



THE UNIVERSITY *of* EDINBURGH

This thesis has been submitted in fulfilment of the requirements for a postgraduate degree (e.g. PhD, MPhil, DClinPsychol) at the University of Edinburgh. Please note the following terms and conditions of use:

This work is protected by copyright and other intellectual property rights, which are retained by the thesis author, unless otherwise stated.

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

‘You are warmly invited.’

Exploring knowledge exchange seminars as sites of productive interactions and social networking.

Scott Robert Tindal

Declaration

I, Scott Robert Tindal, declare that the work presented in this thesis is my own, save that which has been attributed to their rightful owners.

This thesis is submitted to fulfil part of the requirement for the degree of Doctor of Philosophy at the University of Edinburgh. No part of this thesis has been submitted for any other degree or personal qualification.

Signed: _____ Date: _____

Abstract

This thesis examines Knowledge Exchange (KE) seminars and the wider social, political, and economic environment in which they are situated

Two-way interactive exchanges between academics and Non-Academic Professionals (NAPs) have been identified as an important factor in explaining why some academic research is used by NAPs, or not (Meagher et al, 2008; Mitton et al, 2007; Lavis et al, 2003; Hanney et al, 2003). Despite this, very little research has examined the social occasions where such exchanges occur. This thesis aims to fill this lacuna by examining the process of knowledge exchange through one specific type of intervention (Walter et al, 2003) – that of KE seminars.

KE seminars are a common, almost canonical, strategy for academics wishing to engage with non-academic audiences, yet are relatively unexplored within the KE literature. If ‘sharing research findings with a non-academic audience’ is the sole purpose of KE seminars, then the goal could have been achieved more cheaply through a mail-shot of a briefing paper to a targeted audience (Percy-Smith et al, 2002). By comparison, KE seminars require a considerable investment in resources in terms of time and money. These factors make them theoretically and substantively interesting. This thesis explores the rationale for hosting and attending KE seminars, what benefits participants feel that they gain from attending, and provides insights into how best to facilitate those benefits.

Conceptually this thesis draws on Spaapen and van Drooge (2011) & Molas-Gallart and Tang’s (2011) concept of ‘productive interactions.’ The thesis research examines what makes interactions between academics and NAPs ‘productive’ in the context of KE seminars, and the wider social network, economic and political environment in which those interactions emerge and are shaped.

This thesis is based on a case study of the ESRC Centre for Population Change (CPC). The empirical evidence comes from 27 semi-structured interviews conducted with CPC academics & administrators (13), and NAPs who attended at least 1 CPC-organised KE seminar (14); and an online questionnaire of 48 CPC staff members (representing 75% of the Centre). The interviews were analysed thematically and the online questionnaire was analysed using Social Network Analysis (SNA). The research design was devised to collect data on the motivations, experiences, and understandings of interactions between academics and NAP within the CPC's KE seminars. The social network analysis was designed to reveal the CPC's KE social networks which are pertinent to understanding how the CPC engages with NAPs.

This thesis documents ways in which KE seminars are sites of 'knowledge interaction' (Davies et al, 2008) where multiple actors from multiple organisations with different knowledges come together to engage in a topic of mutual interest. It finds that KE seminars are worthwhile for participants despite being resource-intensive because they fulfil multiple functions which cannot easily be replicated through non-dialogical and non-corporeal interventions. The academic research being presented on these social occasions is just one source of knowledge among many others (ibid). KE seminars are also opportunities for participants to create new informal contacts and strengthen existing ones. In other words, they help develop informal professional networks which is an important component for successful KE (Olmos-Peñuela, 2014b; Grimshaw et al, 2012; Kramer and Wells, 2005; Greenhalgh et al, 2004; Philip et al, 2003; Molas-Gallart et al, 2000).

This thesis makes three original contributions. It shows: how KE seminars fill a number of functions that cannot easily be replicated by indirect forms of non-academic engagement, which makes the investment of resources for hosting and attending them not only desirable but often necessary; how corporeal co-presence is important for facilitating productive interactions (Goffman, 1966; Urry, 2002; 2003); and the major factors which help facilitate 'productive interactions' within KE

seminars. It is a contribution to the KE field generally, and will also be helpful to KE practitioners and academics that are tasked with organising and hosting KE seminars.

Acknowledgements

I would like to express a special appreciation to my supervisors, Professor Lynn Jamieson and Dr Sarah Morton, for their tremendous pastoral and academic support which they have given me over the years as I progressed through the tribulations of writing a thesis.

I wish to thank my viva committee members, Professor Jordi Molas-Gallart and Dr Katherine Smith, for serving as my external and internal supervisors, respectively.

I wish to express enormous gratitude to the CPC academics, researchers, and administrators for allowing me to observe them at their knowledge exchange seminars, to interview them, and survey them. I would also like to express my indebtedness to the non-academic professionals from the various levels of government in the UK and statutory bodies who agreed to let me interview them after attending a CPC knowledge exchange seminar.

I am extremely grateful to Bruce Maher for proofreading this work. Any remaining errors are my own. I would like to thank my fellow students in the CRFR attic for all the joy that we have shared over the years: Aoife, Emma, Harla, Jillian, Julie, Sarah, and Shirani. Finally, I am grateful to my friends and family for supporting and remaining patient with me; particularly in the last 6 months where I ignored you all to finish this project. Thank you for all your love and encouragement: Aloysius, Annemarie, Catriona, Danilo, Derek, Elaine, Eric, Fiona, Graham, Joseph, Joan, Jon, Justin, Ken, Natthanai, Peter, Ron, Rosie, Sahil, Sharad, Susie, Tirion, Wayne.

Table of Contents

1	Introduction	1
1.1	The foundation of the thesis	1
1.2	The research question.....	4
1.3	Rationale for studying knowledge exchange seminars	6
1.4	Definitions.....	8
1.5	Introduction to two key concepts	14
1.5.1	Productive interactions	14
1.5.2	Corporeal co-presence	16
1.6	Structure of the thesis	18
2	The Centre for Population Change case study	21
2.1	Introduction	21
2.2	Structure and governance	21
2.2.1	Funding	21
2.2.2	The institutions and governance of the CPC.....	23
2.3	History of the Centre	25
2.3.1	Beginnings.....	25
2.3.2	The Scottish consortium.....	27
2.3.3	Changes since establishment	27
2.4	The research programme	28
2.4.1	Shaping the research programme	28
2.4.2	The research agenda	29
2.5	Knowledge exchange at the Centre	30

3	Knowledge exchange in context.....	33
3.1	Introduction	33
3.2	The emergence of the evidence-based policymaking agenda	34
3.3	The institutionalisation of the knowledge exchange agenda.....	39
3.4	Targeting research at policy windows	41
3.5	Summary	43
4	Literature Review	45
4.1	Introduction	45
4.2	The knowledge exchange ‘gap’	46
4.3	The importance of interaction	49
4.3.1	The interaction model.....	50
4.3.2	‘Productive interactions’	51
4.3.3	‘Direct’ and ‘indirect’ productive interactions.....	54
4.3.4	Corporeal ‘direct’ interactions.....	58
4.4	Knowledge exchanges events.....	59
4.5	Theories of interaction in the knowledge exchange process	62
4.5.1	Two-way interactive model of knowledge exchange	65
4.5.2	Co-construction models of knowledge exchange.....	67
4.5.3	Integration models of knowledge exchange	70
4.5.4	Summary	73
4.6	Corporeal co-presence: theorising bodily presence in knowledge exchange activities	74
4.6.1	Corporeal co-presence.....	75
4.6.2	The sensory experience of being with others	77

4.6.3	The interaction order: a grammar of interaction	77
4.6.4	Corporeal co-presence and ‘the meeting’	78
4.7	The social dimensions of knowledge exchange seminars	81
4.7.1	Creating social spaces for interaction.....	84
4.7.2	Using hospitality as a way of creating ‘open regions’ for informal interactions	86
4.7.3	Technologically-mediated interactions.....	89
4.8	Relationships and social networks	93
4.8.1	The contemporary literature.....	95
4.8.2	Social network analysis	97
4.8.3	Social networks and knowledge exchange seminars.....	99
4.9	Conclusions.....	100
5	Methodology and research design.....	102
5.1	Introduction	102
5.2	The research design	102
5.2.1	Epistemological underpinnings of the research	102
5.2.2	The case study	105
5.2.3	The empirical process	107
5.2.4	Ethics.....	109
5.3	Methods of data collection.....	111
5.3.1	Observation of seminars	112
5.3.2	Semi-structured interviews.....	115
5.3.3	Online questionnaire	121
5.4	Method of analysis.....	125

5.4.1	Thematic analysis of the interview transcripts	125
5.4.2	Social network analysis	127
5.5	Writing: the overall analysis.....	135
5.6	Reflexivity	137
5.6.1	On the process	137
5.6.2	On working within the institution under examination	138
5.6.3	On interviewing peers.....	139
5.6.4	On interviewing researchers.....	142
5.6.5	Interviewing elites.....	142
5.7	Summary	145
6	The social networks of the Centre for Population Change.....	146
6.1	Synopsis.....	146
6.2	The internal structure of the Centre for Population Change	149
6.2.1	A core-periphery analysis	151
6.2.2	Actor density analysis	152
6.2.3	The geography of the Centre and its effect on the network structure.....	157
6.3	The Centre's non-academic engagement network	163
6.3.1	The Centre's internal knowledge exchange network.....	164
6.3.2	Connecting the Centre with non-academic organisations	167
6.4	Conclusion	181
7	Making a commitment to knowledge exchange seminars	187
7.1	Synopsis.....	187
7.2	Academics' commitment to knowledge exchange seminars	188
7.2.1	Contractual commitment to research funders	189

