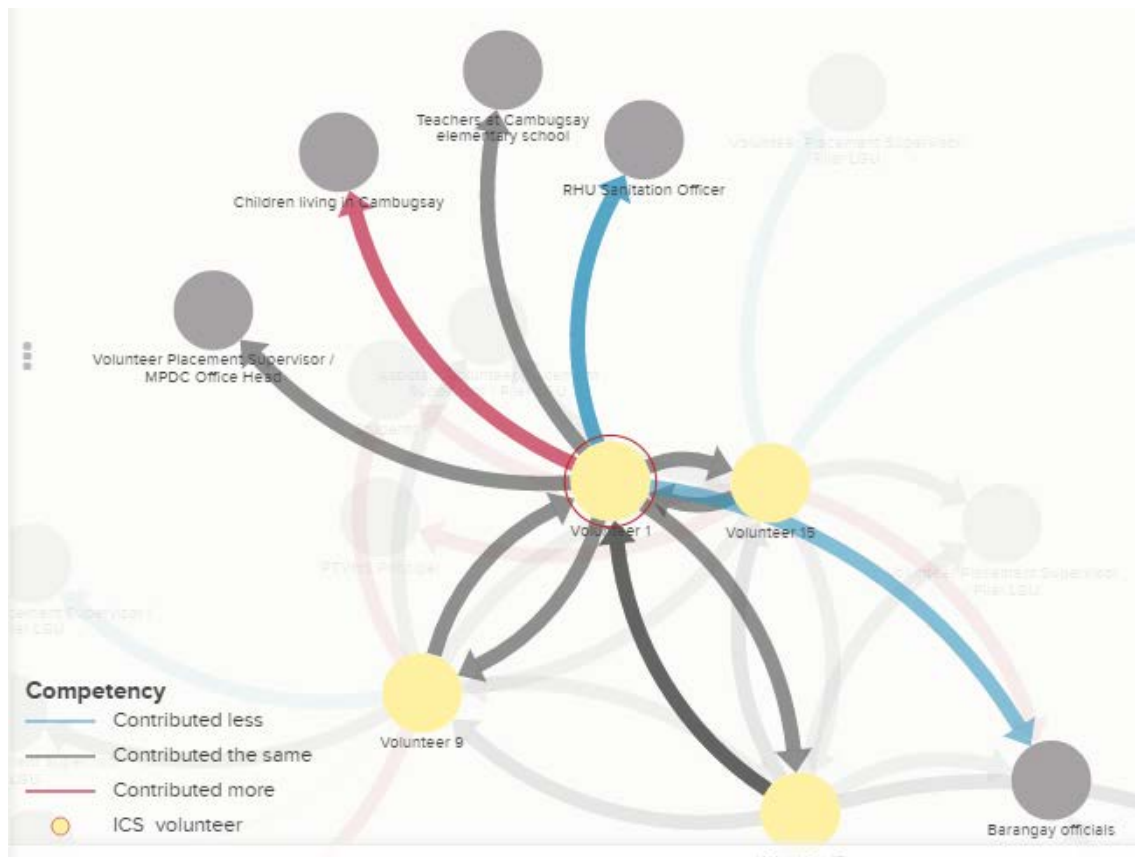
When Bethel and I visited a month and a half later, all the fences were painted, the roads were flower-lined, and there was not a piece of rubbish in sight, which is very unusual in villages in the Philippines (Panel 1). We were invited into the *Barangay* (village) Hall, which had lots of photographs and pictures all over the walls. At the entrance photos of ICS volunteers planting trees were displayed. Another two months later I visited a school where the ICS volunteers had provided information about the environment and Carood watershed. Five girls and five boys aged between 8-10 years of age painted pictures of what had happened with the volunteers, what they had learned about Carood watershed and how they felt (Panel 9). They reported painting with the volunteers and playing basketball. They said that the village had changed. One student told me: “It was ugly before; now it is beautiful”.



Panel 8 Cansungay after the sanitation campaign



Panel 9 Children reflecting on their interactions with ICS volunteers



Map 9 Experience of competency in network interactions, as reported by the volunteer

Perhaps significantly, high levels of collaboration did not diminish the psycho-social need for individual actors to experience a sense of autonomy in their involvement. Local residents, for example, were able to feel helped and successful both at the same time. When I asked the elected officials of the village a hypothetical question about whether they would assign the volunteers differently if they were to repeat the process, they reflected:

“The volunteers follow what we are doing, to support us. It is one of the support systems of the Barangay.”

“We also wanted to know about climate change. We asked the volunteers about this and we were given information about flooding.”

[Network interview]

The sequence of events revealed in these quotes may have protected the autonomy of local residents in their interactions with the volunteer. First, the residents established what they were doing and the help they wanted, and then the volunteers helped. The residents were acting out of their own interests, rather than because they felt social pressure to accept the help of volunteers. Rather than undermining local ownership, the help of the volunteers was seen as a local success. As the village leaders said of the environmental sanitation project:

“We are happy also because it is our doing. We are proud”.

[Network interview]

The help provided by the volunteers was useful but it did not replace local responsibility and engagement in the change process.

Similarly, Taylor’s own sense of autonomy was not negatively affected by network interactions where she was helping to achieve a collective goal. She consistently felt social interactions were “driven by something important to both of us”. The experience of relating autonomously to the collective goal was reciprocated among the actors I spoke to, suggesting that multiple actors had concurrently internalised the importance of group concerns.

7.2.1 Critical pathways

Using the complexity concept of attractors, I was able to identify some combinations of experience which mutually reinforced collective action tendencies. When the volunteers joined the local effort to improve sanitation in Barangay Cansungay, the way actors experienced their interactions with one another helped form an effective network

for collective action. I identified two important patterns that brought stability and resilience to the effort.

A psychological connection to motivations

Different actors could relate to one another through the motivations they had in common. The network was characterised by high levels of trust in both the motivations and capabilities of one another. Trust was described as an “automatic feeling ... maybe because we have the same mission and vision”. When I asked one of the nurses in the Regional Health Unit why they had all ended up working together on the project, she explained:

“I think it was mutual. The leader of the RHU requested and they [the volunteers] were eager to participate ... They come from different sides of the story but they end up united because they have the same goal.”

[Network interview]

The nurse suggests the various actors had found common ground in their enthusiasm and interest. This common ground bound people who “came from different sides of the story” together because it helped individuals to self-organise around the essence of the collective effort. The inter-subjectivity of trust promoted a coherent, rather than disjointed, experience, which likely strengthened the stability of the network as actors co-evolved their environmental work in the village.

Oscillations in expressions of competency

Sense of competency oscillated across interactions in the network. This meant that singular interactions didn't have to feel reciprocal in terms of what people contributed, so long as a sequence of network interactions balanced the needs of individuals to feel competent. The equilibrium enabled a diversity of strengths in the network to be shown while also protecting space in the network for individuals to learn new things. It led to a more inclusive and participatory process and it encouraged actors to learn from one another. So, rather than a single actor (i.e., the volunteer) holding all the expertise and responsibility, the environmental sanitation of the village hinged on the expression of a range of capacities within the network. While it is not expressed in these terms, I think this systemic experience of competency is what natural resource management researchers are alluding to when they talk about the importance of social learning for increasing stability and redundancy in social-ecological systems to manage common pool resources (Bodin *et al.*, 2006; Lebel *et al.*, 2006; Tschakert & Dietrich, 2010). It's the network, not just its individuals, that needs to 'hold' the expression and memory of

competency. In this sense, competency was a strange attractor pattern: collective action tendencies were strong within a boundary where competency flowed across network interactions. But this did not mean that each and every interaction had to be defined by equal expression of competency between interaction partners.

7.2.2 Summary

Taylor and her co-volunteers amplified a locally-initiated change process with the time and knowledge they shared. The collaborative and participatory nature of the sanitation project was encoded in high levels of relatedness and autonomy in network interactions. The variation in the way competency was experienced around a point of equilibrium which generally satisfied actors needs to feel competent helped actors to learn about and from one another. A diverse relational structure combined with distributed opportunities to express capacities resulted in a systemic competency distinct from individual empowerment. The implication is that collective successes emerge from interpersonal processes that allow competency to be simultaneously expressed at the network and individual level.

7.3 Patterns of competence in the network

Self-determination theory argues that a subjective sense of competency is rewarding because of a universal human desire to feel efficacious and to know yourself to be getting better at something (Ryan & Deci, 2000a). Studies have shown that when people's skills are in balance with the level of challenge a task demands, they are much more likely to focus and engage in work (Pink, 2011). Interpersonal events and structures (e.g., communication, feedback) that encourage actors to feel competent can enhance intrinsic motivation for action. These motivational feedbacks may create a shift in perspective from a self-limiting mind set to a growth mind set, which has been shown to foster a psychological resilience essential for accomplishment (Dweck, 2006). Actors' motivation and commitment to collective action, may in part therefore, be explained by who gets to experience competency.

As in the previous chapter I analysed the ICS volunteers' network maps to code their subjective experience of social interactions to gain a more systemic picture of the way competency flowed between network actors. ICS volunteers felt they "contributed the same" as their interaction partners in half of the 153 social interactions that were mapped to explain their stories of change. A quarter of the remaining social interactions were described as spaces where ICS volunteers "contributed more" than the other actor and a quarter where they "contributed less". This profile suggests that

three quarters of volunteer interactions were opportunities for others in the network to demonstrate their skills, knowledge or experience. A similar conclusion was reached by a qualitative study examining volunteer-recipient relationships in Mexico. It found that “horizontal” relationships were more common than “unequal” relationships, typically characterised as hierarchical and with only one beneficiary. In horizontal relationships both the volunteer and their interaction partner reported experiencing a sense of growth. Associated outcomes included learning from each other, feelings of improved self-worth, satisfaction, change and enthusiasm (Butcher, 2003).

By comparison, the reciprocity of competency in volunteer networks was different to how fishermen, farmers and young people typically reported experiencing competency with institutional actors. The following exchange took place towards the end of a 1.5-hour session with a coastal community who had demonstrated extensive environmental knowledge about the importance of mangroves for livelihoods. During the conversation, the community also shared that they had been planting mangroves in the Carood watershed since 2004:

--Me: “Do you know see yourselves as experts in planting?”

--Community: “It is like planting rice. It is Easy. There is measurement.”

--Me: “It strikes me that you have a lot of expertise in how to plant, where to plant, the distances etc. Does anyone come and ask you for advice?”

--Community: “There was a guy who came to teach us. He was a government employee from Iloilo who came here. When he was still active, DENR sent him here to teach.”

--Me: “Has anyone come to learn from you?”

--Community: “No.”

[Ethnography]

The one-way nature of this interaction between government officials and community members is illustrative of the way linking social ties in the network unfolded. Young people also found it difficult to feel competent in their interactions with the management council. ICS volunteers reported: “at the MOA signing the youth groups were scared the council would not listen to them” [group analysis]. In the quote below, Cameron, a Filipino ICS volunteer describes his frustration at the reluctance he found among local youth groups to formally register themselves with authorities to gain income and social validation:

“The people are not willing to go to high ranking officials. They need to be registered. But they don’t register. They don’t feel able to. They don’t have the confidence to”.

[Group analysis]

Figuring out how to “empower” young people within a Filipino cultural context where people feel “ashamed” (usually used to mean shy) to speak to people in higher positions was a popular topic of conversation among ICS volunteers. The volunteers realised that it is very difficult to feel comfortable with people in positions of power if you do not feel competent navigating the social interactions that participatory, more inclusive, governance processes require. In social worker Brené Brown’s research on shame, she explains that we disconnect and withdraw when we believe we are flawed and unworthy of acceptance as we are (Brown, 2012). Establishing connections with others when we don’t feel worthy of being in those interactions leads to huge emotional exposure. Brown was mainly looking at relationships in bonding social ties, but I find her framework can also explain how actors experience shame across bridging and linking social ties.

For those people in Brown’s research who did manage to overcome feelings of shame, it took courage, compassion, connection and a willingness to embrace vulnerability (Brown, 2012). For the actors in this study, connection was their starting point. Actors with low levels of competence used their relationships with volunteers as opportunities to gain knowledge, skill and confidence. I experienced this first-hand as a volunteer in the watershed. Over the course of the research, I was asked by different community-level actors to review and explain government contracts about mangrove planting, present the outcomes of a project in a report funders could review, and attend meetings about contractual arrangements. One Chairperson of a People’s Organisation told me it was his hope that volunteers would help them to “handle the meetings” with the watershed management council. A farmer from another People’s Organisation summarised their strategy for getting things they couldn’t do, done:

“VSO Bahaginan [the volunteering agency] helps me when we do not know how to do this”.

[Network interview]

Youth groups adopted a similar approach. The leader of the youth group in case study “*An unexpected thing*” approached the ICS volunteers because they expected the volunteers would help them think through the practicalities, rather than dismiss the plans outright as adults in their community did (Chapter 8). In the prototype for improving the impact of volunteering in the watershed that local youth groups

developed with the findings from this research, they highlighted their interest in developing techniques to approach and relate to adults in positions of authority. They thought the ICS volunteers could help them with this. As I explored in more detail in chapter 6, the relational approach taken by volunteers often made them more accessible than institutional actors. A British long-term volunteer described herself as a “friend in a hostile environment”. Similar conclusions about the importance of someone playing a “friendly” role to certain network groups have been reached in neighbourhood change initiatives in the USA. Relationships between disenfranchised groups and people who become their allies encouraged actors to take risks and set goals they would not even think were possible on their own (Bailey, 2006).

7.3.1 Safety in vulnerability

The path-dependency of change in complex systems is evident in the way local actors and volunteers were able to relate to one another in ways that local actors and power holders were not. The tendency for volunteer-community interactions to oscillate around a point of equilibrium that was more likely to satisfy the competency needs of community-level actors can be partially traced back to the humble beginnings of a volunteer. Arriving into a social and cultural context which they didn’t know their way round, volunteers would actively seek the support of local people to realise their placement goals. As a long-term volunteer called Julie describes her experience:

“It starts off with my counterpart helping me – taking a bus, language, working out who all these people are. You have not figured out motivations so you rely on this person to interpret the world around you”.

[Network interview]

The ICS volunteers didn’t have “counterparts” as such, just institutional Placement Supervisors who varied in their levels of accessibility. So, People’s Organisations, local youth representatives, *habal habal* (motorbike) drivers often became the ICS volunteers’ go-to people. As a member of a People’s Organisation explained it to me:

“The youth volunteers come to the People’s Organisations and ask for help and so we are supportive”.

[Network interview]

By virtue of being system outsiders, the volunteers were inherently vulnerable. The vulnerability manifested itself as requests from local actors for help and support, which community-level actors responded to. Low levels of competence on the part of the

volunteer created a new, more reciprocal, starting point for volunteer-community interactions, which couldn't be replicated in interactions taking place between actors from within the system. This shift to the psychological profile of the network increased and diversified actor participation, bringing more community-level actors into the collective effort. As Brown found in her research, people can't help but respond to courage and vulnerability (Brown, 2012).

In complex systems terms, volunteers created a new attractor pattern in the watershed. For example, the use of volunteers by local government increased the likelihood actors spanning bridging and linking ties would meaningfully share, deliberate and act (*"Working together for Cansungay"* case study). Enabling a multi-actor process is considered an important feature of natural resource management because it helps to raise awareness about sustainable land management (Lebel *et al.*, 2006; Carlsson & Sandström, 2008; Platform for Agrobiodiversity Research, 2013), incorporate what local people say about resource use (Fabinyi *et al.*, 2010), extend influence to remote communities and cultures (Friday & McArthur, 2010), navigate disparate objectives (Friday & McArthur, 2010), and increase redundancy in the system to buffer against the loss of actors performing management functions (Bodin *et al.*, 2006). The sensitivity that complex systems have to their starting conditions can explain why social histories kept institutional-community interactions faithful to disempowering dynamics, while requests for help from volunteers created a qualitatively different starting point for community-level actors to participate in collective action.

7.3.2 Competency in a complex social network

By taking a complexity focus on processes vs snapshots of change, we learned an experience of competency with one interaction partner didn't spill over to other interaction partners in the network. For example, it was psychologically coherent for a local youth group member to feel confident and effective with a volunteer, but not with a local power holder. This meant that network actors with low levels of competency had to experience themselves as effective in different social situations before they could interact with other bridging and linking ties with confidence (Figure 12).

Evolving a sense of competency in different social situations was a process, which required actors to transition from trying things out in a peer-to-peer and volunteer learning environments to taking social action in less safe environments. Figure 12 shows how actors liked to practise in bonding networks (e.g., with friends) before they practised with bridging (e.g., volunteers) or linking (e.g., institutional actors) social ties. For example, when I looked at the sequence of social interactions between ICS

volunteers and young people in the watershed, I noticed that the pathway to new levels of competency followed a similar pattern: meet-and greet social activities with peers, which were informal and fun (Chapter 6), followed by some sort of participation in training / capacity building sessions, led by volunteers. At this point, some local youth groups sought support from ICS volunteers to adapt events they had witnessed to initiate social action locally (Case study “*An unexpected thing*” in Chapter 8 is an example). As the social action taken by the youth groups took place in more public, visible arenas, the execution was usually more complex in terms of the power they had to navigate and the context they worked within. Each attempt served to cement the young people’s sense of competency and it gave them the exposure they needed to learn more about how the world works and their power to influence it. In educational settings, a similar approach to capacity building is called “scaffolding”, because learners are supported by educators to gradually and systematically build on new skills to help in the mastery of tasks (Wood *et al.*, 1978; Saxena, 2010).. In the watershed, local young people used interactions with volunteers as “bridge experiences”, to build the competence they needed to take action in their own locality.

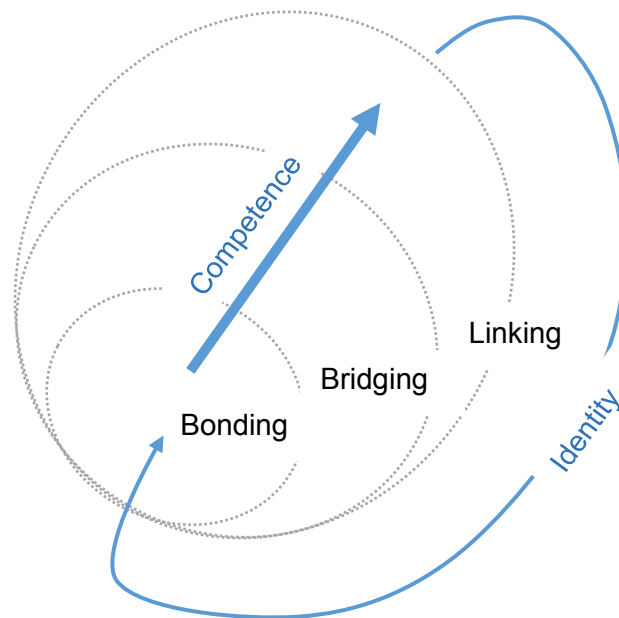


Figure 12 Scaffolding competency-enhancing experiences across social ties in a network

Other research has identified the benefits of supported learning spaces outside of peer-to-peer environments for developing and cementing new capacities in young

people. In Timor-Leste, Save the Children operated two initiatives to support the same group of children to become principle actors in solving their own issues. A review of the initiatives found that while the Children's Clubs provided training and learning in things like public speaking over a two-year period, it was the public Race for Survival event that gave children the opportunity to put their learning into practice with high level duty bearers (Liongue *et al.*, 2013). In the four months that followed the event, the young people demonstrated their continued confidence by organising a meeting between themselves and the Vice Minister of Education. They contacted the office to request the meeting and decided their own agenda without the support of Save the Children.

Finding that the psychological experience of competency was sensitive to different social ties fits with Bourdieu's idea of 'fields' (Bourdieu, 1993; Hilgers & Mangez, 2014). The sociologist describes fields as social and institutional arenas – like a network, structure or set of relationships – in which people express and reproduce different behaviour. This study finds that actors felt able and less able in different parts of the social network, suggesting that experiences of competency were permeable to social context and orthodox norms about how actors should feel about their capabilities with different interaction partners. The placement of the volunteers in the watershed was a disturbance to the orthodoxy, by creating new relational channels which manifested as opportunities for marginalised actors to seek support and experience themselves as competent.

7.4 Forging new identities

Importantly for Bourdieu, propensities for individual behaviour and social norms are continually reimagined in the interplay between agency and structure (Bourdieu, 1993). This was also true for actors in the network: there was an ongoing interplay between the competencies they displayed in discrete social interactions and how competent they felt to make things happen in the wider network.

The data suggests the transition from feeling incompetent to feeling competent in collective action was contingent on reaching a threshold marked by greater influence of trained vs socialised capacities in the network (Hilgers & Mangez, 2014). This tipping point was transformational for how individuals saw themselves in relationship to the social-ecological system. Trained capacities among community-level actors were nurtured by opportunities to 'do with' volunteers. The intrinsic motivation and placement focus of volunteers made them very goal-directed. When paired with their relational approach to catalysing collective action, the effort they expended "doing" and "getting

things done” naturally became a platform for “doing together”. This meant that actors in the volunteers’ ever-expanding social network were invited to help out with logistical issues or take part in tree planting, fundraising and capacity building.

Momentary experiences of competency accrued into capacities that were stable enough to be useful in different social situations. Members of People’s Organisations would practise with long-term volunteers and take this confidence into social interactions with institutional actors. Upward spirals of competence also influenced how effective people were:

“High self-esteem can boost self-confidence, and affect the rest of the placement. They [network actors] might be more interactive with the community, and affect the views of the community”

[Group analysis]

In this quote, the ICS volunteers are describing the cascade of effects that follow from competency-enhancing experiences, and which influence the likelihood of participation in environmental action: self-belief; more self-confidence in future situations; better community interactions; capacity to influence others in the social network. The positive effects move through personal and interpersonal spheres, building between people and within and between groups over time. For the youth group BYED, the opportunity to work with volunteers slowly changed how the group and the individuals within it thought about themselves. BYED became increasingly effective in their interactions with adults and other power holders, who they convinced to support their projects. Over time, they required less support from volunteers to negotiate interactions across linking social ties. The Leader of BYED even ran for local office. She didn’t win the election, but the exercise cemented her identity as an agent of change in the community. A systematic literature review of psychological change through participation in collective action similarly concluded that subjective changes – including self-reported empowerment, self-esteem, self-confidence and general wellbeing – are forms of identity change, with direct behavioural effects on aspects of change like extended involvement and relationship ties (Vestergren *et al.*, 2017).

When actors were working at the edge of their competence and capacity, it was not always comfortable. A Filipina girl called Melissa who was leading a small youth group in Mabini captured the moment ICS volunteers trusted in her to mobilise community-level interest in an environmental action:

“In the first place, I feel ‘ooh’. The confidence is there but I don’t know what to do. I cannot visualise myself being the responsible one”.

[Network interview]

The wider *Valuing Volunteering* project found similar cases of volunteers providing the support local actors needed to do things they had never done before. For example, in Nepal, trusted volunteers became mentors to local teachers (Hacker 2014). The teachers felt supported to try new things out without worrying if they didn't work. Instead, regular interaction with the volunteer created an opportunity to reflect on their practice. The implication is that cumulative gains in competency were contingent on positively experienced social actions and interactions, which formed new actor identities. New actor identities then effected how actors approached the next network interaction, and so on. This permeability between interpersonal and personal spheres enabled competency to accumulate in the network through reinforcing feedbacks (Figure 13).

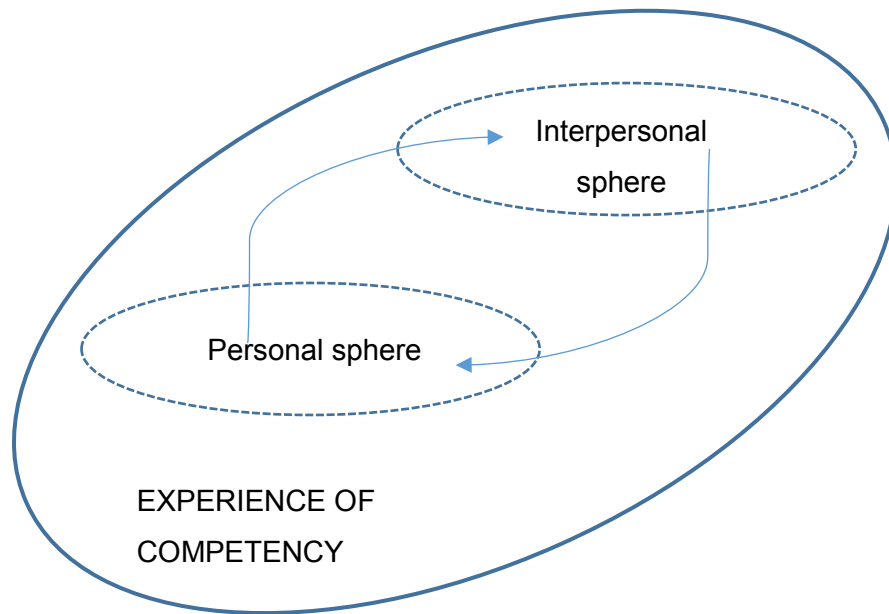


Figure 13 *Permeability between personal and interpersonal spheres in the experience of competency*

ICS volunteers recognised they could use the interpersonal sphere – mainly their social interactions – to build competency among local actors (e.g., youth groups) where it was low. One route to influencing how the individual felt about themselves was to instil pride at the community level about their identity as Boholanos (people from the Island of Bohol). One group of volunteers said they had found it effective to begin workshops recounting impressive environmental facts about the island of Bohol (e.g., natural wonders, information on diversity and endemic species). The volunteers happened upon this approach, but it aligns with existing research. A previous study examining Self-Determination Theory in work contexts found that the interactions between managers and subordinates which improved work involvement recognised how subordinates related to themselves and their efforts (Gagné & Deci, 2005). Other studies examining positive emotions have found that pride is a positive emotional experience that is felt by individuals or groups when they feel their effort is socially valued. Research has shown it expands people's belief in their potential to do greater things (Fredrickson, 2010). Through sharing what they found amazing about Bohol, ICS volunteers were invoking a positive emotional experience which Boholanos at the workshop linked to their collective and individual identities. Other research has shown that when people feel good about their community, they are more likely to feel they can do what it takes, and access the resources they need, to realise their goals (Molix & Nichols, 2013).

7.5 Shifting social norms

The effects of competency-enhancing experiences were not limited to building new capacities and identities. They increased the responsibilities that different groups in the watershed took on, presenting an alternative culture to the dominant governance paradigm in the watershed. This slowly shifted social perceptions and expectations about what marginalised groups could do, creating a new attractor basin with its own boundaries and propensities.

As a group of actors, the ICS volunteers and the local youth groups they worked with, became increasingly active and visible over cycles of volunteering. This changed how adults and people in positions of power viewed them. In May 2013, the Municipal Agricultural Officer in Pilar told me:

“Before I only realised the youth were a recipient of change. But now maybe they are a vehicle for change. They are active. They have energy. If only we could conceive of them to be part of advocates for change”.

[Network interview]

By October of that year, a senior member of staff at VSO Bahaginan argued that existing cultures were being challenged:

“After hearing about some impact in Bohol I realised we are doing an important role in transforming culture – the transformation of youth volunteers, we’ve challenged their energy into something development oriented. But also we’re transforming a culture where development roles are owned by the adults, by seniors”.

[Group analysis]

The idea that action is highly effective at challenging perceptions, assumptions and stereotypes is one familiar to those using action research to open up new possibility spaces for change in systems (Burns, 2007; Marshall *et al.*, 2011). Volunteers told me there was a psychological dynamic underpinning these shifts in perception. When attempts to make a difference go well, the successes get attributed to the people most involved. To illustrate, a Filipina ICS volunteer called Analyn explained:

“If someone is a heavy contributor you trust in them more because you see what they can do”.

[Experience map]

As with the evolution of new actor identities (Section 7.4), shifts in social norms were contingent on practical and visible action. In complexity terms, it was as though the practical and visible social action undertaken by volunteers acted as an attractor in the

system, making collective action on the environment and citizen action among young people established patterns of behaviour, rather than outliers or inconsistencies.

The formation of the Union of Carood Youth Organisations is a tangible outcome of this process. It took five cycles of volunteers to build up enough activity in enough youth groups across every single municipality, so that a union of youth groups with representation on the management council could not be dismissed out of hand. Behavioural scientists call the cognitive basis of this transition in people's attitudes "social proof" (Cialdini, 2009). As more young people took action on the environment, the more other network actors expected it of them and the more they came to expect it of themselves. This dynamic is illustrated in the feedback loop between Linking and Bonding in 12 in Section 7.3.

It was difficult to anticipate whether shifts in social attitudes and behaviour of specific network actors would create shifts in organisational cultures (i.e. would the People's Organisations ever get to set the agenda for a management council meeting?). The effective use of management council meetings by marginalised actors was still a long way off by the time this research came to an end. I suspect persisting underlying dynamics in the way the management council treated young people would have continued to limit feelings of competence in these meetings. But representation on the management council may have been an important first step in meaningfully connecting which could, in time, replace the bridging role played by volunteers. As work on effective governance programming has highlighted, state actors, are not homogenous entities. Even the most traditional governance entity has detractors – departments or particular officials – interested in distributing responsibilities for change (Fook, 2015). In the watershed, there were pioneers in the local government units of Pilar and Guindulman, who worked tirelessly to support volunteers model a more inclusive and participatory approach.

7.6 The importance of doing together

In chapter 5, I argued that longer-term, more difficult, change processes seemed predicated on more reciprocal network structures that share responsibilities. This section explores why the practise of working with others was important for developing individual and systemic competencies for collective action.