7.2.2	Commitment from professional self-interest	192
7.2.3	Moral commitment to recompense society	194
7.2.4	Commitment from professional and personal satisfaction	196
7.3	Non-academic professionals' commitment to knowledge exchange seminars	198
7.3.1	Organisational commitment to 'evidence'	199
7.3.2	Personal commitment to academic research	203
7.4	Non-academic participation in knowledge exchange seminars: professional priorities and resources.....	205
7.4.1	Acknowledging the resource commitment	205
7.4.2	Geography, time and travel.....	208
7.4.3	Recession and public sector cuts.....	212
7.5	Exploiting the 'windows of opportunity'	215
7.5.1	The importance of seminar 'relevance'	216
7.5.2	What makes seminars 'relevant?'	218
7.6	Conclusions.....	223
8	Dimensions of 'productive interactions'	229
8.1	Synopsis.....	229
8.2	Seminars as sites of mutual learning.....	231
8.2.1	Non-academic professionals learning about academic social research findings	232
8.2.2	The type of learning: instrumental to conceptual.....	234
8.2.3	Managing expectations of non-academic professionals at knowledge exchange seminars	237

8.2.4	Academics' learning from non-academics' professional perspectives....	239
8.3	Seminars as sites of the co-construction of new knowledge.....	244
8.3.1	Co-construction of knowledge from interactions between academics and non-academic professionals	244
8.3.2	Co-construction of knowledge from interactions between non- academic professionals	248
8.4	Seminars as sites dedicated to thinking and reflecting.....	253
8.5	Seminars as sites of networking.....	255
8.5.1	Networking between academics and non-academic professionals ...	257
8.5.2	Networking between non-academic professionals	260
8.6	Conclusion	265
9	Facilitating productive interactions through corporeal co-presence	270
9.1	Synopsis.....	270
9.2	Academics' embodiment and its influence on interactions	272
9.3	Corporeal co-presence in facilitating productive interactions.....	275
9.3.1	Bodily attendance as an act of commitment.....	276
9.3.2	A 'real' sensory experience of being together	277
9.3.3	Informal chats and the 'meeting of the minds'	281
9.3.4	Corporeal co-presence in facilitating relationship-building	283
9.4	The role of food in facilitating productive interactions	292
9.4.1	Food as an attraction, and a gesture of hospitality.....	293
9.4.2	Mealtimes as 'open regions' for facilitating productive interactions	295

9.5	The role of videoconferencing technology in knowledge exchange seminars	300
9.5.1	Rationale for using videoconferencing technologies to participate in knowledge exchange seminars.....	301
9.5.2	Videoconferencing technology as a substitute to physical attendance	304
9.5.3	Situating the body in corporeal telecopresent interactions.....	306
9.6	Conclusion	310
10	Discussion and conclusion.....	315
10.1	Interaction and relationships at the core of knowledge exchange seminars	315
10.2	The wider social and political context of knowledge exchange seminars	317
10.2.1	The social environment	317
10.2.2	The political environment.....	319
10.3	The knowledge exchange seminar.....	321
10.3.1	What are productive interactions?.....	321
10.3.2	Where do productive interactions occur within seminars?	325
10.3.3	Why does being face-to-face matter?	327
10.3.4	Theorising ‘direct’ face-to-face interactions	329
10.4	Final reflections	330
10.4.1	Limitations of the research.....	330
10.4.2	Implications for future research.....	331
10.4.3	Implications for seminar organisers	333
10.5	Finally	334

Figures

Figure 1 Logos of the 10 institutions involved in the CPC.....	23
Figure 2 Basic interactive two-way model of knowledge exchange.....	65
Figure 3 Two-way model of the knowledge exchange process.....	66
Figure 4 Basic model of the co-construction of knowledge through interaction.....	67
Figure 5 Basic model of decentralised interaction and knowledge integration.....	70
Figure 6 Research log-frame	107
Figure 7 Research log-frame	108
Figure 8 Sample frame of interview participants	119
Figure 9 Demonstration network.....	132
Figure 10 A sociogram of the internal CPC network structure.	150
Figure 11 Density of network, by actors' professional role.....	152
Figure 12 Density of network, by actors' professional role.....	153
Figure 13: A sociogram of the internal CPC network structure	160
Figure 14 CPC KE peer support network	165
Figure 15 the Centre KE network	169
Figure 16 2-mode network showing CPC members' connections to organisations	172
Figure 17 Simplified diagram showing the role of brokers	176
Figure 18 Density analysis of the CPC KE by location	178
Figure 19 Concentric circles model of relevance of KE seminars.....	227
Figure 20 'Hot topics' and 'strategic interests' within government interests.....	228

Acronyms

CPC	Centre for Population Change
CRFR	Centre for Research on Families and Relationships
EBPM	Evidence-Based Policy Making
EIG	Economic Impact Group
ESRC	Economic and Social Research Council
FM	First Minister (of Scotland)
FMQs	First Minister's Questions
GROS	General Register Office for Scotland
HEI(s)	Higher Education Institution(s)
KE	Knowledge Exchange
LA(s)	Local Authority (Authorities)
LSCS	Longitudinal Studies Centre – Scotland
MP	Member of Parliament
MSP	Member of the Scottish Parliament
NAP(s)	Non-Academic Professional(s)
NGO	Non-Governmental Organisations
NHS	National Health Service
NRS	National Records of Scotland
ONS	Office of National Statistics
PI(s)	Principal Investigator(s)
PM	Prime Minister
PMQ	Prime Minister's Questions
RAE	Research Assessment Exercise
RCUK	Research Councils UK
REF	Research Excellence Framework
RIB	Research Initiative Board
SC	Scottish Consortium
SDI	Scottish Demography Initiative

SG	Scottish Government
SLS	Scottish Longitudinal Study
Soton	University of Southampton
SSRC	Social Science Research Council
STEM	Science, Technology, Engineering and Mathematics
VCT(s)	Video-Comminutions Technology (Technologies)

1 Introduction

1.1 *The foundation of the thesis*

Knowledge transfer and exchange (KTE) is **an interactive process** involving the **interchange of knowledge** between research users and researcher producers. (Mitton et al, 2007: 729).

The research literature on which processes are best at transferring research knowledge suggests that **passive processes are ineffective** and that **interactive engagement may be most effective**, regardless of the audience [...]. Research on the transfer of research knowledge [...] has demonstrated that **interaction** between researchers and these audiences (or representative members of these audiences) appear to be important in explaining why some types of research knowledge are used and not others. (Lavis et al, 2003: 226).

Interactive and social approaches seem to hold the most promise [...] simply just enhancing discussion and debate in research seminars and workshops to encourage greater **two-way exchange** – are most likely to be effective. (Nutley et al, 2007: 305).

These three quotations¹ illustrate the starting point of this thesis. Mitton et al claimed that knowledge exchange ‘is an interactive process’ involving an ‘interchange of knowledge’ between academics (research producers) and non-academics (research users). Lavis et al added that anything other than interactive

¹ **Bold type** added to highlight key phrases and do not appear in the original texts.

‘You are warmly invited.’

approaches to disseminating research are ‘ineffective.’ Nutley et al said that ‘discussion and debate’ in settings where academics and Non-academic Professional (NAPs) are physically together (such as ‘seminars and workshops’) are ‘the most likely to be effective.’

A meta-theme to emerge from the literature is that effective knowledge exchange requires dialogical exchanges between actors if there is to be research uptake and use by those from outside academia (Morton and Flemming, 2013). Some have argued that these dialogical exchanges should be conducted via face-to-face encounters (Wilkinson et al, 2012; Nutley et al, 2007; Mitton et al 2007; Innvær et al, 2002).

This thesis examines this assumption that face-to-face interactions are so important to the KE process from the perspectives of those who engages in such practices, and asks why that is the case. It does so by examining one type of site of face-to-face social encounters, one of the most intimate and canonical interfaces between academia and wider society: Knowledge Exchange (KE) seminars.

This thesis examines KE seminars by drawing on the KE and sociological literatures. It seeks to understand why academics organise and host KE seminars, and why NAPs chose to participate in them. It also seeks to understand what benefits can be gained from participation, and its barriers. The thesis is not directly concerned with the ‘impact’ that such events have on policy or practice, but rather the relationship between seminars and the wider economic and social context in which they are situated. In particular, it is concerned with the connection between seminars and the social networks in which they are situated.

Nutley and her colleagues’ (2007) quotation above is illustrative of a prevalent view within the contemporary KE literature that KE is not a mechanical and rational process, but rather a complex and socially-mediated process shaped by interpersonal relationships. They situate ‘interaction’ not as an abstract concept that happens outside social reality, but one that is embedded within professional

‘You are warmly invited.’

practices such as research team meetings, seminars, workshops, webinars, meetings, email exchanges, and so on (see also Moore et al, 2011).

Indeed, the KE literature has increasingly highlighted how interactions are mediated and facilitated via interpersonal contact and relationship-building (Best and Holmes, 2010; Mitton et al, 2007; Thompson et al, 2006; Court and Young, 2003; Crewe and Young, 2002; Innvær et al, 2002; Molas-Gallart et al, 2000). There has been a greater call in recent years within the KE literature to examine these professional interpersonal relationships through network perspectives (Lomas, 2007; Gabby and le May, 2004; Greenhalgh et al, 2004; Court and Young, 2003) – this is clearly highlighted in the words of Best & Holmes (2010) and de Jong et al (2014):

Networks are believed to be powerful strategies to increase the effectiveness of KTA. They [...] provide a nexus for further study. (Best and Holmes, 2010: 152).

Interactions can be rather complex. The network configuration of actors (researchers, intermediaries and stakeholders), research fields, and societal sectors involved may all influence societal impact and the way it is or isn't generated. There is an urgent need for more in-depth study of these interaction processes. (de Jong et al, 2014: 3).

Both these authors place considerable emphasis on the role of networks in shaping interactions and the wider KE process, and highlight the need for further study of those networks.

This introduction posits that KE is facilitated via interactions (particularly those which are conducted face-to-face) and networks of interpersonal relationships. Yet this thesis attempts to go beyond stating the face-to-face interactions are important, and examines *why* being face-to-face is important, and the consequences that such engagement has for the KE process. This thesis will argue that KE seminars are

‘You are warmly invited.’

connected to both interactions and social networks. They are places where such networks of professionals are brought together for the purpose of engaging with each other to discuss academic research and its implications. They are places where contacts are made and relationships reaffirmed.

The KE literature has illustrated the importance of face-to-face, two-way (dialogical) interactions and interpersonal relationships for effective KE. Yet, if ‘corporeal co-presence’ is a prerequisite for engaging in dialogue and relationship-building, it remains surprising that so little research has examined those times and places where such productive interactions and network-building occur, and, more importantly, why being face-to-face is so critical in these processes. It is this lacuna that this thesis attempts to fill through an examination of KE seminars.

This thesis is a case study built on research carried out in a demographic research Centre called the Economic and Social Research Council (ESRC) Centre for Population Change (CPC). This thesis does not examine how the CPC’s research findings were used by NAPs in their professional work. Rather, it is an examination of the wider set of social and political circumstances in which those seminars take place, in an effort to identify ‘productive interactions’ amongst participants who attend them, and how best to facilitate such fruitful exchanges. Within this thesis the CPC is the case study, while it is the KE seminars that form the individual case sites from which comes the data used in this thesis.

1.2 The research question

The claim made within the literature is that face-to-face interactions are important within the KE process. This thesis queries this assumption to examine what those who participate in such practices (in this case, participating in KE seminars) think about this statement. If there is something ‘special’ about being face-to-face with others in order to disseminate and access academic research, then this research

‘You are warmly invited.’

seeks to understand *why* being face-to-face is so important in facilitating the KE process, and what barriers and constraints there are in this form of engagement.

The overall research question is:

‘What functions do academics and non-academic professionals feel knowledge exchange seminars serve, and why do they feel that coming together face-to-face is necessary for facilitating those functions?’

This question is explored through four sub-questions which are addressed in each of the four analysis chapters:

1. What is the social context in which CPC members’ disseminate their research?
2. Why do academics and non-academic professionals commit to hosting and attending CPC KE seminars, and what resources are required of them to make such commitments?
3. What makes face-to-face interactions, in the context of KE seminars, ‘productive’ in the view of the academic and NAP participants?
4. Why do KE seminar participants choose to physically meet other professionals face-to-face in order to engage with academic research findings and their implications?

Why do KE seminar participants choose to physically meet face-to-face in order to engage with academic research findings and their implications?

1.3 Rationale for studying knowledge exchange seminars

It is prudent to justify at this early stage why this thesis is primarily concerned with KE seminars.

First, some of the KE literature has emphasised the importance of two-way, face-to-face interaction as being central to effective knowledge exchange. The ESRC describes KE as an opportunity for:

...opening a **dialogue** between researchers and research users so that they can **share ideas** [...] this can involve a range of activities; from seminars and workshops to placements and collaborative research. By creating dialogue, research can more effectively influence policy and practice, thereby maximising its potential impact on the economy and wider society. (ESRC, 2015a).

In this quotation, the ESRC creates a discourse in which maximum ‘potential impact’ is achieved through dialogue in the context of KE activities. All of the activities the ESRC offers as examples place emphasis on social situations where people are physically together such as seminars, workshops, placements, and collaborative research. Understanding these social occasions where people are face-to-face is therefore important in comprehending the wider *process* of knowledge exchange. As stated, KE seminars are one such example of a social occasion. They represent a personable interface between academia and wider society that is worthy of study.

Second, KE seminars occur frequently. They are an increasingly common activity in academic life. There are currently no data or estimates of how common they are, but the ESRC (the primary funder of the CPC) expects all academics who are funded through its grants to engage with those from outside academia and asks grant applicants to consider and outline their proposed knowledge exchange activities as

‘You are warmly invited.’

part of their research grant application to them (ESRC, 2014). KE seminars are a common strategy to fulfil this criteria and are becoming increasingly canonical.

Third, KE seminars represent a significant investment in resources for research funders (ESRC, 2014) and for all the actors involved - academics, KE professionals, support and administrative staff, and NAPs.

For the academics and KE professionals who arrange and host KE seminars, the organisation and execution of such events can be time-consuming. Materials (such as PowerPoint presentations or briefing papers) must be prepared and printed (or circulated); the event format and schedule need to be designed; venues must be booked; advertising needs to be circulated across professional networks; and so on.

For NAPs, even a ‘free’ KE seminar event requires a significant time commitment compared with, for example, reading a briefing paper. NAP attendees often have to justify to themselves or their superiors why it is worth spending time and money (which can be a considerable investment if there is a need to travel significant distances) to attend such social occasions.

Along with the investment in resources for the people involved, the research funders themselves (such as the ESRC) contribute significantly to KE activities, including the provision of dedicated funds, employing a small KE team, and offering other support services and advice documents designed to assist those organising and hosting KE events (ESRC, 2014).

Given this investment, it is surprising that the KE literature remains rather silent on such a common KE activity. Thus, it is pertinent to examine KE seminars and the wider social and political context in which they take place; why NAPs decide to attend; how they all experience them; and what functions they feel they serve in their professional lives. Understanding what motivates people to engage in costly, but common, KE seminars is paramount to understanding a key stage in the knowledge exchange process.

1.4 Definitions

Research

What qualifies as ‘research’ and who does it will always be contentious and difficult to discern. Nutley et al briefly recognised the ambiguity of defining ‘research,’ but they felt no need to specify what they considered it to be (2007: 22). They did, however, recognise that it can be conducted by a variety of different people from both inside and outwith academia and can include activities which are not typically considered ‘research’ (offering examples such as systematic enquiries and stakeholder consultations). They concluded that what constitutes ‘research’ will always be socially situated.

For the purpose of this thesis, such a conclusion is too vague. First, this thesis recognises that many people outside academia conduct research (including governments, think tanks, and businesses). Yet in the interests of clarity, when this thesis uses the term ‘research,’ it is referring specifically to *academic* research carried out in universities and based on the principles of scientific enquiry constructed on systematic observation (empiricism) and reason (logic) in order to come to a conclusion about the social and natural world. More specifically, the research this thesis is referring to is a programme of academic demographic research carried out by academics funded by the CPC. The CPC is an interdisciplinary research centre drawing on a number of social science disciplines (see chapter 2).

When this thesis refers to research conducted outside academia, it will be described as ‘government research,’ or more generically, ‘non-academic research.’

The phrase: ‘the research which informs this thesis’ is used when describing the PhD research on which this thesis ultimately is based.

Academics

Within the context of this thesis, academics are scholars based in universities who conduct research. More specifically, this thesis makes reference to academics only in

‘You are warmly invited.’

relation to those engaged in empirical research within the CPC. They are employed in a number of different academic roles, but all of whom are involved in the process of academic research production. These roles include:

1. Senior academics. These are the CPC’s Principal Investigators (PIs). They hold permanent academic positions within universities. Many of the CPC’s PIs hold professorships, readerships, and senior lectureships; and are in permanent positions in their own institutions and have overall responsibility for the research projects which they lead.
2. Academic researchers, less senior in rank, are those who carry out the substantive elements of the research projects to which they are assigned. They are generally (but not always) employed to work on specific research projects, and only for the duration of the project. They typically hold positions such as research fellowships, research associates, and research assistants.
3. PhD students. These are postgraduates who embark on a programme of research with the aim of contributing to the body of knowledge. The students are expected to complete a substantial dissertation, normally no more than 100,000 words. Within the CPC, all the PhD students worked on projects which were outlined by the senior academics, rather than projects that they themselves had devised.

Non-academic professionals

The KE literature often refers to this group of people as, inter alia, ‘stakeholders,’ ‘non-academic users’ (Molas-Gallart and Tang, 2011) or ‘research users’ (Nutley et al, 2007). This thesis does not use the first term because it suggests that academics are not stakeholders in the exchange. It does not use the second or third term because this thesis is not about how professionals ultimately ‘use’ research, and so

the term seemed inappropriate here. Therefore, the term ‘Non-Academic Professionals’ (NAPs) is used. It is a broad term which collapses a wide range of different professional roles into a single category. This has a consequence of creating a dichotomy between academics and NAPs throughout the whole thesis. However, this is not to be read as an assumption that they constitute ‘two-communities’ (Vivian and Gibson, 2003). The term NAP is used here only in the interests of parsimony and clarity.

Within this thesis, the term NAP only refers to those who participated in at least 1 CPC KE seminar for professional purposes, rather than to ‘interested’ members of the public.

NAPs can be policymakers, practitioners, elected representatives, and other professionals who are not academics. They can be of any seniority. Within this thesis:

1. ‘Policymaker’ refers to senior civil servants at any level of government who are responsible for developing public policy;
2. ‘Policy support’ refers to those who are responsible for gathering and presenting the evidence base for policymakers or elected representatives. This term covers a wide range of occupations in various institutions and at various levels of seniority.
3. ‘Analyst’ refers to those who analyse raw data to produce evidence. Analysts may also fulfil similar functions to those in policy support but typically worked in service-delivery settings such as local authority, social work, or the NHS.

The Centre

When capitalised, ‘the Centre’ refers to the ESRC Centre for Population Change (CPC) which is the case study site on which this thesis is ultimately built. The term ‘Centre’ is used in place of ‘CPC’ to prevent the overuse of the latter.

Knowledge exchange

The term ‘knowledge exchange’ describes a process through which academic research knowledge is shared with wider society. That process is conveyed by a number of different terms, depending on how the process is conceived and what activities that process covers, including: knowledge transfer; knowledge translation; knowledge exchange; knowledge integration; knowledge mobilisation; etc. The use of different terms to signify more or less similar processes or different aspects of different processes across a variety of fields has led to significant conceptual ambiguity, and how those concepts relate to each other (Graham et al, 2006; Shaxson et al, 2012). These different concepts have all obscured the fact that they may describe similar or different processes, but that they are systemically related to each other because they describe a relationship linking together research, policy, and practice through the movement of ‘knowledge’ across these three realms (Shaxson et al, 2012).