A British ICS volunteer called Donald told me a story about the one-hour presentations with interactive games that they had developed to deliver in schools and villages in

Pilar. When I asked if anything would have made the change effort more effective, Donald reflected:

“Something tangible. We were teaching, facilitating, explaining but for the listeners there was nothing for them to see. We give out information and they act on it and it is a long-term process. For example, at the elementary school we continue the pillow case project to emphasise solid waste management.”

[Experience map]

For Donald, “doing” roles were particularly effective for facilitating competency-enhancing experiences. A practical and tangible stake in collective action began to change how people saw themselves and the roles they adopted. As a British ICS volunteer called Ben put it to me:

“The doing role feels more of a contribution ... it feels like the success is down to you”.

[Experience map]

As I mention above, this focus on action – and learning by doing – is emphasised a lot in the action research paradigm (Burns, 2007; Marshall *et al.*, 2011) and in agile ways of working in innovative work cultures (Chan *et al.*, 2009). There are many ways of knowing and learning – experiential, presentational, propositional knowing – but it is practical knowing that “consummates the other forms of knowing in action in the world” (Burns, 2007: p3). And this practical knowing seems to be particularly important for wellbeing enhancing experiences like competency, both in this research (e.g., section 7.4) and in a previous study which found that practical engagement in livelihood development is what created improvements in self-esteem, confidence and communication skills (Biswas-Diener & Patterson, 2011).

The actors in the case study “*Working together for Cansungay*” in section 7.1 exhibited the best example of a social arrangement that promoted the competency of diverse actor groups, because many actors had ‘doing’ roles. Psychologically, the practise of ‘doing together’ encouraged actors to appreciate the diversity of the strengths they each brought to the change process (Section 7.2) and share in the success. The experience is similar to what distributed leadership models aim for: varieties of expertise are distributed across the many, not the few (Bennett *et al.*, 2003). In “*Working together for Cansungay*”, the “many” traversed the different sorts of social tie – bonding, bridging and linking – that characterises multi-actor participation. Interpersonally situated competence structured across the lines that typically divide people is likely to be important for adaptive governance (Bodin *et al.*, 2006). For example, it should aid knowledge transfer and consensus building (Bodin & Crona,

2009, as well as increase redundancy in the system because more actors are active and effective in the collective effort to protect natural resources (Bodin *et al.*, 2006).

When actors weren't 'doing together', the sustainability of collective action was at risk. For example, youth groups would become inactive in the weeks and months between volunteer placements. Some ICS volunteers recognised that this was because of the way competency flowed across their interactions and relationships with local youth groups. A British ICS volunteer called Abby who had helped to organise Carood Youth Fest told me she would have strengthened the impact of the event by sharing more responsibility in its organisation:

"We would have liked for the youth group to have had the opportunity to facilitate and run things for themselves."

[Experience map]

Abby is making the distinction between participating and taking responsibility, suggesting that responsibility would have led to greater competency and capacity. Surfacing these psychological dynamics did help volunteers follow the implications of their social interactions. Esther, a Filipina volunteer suggested in a group analysis session that volunteers should adapt their approach:

"Instead of saying this is how we want to help, have a dialogue".

Analyn reported back that her group had asked:

"Should the community be audience or partakers in the task?".

[Group analysis]

The process of assessing and responding to the relational context in ways that created competency-enhancing experiences was continuous and self-reflexive. It took conscious effort to intentionally blur the boundaries between different actors, their skill sets and their responsibilities. This may explain why development actors don't typically find it easy to distribute responsibilities across a network, and why the one-way nature of relationships was a prominent cross-country theme in the *Valuing Volunteering* project (Buns *et al.*, 2014). As important as distributed leadership was for creating concrete opportunities for different actor groups to experience themselves as competent, it was a demanding form of participation. It was difficult for the actors distributing responsibility and it was difficult for the actors picking up these responsibilities for the first time. Interestingly, local youth leaders could appreciate the reticence of adults and power holders to entrust an activity or project to them once they reflected on their own challenges as leaders. They told me that in order to "captivate

local active youth to become educators of Carood watershed”, they needed to “trust in those who do not exert effort ... with patience!” and provide “encouragement” [group analysis]. The youth leaders were describing how they have to create and hold the space for people to take up responsibilities and resist the temptation to plug any gaps themselves. It didn’t matter at what level of the system actors were operating within (institutional, inter-community, intra-community), the same pattern emerged: those with most influence had greatest scope to redefine the boundary conditions of the relationship. When they did subvert existing power dynamics to enable more competency-enhancing experiences, more capacity flowed around the network.

7.7 A reflection on complexity and positionality

The finding that experiences of competency were not always consistent and neatly reciprocal across network interactions may have convinced a researcher from a positivist paradigm to dismiss competency as an important experiential component of collective action. With an understanding about the role of diversity and fluctuation – particularly at the level of the individual – in promoting adaptability to change at a more systemic level (Boulton *et al.*, 2015), I was intrigued by the way actors were reporting expressions of competency in positive change stories. An appreciation of complexity theory encouraged me to extend the boundary of analysis beyond individual interactions to analyse how competency flowed between actors at the network level. A systemic competency was distinct and seemingly more important for collective action than individual competency, which has implications for the way we think about motivational processes (e.g., empowerment programmes) that foster social versus individual change.

7.8 Conclusion

In the previous chapter we learned that volunteers were particularly effective at forging the personal relationships that leveraged support and offers of help into the watershed network. In this chapter we find that collective action was also contingent upon other human considerations: how people felt about their own effectiveness when interacting with others in the network.

By examining *who* got to feel *what* with *whom*, we found a sense of competence was a particularly important experience for the least influential groups in the network, and these actors used their interactions with volunteers to access new knowledge, skills and confidence. The idea that volunteers act as “bridges” was as much about the

experience community-level actors had with volunteers as it was about the position volunteers held in the network to open doors to power holders.

Evolving competency-enhancing experiences across bridging and linking social ties was an iterative process of stepping outside one's comfort zone to realise small successes which would carry to the next social interaction or situation, and so on. This process could be helped by network actors with greatest scope (e.g., volunteers, institutional actors) to redefine the boundary conditions of the relationship. The dynamic interplay between the personal and interpersonal spheres amplified the way people saw themselves and the way others saw them. Just as psychological dynamics were permeable to social context and orthodox norms about how people should behave across different social ties, so were these norms slowly influenced by cumulative increases in the competency experienced by individuals. The findings suggested that upward spirals of competency could turn marginalised groups into critical actors with more time.

New competencies had to be 'lived' and 'felt' to activate the psychological circuitry which motivated the growth mind sets that triggered further action. This is why 'doing together' was important practise for enabling competency-enhancing experiences. The 'doing' was practical, embodied engagement with the world. And the 'together' offered the opportunities for actors to learn and appreciate each other. When 'doing together' was a feature of diverse network structures – as in the story "*Working together for Cansungay*" – a sense of competency was encouraged to flow across different social interactions and social spaces. From this reciprocity a systemic competency emerged at the network level. Distinct from individual empowerment, systemic competency resulted in shared successes, positively reinforcing interdependency in the collective nature of action.

8. Autonomy and collective action – moving together

8.1 Introduction

This chapter examines the third psychological need specified in Self-Determination Theory: autonomy. It looks at the role of autonomy in collective pursuit, answering the following research question:

RQ 5. How is collective action influenced by the experience of autonomy?

As I discuss in Chapter 2, autonomy refers to the human need to experience our behaviour connected to, rather than disconnected from, our interests, preferences and desires. Behaviour is self-determined when our interests guide our decision-making process to engage in a particular activity (Ryan & Deci, 2000a). It follows, therefore, that an individuals' voluntary engagement in collective action is helped by the expression, rather than the suppression of his / her autonomy. At the same time, autonomous individuals may present challenges for coherent and collaborative social action. For example, it's conceivable that it's more difficult to support individual's autonomy in heterogeneous vs homogenous networks where the spectrum of personal interests is broad and complex power dynamics see one actor suppress the autonomous participation of another. Studies of workplaces have identified autonomy supportive contexts and autonomy supportive relational styles which support personal coherence and motivation (Gagné & Deci, 2005; Simões & Alarcão, 2013), but I have not seen any research that has looked at the expression of autonomy across a network of diverse actors engaged in complex change work.

Like the previous two chapters, this one begins with a case study called "*An unexpected thing*", which is about an ICS volunteer advising a local youth group. The case study looks at how actors with different interests found themselves working together. I then zoom out from this specific case to consider repeatable patterns of reported autonomy among volunteers and community-level actors in change efforts. I show how volunteers were more self-directed than community-level actors, and discuss what this meant for the way environmental action was initiated and sustained in the watershed.

I then explain how the experience of autonomy in the network positively influenced collective action by (a) initiating an intrinsically rewarding feedback increasing

motivation to act (b) protecting the competency of actors in social interactions containing power and knowledge imbalances and (c) enabling actors to continuously attune to the collective effort. Through examination of these mechanisms I describe how volunteers – and their relational approach – were well positioned to help actors synchronise individual and group interests.

8.2 “An unexpected thing” case study

The story “*An unexpected thing*” was told by Olivia, a 24-year-old Filipina ICS volunteer from outside the watershed (Box 5). It was about the support she gave to a youth group called 4H Corella in Sinandigan, Ubay. Olivia gave her story the title “*An unexpected thing*” because her relationship with 4H Corella came at a time when her work to strengthen the capacity of youth groups in the watershed was not leading to any results. Olivia had a responsibility to strengthen youth groups in the municipality of Ubay and it had been troubling her that she and her colleagues “were the last ones” to establish contact with youth groups in their area of the watershed.

Box 5 Story: “An unexpected thing”

“We are working with a youth group - 4H Corella - in Sinandigan in Ubay. They contacted us to say they have a planning of activities for the coming months with the coordinator. We went there and they want to fundraise for their fiesta and church in September, so there is a Miss Corella. They told us about tree planting and Mangrove planting. From high school they know how to sew and they went to make rags to sell but they need a machine. We have been there twice and they attended the Carood Youth Fest with 4 workshops on:

- 1) financial management + fundraising*
- 2) meeting facilitation skills*
- 3) accreditation and proposed writing*
- 4) recruitment and retention of members*

We were the ones coordinating this Community Action Day. We went to talk to the 4H youth group to give a talk on Carood and think about what they learnt from the Carood youth Fest”.

Olivia was a 24-year-old Filipina ICS volunteer working in Ubay.

On the day that this story begins, Olivia was traveling to another municipality called Pilar to have a meeting when she received a call from 4H Corella inviting the ICS volunteers to a planning meeting they were having with the 4H Coordinator, Spencer. Olivia changed her plans because “she didn’t want the chance to miss them” and joined 4H Corella’s meeting to plan fundraising activities for their fiesta and church event the following month.

The leader of 4H Corella, Andrea, told me that the connection to Olivia came at a time when the group were trying to organise a fundraising event without a strong idea about how to go about it and without a network of local support they could tap for advice. Olivia and 4H Corella met a further two times. 4H Corella were invited to the ICS volunteer-led Carood Youth Fest. The event was designed to combine fun, competition and learning. 4H participated in the knowledge workshops designed to address gaps in capacity among local youth groups and they entered themselves into the Carood’s Got Talent competition. Following this event, Olivia and her work counterparts “went to talk to the 4H youth group” again “to give a talk on Carood and think about what they learned from the Carood Youth Fest”. The relationship between Olivia and 4H Corella originally pivoted around 4H Corella’s concerns to plan a local event. By their third interaction, the Carood watershed was a prominent topic of conversation.

8.2.1 Critical pathways

While the ICS volunteer and 4H Corella first met each other with different objectives, the action they took together helped to realise both of their goals. Olivia was looking for youth groups to strengthen and mobilise around environmental issues, and 4H Corella were looking for advice and support for their attempts to organise a local fundraiser. They navigated these disparate starting points well. Neither group commandeered the time or energy of the other; instead the interactions supported both sets of actors to realise their goals. Olivia got to provide education on the watershed while Helen and 4H Corella had a successful local fiesta event. I identified two critical pathways that allowed actors to work together effectively:

A sense of relatedness travelled through the network

Olivia’s social network map showed how this opportunity to meet 4H Corella arose from a series of interactions she had initiated. Following a failed attempt to reach youth groups directly, Olivia got in contact with the 4H Provincial Coordinator of all 4H groups in the area. The Coordinator put Olivia in contact with Spencer, the 4H Coordinator in Ubay, who met with Olivia and her work counterpart. This meeting with the 4H

Coordinator went well, laying the foundations for the unexpected call from 4H Corella inviting Olivia to a meeting to help plan 4H Corella's social action. Spencer described what happened:

"At first they were curious. They were advised by previous volunteer. We orient them and they orient us. Then we came up with a plan. They had a plan in educating the youth groups so we helped them with the plan and introduced them [to the youth groups]."

[Network interview]

When I asked Spencer to explain why he facilitated the relationship he said:

"We have similarities. We have common intentions for the common good. They were young also".

[Network interview]

Spencer explained that he had worked with ICS volunteers before so he had a good understanding of the value of involving them in 4H Corella's plans. For example, the coordinator had spoken at previous ICS events so he knew volunteers had experience organizing community level events. He felt the ICS volunteers were offering information about the Carood watershed that local people didn't have. He also had a comprehensive understanding of the aims of 4H Corella and the challenges they were facing. This appreciation was sophisticated, particularly when I compare it to what a lot of people in government thought local people needed or when I compare it to the expectations a lot of local actors had about what volunteers could do for them. This understanding helped Spencer establish an instant trust between ICS volunteers and 4H Corella, which helped them move quickly and effectively with one another. His brokering role illustrates how past positive experiences working with ICS volunteers served as latent potential in the social network, which accelerated the speed that change happened in this story.

Actors connected autonomously

Members of 4H Corella had decided on what they wanted to achieve before they met with ICS volunteers. Being self-directed in seeking support from the ICS volunteers was a very different psychological experience from attending a meeting because ICS volunteers deemed they were lacking capacity in some important way. Put another way, it mattered that 4H Corella called the meeting. A sense of autonomy protected the Leader of 4H from feeling disempowered in her sessions with ICS volunteers. Andrea knew she was contributing because she was bringing her goals and her particular needs in realising those goals to the meeting. She told me that:

“I have an experience but not a long way experience ... the volunteers helped us in the planning how to do it. The correct flow of this kind of event. And they gave us some strategies on how that sort of event is successful. Like ideas on how to start, give the middle and the ending of the event”.

[Network interview]

Here Andrea is explaining how she had identified the ICS volunteers as actors with knowledge she could benefit from. When I asked about how Andrea decided to request that the ICS volunteers join her planning meeting, she told me:

“If I had trust in myself would it be that successful? I am not the only one handling the event. I also need a guide on strategies, ideas and plans”.

[Network interview]

It was easier for Andrea to express her autonomy with Olivia because the volunteers were open to her plans and trusted that she could achieve what she intended. By contrast, the field notes I took following our conversation documented Andrea's autonomy was suppressed by adults in the community:

“It was hard to go to adults because they would say she [Andrea] couldn't do it. She [Andrea] couldn't move their perception beyond this in order to solicit advice. With the ICS volunteers it was different. They did ask if she thought she could do it. But after that they assisted her with the plans, based on their experience. In this instance I think the ICS volunteers played a central role ... because the adults would not have believed without seeing. And yet to make it a success the leader knew she needed to think through practicalities. The volunteers were there to do that with her”.

Over the course of their relationship, Andrea and Olivia took it in turns to take the initiative. Their respective interests could be exercised interpersonally by virtue of the trust they afforded one another. Examining the evolution of their relationship interaction by interaction Olivia felt that Andrea trusted in her expertise in a meeting where they discussed fundraising opportunities, but she trusted in Andrea at the next interaction to take on board the content she delivered on Carood watershed and share it more widely among members of the local youth group.

8.2.3 Summary

Andrea and Olivia needed each other to realise their own goals, but they each remained the architects of their own goals. This autonomous connection built from the trust that Spencer facilitated in their first interaction. The Coordinator's faith in the volunteers was a legacy of relationships past.

8.3 Patterns of autonomy in the network

In this section, I look at how autonomy flowed across network interactions. I contrast the autonomy experienced by volunteers with the absence of autonomy experienced by community-level actors. I look at the reasons why autonomy was not typically a shared social experience in the network and I explore how the autonomy profile of the ICS volunteer affected opportunities for community level actors to experience themselves as self-directed.

8.3.1 High autonomy among volunteers

Figure 14 illustrates the frequency with which volunteers reported experiencing their interactions with other network actors as self-directed. Across 153 interactions ICS volunteers felt their social interactions satisfied both interaction partners' needs to experience autonomy just over 40% of the time (Figure 14). The asymmetry in this autonomy profile towards interactions that satisfied the volunteers' need to experience self-direction in the change effort may seem surprisingly self-serving given the characteristics of the actors who drew the maps (volunteers) and the broad orientation of their effort (to help alleviate poverty). It shows how volunteers help others while also experiencing that helping behaviour as a something important to them.

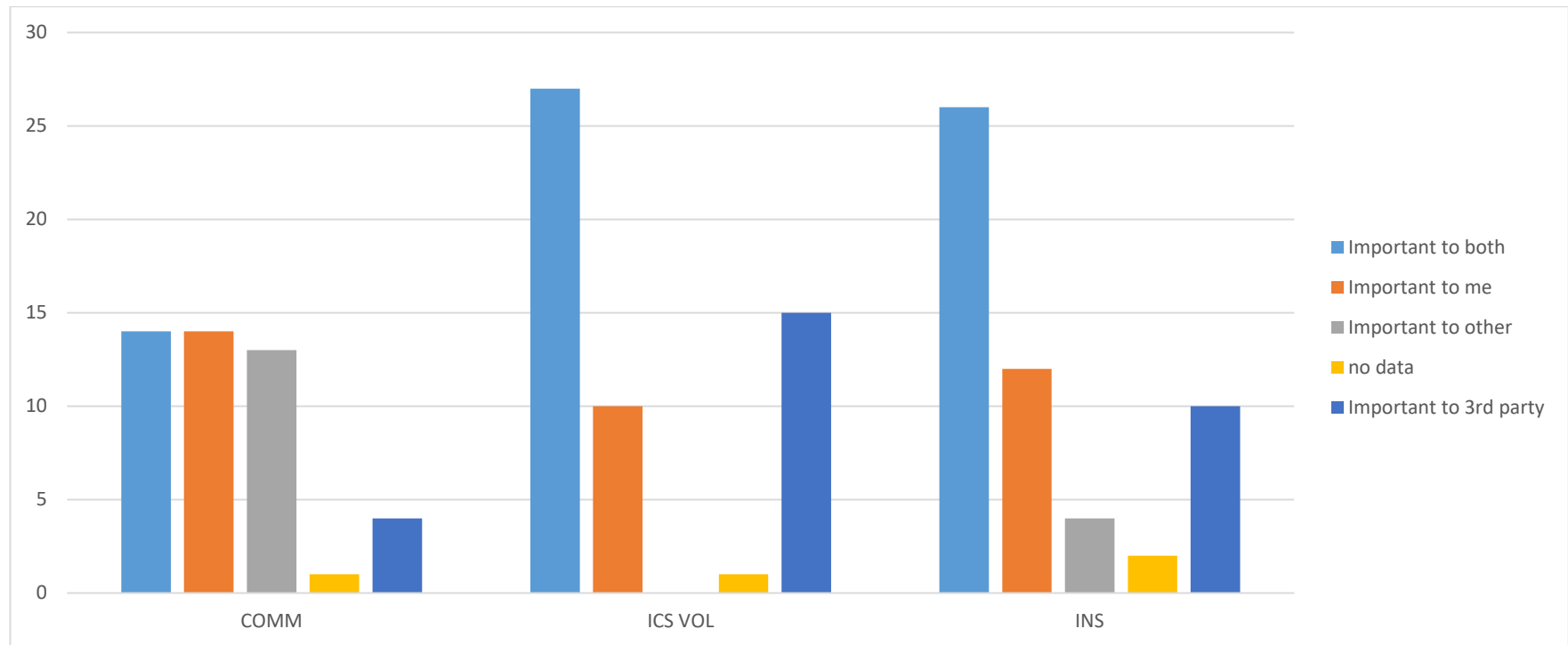


Figure 14 Frequency and interpersonal orientation of network interactions reported as self-directed by volunteers

In trying to reconcile individual goals within an environmental change framework, the temptation may be to dampen individual autonomy in collective action, elevating the importance of socially-oriented goals. But even volunteers – arguably the most pro-socially oriented actors in the network – were self-directed. The asymmetric autonomy profile may indicate something important about the motivational processes required for volunteering in complex (e.g., protecting natural resources) versus one-off change (e.g., responding to a natural disaster) contexts.

8.3.2 Low autonomy among community-level actors

The People's Organisation in Basdio first taught me about *ningas cogon*. This is a Tagalog turn of phrase to explain how development initiatives start with a lot of activity but result in nothing. The analogy is lighting long grass, called cogon. It goes up in big flames, burns really quickly, and then you are left with nothing. Everyone at the community level I spoke to about *ningas cogon* – within the watershed and on other islands of the Philippines – smiled and nodded knowingly. The watershed was replete with stories about local behaviour reversing the effects of environmental action. Fishing communities openly admitted they were cutting mangroves following their involvement in re-planting programmes. And agricultural communities were dealing with poorly executed tree planting exercises by schools taking part in the National Greening Programme. Teachers in the watershed admitted they planted trees with school children in the same spot, year on year, even though the trees got eaten by cows while still small.

The prevalence of *ningas cogon* was indicative of a participation culture that was not autonomy-supportive. When community-level actors were asked to join in government efforts or projects, they were essentially asked to comply with a pre-arranged and externally prescribed agenda, which didn't encourage local actors to set their own goals or choose their own way of solving problems. This compliance dynamic is a consequence of what psychologists studying autonomy call a "controlling" environment (Deci & Ryan, 1987). It represents a failure to nurture inner motivational resources, by recognising actors' interests, preferences and competencies. The consequence is a lack of ownership of the change process, which Burns and Worsley (2015) argue is an essential ingredient of systemic change.

The research found two behaviours that led to "controlled" participation as opposed to "autonomy-supportive" participation. The first was the relational style that actors in government typically adopted with community-level actors. People's Organisations

didn't feel able to express their opinions, ideas or suggestions at council meetings. It was not unusual for new initiatives or projects to go through the motions of developing Memorandum of Agreements without respecting or incorporating the community's knowledge or priorities. This excerpt from a discussion with a different coastal community shows how this one-way relationship between state and community actors was experienced:

Community: "We usually accept the projects but when we see the agreement it could be different."

Me: "Have you ever made any amendments to Memos of Agreement (MOAs)?"

Community: "We can't really change the MOA because they have made it."

Me: "Can you see an advantage to writing the MOA together?"

Community: "This is better. So we can share."

Me: "Share what?"

Community: "Like what kind of proposal."

[Ethnography]

Social interactions with the management council were described as the Mayors and DENR officials "directing in meetings", and the People's Organisations "having to follow" [network interview]. On asking the Chairman of a People's Organisation who regularly attended management council meetings how he felt they went he responded:

"For us POs, every meeting we are just like a puppy listening to the Mayors and DENR. They call meetings and they direct".

[Network interview]

Young people, including the ICS volunteers, also reported feeling unable to elevate their concerns above the priority level of the most powerful in the room. In a report I sent to the management council, I summarised the influence of this relational dynamic on the goals of the network:

"The CWMFMC is representative on paper but not in reality. The council operates as a hierarchical structure with more senior members instructing and ordering other members. This is slowing the progress of environmental and social change".

A very traditional command-and-control approach to leadership was culturally embedded and it restricted who got to act with autonomy in the management network. It meant that members of People's Organisations did not feel free from external pressure to make choices about the management of their natural resources. This not

only failed to use local knowledge; it also involved local actors in change processes that were not in their best interests. In a case study report for the *Valuing Volunteering* project I describe how one People's Organisation was being pressured to enter a contract with Chinese investors to develop their land for cash crop (e.g., pineapples) export to China (Aked, 2014c). I sat in on one of these meetings because it took place round the dining table in the house in which I was lodging. The relational style adopted by the political actor was imposing and persuasive but also dismissive of the concerns raised by members of the People's Organisation. Events echoed other research in the Philippines, which has shown that even when governance is devolved, it can retain and deliver ideas from central agencies about what constitutes appropriate local behaviour and action towards the environment (Pulhin & Dressler, 2009; Dressler *et al.*, 2012; Dressler, 2014). This usually involves power holders asserting pressure on local actors to get things done.

The second common behaviour that led to controlled participation was the practice of involving community level actors later rather than earlier in the process of development. This had the effect of side-stepping an important process for meeting autonomy needs: the identification of values, interests and goals so actors can choose their own way of solving problems (Deci & Ryan, 1987; Ryan & Deci, 2000a; 2000b). When local actors were not autonomously connected to the collective action, it resulted in disinterest and, worse, behaviour that would undo efforts to rehabilitate natural resources. In a tangible example to illustrate, I joined a local government initiative to plant mangroves as a way of building relationships. It was a great day in terms of cementing the relational foundations of our ongoing work together – the engine on the boat we hired broke and after an hour at sea we got washed up on a beach further down the municipality! – but it was striking that community level actors were not involved in the planting. I followed up to ask the local government about the results of the planting, following a monitoring exercise that took place sometime later. My contact reported in an email:

“I think less than 5% of the propagules we planted were dead but I have observed many are quite unhealthy due to irresponsible diggings by crab diggers that destroyed roots of young plants and larvae boring the young stems. But if I will estimate I think more or less 100 are healthy.”

[Ethnography]

A lack of autonomy on the part of the crab diggers can explain this neglect of the mangroves. The decision to rehabilitate the mangroves was imposed on them, and it was a decision that directly affected their livelihood. There is nothing personally

meaningful to actors about this way of receiving development. As such, the crab diggers didn't reorient their behaviour to help protect the mangroves. Other research has illustrated how human beings are less accountable to project outcomes when following someone else's agenda (Rowson *et al.*, 2012; Burns & Worsley, 2015), as studies of workplaces have shown, we are less invested so we care less (Spector, 1986). In the watershed, compliance with institutional programmes diminished psychological investment in an initiative so its importance never got internalised.

8.3.3 Navigating low and high autonomy

As anticipated, volunteers experienced self-direction more often in bonding social ties (e.g., with other ICS volunteers) and linking social ties (e.g., institutional actors) than bridging social ties (e.g., with community level actors). This may reflect the degree of homogeneity in the priorities of different network actors. Volunteers had similar goals around wanting their placement cycle to be a success. And the volunteers were linked into local environmental departments and institutions, so the protection of the watershed was more likely to be of automatic interest to both interaction partners in linking social ties. By contrast, the protection of natural resources was much less likely to be a top priority among community-level actors. Even though the natural ecosystems of the watershed secured the future economic base of farmers and fishermen, more pressing livelihood concerns – e.g., putting food on the table, saving crops, defending rights to resources – and environmental threats – e.g., forest fires, floods, earthquakes and typhoons – tended to win the immediate attention of community level actors. As a consequence, there was a more obvious need to navigate diverse perspectives and agendas in interactions with bridging social ties compared to interactions with bonding and linking social ties.

But what created greatest challenge to the ICS volunteers was proactively enhancing the autonomy of community level actors in a context where it had never been nurtured. As in the case of the seaweed farmers discussed in Chapter 6, ICS volunteers ended up disappointing community level actors, either because the ways they could help or the approach they took didn't meet expectations that results and solutions were going to be packaged and delivered without complementary local effort. In other instances, the autonomy of volunteers inadvertently crowded out opportunities for community-level actors to find their efforts personally meaningful. There were stories where high levels of personal motivation in combination with the support ICS volunteers received by the volunteering programme amplified their energy and focus, inadvertently taking opportunities away from other actors to express autonomy early on in the change

process. To use a theatrical analogy, it was sometimes like ICS volunteers created the stage for events to unfold, but they were the only actors who had been in the dress rehearsal. The effect was that ICS could be that bit more intentional in their on-stage interactions than actors who were being drawn in from the audience to participate.

A story told by a volunteer, Helen, about the cultural sharing with the Eskaya tribe described how the elders tried to reclaim the purpose of their interactions with volunteers, in the hope that any future engagement would satisfy their needs as well as those of the volunteers. In the action research (chapter 9) members of BYED were caught in a dynamic of reacting to the activities of the ICS programme, which prevented them from channelling the help and support of the ICS programme into the specific change they wanted to bring about. In this way, volunteers could fall into mimicking the way institutional actors involved community-level actors in change processes: at the implementation stage, rather than in the design and planning stages. This made it difficult for both sets of actors to co-evolve the efforts and priorities of one another.

At the same time, social interactions with volunteers could feel quite different for community-level actors. In the example about the Chinese investors above, Manang Divina needed an arena where she could talk through the instinctual feeling she had that the contract wasn't quite right, where she could validate or dismiss her concerns. It was the volunteer she turned to, as someone she felt she could trust herself – and the interests of PO members – with. While volunteers didn't always get it right they were more inclined to acknowledge the existence and validity of multiple perspectives and agendas in their social interactions than power holders or institutional actors with a specific agenda. When I asked Di, a locally based VSO Programme Supervisor why she thought volunteers were good at perspective taking, she said:

“When volunteers do things in a given situation, they do so with a motivation that is different from any other stakeholder in the picture. The motivation helps them to absorb so many things about the issue and how to work around it with the other people in the picture.”

[Ethnography]

This attribute was evident in stories where volunteers proactively sought the perspectives of community-level actors to inform the social action they took.

8.4 The influence of autonomy on collective action

This section discusses data that suggests actors did better – individually and collectively – when they got to experience autonomy. There were three main pathways through which autonomy influenced social mobilisation and participation in more complex social change tasks: creating personal meaning; protecting a sense of competency; and enabling continuous attunement.