The term ‘knowledge transfer’ has traditionally been used to describe this process. However, the term derives from STEM subjects where the relationship between research and policy and practice is viewed as a linear and rational process (Nutley et al, 2007; Shaxson et al, 2012; Graham et al, 2006). Thus, the term has been critiqued within the KE literature for its possible inappropriateness in describing the complex reality of non-academic engagement, particularly from within the social sciences (Byrne, 2011; Davies et al, 2008).

Tyndèn (1993) preferred the term ‘knowledge interplay’ while Davies et al (2008) advocated the term ‘knowledge interaction.’ Shaxson et al (2012) preferred to use

‘You are warmly invited.’

the term K* to refer to the whole body of concepts which are systemically related to collectively describe the process through which academic knowledge is shared with, and impacts upon, wider society.

The CPC (2007) uses the generic and more prevalent term ‘knowledge exchange.’ More recently, the ESRC has also begun to use the term ‘knowledge exchange’ to describe:

...a two-way process where social scientists and individuals share learning, ideas and experiences [...]. By creating a dialogue between these communities, knowledge exchange helps research to influence policy and practice. (ESRC, 2015a).

The nature of the interaction is generally conceived as a ‘two-way’ exchange, but this does not mean that interactions only occur between academics and NAPs. This thesis argues that seminars provide forums for exchanges amongst NAPs themselves, which can be facilitated by academics but with minimal input from them (Escobar, 2011). Thus, this thesis uses the term ‘knowledge exchange’ to refer to a multi-directional interactive process between different groups of people, rather than one only between academics and NAPs.

Dissemination

In this context of this thesis, dissemination refers to the act of spreading academic knowledge beyond academia in a more-or-less targeted fashion (Graham et al, 2006; Nutley et al, 2009). In this thesis, dissemination is the communication of research across a network of actors. As research is disseminated it changes and adapts depending on how actors understand and draw value from the research in the context of their professional work. Lomas (1993) and Greenhalgh et al (2004) made a helpful distinction between diffusion and dissemination. For them, the former is

‘You are warmly invited.’

passive, unplanned, and uncontrolled. The latter is active, targeted, and tailored; including via oral presentations (such as those within KE seminars, Walter et al, 2003).

Knowledge exchange seminars

This thesis is primarily an examination of KE seminars and the networks which support them. ‘Seminars’ are frequently cited as an example of a dissemination activity, and this was demonstrated in the ESRC quote above. Shaxson et al (2012), Nutley et al (2007), and Walter et al (2003) all describe KE seminars as a type of ‘engagement activity,’ a ‘dissemination intervention,’ or ‘staged event.’ A number of research papers (Percy-Smith et al, 2006; Weyts et al, 2000; Bogenschneider et al, 2000; Philip et al, 2003; Norman, 2004) offer empirical work examining seminars. Yet, despite their appearance in the KE literature, there is a tendency to assume that readers will know exactly what activity (or set of activities) is being referred to.

‘Seminar’ is from the Latin ‘seminarium,’ meaning a ‘seed-garden’ or ‘seed-plot’ from the word ‘semen,’ ‘an originator, a seed, a source.’ and rium, the latin word for ‘room.’

In this thesis, a KE seminar is a forum for bringing people together to discuss research and facilitate informal networking opportunities among participants. It is a semi-formal, planned assembly of people who have physically come together at a particular time and place to engage with a piece of academic research of mutual professional interest, and to discuss its relevance to, and implications for, policy.

KE seminars are one form of an engagement activity amongst many others which collectively may be called ‘KE events’ which can take a number of different formats including meetings; press briefings; expert panel sessions; debates; workshops; conferences; and so on. KE seminars might be by invitation only, or open only to specific audiences, or open to a wider public. They might be hosted in a variety of different venues including universities; government buildings; public buildings (eg

libraries, community centres); or semi-public buildings (eg hotels, conference centres). KE seminars are organised and hosted or co-hosted by academics (sometimes with the help of KE professionals and NAPs). They are a relatively informal and intimate mode of engagement, although they are still scheduled and carefully planned gatherings. Seminars contain components within the schedule for active participation by attendees, usually through discussion, debate or dialogue.

1.5 Introduction to two key concepts

KE seminars are explored theoretically in this thesis through the concepts of ‘productive interactions’ (Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011; de Jong et al, 2014) and ‘corporeal co-presence’ (Zhao, 2003; Urry, 2002; 2003; Goffman, 1958; 1966; 1971).

1.5.1 Productive interactions

The thesis explores interactions at KE seminars by using Spaapen & van Drooge (2011) and Molas-Gallart & Tang’s (2011) conceptual framework of ‘productive interactions’ as its starting point. ‘Productive interactions’ is a conceptual rubric² which focuses on exchanges between academics and NAPs by examining the wider social context of interactions between academics and NAPs which leads to the emergence of new knowledge which is scientifically robust, professionally valuable, and socially relevant to all those who have contributed (Spaapen and van Drooge, 2011: 212). Molas-Gallart and Tang (2011) claimed:

...that for social impact to take place, a contact between researchers and non-academic stakeholders must have taken

² Called SIAMPI. This stands for: ‘Social Impact Assessment Methods for research and funding instruments through the study of Productive Interactions between science and society’ (Spaapen and van Drooge (2011: 212).

place. When this contact leads to an effort by the stakeholders to engage with the research we refer to it as ‘productive interaction.’ (2011: 219).

The concept of productive interactions is one which focuses interactions and their wider social and political contexts which leads to those interactions occurring. The concept attempts to identify the process of academic-NAP engagement, identifying and evaluating the *outcomes* (ie ‘impact’).

From these authors’ accounts, both Spaapen & van Drooge (2011) and Molas-Gallart & Tang argued that ‘contact between researchers and non-academic stakeholders’ (ibid: 219) can be facilitated through various media including research publications and other written forms of communication: ‘it need not be personal’ (ibid: 226). This thesis problematises this conflation between two quite different forms of interaction (direct and indirect) and argues through the course of the empirical work presented in this thesis that there are qualitative differences between them which would justify conceptualising them as discrete interactive processes. Interaction is a reciprocal form of engagement (ie, it is dialogical) which cannot justifiably be applied to research publications, briefing papers, or blogs. Furthermore, this thesis will argue that interactions should ideally not only be person-to-person, but also face-to-face. It will argue that there are benefits of corporeally-present dialogue in making interactions ‘productive.’ However, this thesis recognises that written material can be important as a primer which can help facilitate interactions in face-to-face situations (Bogensneider et al, 2000; Norman, 2004), but it is the position of this thesis that such indirect and non-reciprocal communication channels are not ‘interactions.’ As such, this thesis focuses on ‘direct’ face-to-face interactions between academics and NAPs in the context of KE seminars.

1.5.2 Corporeal co-presence

Attending KE seminars represents a significant investment in resources for both the organisers and the participants. Thus, it is imperative to think about what the benefits are from participating in such gatherings. Why go to a seminar if you can learn about research results from a briefing paper? This thesis addresses this question drawing on the work of Goffman (1966, 1971), Urry (2002; 2003; Larsen et al, 2006) and their concept of ‘corporeal co-presence.’ Corporeal co-presence is a social situation in which people are physically present (co-located) and engaged with each other (co-present) (1966: 22). It includes both spatial and social aspects. It is the most ‘primitive mode of human togetherness’ (Zhao, 2003: 447): when humans are physically together, within sensory range, face-to-face and body-to-body. Goffman states that:

Co-presence renders persons uniquely accessible, available, and subject to one another. (1966: 22).

KE seminars are sites of such corporeal co-presence; they are places where people who share a mutual interest physically come together to engage with academic research through their interactions with one another. In other words, access to, and discussions around, academic research are mediated through exchanges with other people. KE occurs through interactions among people. This means that discussions evolving around academic research (and its implications) are not disembodied and socially isolated; rather, they are carried through people who are engaged with each other. This thesis argues that those interactions are best mediated through face-to-face engagement. Who is communicating academic messages and its implications strongly shapes how NAPs perceive and evaluate such research (Gabby and le May, 2004).

Such dialogical exchanges occur within physical spaces. In our professional and private social lives we meet different groups of people at work, at the yacht club, a

‘You are warmly invited.’

jazz bar, a church, etc. Such sites are ‘open regions’ in the sense that different people can come and go. When we meet others at a jazz bar, for example, we have serendipitous meetings with people who share a common interest with us. Such sites offer the opportunity for the creation of new contacts and the reaffirmation of old ones (Goffman, 1966). Some places are better at creating that chance encounter than others. KE seminars are more than just forums for engaging in productive interactions with one another. They are also spaces in which to meet existing contacts, as well as an open region for meeting others who share mutual professional interest in the research being presented. Although seminars are often stand-alone events, they are not socially isolated. They are moments of ‘meeting,’ and as such:

These moments of physical co-presence and face-to-face conversations are crucial to patterns of social life that occur “at a distance,” whether for business, leisure, family life, politics, pleasure or friendship. So life is networked, but it also involves specific co-present encounters within specific times and places. ‘Meetingness’ [is] central to much social life. (Urry 2003: 155).

Urry (2002; 2003) and his colleagues have written extensively on the significance of meetings and corporeal co-presence in the context of professional life which makes travelling to meetings important, and in many ways unavoidable. Larsen et al (2006) claim that while the literature on the significance of corporeal co-presence in the context of professional meetings is underdeveloped, it is important for understanding why professionals and professional organisations invest considerable effort and resources in organising and attending them. Some of the largest corporations fly senior staff from London to New York to have a meeting, attend a drinks reception, and then rush to the airport to return to London that same evening. Of course, the scale of CPC KE seminars is not on a par with this, but why go to this effort? There is importance of professionals to physically come together to

meet and engage with others. Professional dialogue, rapport- and network-building make, in Urry’s words, ‘travel obligatory’ (2002: 255); it ‘is not an optional add-on’ (p. 263). It is through this conceptual lens that the thesis explores participants’ narratives when they describe their motivations for physically attending CPC KE seminar events.