8.4.1 Creating personal meaning

A sense of autonomy was particularly important for initiating participation in collective action. For example, ICS volunteers were more likely to be self-directed at the beginning of a change effort. Qualitatively, volunteers would reference an inner motivation to get an initiative up and running. In later social interactions volunteers were more likely to feel that the social interaction was important to both interaction partners about two thirds of the time. This trend towards mutually autonomous interactions was one indication of greater harmonisation of interests over time. A sense of autonomy was also important for sustaining participation. The case studies “*An unexpected thing*” and “*Evolving youth group*” showed how self-direction was a resource actors could use to tackle change processes with determination. Consider the way ICS volunteers and the youth groups persisted with the actions they had identified as important, even when they had to overcome hurdles in their relationships to do so. In other stories of change, like the case study “*Working together for Cansungay*” the autonomy needs of multiple actors’ were satisfied simultaneously, and this helped secure the determination of community level actors to persist in the collective effort to improve the local environment.

When ICS volunteers described moments in which they felt autonomous, they mentioned clarity around roles and responsibilities as something which helped make collective action personally resonate. Reflecting on the social network maps they had drawn, one ICS volunteer admitted “It only became important to me when we knew our role in it” [experience map]. Another volunteer directly related responsibility to the effort they had invested, “More responsibility ... the more driven you are to make it work” [experience map]. Community-level actors also talked about feeling “proud” when they had a hand in proceedings. The attribution of success at key milestones during a change process served as a motivational feedback to behaviour in that it encouraged actors to take on more responsibility, further amplifying levels of personal investment (Chapter 7 on forging new identities for a more detailed examination of this process).

8.4.2 Protecting a sense of competency

Analysis of the story collection found that when community level actors – youth groups, residents, seaweed farmers, university students – were most involved in events in the story, they were described by storytellers as “leaders who organised” only a third of the time. Mostly, they were described as “followers who participated”. By contrast, in the stories where volunteers were most involved in what happened, storytellers classified as “leaders who organised” over 90 per cent of the time. A version of this relational dynamic was explored across the case study sites of the *Valuing Volunteering* project. In the synthesis report, it was explained that the ‘expert’ label often assigned to volunteers perpetuated a one-way relationship where volunteers’ knowledge is perceived to be more valuable with the associated effect that local people don’t feel capable of leading development efforts (Burns *et al.*, 2014).

Surprisingly, in the watershed, one-way exchanges didn’t always reduce how competent people with least expertise felt. For example, I was surprised to find community-level actors appearing and reporting that they felt competent, even at points in the change process where they were seeking advice or help from a volunteer or local person they perceived to be more knowledgeable or powerful than them. Instances when local youth groups sought advice on specific aspects of a change process (e.g., how to find a venue, how to run a meeting) were good examples of this. In “*An unexpected thing*” and “*Working together for Cansungay*” local actors didn’t feel less valuable or capable in interactions where they were asking ICS volunteers for knowledge about event organisation or the effects of climate change, even though the social interactions were effectively a one-way transfer of information.

What I learned is that when actors from different social worlds are juxtaposed so that different sets of knowledge and experience are merged, interactions are not always equal in terms of who is contributing what. But, most importantly, actors working together for social change don’t expect exchanges will always feel equal. For example, in “*An Unexpected Thing*” the leader of 4H Corella felt it was irresponsible to only “trust in herself” to make the event the youth group was organising a success, explaining that “I have an experience but not a long way experience”. Other actors talked about being realistic about what they did and did not know, so they didn’t mind approaching perceived experts if it would help them do a better job. As Wheatley and Kellner-Rogers (1996) write:

“People don’t connect with other people to accomplish less. Behind all our organizing is the desire to accomplish, to create something more

... In life, systems create the conditions for both stability and personal discovery. It's a lovely and intricate paradox ... Sameness is not stability ... It is differentness that enables us to thrive" (Wheatley & Kellner-Rogers, 1996: p40-41).

It was possible for actors who were young or marginalised to feel capable in interactions with actors they perceived to be experts, so long as they felt self-directed. In "*An Unexpected Thing*" and the action research in chapter 9, it mattered that youth groups approached volunteers for guidance on their projects; this way the learning – and any successes that flowed from it – was owned by them.

8.4.3 Enabling continuous attunement

Importantly, the expression of autonomy did not create an irreducible tension between collective objectives and the personal interests of actors. While the autonomy of volunteers could crowd out the self-direction of community-level actors, the case studies and action research present examples where actors co-evolved efforts and priorities. Interestingly, autonomy was negotiated through actor relationships, rather than through the explicit verbal negotiation of needs and desires. It was only through networking and relationship building with actors who did value protection of Carood that community-level actors began to internalise the importance of their individual and collective action. As a member of BYED summarised:

"Our greatest achievement is that we are able to unite the young people in my community. Before, I was not interested in environment at all. I do not care. In my mind, I knew those things are important, but I never did anything about them until I became part of Basdio".

[Network interview]

This kind of shift in how community-level actors cognitively appraised environmental issues enabled them to experience subsequent environmental action as something they freely and willingly engaged with. It is why the local governments in Pilar and Guindulman used ICS volunteers to popularise environmental concerns (Chapters 5 and 6). With limited resources to affect behaviour on a mass scale, the local governments needed to find ways of self-sustaining the adoption of new behaviour. The ICS volunteers provided a certain amount of 'social proof' Cialdini, 2003; 2009) that others thought the environment was important. Studies into 'information cascades' have shown it is possible for people to reorganise their own information signals to make the choices they see others making coherent with their own values (Thaler & Sunstein, 2008). Actors in East Asian societies are more likely to rely on the actions of others to inform the decisions they make (Bond and Smith, 1996), increasing the

tendency of actors to respond to social proof information (Cialdini, 2009). Interestingly, though, more recent research suggests all cultures, even individualistic Western ones, respond to social framings of environmental issues (Weber, 2013).

It was also the case that actors internalised the priorities of those they cared about. A sense of relatedness encouraged actors to adopt the concerns of other actors with different realities and perspectives (see exploration of this in “Thick relatedness” in Chapter 6). In both cases, the relational approach volunteers took teased out something important about human motivation in social changes efforts: what is personally meaningful to actors includes what makes them feel socially relevant. Arguing that autonomous behaviour is relationally derived is a different starting place from the idea that people work most effectively together when trade-offs between actors are explicitly identified and negotiated as isolated problems and responses (Coulthard, 2012a; Coulthard *et al.*, 2011). This process has been called the “cognitive systems trap” – the belief that once we have cognitively identified the relevant system dynamics, most of the work is done. Saarinen and Hamalainen (2010) argue that acting intelligently within the system is “the lively challenge” calling for personal involvement in an interpersonal world (Saarinen & Hamalainen, 2010; p22).

This view is recognised on the fringes of academic debate about complex change. For example, the notion that collective action problems propel us at once into a dance between the personal and relational is clear in Booth’s account of solutions being “fundamentally about both sets of people finding ways to act collectively in their own best interests” rather than “about one set of people getting another set of people to behave better” (Booth, 2012: p11). Similarly, the process of finding personal meaning within the boundary of a shared social commitment has been articulated as an interactive regulatory process in descriptions of intelligent social systems (Beebe *et al.*, 2003). For example, babies are capable of creating a “joint anticipatory system” with their caregiver, which enables them to infer future behaviour and become an active partner in the process of their growth (Saarinen & Hamalainen, 2010). The infant and caregiver practise interactive regulation and self-regulation to tune into one another and work together in synchrony.

8.4.4 A reflection on my experience of autonomy

It’s worth reflecting on my own experience of autonomy here. As I talk about in the methodology chapter an emergent research design was intense, and this meant I had to be discerning about who I spent time with and which requests for help I accepted outside of the core inquiry work. I was much more motivated to spend time and help

out actors who expressed warmth and care towards me than those who I felt viewed me in an instrumental way. For example, I really had to work hard at motivating myself to attend sessions with the seaweed farmers I talk about in Section 8.3.3. I engaged with them out of a sense of obligation. I didn't find the sessions enjoyable and I would have really preferred to have been spending my time with other actors. In fact, the way I motivated myself was to think about the work and effort of a third actor – the professor at the university – whose good intentions had been misunderstood and gone under-recognized by the seaweed farmers. I actually went as far as to suggest the leader of the seaweed farmers association repair their relationship with the professor by writing a letter of thanks to him, which we as a core researcher team hand delivered. This I how I found personal meaning in the interactions I had with the seaweed farmers. Similar to some of the volunteers, the source of my autonomy was not always my own agenda or my eagerness to maintain a relationship with my interaction partner; it was wanting to help someone else.

8.4.5 Summary

There has been a long-standing debate about what to do about autonomy in collective action problems (Wood & Gray, 1991) Nurture it or suppress it through effective articulation of group objectives? In this study, I found evidence to suggest autonomy is integral to collective action rather than sitting in tension to it. This finding supports claims by other psychologists that autonomy is especially important in the context of environmental behaviour. When not motivated intrinsically, environmental behaviour is not persistent. On the other hand, when self-determination is high, behaviour is more likely to occur repeatedly (Linden, 2015). This repetition may be especially important for “across-the-board” behaviour change often required of improvements to natural resource management as opposed to single actions or small clusters of actions like recycling (Brown and Kasser, 2005) or disaster response (Mendiola, *et al.*, n.d.). The centrality of autonomy also aligns with Burns and Worsley (2015)'s account of sustainable change. From their analysis of emergent, more organic development processes, they explain that change which emanates from within the system has greater chance of taking hold rather than being rejected.

I want to emphasise the importance of a self-governing dynamic for collective action. Experiencing oneself as self-directed in relation to the behaviours and relationships of change processes is motivational. It is a psychological feedback which reinforces the meaning in what people do, which nurtures the determination actors need to initiate

collective action and overcome relational and other hurdles characteristic of uncertain change processes.

The data in this section also establishes the relational basis of autonomy: as a social species, relationships are where our interests and goals get negotiated. Each social interaction was an opportunity to adjust and re-organise personal meaning around collective goals.

8.5 Conclusions

Collective action problems raise legitimate questions about the relationship of autonomous individuals to coherent and collaborative social action. Perhaps, somewhat paradoxically, this study finds autonomy central to collective action. It regulates how actors find personal meaning in what they do and this psychological process can evolve their efforts in complementary directions.

I found that autonomy was not a zero-sum game, so it was possible for multiple actors to experience themselves as self-directed, without one interaction partner exerting undue influence over the other. Rather the boundary between self-interest and collective interest was permeable, and reliant on multiple feedbacks and adjustments between individual interests and group concerns across a network of goal-directed actors. This meant that social networks and relationships could change what actors found personally meaningful, creating opportunities to internalise collective goals as individually important.

By contrast, too much imbalance in the experience of autonomy between actors meant successes were attributed to the efforts of a few individuals, not a collective, making it difficult for marginalised actors to find reward and meaning in their effort. This could leave the social network unstable and the change process overly reliant on the presence of volunteers and institutional actors. These findings led me to emphasise the importance of self-governing dynamics at personal and relational levels of a social-ecological system that can initiate and sustain collective action.

9. Social interactions as a source of wellbeing in networks

9.1 Introduction

It has been suggested that where abstractions or generalisations are made for ease of understanding and communication, the applied, reflective and iterative nature of action research allows for abstractions to be checked and tested for resonance (Burns, 2007). What chapters 6-8 didn't show is whether wellbeing insights could be picked up and used in an intentional way. In particular, I was interested to find out whether I could intentionally nurture wellbeing through my social interactions with a local youth group, and whether the local youth group could use the same principles to get the help and support of people in their own networks. The chapter describes the action research process and its findings.

First, I describe how the action research group was set up, how often we met and the tools I used to encourage conceptual reflection on wellbeing, networks and the social change process. I present the key workshops and interactions chronologically. Then I outline the less linear conceptual journey we took to incorporate insights emerging from other the other inquiries to arrive at three action areas to nurture relatedness, competency and autonomy. The rest of the chapter describes what we did and learned in each of these areas of practice.

9.2 Forming an action research group

9.2.1 Who took part

The action research group comprised three main actor groups: VSO volunteers, youth group members and a Local Government Officer.

The VSO volunteers were me and a previous ICS volunteer called Dawn. I didn't speak Visayan, the local language, very well so the first step was to team up with someone who could help facilitate the action research process. Dawn was in her early 20s and she lived nearby. She had previously volunteered on the ICS programme in Manila. She was a translator and she helped me design group processes. Dawn's first-hand knowledge of VSO in-country, the ICS programme and the local context was very

valuable: it meant she was able to interpret local situations and comments more accurately than I would have done by myself.



Panel 10 Basdio Youth Group

The second step was to identify a group of community-level actors to work with. I became interested to meet Basdio Youth Environmental Defenders (BYED) after a few positive reports from different volunteers and the local VSO Programme Supervisor. Initially I was concerned about working with young people, because I knew they had constraints on their time and I also knew that the quality of the action research process was dependent on the capacity of individuals to engage in personal and group reflection. When we got on well in our first meeting, I had fewer concerns about our collective energy and commitment so I decided I was on a sure-enough footing to start investing research time. In the second workshop, BYED said they were really interested in social relationships to improve the youth group's effectiveness, which was good alignment with the topic of this research.

BYED were originally formed with the help of two British and one Filipino volunteer between the end of February and the beginning of May 2013. The volunteers carried out a range of team building and leadership awareness activities during their placement to form and give focus to the youth group. By the time the ICS volunteers left Bohol, BYED had elected a President, Vice President, Secretary, and Treasurer, and they had decided to work on conserving the beaches in the neighbourhood. My initial contact with BYED was brokered by Danilo, a Local Government Officer in Guindulman. Danilo was a Volunteer Placement Supervisor for the ICS programme and an active supporter of BYED and this research. I was a massive fan of Danilo. He continuously inspired me with his dedication and enormous heart. He wanted BYED to sustain momentum between placement cycles of volunteers and saw BYED's involvement with me as a

way of helping. He regularly attended meetings to reflect with the group, and also helped out practically.

9.2.2 When we met

Dawn and I first met BYED in the second half of May 2013. At the time BYED had 30 active members of whom I all met, although I would say only 5-6 systematically engaged in the action research. As a core inquiry group, we met for eight half days between May 2013 and February 2014. During this period two more cycles of ICS volunteers worked in the watershed. Table 7 describes these meetings chronologically, and lists the main activities and outcomes of each engagement.

Table 7 Meetings, activities and outcomes in the action research process

Meeting	Activities	Outcomes
First workshop – May 22 nd 2013	“Paint me a picture” about ICS volunteers Reflection on volunteer effectiveness	Relationship building Knowledge about the youth group & local dynamics affecting volunteering Agreement to continue working with one another
Relationship building – May 26 th , 2013	Coral reef review with People Organisation in Basdio	Jody makes personal connections to parents
Second workshop – May 28 th 2013	Introducing concept of wellbeing Introducing concept of social networks Exercise on personal strengths	Data on the drivers of BYED’s wellbeing and the wellbeing qualities of their relationship with ICS volunteers BYED interest in social relationships to improve effectiveness
Environmental action – Coastal clean-up in Guindulman – August 10 th , 2013	BYED and Jody participated	Members of BYED took photos for Jody, strengthening trust and mutual exchange of help / assistance
Third workshop – August 13 th 2013	Achievements and challenges mapped to wellbeing	Sharing and seeking advice on planning activities for Coronation event

Meeting	Activities	Outcomes
	<p>Planning for Coronation event</p> <p>Discussion on relationship with ICS volunteers</p>	<p>Learning about how volunteering impacted wellbeing and other aspects of their lives</p>
Fourth workshop – August 18 th , 2013	<p>Mapping networks and direction of influence</p> <p>Discussion on how to be more influential in your relationships</p> <p>Writing solicitation letters for Coronation Event</p> <p>Introducing idea of personal development goals</p>	<p>Improved understanding of their wellbeing needs, and how to support these needs in others</p>
Soliciting funds and raffle prizes for Coronation Event	<p>Jody accompanies BYED on first solicitation. They do the others themselves</p>	<p>Funds to support Coronation</p> <p>Sense of competency increases following meeting with local power holders</p> <p>Improved ability to build trusting relationships quickly</p>
Relationship building, 16 th August, 2013	<p>Mangrove planting with officer at the Local Government Unit</p>	<p>Strengthening relationship with Sir Danilo</p>
Fourth workshop – August 18 th 2013	<p>Reflection on relationship with funders</p> <p>Planning for arrival of next ICS volunteers</p> <p>Community perceptions on environment</p>	<p>Learning about relationships for change</p> <p>Gain in confidence of youth group members</p> <p>Jody more personally invested in activities of youth group</p>

Meeting	Activities	Outcomes
	<p>Session on personal development</p> <p>Planning session for Coronation</p>	
Solicitation of funds for Coronation Event – September 01 st , 2013	Jody accompanies BYED to solicit funds from local power holders	<p>A contribution to the costs of the Coronation event</p> <p>Improved confidence among BYED</p>
Fifth and sixth workshops – September 02 nd , 2013	<p>BYED write a 'menu of ideas' based on where they need help, which they will present to incoming ICS volunteers</p> <p>Jody types this document up on a computer, providing a copy to BYED and Sir Danilo</p> <p>Session on personal development</p>	<p>New perspectives on incoming ICS volunteers – as a resource that can further BYED's goals</p> <p>Realistic expectations about what the volunteers may be able to help with, based on their skills and experience</p> <p>Linking personal wellbeing of members to community and environmental wellbeing through the work the youth group does</p>
Relationship building – September 02 nd , 2013	Member of BYED teaching me how to use the fish cages	Relationship building between myself and influential male member of BYED
Coronation event – September 28 th , 2013	<p>Organised entirely by BYED</p> <p>Jody is a judge at the event</p>	<p>The event is spectacular. It is attended by the whole community</p> <p>The event raises awareness about the environment and money for the beach toilets</p>
Meeting with Leader of BYED, September 30 th , 2013	Reviewing menu of ideas and the year-end goals of BYED	Continued learning about relationships for change

Meeting	Activities	Outcomes
	Discussing how to prepare for first meeting with next cycle ICS volunteers	Observations and reflections about how the leader of BYED feels about making links to new ICS volunteers Increased confidence in the leader to express BYED interests and goals for working with the ICS volunteers
Seventh workshop, 01 st December, 2013	Describing social interactions for three sets of ICS volunteers	Learning about how BYED's interactions with ICS volunteers changed across time and across ICS cycles

In addition to the meetings listed in Table 7, members of the youth group met independently of Dawn and I over the same time period to further develop their thinking and design the actions they took locally. This action included two community-wide events to raise awareness and funds. Members of BYED also participated in meetings organised by ICS volunteers from July 2013 onwards. They also inputted into a final data analysis and prototyping workshop I held with local youth groups as part of the interpersonal inquiry that informed chapters 6-8 of this thesis.

9.2.3 The structure of our meetings

The process of examining root causes and effects demands deep thinking and levels of critical reflection that we don't typically engage in willingly. These sorts of challenges have been documented by other action researchers (Hatton & Smith, 1994; Allen, 2001) and by systemic action researchers in the *Valuing Volunteering* project (Aked, 2014a; Hacker, 2015). I found that deep reflection could reduce energy levels in a room especially when I asked people to challenge their own and other people's assumptions. The risk of 'losing face' also caused a great deal of anxiety in social situations in Filipino culture. In addition, the uncertainty and disillusionment that could follow deep reflection could leave people unsure about what to do with their learning. This is obviously not ideal for an action research process. I therefore put a lot of work into the structure of sessions to try and minimise the "brain freeze" BYED told me they experienced when having to think deeply and critically, as well as to mitigate the risk that members of the youth group felt anxious and uncomfortable participating.

Emergence is a key principle of action research that seeks to be systemic (Burns, 2007). The fact that I wasn't able to predict the direction a conversation or participatory session was going to take in advance meant I couldn't tightly structure the content of our sessions. But, I found I could structure the overall shape of our meetings to minimise the risks identified above and sustain interest and energy. Each meeting began with an energiser – a fun activity that helped us to laugh and connect emotionally with each other. And each session ended with an activity to focus on positives and chart next steps so everyone left the meetings with concrete things to do. Throughout our sessions, I tried to be sensitive to the toll the process was taking on members of the action research group. At times, we would stop and do something different because people's heads were "hurting". Staying responsive to the energy levels of the group was part of a continuous re-calibration process, which helped Dawn and myself get more realistic about what we could cover in the time we had together.

9.2.4 Getting to know each other

Previous action researchers have reflected how action research groups form for different reasons (Herr & Anderson, 2005). In this case, I approached Danilo and BYED with my research interest and we ultimately formed a mini multi-disciplinary group around that. We had some common interests – Carood watershed – and some common realities – as actors trying to inspire the help and engagement of others – which helped start our working relationship. But it was also the case that we worked intentionally to make the meetings, conversations and actions relevant to the ongoing social action that BYED had originally formed around.

The form of our meetings and engagements evolved over time. The meetings naturally fell into a pattern of us splitting the agenda in half so youth group members got some trouble-shooting support and assistance from Dawn and myself to edge their plans forward and I got to cover off some of the reflection and learning activities I had planned. Some of the youth group agenda items interlinked with the key action areas, such as strengthening relationships with local power holders. Some of my involvement in the young people's agenda items was instrumental to our relationship (e.g., a Coronation event didn't inspire me particularly, though it was culturally popular) and some of our engagements were an expression of my appreciation of their efforts (e.g., turning up unexpectedly to a basketball tournament they had organised).

From our earliest meetings, it was strikingly obvious that members of BYED didn't feel confident in their own abilities to affect change. This feeling stopped them from fully participating or trying to do things to affect change. Sometimes they expressed this

explicitly when they said they weren't sure they could take the action they could see was needed (e.g., soliciting funds or leading a meeting with ICS volunteers). At other times, they said they felt "bored" or "lazy". I had heard these phrases in the wider relational inquiry when other youth groups described how they sometimes felt taking part in ICS-coordinated activities. Dawn interpreted this language for me, explaining that "bored" can mean "not in the mood to listen" or "cannot understand the whole thing" or "tired". And "lazy" can mean "don't want to give their time to something" or that "they are not interested" or maybe that "they feel I don't belong where I am so I feel bored". From a Self-Determination perspective, the young people were expressing a lack of autonomy and competency. They felt "lazy" when they felt peripheral rather than integral to the social action. They felt "bored" or "tired" when they experienced low levels of confidence and felt they couldn't do something. A member of BYED explained how she had previously felt interacting with ICS volunteers:

"I felt so speechless that time because of their tough questions."

Dawn explained to me:

"They do not believe in themselves to try. They are not interested to develop something. They think, 'this is just what I do, maybe I won't develop more skills'. Maybe they have tried something before and it has not succeeded ... they are afraid of failure and getting it wrong ... because people criticise ... they would rather not try".

Dawn was describing a psychological barrier to participation, especially with bridging and linking ties, which is what Dawn and I represented. Having seen how volunteers navigated this psychological reality in the other inquiries it was clear to Dawn and myself that we had to invest in shared social experiences that would help us to connect authentically and reduce how much we had "to adjust one another from our differences" (as expressed by a member of BYED). As Table 7 indicates, some of our meetings outside workshop engagements were overt opportunities to build relationships. This was in addition to designing relationship-building activities into workshops.

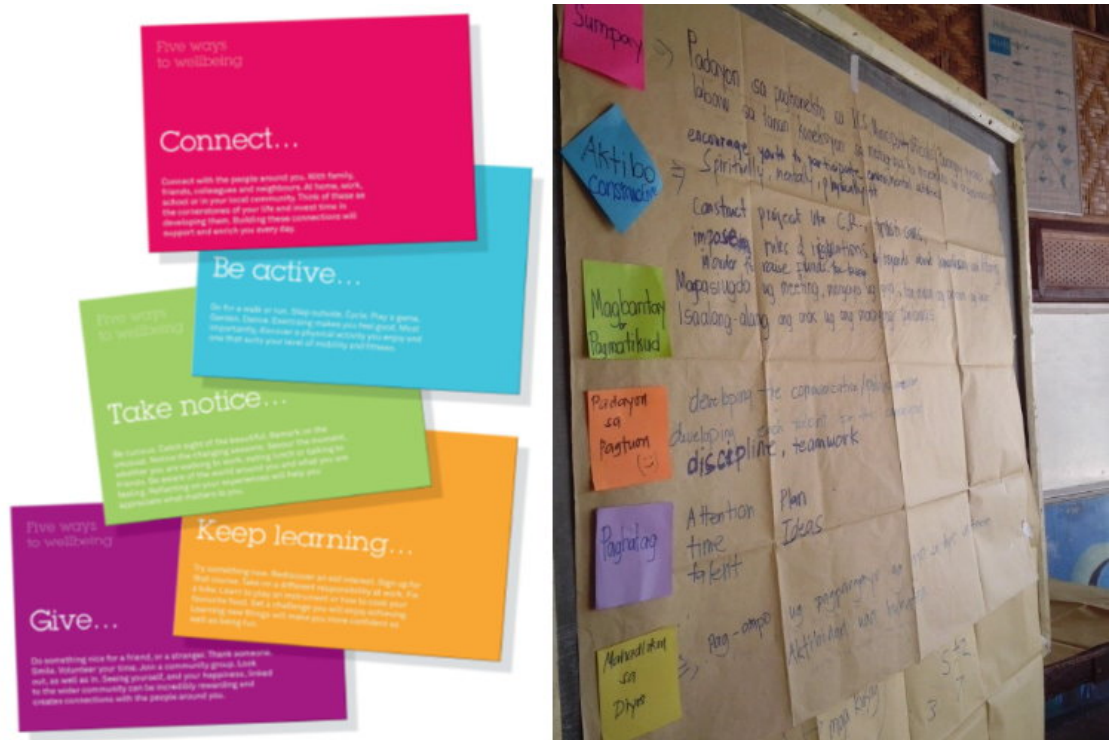
9.3 From concepts to action areas

9.3.1 Tools for generating conceptual clarity

In addition to relationship building, initial meetings were about generating conceptual clarity of the research and its concepts. In the first workshop, I ran some team-building exercises that prompted reflection on volunteering effectiveness. This was to situate

our research in a meta-research objective to understand what works and why. The session was entirely exploratory on the topic of volunteering, well-being and social change. I ran some participatory exercises to give BYED the opportunity to reflect on their journey so far, and what they had experienced personally and collectively. I was keen to understand a little bit about BYED's well-being, and particularly those aspects that had been supported and / or undermined in their engagement with volunteers and other actors in their networks.

In the second workshop, the insights generated by BYED were contextualised with theory on wellbeing. I drew the model of wellbeing I present in Chapter 2 (Figure 2) to explain the dynamic nature of wellbeing and its potential use as a motivational resource in complex social change processes. I used the Five Ways to Wellbeing framework to ground the notion of human wellbeing in concrete every-day activities. This is a framework I developed at the new economics foundation (Aked *et al.*, 2008), which has proved effective at conveying the essence of human wellbeing to lots of different groups all over the world. Members of the youth group were encouraged to reflect on their own happiness and give examples of things they do to promote Connect, Be Active, Take Notice, Keep Learning and Give. And they chose to add a sixth way to wellbeing, "God fearing" which emphasised the religious foundations to their expression of a life well lived (Panel 11).



Panel 11 Developing the Five Ways to Wellbeing framework with BYED

I also introduced the concept of social networks by asking youth group members to draw a visual map of their formation, based on who was integral to their existence and continued survival. This enabled a discussion about their relationship to ICS volunteers and Danilo, and the distillation of the group's goals. We linked the group goals back to the concept of wellbeing by running a fun exercise on personal strengths. The overall aim was to get youth group members to start thinking about the sorts of activities and experiences that would nurture them to do well individually and together.

In subsequent workshops, we built on these early conceptual foundations, exploring more fully their social networks (e.g., mapping networks and direction of influence), their own wellbeing (e.g., sessions on personal development, which related to aspects of self-determination theory) and the wellbeing qualities of the relationships they formed (e.g., reflection on relationship with funders). As the link person between the action research inquiry and the other research inquiries, I was able to look for practical ideas about how to promote wellbeing within the youth group and across its network ties as particular issues emerged.

9.3.2 Three areas for action

Over the course of our meetings, and as BYED became more involved in the process of bringing about the change they wanted to see, three discrete opportunities for action emerged to test some key insights from the other inquiries. The three action areas, research questions and action taken are described in Table 8. Together, the action areas tested the power of the social interaction to promote wellbeing, and the effects of this wellbeing on subsequent thought and action tendencies.

Table 8 *An overview of three action areas*

Action area	Research question	Action taken
Relatedness	Can we use our social interactions to leverage support for BYED's goals?	<p>Meeting with parents & guardians.</p> <p>Commissioning the mother of the leader of BYED to make a celebratory lunch.</p> <p>Frequent communication updates to local government and ICS programme.</p> <p>Attending the first fundraising meeting with potential funders.</p> <p>Frequent communication updates and requests to ICS volunteers who had returned home.</p>
Competency	Can we use our social interactions to create a safe space for members of the youth group to try new things and learn about their capabilities?	<p>Meetings with funders and community events where I supported, but in a specific and contained (rather than ubiquitous) way.</p> <p>Frequent strength-based discussions to think about who is best placed to do what.</p> <p>Opportunities for youth group members to check back their work and thinking before going 'public'.</p>
Autonomy	Can we use our social interactions to shift the learned expectation that new social connections would show BYED what to do?	<p>BYED draw what they know about incoming ICS volunteers.</p> <p>BYED organise their immediate aims and goals into a "menu of ideas" in preparation for an introductory meeting with incoming ICS volunteers.</p> <p>BYED reflect on how this introductory meeting with ICS volunteers felt compared to previous introductions.</p>

Some of the action taken was informed by things I had seen volunteers do in other parts of the watershed network. For example, ICS volunteers had taught me the importance of informal social interactions and shared social experiences to foster warm attachments across bonding and linking social ties to the social action they were taking. I was able to share this learning with BYED and we put it to test by interspersing task-oriented activities with opportunities to build authentic connections to parents and power holders. Other aspects of the action taken reflected more experimental attempts to address wellbeing gaps. For example, there was no precedent for working with local youth groups *in advance* of ICS volunteers arriving in the watershed. So, we prepared for the volunteers' arrival, exploring ways for BYED to experience more self-direction in the relationships that got built, and to what end.