1.6 *Structure of the thesis*

This thesis is divided into 10 chapters. The following two short chapters outlines the case study of the CPC and the political context of KE. This is followed by the literature review and methodology. The following four chapters presents the research findings. The final chapter is a discussion and final conclusions.

Chapter 1 introduced the foundational principles of the thesis, including the importance of studying interactions between academics and NAPs. It justifies why KE seminars should be of interest to KE scholars and professionals as social occasions where such interactions occur. It also offers working definitions of terms which are relevant to this thesis, and introduces two concepts which bind this thesis together - productive interactions and corporeal co-presence.

Chapter 2 presents the case study from which the empirical evidence used in this thesis is derived, the ESRC Centre for Population Change. It describes the development of the Centre, its structure, governance, and funding. It also outlines its programme of research and its KE policies.

Chapter 3 outlines the policy context in which the CPC is situated. It is divided into three parts. The first explores the emergence of the Evidence-Based Policymaking (EBPM) political agenda from the 1960s onwards which drives a ‘demand’ by the government for academic social science research knowledge. The second describes what this thesis terms the ‘institutionalisation of the KE agenda’ in which academic social research is ‘supplied’ to wider society. It then concludes with a discussion of the ‘market’ of academic research and its supply/demand dynamics.

Chapter 4 explores the literature relevant to this thesis. It outlines in more detail the importance and role that ‘interaction’ has in the KE process. It also examines the role of bodily presence in interaction and networking. It then examines a number of social dimensions of KE including the role of relationships; social networks; food; and technology in facilitating ‘productive interactions’ at KE seminars.

Chapter 5 outlines the research methodology. It explains the epistemological underpinnings of the thesis and outlines the details of the case study approach used, and the empirical process for gathering and analysing data. The chapter also outlines ethical considerations and concludes with some reflections on the research and thesis-writing process.

Chapter 6 is the first findings chapter, entitled ‘The Centre’s social networks.’ It combines findings from the social network and thematic analyses to describe the CPC’s internal network structure, how this impacts on its KE practices, and the CPC’s connections with non-academic organisations. This chapter helps examine professional connections across institutions and reveals the invisible professional networks in which we are all embedded. The analysis focuses on the role that geography and institutional boundaries have played in shaping the CPC’s KE networks. These have both constrained and provided opportunities for the CPC in exercising its ability to disseminate its academic research to a wider audience through seminars. Understanding social networks between the CPC and its non-academic partners is an important first step in understanding academic/non-academic cross-institutional connections and their relationship to KE seminars.

Chapter 7, ‘Committing to knowledge exchange seminars,’ examines why academics choose to organise and host KE seminars, and why NAPs choose to attend them. This chapter also identifies some of the barriers to participation, in particular, the effect that geography and organisational capacity have had on NAPs’ ability to participate in ‘optional’ KE activities. Finally, the chapter examines the role that the political environment has on driving NAPs’ interest in specific academic topics at certain times but not others.

Chapter 8, ‘Dimensions of knowledge exchange,’ is an examination of what functions academics and NAPs feel that seminars serve. These include finding out about research findings; mutual learning; the co-construction of *new* knowledge; sites dedicated to thinking and reflecting; and finally, sites in which professionals can reinforce their existing relationships and establish new ones. It is when one or more combinations of these functions come together that this thesis would consider such interactions within KE seminars as being ‘productive’ ones.

Chapter 9 is the final findings chapter, entitled ‘Facilitating productive interactions through corporeal co-presence.’ This chapter explores why academics and NAPs choose to physically come together to engage with research and each other. It examines the influence of embodiment and intercorporeality on the nature of productive interactions; the role of the body in communication; and the role that food and technology can play in facilitating productive interactions within KE seminars.

Chapter 10 brings together the different elements of the empirical findings and reflects on the role that KE seminars have in the wider KE process, which goes far beyond merely disseminating research to a wider non-academic audience. It tries to bring together social dimensions of KE practices and examines the role of the body in multi-directional dialogical engagements within such seminars. It offers a critique of Spaapen and van Drooge’s (2011) conceptualisation of productive interactions and attempts to expand their concept theoretically. The discussion also offers some insights and advice for KE professionals and academics wishing to engage with wider society through KE seminars, as well as positing directions for future research for KE scholars interested in the process.

2 The Centre for Population Change case study

2.1 Introduction

This thesis is based on a case study of the Centre for Population Change (CPC; also ‘the Centre’). It is their Knowledge Exchange (KE) seminars which form the individual case study sites from which evidence presented in this thesis is derived. This chapter presents an overview of the Centre to familiarise readers with its structure & governance; historical developments; the programme of research; and its KE policies.

The information presented in this chapter derives from the CPC’s grant application to the Economic and Social Research Council (ESRC) (which is cited here as ‘CPC, 2007’); news announcements published on the CPC’s website; conversations with two of the Centre’s co-directors (Professors Jane Falkingham and Elspeth Graham); and the then Registrar General for Scotland, Duncan Macniven (who was instrumental in supporting the CPC’s ESRC funding bid).

The Centre is the only one in the UK to focus on the dynamics and drivers of population change in a holistic manner by examining population change through all three of its demographic components: fertility, migration, and ageing (and mortality); and its intersections across the life-course.

2.2 Structure and governance

2.2.1 Funding

The CPC was established with funding primarily from the ESRC. It was also supported by ‘in-kind’ contributions of office space and human resources from the

‘You are warmly invited.’

Scottish Government (SG), the General Register Office for Scotland (GROS, now the National Records of Scotland³ (NRS)) and the Office of National Statistics (ONS).

The Centre’s bid for funding was in response to a call made by the ESRC in 2007 in which it was accepting applications to fund two new research centres under its ‘new research centre and large grants scheme.’ One of those centres was to be dedicated to the topic of population change. Three institutions bid for the population centre grant, the Universities of Manchester, Leeds, and Southampton (Soton). Soton’s bid was made in partnership with five Scottish universities – collectively known as the Scottish Consortium (SC). Soton and the SC won the bid with a core investment from the ESRC worth £5,250,000 (ESRC, 2010). The new research institute was simply called ‘The ESRC Centre for Population Change.’

The ESRC’s investment was supplemented by the SG’s offer of human resources in the form of a liaison officer from the Office of the Chief Researcher (Scotland). The liaison officer’s job was to act as an intermediary between the CPC and the SG, informing the former of the SG’s current policy interests, and the latter of any CPC work that might be relevant to those interests. In other words, they were to act as a knowledge broker (Meyer, 2010).

The ONS offered office space to the CPC in its Centre for Demography, based in nearby Titchfield (near Southampton). This space was used to house some of the CPC academic researchers and PhD students who were working with ONS data and who might benefit from being physically present at their operational site.

Furthermore, the ONS had provision to send its staff to Soton.

The GROS (now NRS) offered office space and the support of their staff. The office space offered by the GROS was in Ladywell House in Edinburgh. The CPC felt that such a space would create a locus for researchers and a focal point for the SC which

³ In April 2011 the General Register Office for Scotland (GROS) and the National Archives of Scotland (NAS) merged to become the National Records of Scotland (NRS) (see: <http://gro-scotland.gov.uk/>, accessed Jan, 2015). The purpose of this move was to share resources between the two agencies. Like the GROS and NAS, the newly formed NRS continues to operate under the Scottish Ministers.

‘You are warmly invited.’

would otherwise be geographically dispersed across the SC’s 5 constituent institutions, risking fragmentation. It was also felt that along with fostering corporate spirit within the SC branch of the CPC, a presence at Ladywell House would help integrate the CPC and NRS staff. Along with this space, the NRS also offered access to their data resources.

2.2.2 The institutions and governance of the CPC

The CPC is funded by the ESRC and is comprised of academics from 6 Higher Education Institutions (HEIs); these are the Universities of Dundee, Edinburgh, Southampton, St. Andrews, Stirling, and Strathclyde. As stated above, the 5 Scottish HEIs involved in the CPC are collectively called the Scottish Consortium (SC). Along with these 6 HEIs, the CPC has contractual connections to 3 government bodies: the ONS, the GROS (now NRS) and the SG. Figure 1 below shows the logos of each of the institutions with contractual connections to the Centre.



Figure 1 Logos of the 10 institutions involved in the Centre for Population Change.

The CPC is based primarily in Soton, with the majority of the staff located there, including two of the co-directors and a small administrative team. St. Andrews is

‘You are warmly invited.’

the lead HEI of the SC, with one of the co-directors and a part-time administrator located there.

Soton has long-standing informal links with the ONS Centre for Demography based in nearby Titchfield. Many of their graduates go on to find employment in this agency. St. Andrews has a long-standing contractual link with the GROs (now NRS) through the Scottish Longitudinal Survey (SLS) as the university hosts the Longitudinal Studies Centre – Scotland (LSCS)⁴. St. Andrews also has informal connections with the SG, resulting from a previous programme of research known as the Scottish Demography Initiative (this is discussed later in section 2.3.2).

The proponents of the Centre argued to the ESRC that by funding the CPC, they could strengthen these existing relationships between Soton and the ONS, St. Andrews and the NRS, and the SC with the NRS and the SG (CPC, 2007).

Maintaining these links would be of mutual benefit to the HEIs and those government institutions. One specific area of development for mutual gain was to exploit and develop new datasets and methodologies (this is an area to which the ESRC remains committed through its secondary dataset analysis policies which are designed to make better use of existing public data: ESRC, 2014). Furthermore, the formal connection with these government institutions meant that the CPC could draw on the expertise and skills of the employees. This would allow the CPC to engage in academically rigorous but socially relevant research (another priority for the ESRC).

While the connections between the CPC and its non-academic partners have been effective, the internal structure of the CPC brought challenges in achieving successful integration. This is discussed in detail in chapter 6. Interviews with SC

⁴ The LSCS is responsible for the creation, maintenance, and access to the Scottish Longitudinal Study (SLS). It is a dataset of a large sample of the Scottish population which links together various data, including anonymised census and NHS information, for the purpose of research and policy planning (see: <http://lscs.ac.uk/>). Many of the staff at the LSCS are based at the University of St. Andrews (<http://lscs.ac.uk/staff>). The LSCS database is securely stored at the NRS, Ladywell House, Edinburgh.

‘You are warmly invited.’

CPC staff were unanimous in stating that while the CPC had been successful, many expressed disappointment that the Centre was rather limited in how it integrated itself into a cohesive whole across the 6 HEI locations. As this thesis will later demonstrate, the CPC became divided between ‘CPC Soton’ and ‘CPC SC.’ This has implications for KE, which will be described in chapter 6.

In total the CPC funded 27 academics working as Principal Investigators (PIs) who were supported by 15 academic researchers and 5 administrative staff. The CPC housed 38 staff in Soton and 22 in the SC. The CPC also supports 6 PhD studentships – this thesis is the result of one of them.

The Centre is led by 3 co-directors: Professors Maria Evandrou, Elspeth Graham, and Jane Falkingham – with the latter having overall responsibility.

The CPC’s research programme is organised around four strands, with each strand led by 1 co-director and at least two other PIs. Two further strands were added later as a result of additional funding (see section 2.4.2). The strands are organised for administrative and accounting purposes, and not for analytical or academic ones (CPC, 2007).

2.3 *History of the Centre*

2.3.1 *Beginnings*

As mentioned, in 2007 the ESRC issued a tender to fund two new research centres, one of which was to be in the field of population change. Academics from Soton’s School of Social Statistics and Demography felt that they should bid. Professor Jane Falkingham was to be the grant holder and principal applicant.

Falkingham initially met with Professor Paul Boyle (St. Andrews) with the intention of inviting him to join the Centre as an independent scholar. Boyle did not want to join alone and had publically expressed a desire to include a number of Scottish Universities in the project. Falkingham and Boyle agreed that they would put in a

‘You are warmly invited.’

joint bid to the ESRC which would be based at Soton but included the five aforementioned Scottish HEIs. Thus it was those discussions and that agreement between these two academics which created the nascent structure of the CPC and lead to their ESRC bid to include a larger number of HEIs than was originally intended.

The CPC’s structure is rare for an ESRC-funded centre (in having operations in both England and Scotland), but it allows the Centre to focus on research in two different parts of the UK. This is important because there are differences between Scotland and the rest of the UK:

1. Demographically, the structure of Scotland is different to other parts of the UK (eg Scotland is older and less fertile than other parts of the UK, Wilson and Rees, 2003).
2. Methodologically, Scotland collects and stores demographic data (including census data and longitudinal data) differently from the rest of the UK. Data in Scotland are collected and stored by the NRS, whereas in England and Wales only the ONS does so. Sources of data such as the censuses are different between Scotland and England – they ask different questions and code responses differently. Some of Scotland’s data (such as the SLS) are stored on isolated computers. This requires researchers to be physically present in Ladywell House (Edinburgh) to access it.
3. Politically, the Scottish Government has long held views which differ from those of the UK Government with regard to specific demographic policies – particularly immigration (Tindal et al, 2014).

The inclusion of the SC gives the CPC a more comprehensive and nuanced approach to studying demographic issues across the UK. In turn, this affects how its KE activities can be shaped with regard to engaging with the different questions,

‘You are warmly invited.’

policies, and perspectives of the Scottish and UK governments, and other public bodies. In other words, Soton and SC academics can tailor and modulate their KE activities and academic messages when engaging with different groups of people who have different questions, current policies, and ultimate policy objectives. A presence in both England and Scotland means that the CPC is well placed to address the specifics of the policy contexts in which it finds itself.

2.3.2 The Scottish consortium

The Scottish HEIs making up the SC predate the CPC. Academics from the 5 SC HEIs previously worked together on a project called the ESRC Scottish Demography Initiative (SDI) (Scottish Government, 2008). The SDI was funded by the ESRC and the SG and supported by the GROS (now NRS). The SDI’s projects were developed alongside staff from the SG and the GROS. It was led by Boyle with the support of the then Registrar General for Scotland, Duncan Macniven.

Overall, the SDI research programme involved 6 research projects including 23 academics from the Universities of Dundee, Edinburgh, St. Andrews, Stirling, Strathclyde, and Exeter. The project ran from 2005 to 2008. Most of the academics and all of the Scottish HEIs participating in the SDI became involved in the SC component of the CPC. In other words, the SDI is the precursor to the SC.

2.3.3 Changes since establishment

The CPC’s ESRC funding ran from the 1st of January 2009 to the 21st of December 2014. During this time a number of changes occurred.

In terms of leadership, in August 2010 one of the Centre’s proponents and original co-directors, Professor Paul Boyle, was appointed Chief Executive of the ESRC. Boyle was replaced by Professor Elspeth Graham as the director of the SC component of the CPC. Professor Allan Findlay was appointed to St. Andrews, meaning that Dundee University’s involvement with the CPC ceased.

‘You are warmly invited.’

The CPC also won additional grants from the ESRC and elsewhere. Two of the most significant have been one funded by the ESRC and the ONS to develop new methodologies for non-Bayesian population forecasting, and another from the ESRC’s ‘future of the UK and Scotland’ programme in which research examined the impact of constitutional change in Scotland and the UK as the result of Scottish independence or further devolution.

In 2013, the CPC announced that the ESRC has granted the Centre a further 5 years of funding to 2018 (CPC, 2013). While the *raison d’être* of the CPC remains the same, the new programme of research for ‘CPCII’ is more international in its orientation than its previous research programme.

This thesis is concerned with the knowledge exchange work of ‘CPCI’ which ran between 2009 and 2014.

2.4 The research programme

2.4.1 Shaping the research programme

The CPC’s aim was develop a research programme alongside a team of LSCS researchers and non-academic partners in the NRS, the ONS, and the SG (CPC, 2007). Potential PIs who were interested in involvement in the CPC wrote project proposals that were then sent to the various non-academic partner organisations. The partners’ role was to identify where any overlap in interests might exist, and if any projects could accommodate their interests.

There were differences in how this played out in Soton and the SC. The Soton ‘population projections’ team worked closely with the ONS on how to better develop population projections using non-Bayesian methodologies. This was a more formal and contractual relationship than anything that existed in Scotland, which has more informal relationships with its non-academic partners. PIs from the SC sent their project proposals to the SG via a liaison officer who acted as an intermediary. The liaison officer then sent the proposals to various government

‘You are warmly invited.’

departments and asked colleagues in those departments to comment on them. The project proposals were also sent to the NRS, with two NRS staff commenting and identifying any areas of mutual interest. The NRS and SG were both keen to see projects make use of the SLS datasets. The co-directors then took on board the comments and tried to tie projects together into a coherent programme of research which was then included in the 2007 case for support (CPC, 2007).

2.4.2 The research agenda

The CPC’s core programme of research is organised into four strands, with two further strands added during the Centre’s lifespan, which was described above. These strands are:

1. Dynamics of fertility and family formation – past, present, and future.
2. Household dynamics and living arrangements across the life course.
3. The demographic and socio-economic implications of national and international migration.
4. Modelling population growth and enhancing the evidence base for policy.
5. (Integrated demographic estimation and forecasting).
6. (The demographic and fiscal implication of Scottish independence).

The Centre attempts to draw on that interconnectedness between fertility, migration, and ageing through the research programme; and does so from a number of disciplinary perspectives and methodological approaches. The Centre draws on the social science disciplines of: anthropology, demography, economics, geography, gerontology, sociology, social policy, and social statistics. Methodologically, the CPC’s research programme includes both qualitative and quantitative studies, including advanced statistical modelling. The CPC cited its existing connections to

‘You are warmly invited.’

non-academic organisations, its inter-disciplinarity, methodological innovation, and cross-institutional collaborations as strengths in its justification to the ESRC (CPC, 2009). Interdisciplinarity is increasingly expected from research funders, including the ESRC, from their larger investments.

2.5 Knowledge exchange at the Centre

In line with the broader political agenda and the policies of the Research Councils UK (RCUK), the ESRC has increasingly focused on the wider social and economic impact of social research which it funds:

The ESRC expects that the researchers that it funds will have considered the potential scientific, societal and economic impact of their research programme in their bid. (ESRC, 2009a).

Within the ESRC’s ‘centres and large grants competition’ (the scheme through which the CPC is funded), there are requirements for proposers to outline their policies and strategies for engaging with wider society in their bidding application.

This requirement of research funders asking academic researchers to consider the potential non-academic social impact of their work, and develop strategies to realise that potential, is often referred to as the ‘impact agenda’ or ‘knowledge exchange agenda’ (ESMU, 2011; Nutley et al, 2007).

A communications plan was developed between Soton and a research centre with appropriate expertise - the Centre for Research on Families and Relationships (CRFR) - based at the University of Edinburgh. The CRFR has an existing team of KE practitioners with a range of specialisms and expertise such as graphic design, event planning, and research-communication specialists. This work was overseen by a liaison officer based at the CRFR. The CRFR’s function was to assist academic

‘You are warmly invited.’

researchers with communicating their findings, organise suitable events, and facilitate dialogue. Latterly this function was centralised in Soton. Yet while the CRFR was involved, they produced a strategy which detailed the Centre’s position on engaging with ‘research users’ as one which acknowledges relationships between academia, policy, and practice to be complex and dependent on interpersonal relationships that link across institutional boundaries.