9.4 What we did and learned

This section explores what we learned through the process of intentionally nurturing relatedness, competency and autonomy in our social interactions. I explore the key areas of learning through three sections: the importance of social connectedness for participation; bridging experiences; becoming self-directed.

9.4.1 The importance of social connectedness for participation

Over the first three workshops, the youth group emphasised the importance of connection and a sense of relatedness in helping them to participate in collective action on the environment. They identified three main ways relationships helped:

1. Their formation – BYED placed ICS volunteers in the centre of their drawing about what made them effective as a group of volunteers. Without the support of ICS, they wouldn't exist or be as far along as they were.
2. Their unity – For BYED, their effectiveness as a group hinged on the development of their relationships with one another. An important by-product of the time members spent together in activities organised by ICS volunteers, for example, were shared experiences from which to build a deeper sense of connection to one another: "We were united with aims and goals".
3. Their participation – For BYED, they needed to feel a sense of relatedness before they could take part. BYED reported how they didn't fully benefit from the opportunity to network with other youth groups at an ICS-led event because there wasn't much space in the day's agenda to get accustomed with one another. As one BYED member elaborated: "I felt awkward when we mingled

with other organisations. There was no ‘getting to know each other’ session. They just started”.

When BYED didn’t feel a sense of relatedness, they found it difficult to feel effective in the presence of others. When a second cycle of ICS volunteers arrived and they didn’t ‘click’ so quickly with the two volunteers tasked to support them, they asked: “*what is wrong with them?*”. Erica, the leader explained that in the:

“first meeting we are shocked by their questions and were not able to answer it all. So, from the start there was already a gap between them and us”.

We concluded that a psychological depth to their network connections pre-empted their participation and effectiveness. Once we understood the human need to experience relatedness before joining in with the efforts of others, we were able to step outside the sphere of personal experience to consider the behaviour of other actors in BYED’s social network. The discussions we had about BYED’s logo in our third session are a good illustration of this. The logo was very good and BYED wanted to digitalise it. I told them I didn’t have the skill set to help with this but the new ICS volunteers may be good with digital design, or they may know other ICS volunteers they can ask. Erica, the leader of BYED said she could ask the ICS volunteers. My field notes summarise what happened next:

“I said, do you feel comfortable approaching them [the ICS volunteers]? They said no, in chorus! I said I knew they would be happy to receive a request. I asked Dawn to share her experiences of being an ICS volunteer, working with youth groups. She said it was really nice to receive requests. This seemed to reassure the leader”.

In later workshops we explored the reservations of local power holders to invest financially and publicly in their environmental action. We discussed how BYED could help power holders to feel safe with them, both to trust in their goal and their commitment and capacity to deliver. Members took a number of actions to build and strengthen their relationships to people they thought they could not move forward without, including:

- making explicit the support they had from an internationally-recognised NGO (VSO) in their letters to local power holders.
- asking me to accompany them on a visit to a wealthy person’s house to solicit funds.
- the decision to hold a basketball contest to re-engage male members of their own group.
- the decision to send progress updates to the previous cycle of ICS volunteers taking ‘action at home’ to raise money for BYED’s beach toilet project.

In many ways, the groups' understanding of relatedness turned a traditional analysis of power and influence on its head. Members of BYED could recognise a similar need in power holders as in themselves to experience trust and a sense of connection. They concluded that the group needed to:

“Continue making connections to ICS, municipal officials, and above all connections to each one of the members of the organisation”.

Rather than examine their social network with a feeling of powerlessness, BYED could see the power they had to bring about change was residing in the energy and time they gave to crafting rewarding social interactions. When I reflect back on the evolution of my own relationship with BYED, I was not immune to their influence. I reorganised my work schedules to ensure I could accommodate the dates of community events BYED invited me to. I took my husband along to a basketball match during our vacation. And I organised the collection and currency exchange of £141.60 that returned ICS volunteers to the UK had raised for BYED.

In addition to BYED's actions, I also tried to model what I had learned with the ICS volunteers about making personal connections to influential individuals. BYED had openly discussed how parents influenced how much time they could personally give to the work of the group. This story was common to a lot of local youth groups in the watershed, making it a pertinent issue to tackle. We created ways of directly involving parents, so they could start to relate to us personally and as a group. For example, we invited a couple of parents to some early meetings so they could meet me. We decided as a group to give the food contract for our celebratory lunch to a parent. This meant they were personally invested in at least one of our meetings and they actually stayed for its duration. The parent got to appreciate first-hand the work that BYED was doing, and the recognition they were receiving from VSO and the local government. I was also lucky to share a personal interest in the remit of the local People's Organisation to protect the marine sanctuary. I accompanied members of the People's Organisation – who were also parents – on some snorkelling trips to check on the giant clams they had instated into the sanctuary some months earlier, with financial support from the local government. I took an underwater camera and we photographed the clams. I printed the photos and gave copies to the People's Organisation and the Local Government office, so the stakeholders had some documentation of their protection.

The decisions we took to invest in building trusting relationships could, at times, feel tangential to the goal of building public toilets on the beach, but we also knew that

these relational pathways were what made BYED's participation in social and environmental action possible. The iterative nature of the action-learning approach made it easy to tune into the benefits of spending time in this way, which, in turn, reinforced the relational approach that we took.

9.4.2 Bridging experiences

Baseline confidence in their capacities to effect change was especially low among members of BYED. Once we had built personal connections with one another, I started to notice how BYED used their social interactions with me to develop their thinking and action planning. For example, they brought agenda items to our workshops that they wanted help with. In the third workshop, my field notes show there was a step-change in the leader, Erica's, behaviour:

"It was the first time [Erica] had asked me for something – she asked if we could talk about the coronation. Half the overall session was given over to this. And [Erica] led this session. They asked me if I would come up with 7 environmental questions for the environmental knowledge prize. It was quite striking how much organisation had been done already. They knew how they were going to fundraise (including approaching local businesses), how many contestants they wanted, what prizes they would run. They had a date. It was all an idea that derived from them".

The leader also spontaneously co-facilitated one of my activities on well-being in this session, explaining how they had described the Five Ways to Wellbeing framework to those who had missed the previous session. It partly felt as though we had reached an interpersonal understanding that we could help one another to achieve our aims. But it was also the case that our relationship was a safe and secure foundation for the youth group to try new ideas out and receive support. At the time, this corroborated data emerging from the interpersonal inquiry to indicate the power of social interactions as informal (and low-level investment) mechanisms for cascading appealing learning opportunities to a wider group of actors. I shared this insight with Dawn who explained how interactions with volunteers were different to the interactions she typically had with classmates or parents when trying to do something new for the first time:

"In ICS people did not criticise. The British would say "you did great" and gave compliments. Even when you know you fail they gave you encouragement. It is very good and gives you more encouragement. It makes you feel 'I can do it next time'".

When BYED wanted to involve others in their social action – like incoming ICS volunteers and local power holders – they would invite me to join them in initial meetings. We structured our social interactions quite carefully, so I took the lead at the

beginning to introduce myself, the research and BYED. They would take over and introduce the project and what they were trying to do. The first meeting we had to solicit funds for the Coronation event lasted 3.5 hours! The owner had lots of advice for us and was not initially convinced. I directed as many questions as I could towards the leader and treasurer of BYED. I thought we were gaining ground when the conversation moved over from English to Visayan. I was very careful at this point to sit back. I had the impression things were going well, because the owners offered us a tour, but I didn't know the final outcome of the meeting until our meeting debrief on the journey back. My ignorance was a source of great delight to BYED, who enthusiastically showed me the money they had received. It was also an important source of their wellbeing. They felt effective because the achievement belonged to them and the sense of competence they associated with it. It was a great story for them to share during our celebratory lunch with a parent and Danilo. And the experience powered their enthusiasm to approach other resorts and home owners, without my assistance.

Over time, BYED made more public displays of their skills. For example, they organised a basketball competition which was an event for over 50 members of BYED and other young people. After this, they organised the Coronation, which was a sizeable evening event for the whole community. It raised a considerable sum of money (17,547 pesos; approx. \$350 equivalent), leaving them with a profit of 7,990.25 after expenses and the cost of the basketball tournament. In a matter of months, members of BYED had gone from being on the invite list to an ICS-coordinated "Carood Youth Fest" to organizers of their own fundraiser. Publicly visible successes seemed to play a particularly important role in amplifying the group's sense of competence. The greater the number of stakeholders who experienced the group as effective, the more 'socially validated' their evolving capabilities felt.

This increase in competence helped BYED to seize opportunities when they came up. For example, they sold 98 of their 691 raffle tickets for the beach toilet project at Carood Youth Fest. In effect, they tapped the networks of those who participated in this watershed-wide event to help further the goals of their youth group. And they exerted more influence locally, securing the participation of the Barangay captain and other neighbourhood leaders at their coastal clean-up event.

9.4.3 Becoming self-directed

In the fourth workshop, BYED mapped social networks and flows of influence, which highlighted how ICS were influencing BYED but not the other way around. I summarised in my field notes:

“At the moment, the usual way it works is that the ICS volunteers arrive and want to work with BYED but they are not sure about how to help them. They arrange workshops, trainings and events and invite BYED to them ... We talked about what it would look like to have the arrow [of influence] going in the other direction”.

The ICS activities BYED took part in were still useful experiences (“The coastal clean-up ... why proud? Because it is being trusted, because it is the first time for us to attend a coastal clean-up in the community”) but they had little control over when the meetings got scheduled or the relevance of the content. This dynamic created a practical issue for BYED. “Meeting ICS volunteers every week” got added to the long list of school commitments, local fiestas, flower making, church, dance classes, and strict parents, which used up their time and these time conflicts impacted how they studied for school.

When I considered this reality alongside the insight in the relational inquiry that ICS volunteers were seeking more guidance from local youth groups about how to help, I saw an opportunity to try a different approach. We invited Danilo, the Volunteer Placement Supervisor, to a meeting to discuss the Volunteer Placement Description that he had given to a previous cycle of volunteers. BYED had never seen a Volunteer Placement Description, even though it included an item specifically asking ICS volunteers to work with them to build the youth group’s capacity. I made the point that the item was very broad and we could proactively shape the activities that the next cycle of ICS volunteers focused on with BYED.

During the meeting, my co-facilitator emphasised from her own experience as an ICS volunteer that:

“It was really true that it was difficult to know how to work with the youth groups, how to understand what they need”.

And Sir Danilo reiterated our point, sharing that the ICS volunteers really liked it when youth groups have the initiative to make specific requests for their assistance. He explained that the ICS volunteers have a schedule with some fixed dates in it, so he could share this with BYED. He suggested:

“If BYED could develop their own [schedule], then it will make it easier to coordinate activities on dates that work for everyone”.

I shared a template schedule I requested from a VSO Programme Supervisor, so BYED could use this to make their own. I summarised in my field notes that:

“BYED asked if this would be like them being the boss. We said it was kind of like that because it was about them making best use of the ICS volunteers”.

I reflected that a planning session to prepare for the ICS volunteers was not that different from how BYED had been utilising me. I gave a couple of examples, where the group had asked me to complete discrete tasks while they retained an organiser role:

- BYED asked me to accompany them when soliciting support from local businesses because my presence would help as an “outsider”, but they identified who to approach;
- BYED asked me to write the environmental quiz for the Miss Basdio competition, but they developed the overarching competition programme;
- BYED asked me to be a judge at the Coronation event, but they convened the whole event from beginning to end.

We created the time to think about their own goals over the coming months. We wrote down all the things they wanted to achieve and we used our collective experiences to profile what the incoming volunteers would be like. We agreed that we didn’t know what they would be like as people, what skills they would have, whether they would speak the local language or how we would feel connecting with them. From past experience and the other inquiries, we did know that:

- The volunteers would have some time to help BYED;
- The things the volunteers will be able to do will depend on the individual ICS volunteers’ skills and interests;
- The ICS volunteers will spark interest and curiosity because they come from outside. This could help BYED raise their profile and convince people;
- The ICS volunteers usually connect with influential people like Mayors and other local decision makers.

Using all this information, BYED drew up a menu of ideas, which they could share with incoming ICS volunteers (Box 6).

Box 6 BYED's menu of ideas**ICS work with Basdio Youth Environmental Defenders*****Developed by Officers of BYED in line with the group's Vision, Mission and Goals***

A menu of ideas (in no special order):

- Join in Christmas carolling to advertise and fundraise for BYED
- Secure a courtesy call for BYED to meet the Vice Mayor
- Support BYED to convince parents about the value of volunteering
- Support the design and production of Christmas cards / décor for sale
- Help digitalise the BYED logo so it can be included in documents
- Seminars for personal goals of members
- Provide support to BYED in the accreditation process
- Provide support to BYED in the organisation of a coastal clean-up in Basdio
- Support BYED to sell candles to raise funds
- Help organise Basdio Youth Got Talent

Basdio Youth Group

BYED's menu of ideas is ambitious for a three-month timeframe, but it is a lot more specific than the single sentence in the Volunteer Placement Description to "build their capacity". At this point in the action research cycle, it felt as though BYED had developed a more sophisticated understanding of volunteer strengths and abilities, including their own. This understanding increased the potential for ICS volunteer action to meet the wellbeing needs and practical support requirements of BYED. This exercise also helped BYED to perceive ICS volunteers as a resource to help rather than a group who would make demands they would need to satisfy. Dawn reflected to me that this shift in self-direction was a step change:

"It's really nice because they always see the ICS as more experienced".

When we looked back at how BYED's sense of autonomy and competency had grown over three cycles of volunteers, the leader commented that "we contributed more than them [second set of ICS volunteers] because of you [Jody]" and another active member said that by the time the third cycle of volunteers were in place she felt "more active and independent".

9.5 Conclusion

Chapters 6-8 showed that the satisfaction of relatedness, competency and autonomy in network interactions were important antecedents of collective action. In this chapter I

described the action research we undertook to apply these wellbeing qualities to a specific change context: supporting a local youth group to take social action on the environment. We found that relatedness, competency and autonomy could serve as simple social interaction rules to create a qualitative shift in the collective action tendencies of actors in the youth group and the youth group's network. More broadly, examination of wellbeing prompted useful reflections about human nature, which helped the youth group work more effectively with each another and with network actors spanning bridging and linking social ties.

10. Intentional networking for collective action

10.1 Introduction

The aim of this concluding chapter is to summarise the main relational and psychological dynamics found to influence collective action in this study and identify where future research could be undertaken to bring further clarification and definition to its theoretical contributions.

The empirical insights offered in this chapter flow from an analysis of data through the lens of complexity thinking and its core concepts. Like many complex, relational systems, collective action is not a phenomenon that can be controlled (Burns, 2007), but this study finds it can be catalysed and amplified (Snowden & Boone, 2007) through the shape of actors' network connections and the quality of the social interactions that unfold. By way of a concluding chapter I provide an integrated perspective on the key findings to research questions posed in Chapters 4-9. The theoretical contributions of this thesis are discussed through five major areas of insight:

- Two stages of collective action and their respective network structures
- Catalysing collective action through network building
- Wellbeing attractors of collective action
- Social interactions as harmonisers
- Important interplays

Following this complexity-aware account of the research findings, I reflect on the tools and approaches we used in this research to understand the inherent complexity of social networks and psychological dynamics. I then revisit the methodological limitations referred to in Chapter 3 to discuss how the constraints of this study shaped its findings. I conclude the thesis reflecting on how I have advanced understanding of volunteering and natural resource management, and reimagined the horizon of future research.

10.2 Two stages of collective action and their respective network structures

Key finding: A core-periphery network spurs social mobilisation while networked reciprocity structures enable more complex social change tasks.

In Chapter 2, I emphasised how previous theory on collective action has focused on rational accounts of individual behaviour and the joint determination of group rules, which is different from an emphasis on the complex, fluid and organic ways “person-in-relation” dynamics develop. Attention given to relational structures and psychological dynamics in this study has resulted in a slightly more nuanced account of collective action – as an emergent process with discrete stages. In the course of conducting this research, it became clear that the shape and focus of collective action does not stand still. How it looks one day is different to how it looks the next, in terms of who is involved and what they are doing together. But within all this flux, the research pointed to two distinct stages of collective action: social mobilisation and social change.

Social mobilisation seemed to be a necessary first step in the watershed because action to protect it had stalled. It involved inspiring and motivating actors from across the social-ecological system to help out in natural resource protection. In this study, core-periphery networks with volunteers in central positions was an effective social arrangement for encouraging a diverse group of actors to help out. Social change was a more complex landscape than social mobilisation, requiring that actors are effective as well as active. This study found that individuals and relationships are transformed through the process of “doing together”. The outcome was a network that drove the simultaneous development of individuals and the collective. This harmonisation sustained actors’ social commitment to one another, which is an important resource for long, uncertain change processes. And it may go some way to explain why action research is argued to have transformational and emancipatory effects (Greenwood & Levin, 2007; Coleman, 2011; Burns *et al.*, 2012). This study introduced networked reciprocity as a network structure that holds more promise for enabling social change, because it distributed responsibilities for action through the process of bonding, bridging and linking network development. This was different to the actor-oriented influence of core-periphery networks, which catalysed interest and first actions.

I think the idea that networked reciprocity effectively structures more complex social change tasks is worthy of further research. Insight that gets us beyond a homogenous approach to networking would help practitioners act meaningfully to influence collective

action. It would be useful to know, for example, whether actors transition from a core-periphery network structure to a networked reciprocity structure, once human energy has been mobilised. Or whether it's the case that the long-term stability of social change is contingent on networked reciprocity and core-periphery structures co-existing. This would require a longer-term study to examine relational structures as momentum for collective action ebbs and flows across time.

10.3 Catalysing collective action through network building

Key finding: Creating the space for diverse groups of people to get to know one another is an effective starting point for catalysing collective action in social-ecological systems.

In recent years, social networks have been used as a tool to understand natural resource management, placing relationships and relational processes at the heart of effective governance (Bodin *et al.*, 2006; Bodin & Crona, 2009; Crona & Hubacek, 2010). In other fields intentional networking is increasingly being used as a tool to facilitate complex social change processes (Bailey, 2006; Schiffer, 2007; Schiffer & Hauck, 2010). In this study of volunteering, social networks were the mechanism through which new ideas and practices introduced by volunteers were translated and adopted. For marginalised actors, they were an opportunity for greater personal development and wellbeing. In transformational cases the network ceased to be transactional and offered both things to both sets of people. However, it's still uncommon to find intentional networking a starting point for many initiatives seeking change in complex environments. As Burns and Worsley (2015) write:

“A central message from a range of recent research projects is that relationships are as important as the activities themselves – because the activities flow from the relationships. This is important because there is a tendency to see relationships as forming pragmatically when the need arises for action, but in fact a lot of action arises because of the relationships” (Burns & Worsley, 2015: p49).

Similarly, previous research in communities in the UK has concluded that social relations structure the social action people take (Rowson *et al.*, 2010). So why isn't network building and the human connectivity it generates assigned more value in development? The findings of this study highlight two possibilities.

First, intentional networking didn't always generate the sort of immediate effects which project interventions could count as a significant outcome. Like complex systems generally, cause and effect were not often close in space or time. And this was true of

the relational approach that volunteers took in the watershed. Sometimes the effects of their social mobilisation efforts were obvious and tangible (e.g., multi-actor participation at a community event), but in other ways the impact of the network was longer-term and more emergent. Adaptation of ideas introduced by volunteers happened when the local conditions and context was ready for them, sometimes eight months into the future. Likewise, social norms slowly evolved in small ways so marginalised actors – like young people – felt increasingly recognised.

Second, previous work has tended to focus on how social relations, particularly those straddling large power differentials, constrain what people experience, the decisions they make and how they behave. I think this deficit-focus has encouraged practitioners to think about relationship building as something you do when your social change plans are stuck or there is a conflict of interest to resolve. This study of volunteering highlighted something more positive about the way social networks structure social action. Rather than act as a negative disruptor to the social-ecological system, which increased the opportunity costs of doing nothing, volunteering was a positive intervention, which encouraged people to self-organise along a different trajectory; in this case, one that was more participatory and collaborative. Volunteers may have been motivated by ‘doing good’ for the environment. But other actors were relationally motivated, at least in their initial acts of participation. It was through the relationships that environmental messages were heard; it wasn’t the environmental message that motivated people to connect.

There could be some cultural effects influencing the success of a relational approach in the watershed. As a group of people, Filipinos are inherently interested in social connection; psychologically social ties are an extension of the self, making an emphasis on the relational aspects of individual experience more common in Asian psychology (Aguiling-Dalisay *et al.*, 2004). That said, the need for relatedness is just as evident in the Western world (Ryan & Deci, 2000b) even if it is a human need a more individualistic culture tends to thwart (Costa *et al.*, 2014; O’Hara & Lyon, 2014). I am more inclined to conclude that environmental projects across the globe would do better if they were to incorporate the human desire to feel connected to others into their design. The ICS volunteers picked their way through constraints and resistance one relationships at a time. And this proved to be an approach the local youth group in the action research were able to adopt in their own neighbourhood. New relationships formed new attractor patterns in the system, directing a wide range of actors’ attentions and efforts in new directions. This opened up new possibilities for collaborative social action. ‘Doing together’ was an important practise for strengthening systemic

competency as something distinct from individual empowerment due to the appreciation and interdependency it fostered between actors.

10.4 Wellbeing attractors of collective action

Key finding: Promoting wellbeing through the act of network development motivates individuals to engage in collective action.

The finding that wellbeing-enhancing experiences released human energy into the collective effort is important because it provides empirical evidence for the idea that positive wellbeing is a causal factor in change trajectories; not only an outcome. Research policy and practice has increasingly lobbied for a wellbeing approach, but has been unable to define exactly what this should look like in practice (Bellagio Initiative, 2012; Helliwell *et al.*, 2013; Legatum Institute, 2014). Below I present three tangible ways we could better connect collective action to the human experiences that people find intrinsically rewarding and motivating.

10.4.1 Three simple interaction rules

The study found that three central processes of intrinsic motivation and wellbeing – relatedness, competency and autonomy – regulated collective action tendencies in networks of strangers both in the initiation phases of contact and while network connections evolved into relationships for change. The idea that relatedness, competency and autonomy govern the intrinsic motivations and long-term wellbeing of individuals is not new (Ryan & Deci, 2000a; 2000b). But the notion that the same experiences and motivational feedbacks govern how people work together from different parts of a network is a new theoretical development. It also provides empirical support for the suggestion I make in Chapter 2 that the quality of spaces and interactions that make up a network of actors also influence the power of this connectivity to support change processes.

The psychological perspective that this study brings to bear on relational systems is an important addition to social network studies, which have tended to focus on the structural characteristics of networks and actor connectivity, rather than their experiential value (Bodin *et al.*, 2006; Bodin & Crona, 2009; Crona & Hubacek, 2010). This work describes the patterns of people's connections and the content of their exchanges (e.g., knowledge, resources, support) but not how the connections come about or are sustained. For example, an interesting study examining change over time showed acts of cooperation moving through social networks (Fowler & Christakis, 2010) but it could not identify what had made that cooperation possible, beyond the

effects of connectivity. By contrast, this study teased out three psychological dynamics – relatedness, competency and autonomy – that explained changes in attitudes and behaviour. For practitioners using intentional networking as a tool for change, consideration of wellbeing and its motivational pathways will likely strengthen the stability of collaborations that new network linkages catalyse.

10.4.2 Connectedness vs separateness

It's also the case that this study echoes the findings of previous work showing that human connectivity creates all sorts of opportunities for individuals to experience wellbeing (Aked *et al.*, 2008; Stiglitz *et al.*, 2009; Fredrickson, 2013). Just as a positive sense of wellbeing moved people to engage, the very existence of the relationship – and all the new experiences and behaviour that flowed from it – was a source of wellbeing and personal development, especially for actors who were most marginalised. This is important because the vast majority of empirical work tends to approach assessments of human needs and motivations in atomised and individualised ways (O'Hara, 2001). Only a few wellbeing researchers talk about the importance of social context (Helliwell & Putnam, 2004) and the inherent connectedness of human beings (O'Hara & Lyon, 2014). In the environmental governance literature, this methodological bias has resulted in a social conception of wellbeing that emphasises trade-offs between competing conceptualisations of wellbeing (Deneulin & McGregor, 2010; Coulthard, 2012a; 2012b). This is a conceptualisation that pits one actor's set of needs against others (Ryan & Deci, 2000b), rather than examining wellbeing as an interpersonal dynamic that is apt at facilitating opportunities for fulfilment of basic psychological needs for all actor groups. Making adaptations to one's own priorities so they align with a collective is not straightforward, but the simultaneous need to feel *connected as well as autonomous* is the basis through which mutual solutions can be achieved. The integrated analysis of relational and psychological dynamics in this study was able to highlight important psychological needs which actors from different parts of a network had in common, and which weren't mutually exclusive or zero-sum games. For actors involved, drawing attention to these needs was a unifying experience rather than a polarising one, which made collaboration easier.

In terms of catalysing positive social change, it feels like there is a big opportunity for future research to think about human wellbeing from a relational perspective. This interpersonal lens will make the empirical landscape instantly more complex, but also more real. For all the pressing challenges facing mankind – natural resource management being one of them – I feel it is a moral imperative for wellbeing

researchers to embrace the inherent connectedness of human beings more explicitly in their work. It will inevitably involve a more interdisciplinary approach and a more varied methodological toolbox than wellbeing researchers have inherited from traditional social science. Combining analysis of social networks with the subjective experience of people's real world face-to-face interactions across varied change contexts could be a fruitful place to start.

10.4.3 Instant feedback in a slow system

The idea that systems adopt new patterns of interaction during periods of both gradual and abrupt change is central to social-ecological systems theory (Folke *et al.*, 2005). But it's usually surprises and crises that are depicted as creating sufficient space for reorganisation of social networks and social capital, which may form new governance systems (Folke *et al.*, 2005). This study of volunteering in the watershed was more representative of a gradual period of change. The effects of volunteering were subtle, operating on relational and wellbeing systems that then increased propensity in the larger social-ecological system for greater pro-environmental behaviour and more collaborative approaches. There was some indication that incremental shifts in identities and social norms were beginning to reshape the 'way things got done'. But the adoption of new behaviour in a slowly changing social-ecological system seemed more reliant on consciously creating responsive feedbacks for the people involved to mimic the human attention which disaster or surprise situations automatically galvanise.

The feedbacks that volunteers and other local actors relied upon to catalyse collective action in a slow-moving social-ecological system were relational and psychological rather than information-led. ICS volunteers did use information campaigns but they talked more about network and relationship building for inspiring action. And there were very sensible human and complex change reasons for this. First, the collective action problem was about how people felt collaborating with people they didn't know or feel psychologically comfortable with. Second, any positive effects of pro-environmental behaviour were not going to be immediately felt. And improvements, as they were projected to happen, could benefit others (e.g., in lower elevations) before they benefited the actors changing their behaviour (e.g., in upper elevations). This did not make knowledge of environmental risks and benefits of ecological improvement a powerful incentive for collective action. In contrast to the primacy given to the transfer of new knowledge in behaviour change approaches, this study suggests a relational approach – which pays attention to the structure and experiential qualities of networks

– is more reliable at catalysing action in situations of system stasis. This argument is bolstered by findings in some of the *Valuing Volunteering* case studies I conducted. For example, on an island called Palawan, we found that the perceived value of environmental campaigns lay in an assumption that they changed behaviour, even though information transfer could not dislodge systemic forces to influence a more sustainable approach to fishing (Aked, 2014d). And in a multi-site study of university volunteering, we learned that relationship formation made the transfer of technical expertise (e.g., in farming practices) more effective and responsive to community needs (Aked, 2014e). Collective action, then, is contingent on a symbiotic, reinforcing connection between relationships and knowledge, but relationships often serve as the catalyst for acting.

To illustrate the point, Figure 15 shows how ecological improvement was contingent on collective action, but the arc in the relationship between collective action and ecological improvement and between ecological improvement and more collective action was wide. It was a slow interaction in the social-ecological system. Volunteers created

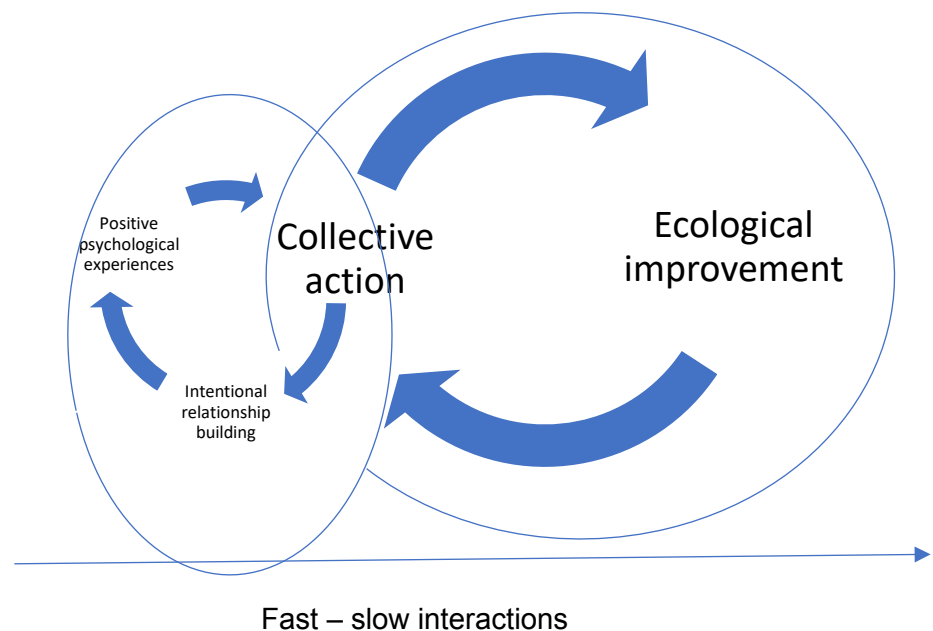


Figure 15 Feedback arcs in Social-Ecological Systems

a narrower feedback loop into collective action through their intentional networking. For example, the positive associations they built to collective action through satisfying relatedness, competency and autonomy needs created a more responsive feedback environment. It was easier for actors to fall into patterns of helping one another because they found this behaviour psychologically rewarding; more rewarding than changing behaviour for an uncertain and long-term environmental pay off. The goal-directed nature of the volunteer network meant the social action they embarked on was embedded in slower, bigger ecological change loops while also serving to invigorate faster, smaller cycles of change. As such, the creation of psychologically rewarding network connections may be particularly important for “forward-looking (anticipatory) learning” processes that help people to act in “small and fast” ways in response to uncertainty and non-linearity (Tschakert & Dietrich, 2010).