This was incorporated into the CPC’s case for support (2007) and claimed that relationships and regular interaction between academics and NAPs are the most important elements of the Centre’s KE strategy. The case for support also recognised the importance of networks for communicating research to a wide range of users beyond academia (2007: 24). The CPC envisaged KE to be built on interpersonal relationships based on interaction and dialogue. Non-Academic Professionals (NAPs) whom the CPC engages are not passive recipients of knowledge, but rather actively engage with research from their own perspectives. They can offer knowledge and insights to the academic researchers.

As indicated earlier, the CPC has links with a number of government agencies and departments. These links between academia and those public institutions are an important part of the CPC’s engagement strategy. Some of those connections are contractually structured, while others are based on informal professional relationships. For example, Soton’s relationship with the ONS is more contractual, while in Scotland it was more informal, with the SG offering the use of a liaison officer to act as a broker between the Centre and the SG to help forge informal linkages between members of each institution. Regardless of their nature, those interpersonal relationships are key to the CPC’s KE engagement strategy and the wider infrastructure in which academics and engaging with NAPs.

Non-academic engagement and KE activities represent an important aspect of the CPC’s activities. The CPC has invested substantially, in terms of financial and human resources, organising and hosting KE events, including seminars. Such events were typically organised in the latter stages of the project, or post-research.

‘You are warmly invited.’

By the middle of the CPC’s programme of research (2011/2012), the CPC had organised and funded 37 seminars, workshops, and presented an exhibition targeted at non-academic audiences (CPC, 2012).

This investment in KE events shaped the development and direction that this thesis ultimately took. I used these two points from the original case for support, ‘interaction’ and ‘social networks,’ as the starting point of the PhD research. The resulting thesis takes these two ideas, and situates them in relation to KE seminars. This thesis examined KE seminars through a framework informed by the ‘productive interactions’ conceptual rubric. It should also be made clear at this point that this PhD was funded as part of the CPC’s KE strategy. Thus, the use of the CPC as a case study is not borne exogenously.

3 Knowledge exchange in context

3.1 Introduction

This chapter examines the wider political context of academic research in policymaking. The Centre for Population Change’s (CPC) Knowledge Exchange (KE) policies and practices exist within a wider political system which is concerned with Evidence-Based Policymaking (EBPM) (Davies et al, 2000; Nutley et al, 2007). Using ‘evidence’ in policymaking is viewed as vital within an increasingly complex and specialised contemporary world (Bullock et al, 2001). This has brought about an increase in the ‘demand’ for research which has, in turn, led to the development and institutionalisation of a system to ‘supply’ research to those who may benefit from it (Nutley et al, 2010). That is what this thesis refers to as the ‘knowledge exchange agenda.’ Sometimes this is called the ‘impact agenda.’ The KE agenda has been institutionalised through apparatus such as the Research Excellence Framework (REF) and the conditions of research funded by public money, including research funded through the Economic and Social Research Council (ESRC). This puts conflicting pressures on academics between the traditional demands of academia (which require publishing and engagement with academics for professional reward) and the demands of a political system which increasingly requires the research it funds to be disseminated to wider society in a more accountable and institutionalised manner (Khazragui and Hudson, 2015; Tang and Sinclair, 2001; Weiss, 1995; 1979; Davies et al, 2000).

The chapter first explores the political development of the EBPM agenda from the 1940s onwards which drove governments and their agencies to seek the insights of academic social science research. Second, it examines how the EBPM agenda is mirrored by the institutionalisation of a KE agenda which attempts to create a ‘supply’ of research in order to meet that ‘demand’ (Nutley et al, 2010; Davies et al, 2000). Finally, this chapter gives an overview of popular theories of policy change and the importance of external events in driving such change.

3.2 *The emergence of the evidence-based policymaking agenda*

This section traces the development of the EBPM agenda from post-war Britain to today. It outlines successive governments’ view of academic social science research, and how changes in the political climate have impacted on publicly-funded research-funding institutions, in particular, the ESRC which funds the CPC.

Over the last 70 years, society has become more complex, interconnected, and specialised, which has led to the view that social science research should have a role in illuminating understanding of society, and informing an increasingly complex public policy environment (Nutley et al, 2007; Bullock et al, 2001; Davies et al, 2000). Opposing this view were many within Parliament, the civil service, and civil society who were hostile to the suggestion that public money should be used to fund social ‘science’ (ESRC, 2005). Vocal in its opposition was the influential Medical Research Council, which was sceptical of the contribution that social sciences could make to society. In spite of reservations, successive governments were increasingly receptive to ‘evidence’ in their public policymaking and practices – particularly in the areas of education, health and social care, criminal justice, housing, and transport (Nutley et al, 2007; Davies et al, 2000). Yet, despite increasing government interest in the social sciences, within the UK there was no centralised mechanism through which public money could be targeted to fund academic social research to provide an evidence base which was useable and relevant to government concerns.

This changed in 1964 with the premiership of Harold Wilson. He created a political environment which was favourable to the insights of the social sciences (ESRC, 2005). The 1965 Heyworth Report recommended the establishment of the Social Science Research Council (SSRC) – this would use public money to fund research

‘You are warmly invited.’

across 14 social science disciplines. Following what is called the Haldane Principle⁵, the SSRC panels were asked to judge research proposals and fund research based on their scientific merit, but they were also expected to consider the wider social benefits that the research might confer upon society. The SSRC became:

...innovative in their dissemination activities, making contact with policymakers and establishing new networks in the process. (ESRC, 2005: 14).

An economic recession between 1972 and 1975 led to cuts in SSRC funding which had an impact on the social research being produced at that time. This ‘cold climate’ (ESRC, 2005) of government’s view of social science research chilled to the point of frigidity with the 1979 election of a Conservative government led by Margaret Thatcher and her ‘conviction politics.’ Her government, and the political climate it created, was more sceptical of the role that academic social research could play in solving complex social problems (Davis et al, 2000; ESRC, 2005), and as such the government became resistant to providing public money to fund such research. In 1981, Lord Rothschild published a report examining the future role of the SSRC. The report concluded that publicly-funded research should focus more closely on the social challenges facing the country. Rothschild suggested that to do this would require overturning the Haldane Principle so that it was the government who would make decisions on what research was funded with public money. The Rothschild Report was viewed by the SSRC as a vicious attack on its independence and integrity. In 1983 the SSRC symbolically changed its name to the Economic and

⁵ The Haldane principle derives from the 1918 Haldane Committee Report which stated that decisions on research funding should be made by researchers rather than politicians – in other words, it should be ‘curiosity driven’ (Cooksey, 2006). ‘Curiosity-driven’ (sometimes called Mode I) research is responsible for significant scientific advancements which are done for the sake of knowledge, but which can have practical application later. For example, the ‘genetic revolution’ which derived from the Human Genome Project opened up avenues for applied research in identifying genetic conditions which led to the development of new treatments. These were then embedded within healthcare systems and practices (Cooksey, 2006).

‘You are warmly invited.’

Social Research Council (ESRC) - dropping the word ‘science’ (ESRC, 2005).

Funding was severely reduced and restricted - but it survived.

The 1997 general election saw Tony Blair form a Labour Government. The sociologist Anthony Giddens wrote *Beyond left and right* (1994) which was influential with senior civil servants and public policy & politics scholars. His view was that the design of policies through ideologically-driven agendas was no longer appropriate. This was picked up by New Labour, and their electoral campaign slogan was ‘what matters is what works’ which was intended to signal an end to ideologically-driven politics in favour of evidence-based policymaking where ‘decisions should be based on sound evidence’ (Cabinet Office, 1999: 33) from a variety of sources, including academia. This rhetoric is encapsulated in the words of the then Education and Employment Secretary, David Blunkett, when he told an audience at an ESRC conference that:

Social science should be at the heart of policy making. We need a revolution in relations between government and the social research community – we need social scientists to help determine what works and why, and what types of policy initiatives are likely to be the most effective. And we need better ways of ensuring that those who want this information can get it easily and quickly [...]. Too often ideas are not openly discussed because of the fear of unhelpful press speculation, but if researchers become streetwise in handling partial findings, and politicians and civil servants are more relaxed about welcoming radical thinking, I am sure we can get it right. (Blunkett, 2000).

This quotation contains three key messages. First, government needed to use academic social science research in its policymaking and should be more receptive to ‘radical thinking.’ Second, researchers needed to be more ‘streetwise’ when

‘You are warmly invited.’

engaging with wider society. Third, there needed to be more effective ways for information to be transmitted ‘easily and quickly’ between researchers and NAPs.

The first of these messages was formalised in a White Paper entitled ‘Modernising Government (1999).’ It included commitments for the civil service to use research-based evidence from the academic social sciences (and elsewhere) to better understand social and economic challenges facing the UK, and to develop better policies to deal with them (Cabinet Office, 1999). ‘Using evidence’ became the rallying call in government for ‘professional policy making’ (ibid; Bullock et al, 2001).

Between 2000 and 2002, the ESRC saw huge increases in its funding from £70million to £110 million (ESRC, 2005).

In 2006, the ESRC funded the first ‘Festival of the Social Sciences’ (ESRC, 2015c), a festival of which the CPC is a part. Its goal is to showcase academic social science research across the UK to a broad audience through:

public debates, conferences, workshops, interactive seminars, film screenings, virtual exhibitions and much more. (ESRC 2015c).

It should be again noted here the importance that the ESRC attaches to face-to-face engagements: events in which people are physically brought together.

The 2010 General Election brought a Conservative-Liberal Democrat coalition Government to power. The government stated its commitment to the idea of evidence-based policymaking, but only within the framework of its values and the manifesto commitments on which it was elected (Maybin, 2013). Its actions were not matched by its words and instead the Conservative-led coalition has imposed a series of cuts across the research councils. The ESRC saw a £40million reduction in its budget between 2010 and 2014. In its governance statement in its 2013/14 report

‘You are warmly invited.’

of accounts, the ESRC identified a number of risks to its operations due to funding restrictions, saying:

If these risks crystalise, the ESRC, with limited spare capacity and reduced administrative budget, will find it difficult to continue its business of funding world leading research in a timely fashion. (ESRC 2013/14: 60).