10.5 Social interactions as harmonisers

Key finding: The social interaction space tethered individual motivational processes to the relational sphere, increasing actor commitment to each other and the collective agenda.

Like previous research into human interaction at the neighbourhood level in the USA (Bailey, 2006) this study found that the antecedents of collective action were not found in Memorandum of Agreements or rules of engagement; they were found in the design of relationships. And important design components of relationships for collective action are social interactions.

In Figure 16 I revisit the model of individual wellbeing that I presented in Chapter 2 to root human motivational processes in actors’ connectedness, not their separateness. I describe a self-sustaining motivational system rooted in the interplay between actor characteristics (e.g., self-confidence) and the structural characteristics of the network (e.g., linking social ties). The influential boundary of this interplay is the social interaction space (the light blue triangle in the model). This was where actors practically engaged with one another to look after the watershed.

The way network and actor characteristics combined and recombined within this boundary space determined whether opportunities were created to satisfy actor needs for relatedness, competency and autonomy. When satisfied more often than not, these qualities of experience co-evolved personal and social change trajectories in complementary directions. When wellbeing was relationally derived actors were likely to seek out similar social interactions and interaction partners to experience

themselves as related, competent and autonomous all over again. Actors were able to approach new network connections positively (see left feedback arrow and attractor basin) and with a growth mind set so they could learn new things from each other (see right feedback arrow and attractor basin). This convergence of the relational and the psychological made it easier to harmonise individual and collective concerns across the network. The overlap of the attractor basins illustrates the inherent interconnectedness and interdependence between personal and interpersonal spheres (Section 10.6. has a more detailed explanation of this interrelationship).

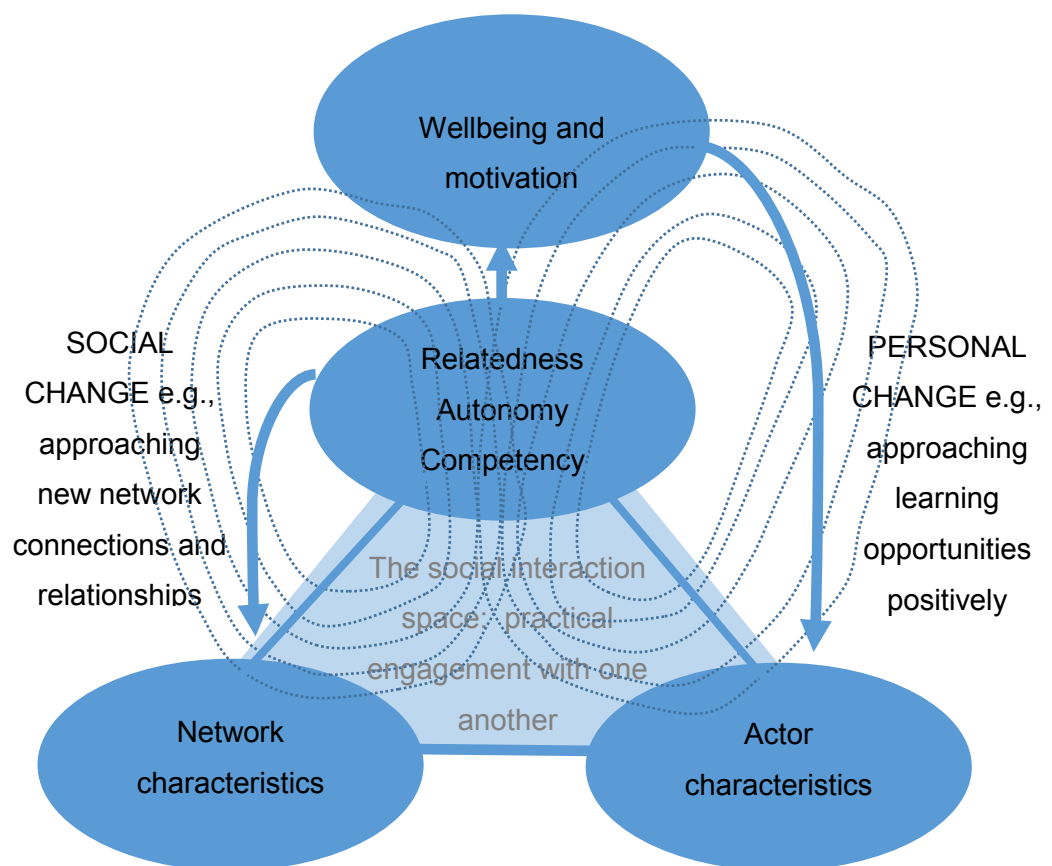


Figure 16 A model of relational wellbeing. The co-evolution of personal and social change trajectories, as mediated by the satisfaction of relatedness, competency and autonomy in social interactions

The reliability of relatedness, competency and autonomy to facilitate collective action was not anchored to specific interactions or specific actions; rather it emerged from sequences and accumulations of relational experiences. For example, a single

experience of relatedness did not translate to solidarity. An experience of competency didn't make an actor an agent of change. But when experiences of relatedness, autonomy and competency combined and recombined in the process of developing networks, actors began to behave more confidently and effectively with one another.

In complexity terms, it is probably more accurate to think of relatedness, competency and autonomy as strange attractor patterns rather than point attractor patterns.³ The qualities of experience outlined by self-determination theory were not fixed, non-negotiable rules for social interactions that characterised collective action. Actors demonstrated more psychological flexibility and resilience than this. Rather networks exhibiting collective action tendencies oscillated – with a certain degree of variability – around these experiences. For example, some interactions were characterised by “thin” relatedness and others by “thick relatedness” (Chapter 6). Some interactions were opportunities to learn and others were opportunities to express capacity (Chapter 7). Some interactions in a sequence were individually motivated while others were socially motivated (Chapter 8). It was more the case that the wellbeing-enhancing qualities of actors' relational experience defined the emotional boundary conditions of collective action, while respecting that no two social interactions are alike. When the emotional boundaries of the network veered too far away from reciprocal needs satisfaction there was a risk that one or more actors would withdraw from the collective action.

10.6 Important interplays

Key finding: Macro governance processes – e.g., mobilising social action, complex social change tasks – emerge from interplays at personal and relational levels of a social-ecological system.

In Chapter 3 I mentioned the importance of considering interrelationships across different levels of a complex system. The interplay between personal and relational levels of the system was described in my assessment of the collective action dilemma in Chapter 4. But, for reasons of clarity, I kept my examination of relational structures and psychological dynamics separate in Chapters 5-8. Here I outline four interplays between different levels of the social-ecological system which emerged in the analysis as particularly important for collective action in the watershed: (a) interrelationships

³ Burns and Worsley (2015) describe attractors as an equilibrium of social relations which form consistent patterns of behaviour. Point attractors are like valleys in a landscape, which pull certain thoughts, feelings and actions towards them. By contrast, strange attractors are not location-specific: they more subtly govern the overall direction and outer limits of behaviour in a relational system.

between relatedness, competency and autonomy, (b) interrelationships between actor characteristics and wellbeing, (c) interrelationships between social tie and wellbeing experience, and (d) interrelationships between personal development and wider social development.

10.6.1 Interrelationships between relatedness, competency and autonomy

Key finding: Relatedness, competency and autonomy were discrete psychological attractors, with some reinforcing and amplifying effects between them.

Relatedness, competency and autonomy created different thought and action tendencies (Table 9), making them all important psychological attractors of collective action. When fulfilled, relatedness, competency and autonomy promoted social integration and personal wellbeing and when thwarted they provoked social fragmentation and personal ill-being. This finding echoes previous research demonstrating both their ontological independence and their interdependent effects on human motivation and wellbeing (Ryan & Deci, 2000b), but it applies these effects to collective (versus individual) action for the first time.

To summarise, the satisfaction of psychological needs influenced the social-ecological change process in three main ways:

- A sense of relatedness drew people into the collective effort
- A sense of competency made actors more likely to act
- A sense of autonomy created greater desire for collective goals

Table 9 summarises the differential effects on thinking and behaviour at the social mobilisation and social change stages of collective action.

Table 9 *The effects of relatedness, competency and autonomy on two stages of collective action*

Psychological need	Effect on social mobilisation	Effect on social change
Relatedness	Catalysed participation	Collaboration
	Psychological safety	Social commitment
Competency	Provided “bridge experiences”	Forged new identities
	Stepped outside comfort zone to try new things	Created new social norms
Autonomy	Provided meaning	Shared successes
	Collective goals internalised as personally important	Collective learning

The three needs seemed to have their own trajectories across time, which affected when and how they influenced each other. A sense of relatedness was foundational to network activity because it incentivised actors to make use of the interaction spaces network linkages provided. It was also, therefore, a pre-requisite for social interactions that presented as opportunities for actors to experience competency and autonomy. Actors couldn't move forward together without a psychological connection to each other, supporting the centrality of trust as a first element of shared motivation in collaboration models (Emerson *et al.*, 2012). For collective action in a social-ecological system a sense of relatedness needed to grow in breadth, so it was experienced across bridging and linking as well as bonding social ties. While it has been shown that humans can experience high levels of intrinsic motivation in solitary activities (Ryan & Deci, 2000b), this study echoes previous accounts of people's “homonious tendency – that is, their desire to be integrated within a social sphere” which provides the impetus for the internalisation and integration of other's attitudes, values, and standards into one's own identity or sense of self (Ryan & Deci, 2000b: p334). The strength of volunteer's relational approach was that it widened actors social sphere to include bridging and linking social ties.

A sense of competency tended to oscillate between individuals in a network. The watershed benefited from competent actors in core network positions for mobilising collective action, but more complex social change tasks benefited from a network which found ways for a diversity of strengths to be shown and grown. Sometimes a sense of competency was reciprocally experienced but it was also possible for actors to feel competent with some interaction partners or in some social fields of the network and not in others. So long as a sense of competency was experienced often enough, this oscillation in need satisfaction did not threaten actor motivation. In fact, the research found that interactions where a sense of competency was not met were important for personal development trajectories because they were opportunities to learn. The dividends of these learning opportunities were particularly influential in forging new identities and social norms when they were quickly followed by interactions that allowed the same actors to demonstrate what they had learnt.

Individuals in a network could tolerate some needs dissatisfaction in the collective effort, but as my analysis of interactions between community level actors and power holders showed, need thwarting (the suppression of opportunities for actors to demonstrate their capacities) provoked withdrawal from collective processes. The distinction between need dissatisfaction and need thwarting in this study seemed, at least in part, mediated by the satisfaction of autonomy. Where actors felt self-directed to be in “learning” positions with interaction partners, then this experience was a growth opportunity. Where actors hadn’t the opportunity to relate a social interaction to their own values and objectives, it was much easier for interaction partners to thwart their competency needs. This is interesting, because it suggests that actors with low competence can be coached into creating competency-enhancing experiences with interaction partners that historically thwarted their competency needs. The psychological effect would be to subvert power across network ties. It is the distinction made by Ryan and Deci (2000) between “being pawns to those forces, or, alternatively, perceive the forces as being valuable, helpful, and congruent sources of information that support their initiative” (Ryan & Deci, 2000b: p13).

In addition to protecting competency needs, a sense of autonomy was important for individual actor motivations in collective action, even for volunteers who can be portrayed one-dimensionally in the literature as the personification of altruism (Unger, 1991; Burns *et al.*, 2006). Interestingly, the self and other-directed nature of peoples’ motivations fluctuated, with one reinforcing the other as individual and group priorities shaped one another continuously through time. This strengthens arguments that individual actors are more relationally motivated than discussions in western literature

around autonomy usually concede (Hoggett, 2000; Devine *et al.*, 2008). Oscillations in autonomy tracked a wider arc than oscillations in competency because actors could exert effort on behalf of actors who were not in the social interaction (e.g., children, the community), whereas the way actors talked about competency was always about the dyad. The way actors identified with the needs of others as a source of self-determination is evidence for Ryan and Deci's claim that self-governance is affected by social context (Ryan & Deci, 2000b).

When autonomy was distributed over two-way or multi-way exchanges involving more than one set of actors in a networked reciprocity structure (e.g., the volunteers, community-level actors and local power holders), everyone got to:

- do what's important to them
- learn what's important to others
- share successes and ownership of outcomes
- build competencies and capabilities.

Autonomy-enhancing experiences were particularly valuable for bringing a stability to network interactions that moved beyond the social mobilisation stage into the arena of more complex social change tasks. It was Lizzie, my *Valuing Volunteering* colleague in Nepal, that summarised the interdependence of autonomy and relatedness in her reflection on my research findings:

“Creating spaces where people are self-directed with others is really important ... because you can feel overwhelmed by what you face and change can feel so small, but with group processes it can feel very different psychologically.”

At their best, volunteers were “trusted-others” (Carver & Scheier, 1999; Ryan & Deci, 2000a) able to attract actors into the process of change, and make the relationships safe and fun so that actors stuck around long enough for everyone to learn something about their own agency. The integration of collective goals into the idea of the self-mediated actors' sense of freedom, thus protecting individual wellbeing at the same time as promoting collective agendas. One of the members of BYED summarised their autonomous involvement in social interactions as being motivated to get involved, “but for their own reasons”. The implication is that autonomy in social networks is an important psychological pathway to sustained collective action.

10.6.2 Interrelationships between actor characteristics and wellbeing

Key finding: Marginalised actors take different psychological pathways to participating in collective action, which need to be recognised and supported by an intentional networking approach.

Many of the young people and members of people's organisations in the watershed network were not accustomed to change contexts that supported their needs for relatedness, competency and autonomy. They were marginalised from change processes – either explicitly or because they were assigned passive roles – and these personal and social histories affected the shape of their pathways to collective action.

Firstly, a sense of relatedness had increased importance for marginalised actors, not so much because relationships helped them see beyond their own personal interests as other models of collaboration suggest (Emerson *et al.*, 2012), but so they felt psychologically safe to participate with actors belonging to a different social field to themselves (Bourdieu, 1993; Hilgers & Mangez, 2014). The integration of wider perspectives, values and needs followed the experience of relatedness between actors and their interaction partners. This finding cemented previous work I carried out with young people in Brazil to ask what has to happen before a vulnerable actor is able to participate? The analysis of ACER's Teen Project found that improved trust was an antecedent process to participation (Aked, 2012). A recent review of volunteering similarly concluded that social ties which generate trust make it easier for people to take part in collective action (Wilson, 2011).

A sense of competency started from a lower base and it took longer to build among marginalised actors, especially since competency in one social field (e.g., bridging social ties) didn't carry over to another social field (e.g., linking social ties). This difference to the way competency needs were met for marginalised actors is likely to be a real effect for network actors who have comparatively little confidence or prior experience of feeling confident in change processes. Likewise, discrepancies in the way autonomy needs were met for marginalised actors compared to other actors is likely to spring from situational factors. For example, marginalised actors had pressing concerns in their day-to-day lives (e.g., school work, household income), not faced by volunteers or institutional actors whose 'job' it was to protect the watershed. As a result, marginalised actors were more likely to respond to initial requests to attend meetings because they felt this was socially expected of them. With time, they internalised the collective action objectives of their interaction partners. These increments in the autonomy of marginalised actors may reflect a necessary evolution in

the psychological dynamic of a network involving historically marginalised actors. But it was also the case that volunteers were primed to take social action. They had internalised the importance of this work through the process of applying, preparing and training to be a volunteer. There was no such preparatory phase for marginalised actors, and volunteers struggled to redress this balance. Creating the space in the change process for marginalised actors to think about what was important to them was not something that came easily, even though the action research showed it was a fruitful route to meaningful participation among marginalised groups.

In summary, actors approach social interactions in a network differently, depending on who they are and who they are interacting with. If intentional networking is going to create a social context that supports individuals' potentials rather than accentuate their vulnerabilities, then some acknowledgement of different starting points is going to be important. In this study, the process of creating network maps of actor experiences prompted actors to consider social interactions from the perspective of interaction partners. This sort of subjective, but interpersonally oriented reflection, enabled actors to think about others' wellbeing alongside their own.

10.6.3 Interrelationships between social tie and wellbeing experience

Key finding: Bonding, bridging and linking social ties generated different possibilities to experience wellbeing, incentivising actors to connect with strangers as well as in-group members.

Another important interrelationship was between the network and the individual, and between the development of relationships and the development of the self. Individual actors could effectively make use of interactions across different social ties to improve their own wellbeing and chart their personal development. This was because the social interactions that took place in different social ties afforded actors different opportunities to satisfy psychological needs (Table 10).

Table 10 *Wellbeing enhancing experiences by different type of social tie*

Wellbeing enhancing experience	Type of social tie		
	Bonding	Bridging	Linking
Satisfying relatedness	A source of support, encouragement and trusted guidance	Access to new worldviews, information and behaviour	Opportunity to influence decision makers
Satisfying Competency	Safe spaces to practice doing something new	Opportunities to take risks and strengthen sense of competence	Opportunities to demonstrate and solidify new skills / knowledge
Satisfying autonomy	A reason to think something is important and worthy of effort	Opportunities to feel effort is valued by others	Opportunity to inspire and be inspired

From my analysis in Chapter 4, one may have assumed the psychological costs of engaging in bridging and linking social ties would be too high to ever make multi-actor participation in collective action viable. But as Sennett points out, the utility – “the capital” – of social networks rests in the value actors assign to the experiences they have in those social ties (Sennett, 2006). This study found plenty of evidence to suggest that psychological threats could be quickly converted to psychological possibilities if attention was paid to satisfying relatedness, competency and autonomy. The fact that social interactions with bridging and linking ties afforded actors different wellbeing possibilities served as latent incentives in the network for actors to make connections with strangers.

10.7 Tools and approaches for intentional networking

In Chapter 3, I explained that one of the objectives of this research was to choose a methodology and collection of methods that would help me and other actors make sense of complex human interdependencies and act meaningfully within them.

The process has taught me that, even in a high poverty context coupled with low awareness of complex drivers of change (Tschakert & Dietrich, 2010), there was scope for actors to increase the complexity of their mental models for understanding change (Kitchener & Brenner, 1990; Rowson *et al.*, 2010). Through the use of mapping, reflective and discursive techniques, actors were able to accommodate considerably more complexity in their accounts of wellbeing and social change than survey tools and ranking exercises in wellbeing research methodologies would lead us to believe. The capacity to understand what people are seeking to feel through their social interactions was an example of double loop learning (Tanner *et al.*, 2013), and it enabled volunteers and community level actors to be more intentional about the way they formed relationships.

A critical engagement with their approach couldn't be taught didactically; the generative effects were only realised through practical, iterative engagement in "here-and-now" social relations (Hoggett, 2000). Most noticeable was actors instinctive understanding that their subjective experiences were relationally derived and relationally affecting. The pairing of social network mapping with a psychological account of their experiences in network interactions created new possibilities for understanding and influencing one another. A psychological perspective on network and relationship development was as useful to local youth groups as it was to volunteers. For example, Basdio Youth Group used what they had learned about relatedness to encourage the involvement of local power holders in their change efforts. In understanding their own motivations better, actors understood what motivated others. The fact that the psychological needs espoused by self-determination theory are considered to be universal was an important leveller in unequal relationships. It was a valid reason for actors to start seeing similarities and not just differences across the socially constructed lines that divided them.

It has been previously argued that the act of disrupting the status quo of social networks requires some second-order learning, with the construction of every day spaces (e.g., social interactions) that operate outside the dominant culture, institutions and personalities of established power dynamics (O'Hara & Lyon, 2014). My view is that the introduction of volunteers to the watershed gave rise to these sorts of everyday spaces and the approach taken in this research created concurrent learning spaces to act purposefully in these spaces. In Chapter 6, I explored how volunteers were able to build a network of actors that lay outside the formal institution and power plays of the management council, which helped novel behaviour to emerge (Pelling *et al.*, 2008). Layered on top of volunteer's relational approach was the reflection and learning

spaces afforded through this research process. Participatory Systemic Inquiry and Action Research created a loose learning architecture for volunteers and community level actors to connect what they were learning about the dynamics of interpersonal wellbeing with experimentation in network and relationship building. The social interaction served as a useful learning focus (Tschakert & Dietrich, 2010) or “temporary time-space arena” (Kesby, 2005) to challenge and transform the way natural resources were protected in the watershed. Importantly, the multiple lines of inquiry I undertook as part of this research (see Chapter 3 for overview) enabled self-reflexive insights to be input into collective sense-making spaces. This conversation – between the individual and the collective – illuminated the important amplification effects of interpersonal wellbeing on social-ecological change and enabled a diversity of actors to take part in the learning.

10.8 Research limitations

I discussed some of the limitations of my approach and methodology in the first two chapters but it is worth explaining how I see the main limitations impacting the findings and conclusions I make in this section.

In the ethos of wellbeing theory – and its emphasis on the active, growth-oriented nature of the human organism (Ryan & Deci, 2000b) – this study has been primarily concerned with learning from what works. It provides a theoretical and empirical grounding for understanding how volunteers influenced collective action in the watershed. This has led to important insights into the motivational processes that underpin collaborative relationships, which a deficit focus on relational issues would not have revealed.

Analysis has concentrated on three components of self-determination theory to explain actor motivation in collective action. As a result, the research represents a new application of self-determination theory and it has left me feeling more confident about the fundamental nature of relatedness, competency and autonomy needs. This conclusion, however, does not negate contextual and cultural effects at play in the expression and satisfaction of these needs, requiring further research into “self-determined collectives” across different social change contexts.

It’s also worth reiterating that the focus of this research has been psycho-social processes, not bio-physical processes nor an assessment of the environmental outcomes of social action. I have examined the relational and psychological processes which explain the power of human connectivity to overcome collective action dilemmas

and I have documented what I and other actors noticed about how these processes affected cognition and collective behaviour. The effects of volunteering appeared stronger in the social mobilisation stage than the social change stage of collective action, and it is a limitation of this research that I cannot assess the long-term change impact of introducing volunteers into the social-ecological landscape.

I have had follow up conversations via email with Danilo, the Volunteer Placement Supervisor who supported the work of Basdio Youth Group in the action research. In September 2014, Danilo sent me a picture of the construction work that had begun on toilets for the public beach, explaining that “I was one of the youth’s source of energy” but it was difficult “to keep the group in good shape especially that many of them are proceeding their studies in different places”. This is an example of how my own positionality – as an engaged participant in the change process – affected how events unfolded: as I withdrew from the local action, the energy my presence created also waned, and got re-directed elsewhere.

But in September 2016, Danilo told me that the Barangay Captain of Basdio had not fulfilled her promise to allocate funding for the project completion, so the project had stalled. In a passing exemplar of stoicism – and of relational perceptibility – Danilo told me, “I’m not losing hope though, our new mayor is quite supportive and has sense of understanding of the needs of our environment and one day on a right timing I will bring this sentiment to him”. He finished the email by telling me the mangroves we planted together were now 2 meters in height, illustrating that some initiatives rise while others fall. And reminding me that analysis of the bio-physical aspects of change in the social-ecological system would have painted a fuller picture of change in the watershed.

This study has provided new insights into the ways volunteers work but the findings cannot be taken for evidence that volunteers will always positively affect social-ecological systems in the same way. This study is based on a small sample of actors in one social-ecological system. As with all complex systems It is impossible for me to say with certainty that the relational and psychological patterns I describe could predict another person’s idea of success in another system. In Carood watershed, collective action was more likely to pivot around psychological attractors of relatedness, competency and autonomy, but in a different change context – e.g., where the central dynamic was not a motivational problem – the attractors of change might look different. It’s also the case that the ease with which volunteers can satisfy relatedness, competency and autonomy needs among their interaction partners will be sensitive to dominant cultural experiences for individuals and collectives. For example, volunteers

engendered high levels of trust in the Philippines, making relatedness the first and most important psychological attractor for the network. In other contexts, like Kenya, where volunteering was less culturally revered (Burns *et al.*, 2014), the dominant attractor to engage a network of actors may be narratives constructed around competency and capacity building.

The interdisciplinary perspectives I brought to a participatory systemic inquiry and action research process enabled a depth of phenomenological analysis alongside identification of attractor patterns that have provided new academic insights into the nature of collaboration and collective action. While the subjective realities of actors were not corroborated with objective data, the strength of this study is the use of multi-layered inquiries and group analysis to illustrate the complex pathways and feedbacks that explain why some social networks enable collective action.

The study could have been strengthened by running a reflexive process at the level of the management council. Indications from the process we undertook with ICS volunteers are that it would have increased the safety and reward for actors on the management council to use their influence to positively enhance volunteer work and participation of marginalised groups in watershed governance. Unfortunately, unexpected events, including an earthquake and illness prevented the realisation of sessions I had planned to check this assumption. A future avenue for research could explore whether a more intentional process on the part of development agencies to simultaneously equip key actor groups with experiential training in wellbeing dynamics and social network mapping could improve effectiveness of social-ecological change.

10.9 Summary of research contributions and implications

To conclude, I reflect briefly on the contributions my research has made in the areas outlined in Chapters 1 and 2, including what the research findings mean for volunteering and natural resource management.

10.9.1 Volunteers as network weavers

The focus given to networking and relationship-building by volunteers may have been a pragmatic response to the situation they found themselves in, but it was an intentional act of development, which has been recognised in practitioner communities as “network weaving”:

“Weaving is the intentional practice of helping people to build and connect to more relationships of trust and value, by virtue of being

genuinely interested in building and connecting oneself to more relationships of trust and value” (Traynor, 2010: p1).

The volunteers in this study took a relational approach to development. They were exceptional at building networks and more effective at satisfying multiple actors’ needs to experience relatedness, competency and autonomy than institutional actors. This meant that volunteer-involving networks:

- encouraged the help of community-level actors and power holders;
- evolved new identities and norms for marginalised actors;
- synchronised personal and collective interests to create greater desire for change.

In so doing, volunteers created a new focus and energy for pro-environmental behaviour in the watershed. This is one of the first empirical conclusions to follow Lough and Matthew’s (2013) call for more research into the relational processes underpinning the effects of volunteering.

Aside from their explicit focus on network and relationship building, I sketch out four possible reasons why volunteers in this study were good network weavers. First, volunteers were volunteers. Actors attached morally good motivations to this identity, helping them to trust in whatever action the volunteers were proposing. As I discuss in Chapter 5, volunteering was socially celebrated behaviour in the Philippines, so people generally responded positively and got inspired by the efforts of volunteers. The volunteer identity may have been less effective at mobilising actors in other cultural contexts where volunteering was less socially desirable (Burns *et al.*, 2014). Second, volunteers were outsiders to the watershed system. This meant there was a certain degree of novelty to their presence and their approach, especially for community level actors, which increased the attractiveness of participating in environmental initiatives. They were the only actors in the system who could prioritise protection of the watershed above all other political and household considerations, which made them good at driving forward environmental protection plans. Third, volunteers were coming from a position of vulnerability. Catapulted from everything they knew into a totally novel social context, the volunteers were without their own social safety nets and people responded to this vulnerability with compassion. Fourth, the volunteers were young, and this youth was unassuming and non-threatening to power holders. Volunteers were able to capitalise on this perception of them to leverage the support they needed. The way they gathered a wide range of stakeholders including village leaders, municipal council officers, planning officers and agricultural officers to a coastal clean-up event in an informal settlement was a great example of this. Rather than exist on the fringes of society and governmental service provision, the informal

settlement became the focus of the day's events. This sort of social organising destabilised existing ways of doing things, making the volunteers surprisingly subversive.

Counter to prevailing views about the long-term nature of a relational approach in social-ecological systems (Bodin *et al.*, 2006), it didn't take the volunteers long to connect isolated actors into productive networks of exchange, especially in the social mobilisation stage of collective action. While it took focused effort to establish connection or reconnection – immersion in community life, the creation of informal social spaces – this activity didn't divert effort away from specific project deliverables for long. It took four social interactions until BYED and the ICS volunteers were able to work together in “*Evolving youth group*” case study. What we found is that the wellbeing impact of interactions was more important than the quantity of interactions. Informal arenas, face-to-face interactions and shared social experiences were particularly important. But the realisation that quality trumps quantity feels like an important discovery, suggesting it is possible to adopt more relational approaches to technical projects even within the current funding emphasis on short results-based programme cycles (NEF consulting, 2013).

What was evident is that a relational approach – and especially satisfying actors' needs to experience belonging and closeness – is more personally involving, both to the network weavers and to their interaction partners. Volunteering represented a more 'human' development built on friendship and understanding. It required that all actors make themselves emotionally available to one another, which has implications for the way development professionals approach complex change tasks and the way we conceive of personal investments in the concerns of others. That volunteers were noticeably changed by their experiences with community level actors made them more human – and more recognisable perhaps – than the development practitioner who swoops in to do a rapid appraisal of need and presents a toolkit for improvement. In an ecosystem where the motives of all those involved are not transparent – and the personal costs of investment are high – the idea that relationships established in the spirit of volunteerism can be a foundation of resilience and adaptability is worthy of further research.

10.9.2 The use of volunteering in natural resource management

Previous research on the links between volunteerism and improvements in governance of the environment is limited. In a review of the literature examining the direct impacts of volunteering on environmental outcomes in the Asia-Pacific region, I found few

studies that could chart the specific contributions of volunteers or citizen participation in efforts to more effectively govern natural resources. In Table 11, I identify four broad characteristics of good environmental governance and I map what I learned from this study about how volunteering influences them.

In essence, volunteering can be thought of as a positive disturbance to a social-ecological system, that will affect the social arrangements that get constructed around social-ecological change processes. The centrality of the relational processes to the way volunteers work puts them in a position to form ties with and between actors, cultivating an energy for participation and a trust in the process which paves the way for improved capacities and social norms around collective action.

Table 11 Summary table of the features of good environmental governance and the way volunteering can promote them

Governance feature	Example	Influencing process	Stage of collective action	Strength of evidence for volunteering
Multi-actor structure (Lebel <i>et al.</i> , 2006; Carlsson & Sandström, 2008; Platform for Agrobiodiversity Research. 2013)	Diverse participation and representation, e.g. a role for women, young people; including indigenous peoples' perspectives	"Motivated brokers" (Bodin <i>et al.</i> , 2006)	Social mobilisation	Strong
Social networks linking actors (Bodin <i>et al.</i> , 2006; Carlsson & Sandström, 2008; Weiss <i>et al.</i> , 2012)	Connections, relationships, trust, e.g. close ties of belonging; bridging and linking ties to like-minded associations and institutions of influence	Form networks of cooperation Strengthen trust through informal connections	Straddling social mobilisation and social change	Strong
Learning-oriented approach (Pimbert, 2004; Bodin <i>et al.</i> , 2006; Lebel <i>et al.</i> , 2006; Tschakert & Dietrich, 2010)	Cross-scale social learning and deliberation E.g., including a diversity of knowledge, perspectives in decision-making processes; shared experiences innovating	Increasing new knowledge Creation of safe spaces for social action	Social change	Effective at community level; limited evidence of cross-scale effects to create positive learning culture for whole network

Emphasis on social justice (Lebel <i>et al.</i> , 2006; Pulhin & Dressler, 2009; Deneulin & McGregor, 2010; Fabinyi <i>et al.</i> , 2010; Dressler <i>et al.</i> , 2015)	Attention to flow of benefits E.g., principles of democratic governance; well-being approaches	More collective memory experiences around inclusive interactions	Social change	Latent potential. Limited evidence volunteers could address equity issues without complementary action at the institutional level
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Volunteers were strongest in enabling multi-actor structures and social linkages to mobilise social action in the watershed. There may be potential for natural resource management practitioners to use volunteers as effective “motivated brokers”, which was a role identified as important in Bodin *et al.*’s study (2006):

“One beneficial structure for this [co-management] appears to be a network containing separate groups with internal trust and some degree of trust among them, linked together by motivated brokers who are interested in using their structural positions to initiate and maintain adaptive co-management” (Bodin *et al.*, 2006: p5).

Certainly, the volunteers in the watershed were much more likely to start from considerations about “what we can do” rather than “what I can gain” and other actors responded positively to this outlook. Also, the way volunteers moved out of formal and informal spheres to influence actors across the social-ecological system created an alternative relational system or “shadow network” (Leach, 2013), which self-organised around an inactive management council and transcended existing power dynamics to include marginalised and excluded actors. I don’t think the significance of this can be over-emphasised in a Filipino context where devolved structures like Community-Based Forest Management Areas have paradoxically become ways for central agencies to restrict the ability of local users to govern forests (Dressler *et al.*, 2012; Dressler, 2014). To negate elite capture of benefits “shadow” networks need to contain brokers who uphold the values of democratic governance in the way they bridge and link different stakeholders. Bodin *et al.* (2006) suggested the broker needs to be an actor who can move fluidly between formal and informal processes like the volunteers could. The *Valuing Volunteering* project referred to this attribute of volunteering as the

merging of outsider and 'insider' knowledge and described it as being particularly powerful when volunteers acted to increase trust between actors, increase proportional strength of people living in poverty and link marginalised groups to power holders in safe ways (Burns *et al.*, 2014).

There was strong evidence that volunteers created social spaces for marginalised actors to learn about environmental management in relatively safe environments, but evidence on the extent to which this encouraged the whole network – and especially power holders – to adopt a learning approach was limited. Volunteers did bring new knowledge to diverse and marginalised communities in the watershed. And they did create opportunities for community level actors to practise at making change happen. But learning at the community level didn't generally become a process where multiple actors (with differing levels of power, experience and confidence) meaningfully shared, deliberated and acted. Pelling *et al.* (2008) have argued that "shadow spaces" resting at the boundary of more formal institutions and relationships are effective for learning when they are "officially recognised but allowed to have a life of their own". The volunteer networks did have a life of their own and actors in volunteer networks became increasingly critical to the process of environmental action but it would be a stretch to say these spaces were recognised and welcomed by the management council. The volunteers may have created latent potential for future processes of social learning (Benequista & Gaventa, 2011); if they did, the effect emerged after this research came to an end.

Likewise, volunteers included the perspectives of marginalised actors, and they modelled an appreciation of these perspectives, but evidence on the extent to which this role of ally transformed the way environmental management was done was slight. Learning and social justice are attributes of complex social change tasks and I think there is still more work to be done to identify who else needs to be acting – and in what ways – to cascade the more equitable behaviour volunteers modelled through existing power structures. For example, in the watershed, I identified a specific role for VSO, as an institution, to ready and support actors in positions of responsibility who lacked capacity to respond to citizen-led initiatives (Aked, 2014c). As I identified in Chapter 8, these systems confined marginalised actors to the role of beneficiary with no formal route for them to participate and advocate for their priorities. The way VSO engaged with the management council in the set up and evaluation of the volunteer programme was an opportunity to espouse different standards of democratic governance and bolster the influence of volunteers. Existing public actors or project managers of natural

resource governance processes could also work in tandem with volunteers to create positive learning cultures that welcome a diversity of perspective.

The overall effect of bringing volunteers to the watershed in this study was a network of actors more energised and unified in their pursuit. This outcome appears especially important for natural resource management contexts where environmental outcomes rely on diverse actors moving in coherent and complementary directions. The implication is that volunteering may be under-utilised as a tool for managing natural resources, especially in catalysing multi-actor participation and collaboration. Further research is recommended to examine how the introduction of volunteers affects collective action in different governance communities and contexts.

10.9.3 Implications for the volunteering sector

“People are the essential agents that make up complex social systems. Knowledge about social systems dynamics is rooted in their experiences and is held by them” (Burns & Worsley, 2015: p46).

In this study, I have shown that to understand the value of volunteering as a tool for change, you have to begin with understanding people: what inspires them and what drives them. There is little more rewarding than feeling like an important contributor to something bigger than yourself. And there is little more energising than good relationships.

The fact that our log frames and technocratic approaches to development have become so abstracted from the realities of complex social change is not the fault of the volunteering sector. But it does make the way volunteer programmes try to conform to these linear, mechanistic approaches problematic. In the watershed, volunteering was an investment of human resource into a multi-disciplinary team effort. It brought momentum and vigour to the change process. The effect was potent, but not in the way volunteering is typically conceptualised or supported.

First, volunteering is presented as a tool for poverty alleviation (VSO, 2014) when it is not. As a self-contained tool, it is too limited to solve complex social problems, which need political overhauls, wealth distribution and better economic models. It can, however, make the process of change more affecting and absorbing. And this is essential for realising the known benefits from active participation in development (Gaventa & Barrett, 2010; Benequista & Gaventa, 2011). In the case of the watershed, it energised actors to work together in new ways. In a report I compiled for national stakeholders in poverty-alleviation and volunteering agencies in the Philippines, I wrote:

“Supporting change to happen in complex poverty environments is a slow process. We found that volunteers lend much-needed energy to development journeys. Through fostering relationships built on solidarity, shared experiences and a motivation to work for the common good, volunteers can become important allies to people living in poverty. If fully maximised, the links volunteering creates between marginalised communities and socially respected institutions (e.g. universities, NGOs) can legitimise marginalised concerns and improve support for pro-poor development. This role is particularly important in communities that have been negatively affected by national development efforts and who lack the knowledge and self-belief to approach government departments and other powerful decision-makers on their own” (Aked, 2014b: p6).

Often a first step of development is to get people actively involved. Practical engagement in the world is the praxis by which wellbeing dividends, new knowledge, and alternative movements that can counteract and influence dominant paradigms evolve. Volunteering is excellent at providing a platform for this practical engagement – and it should be used in more focused and specific ways to amplify development processes. This does not include the mindless placement of volunteers to add numbers and experience to existing programmes of work. It means integrating volunteering – and its positive effects – more intelligently into existing development approaches.

Second, volunteering is treated like an individual activity when it is inherently relational. The findings of this thesis provide good reason to elevate the primacy of the relational sphere and interpersonally situated experiences in the way volunteering is done and evaluated. The need to consider the person-in-relation is not a new idea; it’s just not a very popular one in current development discourse. Complexity and systems thinkers have suggested that intersubjectivity precedes subjectivity (Wheatley & Kellner-Rogers, 1996; O’Hara, 2001). Thinkers in systems intelligence have argued that intelligent, adaptive systems are born out of the relationship functioning well (Saarinen & Hamalainen, 2010). In the mother-infant system it is “the dyad, rather than the individual, that is the unit of organization” (Beebe & Lachmann, 2002: p67). In social policy work, individualised definitions of wellbeing have been rejected in favour of a “subject” who is “a concrete, embodied, individual being engaged in here-and-now relations” (Hoggett, 2000: p9). Just as early human development is dependent on capabilities in dimensions such as attunement, mutual regulation and influence and coordination, this study also points to these ways of being and doing with others for collectives to work effectively. However, this reality is far removed from how the sector assumes volunteering works. Recruitment processes, placement descriptions, volunteer support systems are usually designed to serve individuals and evaluations are focused on adding up the contribution of the volunteers’ effort into an artificial

aggregate effect. The existence of relationships is not acknowledged in theories of change and the quality of relationships is not considered as a proxy for sustainable change.

A tangible example of this oversight in the watershed was the focus on the intervention (the volunteers) and not on the effects the volunteers had in the system. As catalysts, the volunteers created new attractor patterns in the watershed, increasing participation and collaboration tendencies. But there was nothing in place in the project to respond to a surge in human activity. VSO were not poised to respond to the resource needs of those participating from the fringes of society once the volunteers got them engaged and the management council were not ready to respond positively to a more inclusive and participatory governance landscape. The institutional actors had anticipated how to introduce volunteers, but not their effects. So, most of the resources were funnelled towards the individual volunteers, instead of amplifying the effects of the relationships and collaborations they created. To support the relational nature of volunteering more effectively, VSO could have recruited volunteers to teams of local actors rather than to stand-alone placement descriptions. Officially recognising that some placement time will be spent interacting in the informal sphere may have also helped to legitimise a relational approach, as well as encourage the use of tools to help volunteers optimise social networks for change.

But more fundamentally, I think these findings point to a bigger piece of work for the volunteering sector. In recent years volunteering agencies have been trying to conform with the “methodological individualism” of mainstream economic thinking (Devereux & McGregor, 2014) and the atomistic way current paradigms in research treat people as separate functional units with specific needs (O'Hara & Lyon, 2014). The consequence has been a reduction in core funding to many long-standing international volunteer cooperation organisations (Lough & Matthew, 2013). One of the difficulties is that volunteering doesn't conform so easily to results-based programming and logic models. As an investment in people's connectedness and interdependence, volunteering is unpredictable because its success is dependent on the simultaneous effectiveness of individuals and collectives. The relational complexity of volunteering – and its subtle and sometimes slow effects doesn't readily comply with the conventions of order, so that specific effects can be planned on the basis of desired outcomes or something that worked in the past (Snowden & Boone, 2007).

The value of volunteering is more coherent when you are ‘in it’ because you can sense the energy that it creates. By switching ontologies, from seeing volunteering systems as ordered to seeing them as inherently complex, I have shown that volunteering isn’t mysterious; it can trigger very real effects in the way people respond to a change process and how they work together to make that change happen. Importantly, this sort of skilful social behaviour (Sennett, 2012) and social innovation (Moore, 2015) is missing in technical approaches to development. As a group of organisations working to enable development through human exchange, the volunteering sector is uniquely placed to be having a bigger conversation with funders about the nature of complex change and its relational basis.

10.9.4 Implications for natural resource management

In the Philippines, approaches to resource management are ecosystem-based – e.g., focused on the watershed. This follows a wider global trend for ecosystem-based management to act as a guiding principle and goal of policy and practice (Colls *et al.*, 2009). However, knowledge about how to manage the dynamics of whole ecosystems is lagging the adoption of an ecosystem-based approach (Oserblom *et al.*, 2017).

This study has identified some important human characteristics and challenges of ecosystem-based management which have implications for the effectiveness of this approach. A whole ecosystem (e.g., watershed) perspective created very real social and psychological issues for actors, which resulted in system inertia rather than system adaptation. Micro-level human factors – the way people feel with one another; the way they respond to each other – have very real consequences for the environmental action that is initiated and sustained in a social-ecological system. Relationships that support wellbeing may be the engines of ecosystem-based management approaches because they make environmental processes personally rewarding and socially meaningful. I can think of one potential exception – indigenous communities – who have a much more integrated understanding of environmental and human wellbeing (Apgar, 2010; Platform for Agrobiodiversity Research, 2013; Apgar *et al.*, 2016). This mind set makes indigenous communities more predisposed to look after the environment. However, in an as-yet unpublished digital storytelling project I carried out for the Indigenous Partnership for Agrobiodiversity and Food Sovereignty (IPFAS) it was also the case that the “we feeling” of togetherness was not a ‘nice-to-have’ but a foundation of complex social behaviours like cooperation, sharing and problem solving in indigenous societies. The social fabric of the Khasi-Pnar indigenous group in North-East India and the Boran and Turkana tribes of Kenya societies operated like a ‘meso’ safety net in a

social-ecological system where the micro (the individual) is negatively affected by the macro (politics, changing weather patterns). So, the health of the relational systems in part explained the capacity of indigenous communities to look after natural resources.

For the ecosystem-based management practitioner, this research shows that the structural markers of effective networks – connectivity, density of links, position in network – are not enough to explain the power of human connectivity to help natural resource management. It is not the linkages that cross boundaries of identity and hierarchy per se, but the quality of actors' experiences when linking that lessens the psychological costs of participation and increases the desire for change. This finding suggests that the benefits of heterogeneous governance structures (Bodin *et al.*, 2006) can only be fully realised if a diverse group of actors *feel* able to interact with others in different positions to them. From a psychological perspective, social networks are not created equal (Newman & Dale, 2005) in adaptive governance processes.

Environmental governance paradigms have expanded significantly in recent years to encompass a wider system dynamic that considers bi-directional linkages with human populations (Dodds, 1997). The surge in research examining social networks is one example. I anticipate that the next development will be the integration of psychology into ecosystem-based management approaches, to understand better the human experiences that motivate and discourage actors to participate and collaborate with one another. It's my view that further exploration of wellbeing flows across different network structures, and across different phases of governance – e.g., catalysing collective action vs. complex social change tasks – would provide greater insight into the relatively hidden psycho-social processes that determine effective governance.

10.10 A reflection on the use of complexity theory

In Chapter 2 I outlined how complexity theory underpins this research, forming part of an anti-positivist stance which also incorporates a participatory worldview. One of the original contributions of this study is the way I have sought to use complexity theory to understand the interrelationship between wellbeing and social change. This anti-positivist approach is particularly uncommon in the fields of wellbeing and volunteering research.

To summarise, I set out to use complexity theory in four main ways:

- Ontologically, to frame how I think about the nature of human systems and the way they change;

- Epistemologically, to direct my focus away from piecemeal knowledge generation towards the creation of knowledge at the interplays and interdependencies of a system;
- Methodologically, to inform an approach and research design which would help me work with non-linearity and emergence;
- Analytically, to interrogate what I see and experience.

At the end of this study I am more convinced than ever about the appropriateness of a complexity worldview for understanding human systems. The data I generated from the relational and interpersonal inquiries was in tune with researchers who have made theoretical arguments that inter-subjectivity precedes subjectivity (Wheatley & Kellner-Rogers, 1996; Hoggett, 2000; Beebe & Lachmann, 2002; Beebe *et al.*, 2003; Aguilin-Dalisay *et al.*, 2004; O'Hara & Rutsch, 2013). In essence, the interpersonal shapes subjective experience, meaning that it is the existence, the experience and the externality of togetherness, not separateness, which is central to understanding human wellbeing. This view of reality is inherently more complex – but I would argue more accurate – than a view that situates knowledge at the level of individual experience, thought and action.

It was also the case that the core concepts of complexity, which I used in my epistemological framing – interrelatedness, emergence, attractors, feedback, sensitivity to starting conditions – were useful both in terms of choosing a methodology that resisted reductionist and positivist tendencies and in helping me to make sense of the data I was collecting. To embrace complexity is to work with a compass rather than a map – and this can feel risky, especially when working to a PhD deadline. It's difficult to visualise how an approach to research could embrace the core tenets of complexity theory without getting itself lost by the complexity of it all!

But by thinking through what emergence meant for my research design I arrived at a Participatory Systemic Inquiry approach that built from the generic to the more specific. By thinking through how I deal with the micro and the macro, I layered the systemic, relational and psychological one on top of the other in a nested research design, and intentionally seeded insights from one to the other. The focus on processes of change vs snapshots meant more than designing a longitudinal research study as would be found in the classic social research paradigm. It meant a specific focus on identifying what came before and after a specific experience. It became about noticing patterns through time. I found the storyboard idea which I learned about in Burns (2007) book on whole systems change particularly useful at navigating the space between abstraction and uniqueness, especially when paired with group analysis of their content and a further process of causal mapping. It enabled me to see when something was an

entrenched pattern (e.g., the way community members were receivers of development) and when a specific approach (e.g., catalysing a sense of pride at the beginning of a workshop, the use of informal spaces to build trust) started a whole sequence of psychological experiences which changed how people related to the change effort. I found the expansiveness of an approach which is always seeking to get under the surface to understand less visible forces and dynamics shaping people's behaviour could be managed by the idea of "resonance" (Burns, 2007, p158-160). When variations of an insight emerged from different points of view and different types of inquiry, then I knew it was likely to be important. This meant I didn't need to collect more data on this theme. I just needed to introduce the insight into some group spaces to see whether collective analysis validated or developed the idea.

Lastly, it's worth reflecting how I found complexity concepts really useful in how I interrogated the data. They underpinned how I looked for new knowledge in the data and how I made decisions about where to look next (as summarised in the table in Chapter 2 and referenced in the empirical chapters). But it was also the case that much of the insights are verified by theory and studies more closely related to the data that was generated in the inquiries. Scoones et al (2007) anticipate this in their review of social science approaches based in complexity science. They suggest complexity should be used as an analytical heuristic to unearth the complexity of reality – but research has to encompass meaning-making processes that involve framings that differ based on different perspectives that people bring to inquiries. I can see this is the case in the way I analysed a lot of the data, drawing on theories and studies spanning a wide array of disciplines – from wellbeing and behavioural psychology to social network studies, as well as volunteering, natural resource governance paradigms and theory on collective action and collaboration – within an overarching complexity framing. The latter two areas of academia I had to research anew, as the context (e.g., environmental governance) and the specific problem (e.g., collective action) surfaced in the research process. Based on my experience, I would go as far as to posit that a researcher has not given themselves over to uncovering the complexity of a research situation if their data analysis does not end up traversing a broad landscape of disciplines.

Part of the challenge in writing up a complexity-informed research process is that the language of complexity – attractor basins, path-dependency, oscillations, dispositions, amplifications etc – is quite technical and relatively new. I agree with Dave Snowden's assertion that the use of specialised language is important, because if you don't change people's language, you don't change the way they think (Snowden, 2009). But

it's difficult to layer this language into an analysis that is also traversing a diverse array of disciplines without becoming incomprehensible to the reader. I sought to manage this by introducing complexity concepts early in the thesis, lightly referencing them to frame key insights in empirical chapters 4-9 and then using my final chapter to more explicitly summarise key attractors, feedbacks, and interdependencies.

10.11 Thesis conclusion

This study found collective action emerges from a complex interplay of systemic, relational and psychological dynamics all influencing people's motivation to act and move together towards a common goal. Collective action is catalysed by intentional network building approaches and amplified by psychologically rewarding network connections. The experience of relatedness, competency and autonomy in network interactions made it easier for actors to fall into patterns of helping one another, in turn raising levels of individual and systemic competency and reinforcing actor commitment to each other and the collective agenda. Conceptually, the thesis argues that by applying wellbeing theory to an examination of human connectedness, we better understand how people self-organise along more collaborative trajectories. Practically, it asserts that relational approaches are undervalued as a way of working, both by the volunteering and the natural resource management sectors.

Bibliography⁴

- Abdallah, S., Mahony, S., & Marks, N. (2011). *Measuring our progress: The power of well-being*. London: New Economics Foundation. Retrieved from http://b.3cdn.net/nefoundation/db3d5f02f6e2f328e8_k1m6bv6on.pdf
- Abdallah, S., Michaelson, J., Shah, S., Stoll, L., & Marks, N. (2012). *The Happy Planet Index: 2012 Report. A global index of sustainable well-being*. London: New Economics Foundation. Retrieved from <http://neweconomics.org/2012/06/happy-planet-index-2012-report/>
- Aguiling-Dalisay, G., Yacat, J. A., & Navarro, A. M. (2004). *Extending the Self: Volunteering as Pakikipagkapwa*. Quezon City, Philippines: EC-tec Commercial.
- Aked, J. (2011). United Nations Special Issue Paper: Volunteerism and wellbeing. Bonn: United Nations Volunteering: unpublished.
- Aked, J. (2012). Participation among marginalized young people in Brazil: Using Action research to support subjective wellbeing in volunteering. *Philippine Journal of Public Administration*, LVI. Retrieved from <http://www.ids.ac.uk/publication/participation-among-marginalized-young-people-in-brazil-using-action-research-to-support-subjective-well-being-in-volunteering>
- Aked, J. (2014a). *Riding the waves of change: The challenges of volunteering in highly complex poverty contexts*. London: VSO. Retrieved from https://www.vsointernational.org/sites/default/files/ic14056_v_v_philippines_report_riding_the_waves_of_change-16_02_2015.pdf
- Aked, J. (2014b). *Valuing Volunteering Philippines: National Report*. London: VSO International and Institute of Development Studies. Retrieved from https://www.vsointernational.org/sites/default/files/valuing_volunteering_philippines_report-philippines_national_report.pdf

⁴ All reference links valid at 20 February 2018.

- Aked, J. (2014c). *Views from the watershed: How citizens and actors describe volunteering for development*. London. Retrieved from https://www.vsointernational.org/sites/default/files/valuing_volunteering_philippines_report-views_from_the_watershed_0.pdf
- Aked, J. (2014d). *When there are no fish left in the sea: Does environmental awareness translate into positive action?* London. Retrieved from https://www.vsointernational.org/sites/default/files/valuing_volunteering_philippines_report-when_there_are_no_fish_left_in_the_sea.pdf
- Aked, J. (2014e). *Volunteering for gown and town: Learning and change beyond the university's walls*. London. Retrieved from https://www.vsointernational.org/sites/default/files/valuing_volunteering_philippines_report-gown_and_town.pdf
- Aked, J. (2015). What's different about how volunteers work? Relationship building for wellbeing and change. *IDS Bulletin*, 46(5), 29–42.
- Aked, J. (2016). Pathways to impact: new approaches to monitoring and improving volunteering for sustainable environmental management. In *Monitoring and Evaluation in Health and Social Development: Interpretive and Ethnographic perspectives*. Oxon: Routledge; pp 143–159.
- Aked, J., Marks, N., Cordon, C., et al. (2008). *Five Ways to Wellbeing*. London: New Economics Foundation.
- Aked, J., Steuer, N., Lawlor, E., & Spratt, S. (2009). *Backing the Future : why investing in children is good for us all*. London: Action for Children. Retrieved from <https://www.actionforchildren.org.uk/resources-and-publications/research/backing-the-future-why-investing-in-children-is-good-for-us-all/>
- Algoe, S., Haidt, J., & Gable, S. (2008). Beyond Reciprocity: Gratitude and Relationships in Everyday Life. *Emotion*, 8(3), 425–429.
- Allen, P. (1976). Evolution, population dynamics and stability. *Proceedings of the National Academy of Sciences of the United States of America*, 73(3), 665–668.
- Allen, W. (2001). *Working Together for Environmental Management: The Role of Information Sharing and Collaborative Learning*. Palmerston North, New Zealand: Massey University.

- Anderson, J. (2017). The Climate Psychology Interviews. Retrieved from <http://www.climatepsychologyalliance.org/explorations/blogs/202-the-climate-psychology-interview> [June 23, 2017]
- Andreoni, J. (1990). Impure altruism and donations to public goods: a theory of warm-glow giving. *Economic Journal*, 100, 464–477.
- Apgar, M., Argumedo, A., & Allen, W. (2009). Building transdisciplinarity for managing complexity: lessons from indigenous practice. *International Journal of Interdisciplinary Social Sciences*, 4(5), 255–270.
- Apgar, M., Mustonen, T., Lovera, S., & Lovera, M. (2016). Moving beyond co-construction of knowledge to enable self-determination. *Institute of Development Studies*, 47(6), 56–72.
- Apgar, M. (2010). *Adaptive Capacity for Endogenous Development of Kuna Yala, an Indigenous Biocultural System*. Lincoln University. Retrieved from <http://researcharchive.lincoln.ac.nz/handle/10182/3457>
- Asis, M., & Luna, E. (2000). *The Measurement of Filipino Wellbeing: Technical Report*. Quezon City, Philippines.
- Backer, T. E. (2011). The secrets of successful collaboration. In *Neighbourhood Empowerment in Reducing Health Disparities Conference*. Retrieved from <http://www.csun.edu/sites/default/files/nihrimikeynote.pdf>
- Bailey, T. J. (2006). *Ties That Bind: The Practice of Social Networks*. Baltimore, MA. Retrieved from <https://folio.iupui.edu/bitstream/handle/10244/397/ties.pdf>
- Bandura, A. (1977). *Social Learning Theory*. New York: General Learning Press.
- Beebe, B., Knoblauch, S., Rustin, J., & Sorter, D. (2003). Introduction: A systems view. *Psychoanalytic Dialogues*, 13(6), 743–775.
- Befani, B., & Stern, E. (2015). Towards systemic approaches to evaluation and impact. *IDS Bulletin*, 46(1).
- Bell, S. A., & Aggleton, P. (2012). Integrating ethnographic principles in NGO monitoring and impact evaluation. *Journal of International Development*, 24, 795–807.
- Bellagio Initiative. (2012). *Human Wellbeing in the 21st Century: Meeting Challenges , Seizing Opportunities*. Retrieved from <https://www.issuelab.org/resource/human-wellbeing-in-the-21st-century-meeting-challenges-seizing-opportunities.html>

- Bennett, N., Wise, C., Woods, P., & Harvey, J. (2003). *Distributed Leadership*. Nottingham.
- Berlow, E. (2010). Simplifying complexity. TEDGlobal 2010. Retrieved from https://www.ted.com/talks/eric_berlow_how_complexity_leads_to_simplicity
- Bidee, J., Vantilborgh, T., Pepermans, R., *et al.* (2012). Autonomous motivation stimulates volunteers' work effort: a self-determination theory approach to volunteerism. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 24(1), 32–47.
- Bishop, J., & Hoggett, P. (1986). *Organizing Around Enthusiasms: Mutual Aid in Leisure*. London: Comedia Publishing Group.
- Biswas-Diener R., & Patterson L. (2011) Positive Psychology and Poverty. In: Biswas-Diener R. (Eds) *Positive Psychology as Social Change*. Dordrecht: Springer.
- Bizer, G. Y., Krosnick, J. A., Holbrook, A. L., Wheeler, S. C., Rucker, D. D., & Petty, R. E. (2004). The impact of personality on cognitive, behavioral, and affective political processes: The effects of need to evaluate. *Journal of Personality*, 72, 995–1027.
- Bodin, Ö. (2017). Collaborative environmental governance: Achieving collective action in social-ecological systems. *Science*, 357(6352).
- Bodin, Ö., & Crona, B. I. (2009). The role of social networks in natural resource governance: What relational patterns make a difference? *Global Environmental Change*, 19(3), 366–374.
- Bodin, Ö., Crona, B., & Ernstson, H. (2006). Social networks in natural resource management : What is there to learn from a structural perspective ? *Ecology and Society*, 11(2). Retrieved from <https://www.ecologyandsociety.org/vol11/iss2/resp2/>
- Bodin, Ö., Sandström, A., & Crona, B. I. (2016). Collaborative networks for effective ecosystem-based management: A set of working hypotheses. *Policy Studies Journal*, 49(2), 289-314. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/psj.12146/abstract>
- Bodin, Ö., & Tengo, M. (2012). Disentangling intangible social-ecological systems. *Global Environmental Change*, 22(2), 430–439.
- Bok, S. (2010). *Exploring happiness: from Aristotle to Brain Science*. New Haven and London: Yale University Press.

- Booth, D. (2012). *Development as a collective action problem Addressing the real challenges of African governance*. Retrieved from <http://www.institutions-africa.org/filestream/20121024-appp-synthesis-report-development-as-a-collective-action-problem>
- Boulton, J. G., Allen, P. M., & Bowman, C. (2015). *Embracing Complexity: Strategic Perspectives for an Age of Turbulence*. Oxford: Oxford University Press.
- Bourdieu, P. (1993). *The Field of Cultural Production*. Cambridge: Polity Press.
- Bowen, K., Alexander, D., Miller, F., & Dany, V. (2014). Using social network analysis to evaluate health-related adaptation decision-making in Cambodia. *International Journal of Environmental Research and Public Health*, 11, 1605–1625.
- Boyle, D., & Harris, M. (2009). *The Challenge of Co-production*. NESTA: London. Retrieved from http://www.nesta.org.uk/sites/default/files/the_challenge_of_co-production.pdf
- Brown, B. (2012). *Daring Greatly: How the Courage to be Vulnerable Transforms the Way We Live, Love, Parent and Lead*. London: Penguin Random House.
- Brown, M. (2013). Levels of NGO cooperation and their empirical importance. In P. Thomas (Ed.), *Development Bulletin*, No. 75. Canberra: The Development Studies Network.
- Burns, D. (2007). *Systemic Action Research: A strategy for whole system change*. Bristol: The Policy Press.
- Burns, D. (2012). Participatory Systemic Inquiry. *IDS Bulletin*, 43(3), 88–100.
- Burns, D., Harvey, B., & Aragon, A. O. (2012). Introduction: Action research for development and social change. *IDS Bulletin*, 43(3), 1–7.
- Burns, D., Picken, A., Hacker, E., et al. (2014). *The Role of Volunteering in Sustainable Development*. London: VSO International. Retrieved from <https://www.vsointernational.org/fighting-poverty/our-research-and-evaluations/research-report-valuing-volunteering>
- Burns, D., Reid, J., Toncar, M., Fawcett, J., & Anderson, C. (2006). Motivations to volunteer: The role of altruism. *International Review on Public and Nonprofit Marketing*, 3(2), 79–91.

- Burns, D., & Taylor, M. (1998). *The role of mutual aid and self-help in combating exclusion*. York: Joseph Rowntree Foundation. Retrieved from <https://www.jrf.org.uk/report/mutual-aid-and-self-helpcoping-strategies-excluded-communities>
- Burns, D., Williams, C., & Windebank, J (Eds). (2004). *Community Self-Help*. (1st ed.). Basingstoke: Palgrave Macmillan.
- Burns, D., & Worsley, S. (2015). *Navigating Complexity in International Development*. Rugby, UK: Practical Action Publishing.
- Butcher, J. (2003). A humanistic perspective on the volunteer-recipient relationship. In *The Values of Volunteering. Nonprofit and Civil Society Studies (An International Multidisciplinary Series)*. Boston MA: Springer.
- Byrne, D., & Callaghan, G. (2013). *Complexity Theory and the Social Sciences: The State of the Art*. Abingdon: Routledge.
- Capra, F. (1996). *The Web of Life* (1997th ed.). New York: First Anchor Books Trade Paperback Edition.
- Carlsson, L., & Sandström, A. (2008). Network governance of the commons. *International Journal of the Commons*, 2(1), 33–54.
- Carver, C., & Scheier, M. (1999). Themes and issues in the self-regulation of behaviour. In R. Wyer (Ed.), *Perspectives on behavioural self-regulation: Advances in social cognition*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Chambers, R. (1997). Editorial: Responsible well-being — a personal agenda for development. *World Development*, 25(11), 1743–1754.
- Chambers, R. (2009). Going to scale with community-led total sanitation. *IDS Practice Paper*, (1). Retrieved from <https://www.ids.ac.uk/publication/going-to-scale-with-community-led-total-sanitation-reflections-on-experience-issues-and-ways-forward>
- Chan, F., James, Y., & Thong. (2009). Acceptance of agile methodologies: A critical review and conceptual framework. *Decision Support Systems*, 46(4), 803–814.
- Checkland, P. B. (1984). Systems thinking in management: The development of soft systems methodology and its implications for social science. In H. Ulrich & G. J. . Probst (Eds), *Self-Organization and Management of Social Systems* (Springer S). Berlin, Heidelberg: Springer.

- Checkland, P., & Scholes, J. (2000). *Soft Systems Methodology: a 30-year retrospective*. Chichester: John Wiley & Sons Ltd.
- Chen, M., & Isen, A. M. (1992). The influence of positive affect and success on persistence on a failed task. Ithaca, NY: Cornell University.
- Christakis, N., & Fowler, J. H. (2009). *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York: Little, Brown and Company.
- Cialdini, R. B. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science*, 12(4), 105–109.
- Cialdini, R. B. (2009). *Influence: Science and Practice*. New York: HarperCollins.
- Cohn, M., Fredrickson, B. L., Brown, S. L., Conway, A. M., & Mikels, J. (2009). Satisfaction by building resilience. *Emotion*, 9(3), 361–368.
- Coleman, G. (2011). Sustainability as a learning challenge. *The Ashridge Journal*, 8. <https://doi.org/10.1108/026217111311318292>
- Colls, A., Ash, N., & Ikkala, N. (2009). *Ecosystem-based Adaptation : A natural response to climate change*. Gland, Switzerland. Retrieved from <https://www.iucn.org/content/ecosystem-based-adaptation-natural-response-climate-change>
- Congress of the Philippines. (2007). Volunteer Act of 2007. Manila: Congress of the Philippines. Retrieved from http://www.senate.gov.ph/republic_acts/ra_9418.pdf
- Conservation International - Philippines. (2007). Human well-being and conservation framework and strategy. Quezon City: Conservation International - Philippines.
- Cooperrider, D., & Whitney, D. (2005). *Appreciative Inquiry: A positive revolution in change*. San Francisco: Berrett-Koehler Publishers.
- Corning, A. F., & Myers, D. J. (2002). Individual orientation toward engagement in social action. *Political Psychology*, (23), 703–729.
- Costa, S., Ntoumanis, N., & Bartholomew, K. J. (2014). Predicting the brighter and darker sides of interpersonal relationships: Does psychological need thwarting matter? *Motivation and Emotion*, 39(1), 11–24.
- Coulthard, S. (2012a). Can we be both resilient and well, and what choices do people have? Perspective. *Ecology and Society*, 17(1), 4. Retrieved from <https://www.ecologyandsociety.org/vol17/iss1/art4/>

- Coulthard, S. (2012b). What does the debate around social wellbeing have to offer sustainable fisheries? *Current Opinion in Environmental Sustainability*, 4(3), 358–363.
- Coulthard, S., Johnson, D., & McGregor, J. A. (2011). Poverty, sustainability and human wellbeing: A social wellbeing approach to the global fisheries crisis. *Global Environmental Change*, 21(2), 453–463.
- Crona, B., & Bodin, Ö. (2006). What you know is who you know ? Communication patterns among resource users as a prerequisite for co-management. *Ecology and Society*, 11(2), 7. Retrieved from <https://www.ecologyandsociety.org/vol11/iss2/art7/>
- Crona, B., & Hubacek, K. (2010). The right connections: How do social networks lubricate the machinery of natural resource governance? *Ecology and Society*, 15(4), 18. Retrieved from <https://www.ecologyandsociety.org/vol15/iss4/art18/>
- de Waal, F. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology*, 59, 279–300.
- Deak, A. (2008). *Taking Community-Led Total Sanitation to Scale*. IDS Working Paper 298. Brighton: IDS.
- Dean, H. (2006). Activation policies and the changing ethical foundations of welfare. In *ASPEN/ETUI Conference: Activation Policies in the EU, 20-21 Oct 2006*. Brussels.
- Deci, E., & Ryan, R. (1987). The support of autonomy and the control of behaviour. *Journal of Personality and Social Psychology*, 53, 1024–1037.
- Deneulin, S., & McGregor, J. A. (2010). The capability approach and the politics of a social conception of wellbeing. *European Journal of Social Theory*, 13(4), 501–519.
- Department for the Interior and Local Government. (2011). *National Disaster Risk Reduction and Management Plan (NDRRMP) 2011-2028*. Manila. Retrieved from http://www.dilg.gov.ph/PDF_File/reports_resources/DILG-Resources-2012116-420ac59e31.pdf
- Department of the Interior and Local Government. (2013). Vigilance to Volunteerism: Program Intensifying People's Engagement in Local Governance (V2V-PIPELOG). In *Valuing Volunteering Forum, 3 April 2013*.

- Devereux, P. (2010). *International Volunteers: Cheap help or transformational solidarity toward sustainable development*. Perth, Australia: Murdoch University.
- Devereux, S., & McGregor, J. A. (2014). Transforming social protection: Human wellbeing and social justice. *European Journal of Development Research*, 26(3), 296–310.
- Devine, J., Camfield, L., & Gough, I. (2008). Autonomy or Dependence - or Both?: Perspectives from Bangladesh. *Journal of Happiness Studies*, 9(1), 105–138.
- Dietz, T., Ostrom, E., & Stern, P. C. (2003). The struggle to govern the commons. *Science*, 302(5652), 1907–1912. Retrieved from <https://www.purdue.edu/mandela-fellowship/schedule/2016/Dietz%20Ostrom%20Stern%20Science%202003%20Govern%20commons.pdf>
- Dodds, S. (1997). Towards a “science of sustainability”: Improving the way ecological economics understands human well-being. *Ecological Economics*, 23(2), 95–111.
- Dressler, W. (2014). Green governmentality and swidden decline on Palawan Island. *Transactions of the Institute of British Geographers*, 39, 250–64.
- Dressler, W., McDermott, M., & Schusser, C. (2015). The Politics of Community Forestry in a Global Age - A Critical Analysis. *Forest Policy and Economics*, 58, 1–4.
- Dressler, W., McDermott, M., Smith, W., & Pulhin, J. (2012). REDD policy impacts on indigenous property rights regimes on Palawan island, the Philippines. *Human Ecology*, 40(5), 679–691.
- Drury, J. (2014). Crowd psychology. In T. Teo (Ed.), *Encyclopedia of Critical Psychology* (pp. 341–344). New York: Springer.
- Drury, J., Reicher, S., & Stott, C. (2012). The psychology of collective action: Crowds and change. In B. Wagoner, E. Jensen, & J. Oldmeadow (Eds), *Culture and social change: Transforming society through the power of ideas*. Charlotte, NC: Information Age Publishing.
- Duncan, L. E. (2012). The psychology of collective action. In K. Deaux & M. Snyder (Eds), *The Oxford Handbook of Personality and Social Psychology* (pp. 781–803). New York: Oxford University Press.

- Dust, F., & Prokopoff, I. (2009). Designing systems at scale. *Rotman Magazine*, 53–58.
- Dweck, C. (2006). *Mindset: The New Psychology of Success*. New York: Random House Publishing Group.
- Easterlin, R. A. (1974). Does rapid economic growth improve the human lot? Some empirical evidence. In *Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz*. New York: Academic Press, Inc.
- Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory*, 22(1), 1–29.
- Ensor, J., & Harvey, B. (2015). Social learning and climate change adaptation: evidence for international development. *WIREs Climate Change*, 6(5), 509–522. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/wcc.348/abstract>
- Ernstson, H., Sorlin, S., & Elmqvist, T. (2008). Social movements and ecosystem services - the role of social network structure in protecting and managing urban green areas in Stockholm. *Ecology and Society*, 13(2), 39.
- Fabinyi, M., Knudsen, M., & Segi, S. (2010). Social complexity, ethnography and coastal resource management in the Philippines. *Coastal Management*, 38(6), 617–632.
- Fals Borda, O. (1988). *Knowledge and People's Power: Lessons with Peasants in Nicaragua, Mexico and Colombia*. New Delhi: Indian Social Institute.
- Feldman, D. L. (2011). *The Geopolitics of Natural Resources*. Cheltenham: Edward Elgar Publishing Limited.
- Fiske, S. T. (2008). From Lewin and Allport to Pettigrew: modern practical theories. In *Improving Intergroup Relations*. Oxford: Blackwell Publishing.
- Flood, R. L. (2010). The Relationship of “Systems Thinking” to Action Research. *System Practice and Action Research*, 23, 269–284.
- Foale, S., Adhuri, D., Aliño, P., *et al.* (2013). Food Security and the Coral Triangle Initiative. *Marine Policy*, 38, 174–183.
- Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*, 16, 253–267.

- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockström, J. (2010). Resilience thinking: Integrating resilience, adaptability and transformability. *Ecology and Society*, 15(4), 20. Retrieved from <https://www.ecologyandsociety.org/vol15/iss4/art20/>
- Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive Governance of Social-Ecological Systems. *Annual Review of Environment and Resources*, 30(1), 441–473.
- Fook, T. (2015). Transformational processes for community-focused adaptation and social change: a synthesis. *Climate and Development*, 9(1), 5–21.
- Foucault, M. (1984). *The History of Sexuality: Part 1*. London: Penguin.
- Fowler, J. H., & Christakis, N. (2010). Cooperative behavior cascades in human social networks. *Proceedings of the National Academy of Sciences of the United States of America*, 107(12), 5334–5338.
- Fredrickson, B. (2010). *Positivity: Groundbreaking Research to Release Your Inner Optimist and Thrive*. Oxford: Oneworld Publications.
- Fredrickson, B. (2013). *Love 2.0: How Our Supreme Emotion Affects Everything We Feel, Think, Do, and Become*. New York: Hudson Street Press.
- Fredrickson, B. L. (1998). What Good are Positive Emotions? *Review of General Psychology*, 2(3), 300–319.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313–332.
- Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *Am Psychol.*, 60(7), 678–686.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84(2), 365–76.
- Friday, J., & McArthur, H. (2010). A participatory approach to community resource management: Building upon local knowledge and concerns. In J. Roumasset, K. Burnett, & A. Balisacan (Eds), *Sustainability Science for Watershed Landscapes* (pp. 219–232). Singapore: ISEAS.

- Friedli, L. (2009). *Mental Health, Resilience and Inequalities*. Retrieved from http://www.euro.who.int/data/assets/pdf_file/0012/100821/E92227.pdf
- Fu, Q. (2004). Trust, Social Capital, and Organizational Effectiveness, 1–42. Retrieved from https://www.researchgate.net/publication/251443327_Trust_Social_Capital_and_Organizational_Effectiveness
- Fuller, T., & Moran, P. (2001). Small enterprises as complex adaptive systems: A methodological question? *Entrepreneurship & Regional Development*, 13(1), 47–63.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organisational Behavior*, 26, 331–362.
- Gaventa, J., & Barrett, G. (2010). *So What Difference Does it Make ? Mapping the Outcomes of Citizen Engagement*. 347, 01-72.
- Geertz, C. (1973). *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.
- Gilchrist, A. (2000). The well-connected community: networking to the edge of chaos. *Community Development Journal*, 35(3), 264–275.
- Gilchrist, A. (2001). Strength through diversity : Networking for community development. Retrieved from <https://research-information.bristol.ac.uk/files/34495760/369798.pdf>
- Gilchrist, A., & Kyprianou, P. (2011). *Social networks , poverty and ethnicity*. JRF programme paper. York: Joseph Rowntree Foundation. Retrieved from <https://www.jrf.org.uk/report/social-networks-poverty-and-ethnicity>
- Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological Theory*, 201–233.
- Grant, A. (2014). *Give and Take: Why helping others drives our success*. London: Orion Publishing Group Ltd.
- Green, D. (2016). *How change happens*. Oxford: Oxford University Press.
- Greenfield, E. A., & Marks, N. F. (2004). Formal volunteering as a protective factor for older adult's psychological well-being. *Journals of Gerontology*, 59(B), 258–264.

- Greenwood, D., & Levin, M. (2007). *Introduction to Action Research: Social research for social change*. Thousand Oaks, CA: Sage Publications.
- Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In N. Denzin & Y. Lincoln (Eds), *Handbook of Qualitative Research* (pp. 105–117). London and New Delhi: Sage Publications.
- Guijt, Irene, Brouwers, J, Kusters C, Prins E, Zeynalova, B. (2011). Evaluation Revisited: Improving the Quality of Evaluative Practice by Embracing Complexity. Utrecht, the Netherlands: Centre for Development Innovation, Wageningen University & Research centre. Retrieved from www.cdi.wur.nl
- Hacker, E. (2014). *Education and Volunteering in Nepal: A Case Study from the Hill and Terai Regions*. London: VSO.
- Hacker, E. (2015). Using participatory methodologies to achieve change in valuing volunteering. *IDS Bulletin*, 46(5), 43–53.
- Hadden, B. W., Rodriguez, L. M., Knee, C. R., & Porter, B. (2015). Relationship autonomy and support provision in romantic relationships. *Motivation and Emotion*, 39(3), 359–373.
- Haivas, S., Hofmans, J., & Pepermans, R. (2012). Self-Determination Theory as a Framework for Exploring the Impact of the Organizational Context on Volunteer Motivation: A Study of Romanian Volunteers. *Nonprofit and Voluntary Sector Quarterly*, 41(6), 1195–1214.
- Halpern, D. (2009). *The Hidden Wealth of Nations*. Cambridge: Polity Press.
- Harris, K. (2010). *Why People Don't Behave As We Would Expect. The Role of Emotions, Unrealistic Optimism and Previous Experience in Disaster Preparedness. SCR Think Piece*. Retrieved from <https://www.gov.uk/dfid-research-outputs/why-people-don-t-behave-as-we-would-expect-the-role-of-emotions-unrealistic-optimism-and-previous-experience-in-disaster-preparedness-scr-think-piece>
- Harvey, B., Burns, D., & Oswald, K. (2012). Linking community, radio and action research on climate change: Reflections on a systemic approach. *IDS Bulletin*, 43(3), 101–117.
- Hatton, N., & Smith, D. (1994). Facilitating reflection: Issues and research. *Paper presented at the Australian Teacher Education Association*.

- Haynes, K., & Tanner, T. M. (2013). Empowering young people and strengthening resilience: youth-centred participatory video as a tool for climate change adaptation and disaster risk reduction. *Children's Geographies*, 13(3), 357–371.
- Head, L. (2016). *Hope and Grief in the Anthropocene: Re-conceptualising human-nature relations*. London and New York: Routledge Taylor & Francis Group.
- Heath, J. (2015). Methodological Individualism. Retrieved from <https://plato.stanford.edu/entries/methodological-individualism/> [November 2, 2017].
- Helliwell, J., Layard, R., & Sachs, J. (2013). *World Happiness Report 2012*. Retrieved from <http://worldhappiness.report/download/>
- Helliwell, J. F. (2011). Institutions as enablers of wellbeing: The Singapore Prison case study. *International Journal of Wellbeing*, 1(2), 255–265.
- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 359(1449), 1435–1446.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466. Retrieved from <https://www.nature.com/articles/466029a>
- Henry, C., & McTaggart, R. (1996). “Action research” changing education. *A Journal for Teachers and Administrators*, 3(2).
- Heron, J., & Reason, P. (2007). Extending epistemology within a co-operative inquiry. In P. Reason & H. Bradbury (Eds), *The Sage Handbook of Action Research Participative Inquiry and Practice* (Second Edi, pp. 367–380). Retrieved from <https://ikhsanaira.files.wordpress.com/2016/09/action-research-participative-inquiry-and-practice-reasonbradburry.pdf>
- Herr, K., & Anderson, G. (2005). *The Action Research Dissertation: A Guide for Students and Faculty*. Thousand Oaks, CA: Sage Publications.
- Hilgers, M., & Mangez, E. (2014). *Bourdieu's Theory of Social Fields: Concepts and Applications*. London: Routledge.
- Hodges, S. D., Clark, B. A. M., & Myers, M. W. (2011). Better living through perspective taking. In R. Biswas-Diener (Ed.), *Positive Psychology as Social Change*, Dordrecht: Springer; pp 193–218.
- Hoffman, E. (2011). *The Inner Lives of Culture*. London: Counterpoint UK.

- Hogg, M., & Vaughan, M. (2008). *Social psychology: 5th edition*. London: Pearson Education Limited.
- Hoggett, P. (2000). *Emotional Life And The Politics Of Welfare*. London: Macmillan Press Ltd.
- Holley, J. (2016). Network Weaver Handbook. Retrieved from <http://www.networkweaver.com/product/network-weaving-handbook/>
- Huppert, F. A., Baylis, N., & Keverne, B. (2005). *The Science of Well-being*. Oxford: Oxford University Press.
- Iacoboni, M. (2009). Imitation, empathy and mirror neurons. *Annual Review of Psychology*, 60, 653–670.
- IDEO. (2015). *Human Centred Design Toolkit 2nd edition*. Retrieved from <https://www.ideo.com/post/design-kit>
- IPCC. (2014). *Climate Change 2014: Synthesis Report*. Intergovernmental Panel on Climate Change. Retrieved from https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_All_Topics.pdf
- Isen, A. M. (1987). Positive affect, cognitive processes, and social behaviour. *Advances in Experimental Social Psychology*, 20, 203–253.
- Isen, A. M. (2001). An influence of positive affect on decision making in complex situations: Theoretical issues with practical implications. *Journal of Consumer Psychology*, 11(2), 75–85.
- Isen, A. M., & Levin, P. F. (1972). Effect of feeling good on helping: cookies and kindness. *Journal of Personality and Social Psychology*, 21(3), 384–388.
- Isen, A. M., & Reeve, J. (2005). The influence of positive affect on intrinsic and extrinsic motivation: Facilitating enjoyment of play, responsible work behavior, and self-control. *Motivation and Emotion*, 29(4), 297–325.
- Ison, R. L. (2008). Systems thinking and practice for action research. In *The Sage Handbook of Action Research Participative Inquiry and Practice*, 2nd edition. Thousand Oaks, CA: Sage Publications; pp.139-158.

- ITAD. (2011). Final Mid Term Review Evaluation of DFID ' s International Citizen Service (ICS) Pilot Stage. UK Department for International Development. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67460/eval-int-citz-serv-ics-pilot-stg.pdf
- Janis, I. (1982). *Groupthink: Psychological Studies of Policy Decisions and Fiascos*. Boston: Houghton Mifflin.
- Jarden, A. (2011). An interview with Barbara Fredrickson. *International Journal of Wellbeing*, 1(3), 335–337.
- Johnson, J., Boster, J., & Palinkas, L. (2003). Social roles and the evolution of networks in extreme and isolated environments. *Journal of Mathematical Sociology*, 27, 89–121.
- Kar, K., & Chambers, R. (2008). *Handbook on Community-Led Total Sanitation*. Brighton. Retrieved from <http://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/cltshandbook.pdf>
- Kesby, M. (2005). Retheorizing empowerment-through-participation as a performance in space: beyond tyranny to transformation. *Journal of Women in Culture and Society*, 30(4), 2037–2065.
- Kitchener, K., & Brenner, H. (1990). Wisdom and reflective judgement: knowing in the face of uncertainty. In R. Sternberg (Ed.), *Wisdom: its nature, origins and development*. Cambridge: Cambridge University Press.
- Krznaric, R. (2007). *Empathy and the Art of Living*. Oxford: Blackbird.
- Kuhn, T, S. (1962). *The Structure of Scientific Revolutions* (50th Anniv). Chicago, IL: University of Chicago Press.
- Kuruppu, N., & Liverman, D. (2011). Mental preparation for climate adaptation: The role of cognition and culture in enhancing adaptive capacity of water management in Kiribati. *Global Environmental Change*, 21(1), 657–669.
- Leach, M. (2013). Pathways to sustainability: building political strategies. In S. of the W. 2013 (Ed.), *Is Sustainability Still Possible?* (p. 431). Washington DC: The Worldwatch Institute.

- Lebel, L., Anderies, J., Campbell, B., *et al.* (2006). Governance and the capacity to manage resilience in regional social-ecological systems. *Ecology and Society*, 11(1), 19. Retrieved from <https://www.ecologyandsociety.org/vol11/iss1/art19/>
- Legatum Institute. (2014). *Wellbeing and Policy*. London: Legatum Institute.
- Leitch, R., & Day C. (2000). Action research and reflective practice: towards a holistic view. *Educational Action Research*, 8(1), 179–193.
- Lewin, K. (1935). *A Dynamic Theory of Personality*. New York: McGraw Hill Book Company Inc.
- Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, 2(4), 34–46.
- Linden, S. (2015). Intrinsic motivation and pro-environmental behaviour. *Nature Publishing Group*, 5(7), 612–613. <https://doi.org/10.1038/nclimate2669>
- Liongue, F., Soares, F., & Noy, G. (2013). Barriers to child participation in Timor-Leste. In P. Thomas (Ed.), *Challenges for Participatory Development in Contemporary Development Practice. Development Bulletin, No. 75* (pp. 119–123). The Development Studies Network Australian National University.
- Lough, B. J., & Matthew, L. (2013). Measuring and conveying the added value of international volunteering. Forum Discussion Paper. International Forum for Volunteering in Development. Retrieved from <http://forum-ids.org/2013/12/forum-discussion-paper-2013-measuring-and-conveying-added-value/>
- Millette, V., & Gagné, M. (2008). Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement. *Motivation and Emotion*, 32(1), 11–22.
- Meadows, D. H. (2009). *Thinking in Systems: A Primer*. London: Earthscan.
- Maguire, R., & Vardakoulis, O. (2014). *The benefits of investing in Early Child Development: An SROI analysis of the Responsive Parenting Program*. London: NEF Consulting. Retrieved from http://www.nefconsulting.com/wp-content/uploads/2014/09/ChildFund_Full-report.pdf
- Marin, A., & Wellmann, B. (2011). Social Network Analysis: An Introduction. In P. Carrington & J. Scott (Eds), *The Sage Handbook of Social Network Analysis*. London: Sage; pp. 11-25.

- Marks, N. (2011). Think Before You Think. In R. Biswas-Diener (Ed.), *Positive Psychology as Social Change* (pp. 17–32). Dordrecht: Springer Netherlands.
- Marshall, J. (1999). Living life as inquiry. *Systemic Practice and Action Research*, 12(2), 155–171.
- Marshall, J., Coleman, G., & Reason, P. (2011). *Leadership for Sustainability: An Action Research Approach*. Sheffield: Greenleaf Publishing Limited.
- Martin, V., Weiler, B., Reis, A., Dimmock, K., & Scherrer, P. (2017). “Doing the right thing”: How social science can help foster pro-environmental behaviour change in marine protected areas. *Marine Policy*, 81, 236–246.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396.
- Maxson, M. (2012). The “ Real Book ” 1 for story evaluation methods, 1–72. Retrieved from <https://www.globalgiving.org/jcr-content/gg/landing-pages/story-tools/files/-story-real-book--2010.pdf>
- MacInnis, C. C., & Page-Gould, E. (2015). How can intergroup interaction be bad if intergroup contact is good? Exploring and reconciling an apparent paradox in the science of intergroup relations. *Perspectives on Psychological Science*, 10(3), 307–327.
- McGregor, J. A. (2009). *Building Sustainable Governance: Human Wellbeing in Fishing Communities. Paper prepared for ESPA Workshop 1*. Brighton. Retrieved from <http://www.ids.ac.uk/idspublication/human-wellbeing-in-fishing-communities>
- Martin, C. E. (2016, April). Western go-gooders need to resist the allure of “exotic problems.” *The Guardian*. Retrieved from <https://www.theguardian.com/global-development-professionals-network/2016/apr/23/western-do-gooders-need-to-resist-the-allure-of-exotic-problems>
- Meltzoff, A., & Decety, J. (2003). What imitation tells us about social cognition: A rapprochement between developmental psychology and cognitive neuroscience. *The Philosophical Transactions of the Royal Society, London*, 358, 491–500.
- Mendiola, A. A., Hechanova, R., Yabut, H., & Louis, W. R. (n.d.). *Volunteerism in times of disasters: Applying the Social Identity Model of Collective Action*. Retrieved from [https://www.ignited.global/sites/default/files/slides/Volunteerism in times of disasters.pdf](https://www.ignited.global/sites/default/files/slides/Volunteerism%20in%20times%20of%20disasters.pdf)

- Michaelson, J. (2014). Practical models for wellbeing-oriented policy. In J. Timo & J. Michaelson (Eds), *Well-being and Beyond: Broadening the Public and Policy Discourse* (pp. 321–345). Cheltenham: Edward Elgar Publishing Limited.
- Michaelson, J., Abdallah, S., & Steuer, N. (2009). National Accounts of Well-being: bringing real wealth onto the balance sheet. London: New Economics Foundation.
- Milgram, S., Bickman, L., & Berkowitz, L. (1996). Note on the drawing power of crowds of different size. *Journal of Personality and Social Psychology*, 13, 79–82.
- Millette, V., & Gagné, M. (2008). Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement. *Motivation and Emotion*, 32(1), 11–22.
- Mitleton-Kelly, E. (2003). The Principles of Complexity and Enabling Infrastructures. In E. Mitleton-Kelly (Ed.), *Complex systems and evolutionary perspectives of organisations: the application of complexity theory to organisations* (p. 35). London: London School of Economics.
- Mingers, J. (2011). The Contribution of Systemic Thought to Critical Realism. *Journal of Critical Realism*, 10(3), 303–330.
- Mohr, J. (2016). Building intentional networks that drive impact (part 1). Retrieved from <https://blog.kumu.io/building-intentional-networks-that-drive-impact-part-1-90a7271c7a2a> [July 15, 2017].
- Molix, L., & Nichols, C. P. (2013). Satisfaction of basic psychological needs as a mediator of the relationship between community esteem and wellbeing. *International Journal of Wellbeing*, 3(1), 20–34.
- Moncrieffe, J. (2006). The power of stigma: Encounters with “street children” and “restavecs” in Haiti. *IDS Bulletin*, 37(6), 31–46.
- Moore, H. (2015). The End of Development. UK: BBC Radio 4. Retrieved from <http://www.bbc.co.uk/programmes/b054pqv8>
- Morris, D., & Gilchrist, A. (2012). *Communities Connected: Inclusion, participation and common purpose*. Retrieved from <https://www.thersa.org/discover/publications-and-articles/reports/communities-connected-inclusion-participation-and-common-purpose>

- Moser, H. (1980). Action research as a new research paradigm in the social sciences. In *Paper presented at the International Forum on Participatory Research*. Ljubljana.
- Musick, M. A., & Wilson, J. (2003). Volunteering and depression: The role of psychological and social resources in different age groups. *Social Science and Medicine*, 56(2), 259-269.
- Nathan, F. (2011). Vulnerability to Natural Hazards: Case Study on Landslide Risks in La Paz. *Coping with Global Environmental Change, Disasters and Security*, 5, 559–574.
- nef consulting. (2013). The Value of Money: Challenging the preconceptions. *Perspectives*, (2), 1–24.
- Newman, L., & Dale, A. (2005). Network Structure, Diversity and Proactive Resilience Building : a Response to Tompkins and Adger. *Ecology and Society*, 10(1). Retrieved from <https://crcresearch.org/articles/network-structure-diversity-and-proactive-resilience-building-a-response-tompkins-and-adger>
- Nix, G. A., Ryan, R. M., Manly, J. B., & Deci, E. L. (1999). Revitalization through Self-Regulation: The Effects of Autonomous and Controlled Motivation on Happiness and Vitality. *Journal of Experimental Social Psychology*, 35(3), 266–284.
- NLCGG (Northern Coalition for Good Governance). (2012). *Challenges and Opportunities in Involving Citizens in Local Governance A Consultation with Government Champions at the Barangay Level*. Baguio City: NLCGG.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-creating Company*. Oxford: Oxford University Press.
- O'Hara, M. (2001). Alternative psychological scenarios for the coming global age. Presented at the Annual Convention of the American Psychological Association. Retrieved from <http://www.maureen.ohara.net/pubs/FuturesAPA.pdf>
- O'Hara, M., & Lyon, A. (2014). Well-being and Well-becoming: Reauthorizing the Subject in Incoherent Times. In *Well-being and Beyond: Broadening the Public and Policy Discourse*. Cheltenham: Edward Elgar Publishing Limited.
- O'Hara, M., & Rutsch, E. (2013). How to build a culture of empathy. The Centre for Building a Culture of Empathy. Retrieved from <https://www.youtube.com/watch?v=mIP2ZsklpcM>

- Olson, M. (1965). *The Logic of Collective Action: Public Goods and The Theory of Groups* (Volume CXX). Cambridge: Harvard University Press.
- Olsson, P., & Folke, C. (2001). Local ecological knowledge and institutional dynamics for ecosystem management: A study of Lake Racken watershed, Sweden. *Ecosystems*, 4, 85–104.
- Olsson, P., Folke, C., & Hahn, T. (2004). Social-ecological transformation for ecosystem management: the development of adaptive co-management of a wetland landscape in southern Sweden. *Ecology And Society*, 9(4), 2. Retrieved from <https://www.ecologyandsociety.org/vol9/iss4/art2/>
- Oostlander, J., Guntert, S. T., van Schie, S., & Wehner, T. (2014). Leadership and Volunteer Motivation: A Study Using Self-Determination Theory. *Nonprofit and Voluntary Sector Quarterly*, 43(5), 869–889.
- Ormerod, P. (2010). *N Squared: Public policy and the power of networks*. Retrieved from https://www.thersa.org/globalassets/pdfs/blogs/rsa_pamphlet-publicpolicy.pdf
- Osterblom, H., Hentati-Sundberg, J., Nevonen, N., & Veem, K. (2017). Tinkering with a tanker - slow evolution of a Swedish ecosystem approach. *ICES Journal of Marine Science*, 74(1), 443–452.
- Ostrom, E. (1990). *Governing the Commons. The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Ostrom, E., Dietz, T., Dolsak, N., Stern, P. C., Stonich, S., & Weber, E. U. (2002). *The drama of the commons*. Washington DC: National Academy Press.
- Pascale, R., Sternin, J., & Sternin, M. (2010). *The Power of Positive Deviance*. Boston: Harvard Business Press.
- Paz, C. J. (2008). Ginhawa: Well-being as expressed in Philippines Languages in C. J. Paz (Eds), Ginhawa, Kapalaran, Dalamhati: *Essays on Well-Being, Opportunity/Diversity and Anguish*. Quezon City, Philippines: Econofast Press.
- Pelling, M., High, C., Dearing, J., & Smith, D. (2008). Shadow spaces for social learning: a relational understanding of adaptive capacity to climate change within organisations. *Environment and Planning A*, 40(4), 867–884.
- Pepper, I. L., Gerba, C. P., & Brusseau, M. L. (2006). *Environmental and pollution science* (Second). London: Academic Press.

- Pettit, J. (2012). Getting to grips with power: Action learning for social change in the UK. *IDS Bulletin*, 43, 11–26.
- Phelps, R., & Hasse, S. (2002). Complexity and action research: exploring the theoretical and methodological connection. *Educational Action Research*, 10(3), 507–524.
- Philippine Daily Inquirer. (2014, November 7). Filipinos must show resilience before disaster - Legarda. *Philippine Daily Inquirer*.
- Pimbert, M. (2004). *Natural resources, people and participation*. Retrieved from <http://pubs.iied.org/pdfs/G02104.pdf>
- Pink, D. (2011). *Drive: The Surprising Truth About What Motivates Us*. Edinburgh: Canongate Books.
- Platform for Agrobiodiversity Research. (2013). *Land sparing and land sharing: perspectives of indigenous peoples and rural communities*. Rome.
- Post, S. G. (2005). Altruism, happiness, and health: it's good to be good. *International Journal of Behavioral Medicine*, 12(2), 66–77.
- Prigogine, I. (1947). *Etude Thermodynamique Des Phenomenes Irreversibles*. Belgium: Deseor.
- Pulhin, J., & Dressler, W. (2009). People, power and timber: The politics of community-based forest management. *Journal of Environmental Management*, 91, 206–241.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Book (Vol. 115). New York: Simon & Schuster.
- Rahman, M. A. (1991). The theoretical standpoint of Participatory Action Research. In O. Fals Borda & M. A. Rahman (Eds), *Action and Knowledge: Breaking the Monopoly with Participatory Action-Research* (pp. 13–23). London: The Intermediate Technology Publications.
- Ramalingam, B. (2013). *Aid on the Edge of Chaos: Rethinking International Cooperation in a Complex World*. Oxford: Oxford University Press.
- Ramalingam, B., Jones, H., Reba, T., & Young, J. (2008). *Exploring the Science of Complexity: Ideas and Implications for Development and Humanitarian Efforts*. Working paper (Vol. 285). London: Overseas Development Institute.

- Reason, P., Coleman, G., Ballard, D., *et al.* (2009). *Insider Voices: Human Dimensions of Low Carbon Technology*. Bath: University of Bath.
- Reason, P., & Bradbury, H. (2001). *The Sage Handbook of Action Research. Participatory Inquiry and Practice* (2nd edition). London: Sage Publications.
- Reason, P., & Bradbury, H. (2008). *The SAGE Handbook of Action Research: Participatory Inquiry and Practice* (Second). London: SAGE Publications Ltd.
Retrieved from <https://ikhsanaira.files.wordpress.com/2016/09/action-research-participative-inquiry-and-practice-reasonbradburry.pdf>
- Reeve, J. (2004). *Understanding Motivation and Emotion: Fourth Edition*. Chichester: John Wiley & Sons Ltd.
- Robertson, J. (2000). The three Rs of action research methodology: reciprocity, reflexivity and reflection-on-reality. *Educational Action Research*, 8(2), 307–326.
- Rodela, R. (2011). Social learning and natural resource management: The Emergence of three research perspectives. *Ecology And Society*, 16(4), 30. Retrieved from <https://www.ecologyandsociety.org/vol16/iss4/art30/>
- Rojas, M. (2008). *Bienestar Subjetivo en Costa Rica*. San Jose. Retrieved from https://estadonacion.or.cr/files/biblioteca_virtual/014/Bienestar-subjetivo-Rojas-2008.pdf
- Romp, G. (1996). *Game Theory: Introduction and Applications*. Oxford: Oxford University Press.
- Rowlands, J. (1997). *Questioning Empowerment: Working with Women in Honduras*. Oxford: Oxfam.
- Rowson, J., Broome, S., & Jones, A. (2010). *Connected Communities: How social networks power and sustain the Big Society*. London: RSA. Retrieved from <https://www.thersa.org/discover/publications-and-articles/reports/connected-communities-how-social-networks-power-and-sustain-the-big-society>
- Rowson, J., Mezey, M., & Dellot, B. (2012). *Beyond the Big Society: Psychological Foundations of Active Citizenship*. London: RSA. Retrieved from <https://www.bl.uk/collection-items/beyond-the-big-society-psychological-foundations-of-active-citizenship>

- Royal Government of Bhutan. (2012). *New Economic Paradigm The Report of the High-Level Meeting on WellBeing and Happiness*. New York: The Permanent Mission of the Kingdom of Bhutan to the United Nations.
- Ryan, R. (2009). *Self-determination Theory and Wellbeing*. *Wellbeing in Developing Countries Research Review* (Vol. 1). Bath: Wellbeing in Developing Countries, University of Bath.
- Ryan, R. M., & Deci, E. L. (2000a). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55, 67–68.
- Ryan, R. M., & Deci, E. L. (2000b). The Darker and Brighter Sides of Human Existence: Basic Psychological Needs as a Unifying Concept. *Psychological Inquiry*, 11(4), 319–338. https://doi.org/10.1207/S15327965PLI1104_03
- Saارين, E., & Hamalainen, R. (2010). The Originality of Systems Intelligence. In R. Hamalainen & E. Saارين (Eds), *Essays on Systems Intelligence* (pp. 9–26). Espoo, Finland: Systems Analysis Laboratory.
- Saxena, M. (2010). Reconceptualising teachers' directive and supportive scaffolding in bilingual classrooms within the neo-Vygotskian approach. *Journal of Applied Linguistics & Professional Practice*, 7(2), 163–184.
- Schaaf, R. (2010). Do groups matter? Using a wellbeing framework to understand collective activities in northeast Thailand. *Oxford Development Studies*, 38(2), 241–257.
- Schiffer, E. (2007). *The Power Mapping Tool: a Method for the Empirical Research of Power Relations*. Washington: IFPRI. Retrieved from <https://ageconsearch.umn.edu/bitstream/42410/2/IFPRIDP00703.pdf>
- Schiffer, E. (2010). Process Net-Map. Retrieved from <https://netmap.wordpress.com/process-net-map/> [1 August 2017].
- Schiffer, E., & Hauck, J. (2010). Net-Map: Collecting social network data and facilitating network learning through participatory influence network mapping. *Field Methods*, 22(3), 231–249.
- Schimmel, J. (2009). Development as happiness: The subjective perception of happiness and UNDP's analysis of poverty, wealth and development. *Journal of Happiness Studies*, 10, 93–111.

- Schultzer, M., Baeza, A., Dressler, G., *et al.* (2017). A framework for mapping and comparing behavioural theories in models of social-ecological systems. *Ecological Economics*, 131, 21–35.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5–14.
- Senge, P. M. (2006). *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York: Doubleday a division of Random House, Inc.
- Sennett, R. (2006). *The culture of the new capitalism*. New Haven, CT: Yale University Press.
- Sennett, R. (2012). *Together: The Rituals, Pleasures and Politics of Cooperation*. London: Yale University Press.
- Dawney, S., & Shah, H. (2005). *Behavioural Economics: Seven Principles for Policy-Makers*. London.
- Shye, S. (2009). The Motivation to Volunteer: A Systemic Quality of Life Theory. *Social Indicators Research*, 98(2), 183–200.
- Siegel, D. A. (2009). Social Networks and Collective Action. *American Journal of Political Science*, 53(1), 122–138.
- Simões, F., & Alarcão, M. (2013). Promoting well-being in school-based mentoring through basic psychological needs support: does it really count? *Journal of Happiness Studies*, 15(2), 407–424.
- Singh, R. (2011). How is the development and philanthropy ecosystem evolving? In B. Smith (Ed.), *The Future of Philanthropy and Development in the Pursuit of Well-Being*. Alliance Magazine. Retrieved from <http://www.alliancemagazine.org/blog/is-well-being-the-future-of-philanthropy-and-development-report-from-bellagio/>
- Sison, S. (2014, October 30). The problem with Filipino resilience. *Rappler*. Retrieved from <http://www.rappler.com/move-ph/ispeak/73433-problem-filipino-resilience>
- Snowden, D. (2009). How to organize a children's party. Cognitive Edge. Retrieved from <https://www.youtube.com/watch?v=Miw92eZaJg>
- Snowden, D. (2016). Applying natural science to social systems. In *UX is dead, long live UX!* Brighton: UX Brighton.

- Snowden, D. J., & Boone, M. E. (2007). A leader 's framework for decision making. *Harvard Business Review*, 85(11), 68–76, 149.
- Spector, P. (1986). Perceived Control by Employees: A Meta-Analysis of Studies Concerning Autonomy and Participation at Work. *Human Relations*, 39(11), 1005–1016.
- Stacey, R. (2010). *Complexity and organisational reality* (2nd edition). London and New York: NY: Routledge.
- Stekelenburg, J. Van, & Klandermans, B. (2010). The social psychology of protest. *Sociopedia.isa*, 1–13.
- Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress* (Vol. 12).
- Stockholm Resilience Centre. (n.d.). Advancing Complex Adaptive Systems and resilience thinking.
- Stott, C., & Drury, J. (2017). Contemporary understanding of riots: Classical crowd psychology, ideology and the social identity approach. *Public Understanding of Science*, 26(1), 2–14.
- Stringer, E. (2007). *Action Research (Third Edition)*. London: Sage Publications.
- Tandon, R. (2000). *Citizenship, Participation and Accountability, Concept Note for Planning Meeting of the Development Research Centre on Citizenship, Participation and Accountability*.
- Tanner, T. M., Jackson, C., Seballos, F., & Clark, J. (2013). Learning to tackle climate change: Innovative approaches to knowledge sharing and co-production in highly dispersed development organisations. *Knowledge Management for Development Journal*, 9(1), 9–23. Retrieved from <http://journal.km4dev.org/index.php/km4dj/article/viewFile/131/193>
- Tay, L., & Diener, E. (2011). Needs and subjective well-being around the world. *Personality and Social Psychology*, 101(2), 354–365.
- Termeer, C., Dewulf, A., & van Lieshout, M. (2010). Disentangling scale approaches in governance research: Comparing monocentric, multilevel, and adaptive governance. *Ecology and Society*, 15(4), 29. Retrieved from <https://www.ecologyandsociety.org/vol15/iss4/art29/>

- Thaler, R., & Sunstein, C. (2008). *Nudge: Improving decisions about health, wealth and happiness*. New Haven: Yale University Press.
- Benequista, N., & Gaventa, J. (2011). *Blurring the Boundaries: Citizen Action Across States and Societies*. Brighton.
- The World Café. (2008). Cafe to go: A quick reference guide for putting conversations to work. Retrieved from <http://theworldcafe.com>.
- Thoits, P. A., & Hewitt, L. N. (2001). Volunteer work and well-being. *Journal of Health and Social Behavior*, 42(2), 115–131.
- Thompson, S., & Marks, N. (2008). *Measuring well-being in policy: issues and applications*. London: New Economics Foundation.
- Thompson, F., & Perry, C. (2004). Generalising results of an action research project in one work place to other situations: Principles and practice. *European Journal of Marketing*, 38(3/4), 401–417.
- Transparency International. (2015). *Looking Beyond 2015: A Role for Governance*. Berlin: Transparency International.
- Traynor, B. (2010). The essence of weaving. Retrieved from <https://valueofplace.wordpress.com/2010/05/24/the-essence-of-weaving/> [25 August 2017].
- Tschakert, P., & Dietrich, K. A. (2010). Anticipatory learning for climate change adaptation and resilience. *Ecology and Society*, 15(2). Retrieved from <https://www.ecologyandsociety.org/vol15/iss2/art11/>
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86, 320–333.
- UNDP. (2012a). *Fast Facts: AdapTayo. Building Resilience to Climate Change and Disaster Risk*. Makati City: United Nations Development Programme.
- UNDP. (2012b). *Buhay Panatag; Bayang Matatag - Empowering Lives for A Resilient Philippines*. Makati City: United Nations Development Programme.
- Unger, L. (1991). Altruism as a motivation to volunteer. *Journal of Economic Psychology*, 12(1), 71–100.

- United Nations Volunteers. (2011). *State of the world's volunteerism report*. Retrieved from <https://www.unv.org/publications/2011-state-world%E2%80%99s-volunteerism-report-universal-values-global-well-being>
- van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, 134, 504–535.
- Vestergren, S., Drury, J., & Chiriac, E. (2017). The biographical consequences of protest and activism: a systematic review and a new typology. *Social Movement Studies*, 16(2), 203-221.
- VSO Bahaginan. (2012). Country Strategic Plan for the Philippines 2012-2015. Manila: VSO Bahaginan.
- VSO. (2014). VSO's Global Theory of Change: Bringing people together to fight poverty. VSO. Retrieved from <https://www.vsointernational.org/sites/default/files/VSO%20Theory%20of%20Change.pdf>
- Walker, B., Gunderson, L., Kinzig, A., Folke, C., Carpenter, S., & Schultz, L. (2006). A handful of heuristics and some propositions for understanding resilience in social-ecological systems. *Ecology and Society*, 11(1), 13. Retrieved from <http://www.ecologyandsociety.org/vol11/iss1/art13/>
- Weber, E. U. (2013). Doing the right thing willingly: Using the insights of behavioural decision research for better environmental decisions. In E. Shafir (Ed.), *The Behavioural Foundations of Public Policy*. Princeton and Oxford: Princeton University Press.
- Weber, M. (1922). *Economy and Society: An Outline of Interpretive Sociology*. Berkley, CA: University of California Press.
- Weinstein, N. (2014). *Human Motivation and Interpersonal Relationships: Theory, Research and Applications*. Dordrecht: Springer Netherlands.
- Weinstein, N., Rodriguez, L. M., Knee, C. R., & Kumashiro, M. (2016). Self-determined self-other overlap: Interacting effects on partners perceptions of support and well-being in close relationships. *Journal of Research in Personality*, 65, 130–139.

- Weiss, K., Hamann, M., Kinney, M., & Marsh, H. (2012). Knowledge exchange and policy influence in a marine resource governance network, *Global Environmental Change*, 22(1), 178–188.
- Wheatley, M. J., & Kellner-Rogers, M. (1996). *A Simpler Way*. Oakland, CA: Berrett-Koehler Publishers.
- Whyte, D. (2016). Life at the Frontier: The Conversational Nature of Reality. TEDxPugetSound. Retrieved from <https://www.youtube.com/watch?v=5Ss1HuA1hIk>
- Wilson, D., O'Brien, D., & Sesma, A. (2009). Human prosociality from an evolutionary perspective: Variation and correlations at a city-wide scale. *Evolution and Human Behaviour*, 30, 190–200.
- Wilson, J. (2011). Volunteering. *Annual Review of Social Psychology*, 26(2000), 215–240.
- Wood, D., Bruner, J., & Ross, G. (1978). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17, 89–100.
- Wood, D. J., & Gray, B. (1991). Toward a comprehensive theory of collaboration. *The Journal of Applied Behavioral Science*, 27(2), 139–162.
- Woolcock, M. (2001). The place of social capital in understanding social and economic outcomes. *Canadian Journal of Policy Research*, 2(1), 1–35.
- Wright, R. (2014). *Hockney*. A Blakeway and Fly Film Production for BFI, BBC Arts, Screen Yorkshire, *British Film Company* and the Smithsonian Channel.
- Zak, P. J., & Barraza, J. A. (2013). The neurobiology of collective action. *Frontiers in Neuroscience*, 42–50. Retrieved from www.frontiers.org

When did the story take place?
 (Choose only one)
☐ Less than 1 month ago ☒ 1 to 6 months ago
☐ 7 to 9 months ago ☐ 6 to 9 months ago

Your gender:
 (Choose only one)
☐ Male ☒ Female ☐ Declined to identify

Your age:
 27

What is your occupation or what happened in the story?
 (Choose only one)
☐ Helped make it happen ☐ Shared about it happening
☐ Didn't happen ☐ Was affected by what happened

Who benefited from what happened in the story?
 (Choose only one)
☐ The right people ☐ The wrong people ☐ Nobody

Intervaller's phone number / email address:
 085 813 7650 / jessica.walsh@gmail.com

May we contact the intervaller by SMS?
 (Choose only one)
☒ Yes ☐ No

Intervaller's phone number / email address:
 0412 54 42613

This story makes me feel:
 (Choose only one)
☐ Depressed ☐ Hopeful ☐ Inspired ☐ Indifferent
☐ Happy ☐ Frustrated ☐ Angry

Which of these relate to your story?
 (Choose only one)
☐ Food and shelter ☐ Security ☐ Family and friends
☐ Physical needs ☐ Knowledge ☐ Respect ☐ Creativity
☐ Self-esteem ☐ Freedom ☐ Fun

How much is the story about problems and how much about solutions?
 (Choose a point on the line)

Problems Solutions

Events like these in my story happen...
 (Choose a point on the line)

Rarely Often

What is needed to address this problem?
 (Choose all that apply)
☐ Money ☐ Change to government and institutions
☐ Individual and behaviour change
☒ Change to society's attitudes

Give two words to describe your identity
 Proud, intelligent

What role did the main character play in this story?
 (Choose only one)
☐ Victim ☐ Intervener, who helped others
☐ Aggressor or perpetrator ☐ bystander, who did nothing
☒ Teacher, who organised ☐ Follower, who participated
☐ There are no people in my story

What would you go to if you wanted to solve the problem in this story?
 (Choose only one)
☐ Chief or local authority ☐ Family members
☐ Religious leader ☐ Vendor or business leader
☐ Friend, neighbour, or community member
☐ Teacher, health, or government worker
☐ Somebody else (name of those)

The events in your story happened mainly because of...
 (Choose all that apply)
☒ The circumstances people found themselves in
☐ The resources people had available to them
☐ The actions people took ☐ The way people felt

What else would have made a difference in your story?
 If they had done reasonable first to the need of the teenagers and not who not convincing the teenagers had ideas first

VUW/pw/pw/57
 de Bussu unit 5892
 19/04/2018

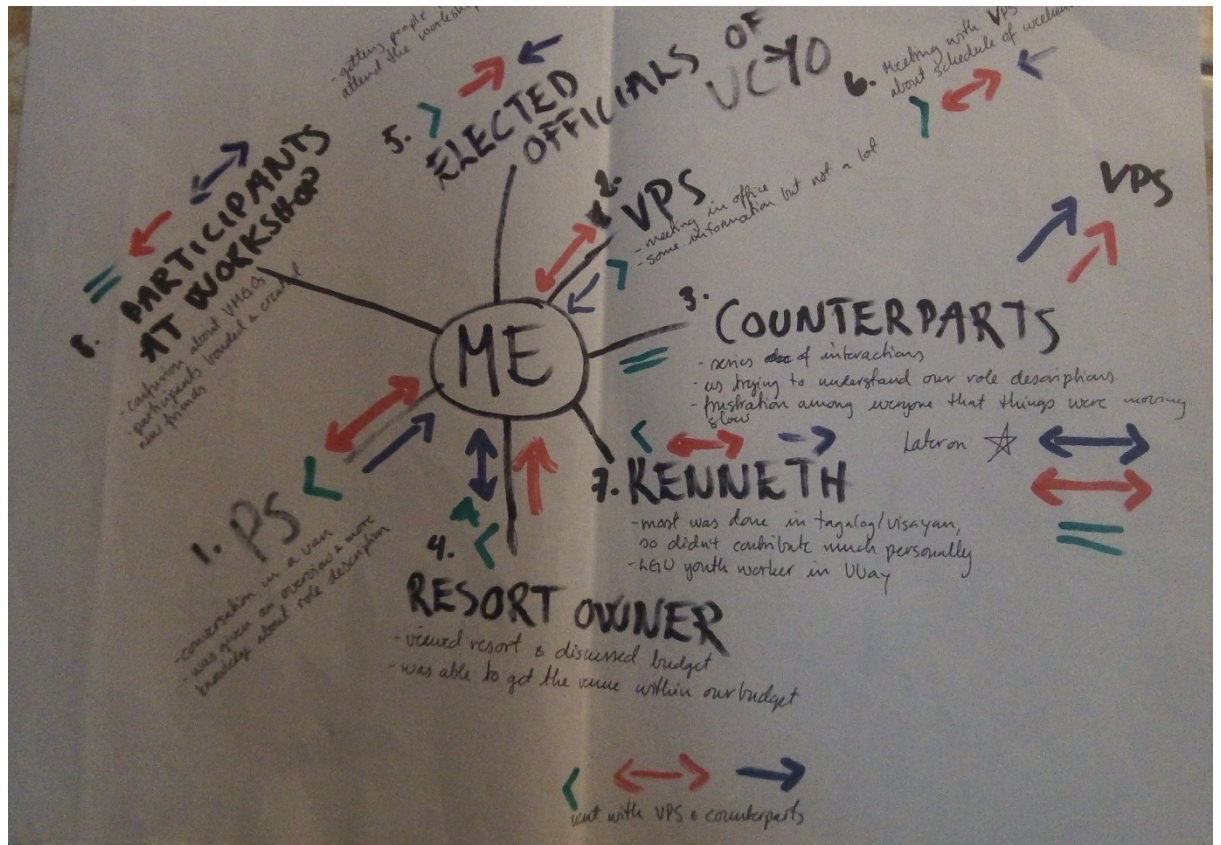
Appendix B

Questions for the participatory network experience mapping

Psychological need (Self-Determination Theory)	Question about each social interaction	Symbol / indicator on map
Relatedness	3. When interacting with this person / group, how did you feel about solving the issue / problem? <ul style="list-style-type: none"> - They had trust in you - You had trust in them - You trusted in each other - You both trusted in somebody else 	Draw arrow in blue identifying direction of influence (or a new arrow to signify someone else) < > = Use the corresponding symbol to record your response
Competency	1. When interacting with this person or group to what extent did you feel able to contribute your own skills and abilities to change things for the better? <ul style="list-style-type: none"> - Not at all - Less than the other person - About the same as the other person - More than the other person 	Draw arrow in green identifying direction of influence (or a new arrow to signify someone else) < = > Use the corresponding symbol to record your response
Autonomy	2. When interacting with this person or group how do you feel your involvement and any follow up action came about? <ul style="list-style-type: none"> - Driven by what is important to you - Driven by what is important to the other person - Driven by what is important to you both - Driven by what is important to somebody else 	Draw arrow in red identifying direction of influence (or a new arrow to signify someone else) < > = Use the corresponding symbol to record your response

Appendix C

Example of a volunteer network experience map



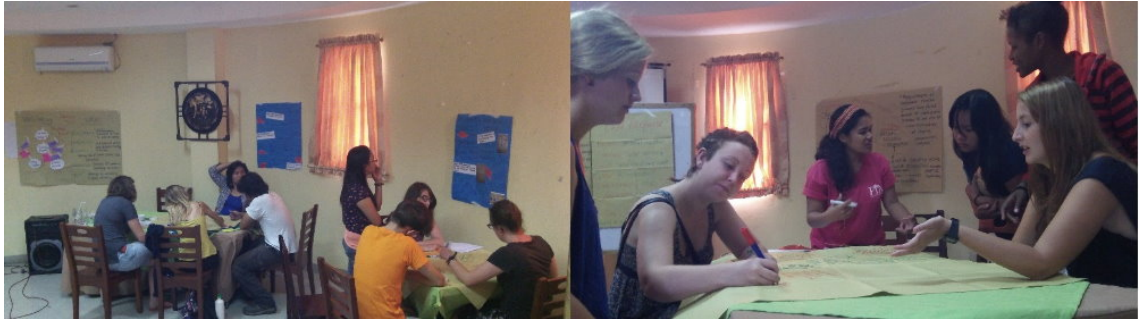
Appendix D

Five storyboards used in group analysis



Appendix E

Group analysis sessions



ICS Volunteers



VSO Bahaginan and Valuing Volunteering



Union of Carood Youth Organisation

Appendix F

Example of a network interview capturing a local youth group's experience interacting with an ICS volunteer

DESCRIBING YOUR INTERACTIONS Code: May 19, 2013 VSO PO

Think of a time when you interacted with ICS volunteer.

Describe what happened ...

During the meeting we all speak out about our ideas. Every time na magmeeting mi in general we finish it successfully

[Every time that we have a meeting in general we finish it successfully]

Describe what changed for you and / or those around you ...

Dili nato mauwow mopa-gawas sa akong mga idea

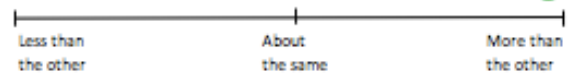
[I am not shy at all telling my ideas]

Nakameet kog mga new friends din mas nadose ko sa mga VSO volunteers. Mas nasabtan nako ang purpose aning organization

[I meet new friends. Then I am able to be close to the VSO volunteers. I absolutely understand the whole purpose of the VSO organization]

Answer the following questions by marking one dot on the slider in the position that best represents your experience of the interaction. If the sentence underneath the slider seems to more faithfully match your experience, please tick the box.

1) On this occasion, to what extent did you feel able to contribute your own skills and talent?



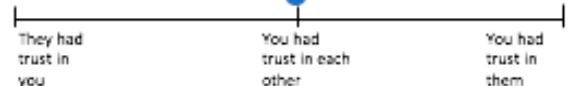
☐ I don't feel like either of us did contribute our skills and talent

2) On this occasion, did you feel the reason you got involved was ...



☐ I don't feel like it was driven by something important to either of us

3) On this occasion, how did you feel about making change happen?



☐ I didn't feel like there was trust