Along with the ESRC, the UK government has also restricted or reduced the funding of virtually every government department under a politically-driven ‘austerity’ programme, which was ostensibly borne out of necessity as a result of the 2008 economic recession. The Institute of Fiscal Studies estimates that between 2010/11 and 2015/16, the UK Government has cut its total spending by 7.8% in real terms (IFS, 2015). The rate of cuts has been variable with some departments seeing greater reductions than others. For example, Local Government has had its central Government funding reduced by up to 46.3% in real terms between 2010/11 and 2015/16 (Innes and Tetlow, 2015), the Department for Work and Pensions’ (DWP) budget decreased by 34%, while the NHS has seen a modest increase of 6.6%. The Scottish Government’s block grant has been reduced by 8.7% during the same period (IFS, 2015).

In 2015, a General Election brought a Conservative Government. Austerity continues (IFS, 2015).

This information is important to this thesis for two reasons. First, academic social research focused on the demography of the UK has limited appeal outside a relatively small and specific group of policymakers and practitioners. The institutions cited here (The UK and Scottish Governments (and their agencies), English and Scottish Local Authorities, the DWP, and the NHS) are the non-academic organisations with which the CPC has the strongest connections, and most frequently engages with through KE seminars. Second, the impact of budget cuts on

those aforementioned institutions has impacted on their ability to engage with academics from the CPC. This is an issue which is developed in chapter 7 of this thesis – that budget cuts have created a barrier preventing non-academic professionals (NAPs) from engaging with the CPC through KE seminars. The data collection phase of this PhD research was conducted between September 2011 and February 2013. At the time of interviewing, the effects of the budget cuts under the coalition government were only just starting to adversely affect the public sector. The effect of these cuts featured prominently in the NAPs’ narratives.

The issue of sufficient resources has been repeatedly identified within the KE literature as an important aspect of expanding organisational capacity which then creates individual capacity to engage with research via interactions with academics (and other NAPs). Pressures on dedicated financial and human resources affect organisational capacity, and are a significant barrier to facilitating effective KE (King, 2015; Tomm-Bonde et al, 2013; Mitton et al, 2007; Greenhalgh et al, 2004; Ross et al, 2003; Innvær et al, 2002; Percy-Smith et al, 2002; JFR, 2000).

3.3 The institutionalisation of the knowledge exchange agenda

The traditional role of Higher Education Institutions (HEIs) was twofold. First, it was to conduct high-quality research, and second, it was to educate and support the training of the next generation of professionals. The formalisation of the KE agenda (or ‘impact agenda’) has added a further official function to their role: to engage with society with the aim of making an ‘impact’ – the discernible and measurable contribution of academic research to society and the economy (ESRC, 2015; Walter et al, 2003b). In response, universities’ mission statements are changing, with a greater emphasis on their contribution to society through the relevance of their research (eg St. Andrews University, 2016; Southampton University, 2016).

Over the last decade there has been a systematic institutionalisation of KE practices into requirements with concrete protocols, targets, and ‘impact assessments.’ By

‘institutionalisation,’ this thesis is referring to the process of systematically embedding KE policies and measurements within the architecture of academia and the mechanisms for considering applications for research funding. Two of the clearest examples of this are the formal conditions for funding that research proposers (including the CPC) must outline when applying for grants, and the inclusion of KE activities and research impact reports in the 2014 Research Excellence Framework (REF) (Khazragui and Hudson, 2015). Each of these is dealt with in turn.

First: conditions on research funding. In 2006, the Warry Report examined the contribution that publically-funded academic research has on society. It concluded that while there were many successes, more emphasis (and money) should be given to researchers to engage with industrial, civic, and government organisations. This led to the UK research councils to further integrate KE practices and impact measurement tools into their organisational structures (Research Council’s Evidence to the Warry Report, 2006; RCUK, 2015); in other words, KE had become institutionalised. Funding agencies such as the ESRC, the Medical Research Council, and the Arts and Humanities Research Council have all now developed strategic objectives for those they fund to give greater attention to the needs of NAPs and other interested stakeholders at the local to national levels in the research that they fund (ESRC 2003b; RCUK, 2007b).

This has now translated into formal conditions being attached to research funded by public money. In 2009 the ESRC added requirements to its grant applications so that all researchers to consider and outline the ‘potential impact’ of the research they are proposing, to state their strategies for achieving this impact (including seminars), and to write post-research reports on any ‘impacts’ that the KE projects have had on wider society (ESRC, 2009a).

Thus, in applying for ESRC funds, the CPC had to consider the needs of possible research users and outline how they will engage ‘as fully as possible’ (ESRC, 2009b;

‘You are warmly invited.’

2014b) with those users. The ESRC states that proposers’ knowledge exchange strategy’ will form part of the peer review and assessment process’ (2009b).

The second issue to illustrate the institutionalisation of KE is found in how academic research is judged, specifically through the 2010 Research Excellence Framework (REF). The REF is designed to assess research quality in UK universities (REF, 2014). In 2010, the REF examined the non-academic impact of research, the first time such considerations had been taken into account (ibid). The inclusion of such a measure in what was traditionally a purely academic exercise is a further example of the institutionalisation of the knowledge exchange agenda within the architecture of academia (Khazragui and Hudson, 2015).

This information is presented here because such policies have shaped CPC members’ practices of KE, and it forms an important part of the background knowledge required for understanding the narratives of the academics who were interviewed in this PhD research.

3.4 Targeting research to receptive audiences

The desire of policymakers to seek academic social research is largely driven by policy and political contexts, and current political interests (Moore et al, 2011; Korthari et al, 2009; Nutley et al, 2007). This exists at all levels of government, from Local Authorities to the Scottish, UK, and European Parliaments. Court and Young’s (2003) review of 50 case studies concluded that:

The clear finding from the literature and these case studies is that the policy context is very important - often the most important issue - in affecting the degree to which research affects policy. (Court and Young, 2003: 11).

Nutley et al (2007) helpfully point out that there is significant variation in how research might be used in particular policy areas. For example, research can be targeted towards changing very specific policies in instrumental ways, whereas other research may only be used to inform a general background understanding of the conceptual issues involved in a particular policy area – or a combination of both (Korthari et al, 2009; Nutley et al, 2007; Weiss, 1979). This scenario is further complicated by differences in government structures from highly centralised, to regionalised, through to fully federal systems which may have more or less similar policy environments and political agendas (Nutley et al, 2010; 2007; Devaux and Mangez, 2008).

This point is pertinent to this thesis because these political and policy environments do impact on what governments are interested in, and how they may respond to, and use, research. Specific political issues can emerge either slowly or suddenly, but when issues are politicised they create a demand for research insights in particular fields of study. The political environment creates conditions for academics to engage with NAPs through seminars.

There are a number of theories of policy change which place emphasis on external events as a driver for those within the political and policy sphere to seek information. These include:

- (1) John Kingdon’s ‘policy streams’ model first developed in his seminal book entitled *Agendas, alternatives and public policies* (1984, republished 1995; see also Guldbrandsson and Fossum, 2009; Neilson, 2001; Sabatier and Weible, 2014; Nutley et al, 2007).
- (2) *The Politics of Attention* (2005) by Jones and Baumgartner’s in which they set out their ‘punctured equilibrium theory.’
- (3) Lindblom’s theory of ‘bounded rationality and incrementalism’ (see Lindblom, 1959; 1968; Webber, 1991).

- (4) ‘Complexity theory’ and its implications for public policy (see Cairney , 2012; Geyer and Cairney, 2015; Morton, 2012).

There are a number of other popular theories of the policy-making process. This thesis does not seek to outline those theories in detail, but there are two points which is important to this thesis. The first is external agencies and events shape that process. And it is at those points of transition and change, where political and policy agents are receptive to information, that academics can contribute to shaping the policy-making process; or at least help shape thinking around the issues involved in policy change and the implications of those changes. The second is that this policy-making process is not neat nor linear. It is what Webber describes as a varied and unpredictable process that is ‘ambiguous, amorphous, incremental, and meandering’ (1991: 15). It involves many actors, including academics.

3.5 Summary

In this chapter, the wider political context of academic social science research in policymaking has been explored by tracing the historical development of the use of social research by the government in its policymaking. It examined how government developed the rhetoric and practices of the ‘EBPM agenda’ which drives an interest for policymakers and other stakeholders to seek academic insights and engage in practices (such as participate in KE seminars) in order to fulfil that. It has also outlined the political context in which both research councils and government departments have had their budgets cut under the previous and current UK Government’s ‘austerity’ politics.

On the flip side of the EBPM agenda is the KE agenda which shapes academics’ engagement practices. Academia is changing with the development of the ‘KE agenda’ and this chapter shows how this has been institutionalised into academic practice.

Finally, this chapter examines the wider political environment in which academic research may be sought by those involved in public policy. It did this by listing a number of popular theories of policy change. The purpose of doing so was to highlight the importance of external events in influencing the policy process, and the role that academics can play in that. The relationship between external events and KE seminars will be further developed in this thesis. Suffice here to say at this point that this wider social, economic, and political environment has an important bearing on why NAPs want to engage with academics (and each other) within KE seminars.

There is no doubt that some academic social research is more ‘interesting’ to non-academic audiences than others. What makes policymakers, policy support officers, policy analysts and elected representatives want to attend a KE seminar and listen to an academic talk about their research? Although this thesis is not examining how research impacts on policy, the ideas presented in this chapter are important because understanding the current political, economic, and social climate helps our understanding of why NAPs seek information via participation in KE seminars. In other words, NAPs go to seminars because they have a purpose in mind – even if that purpose is simply to obtain basic background information about a policy or research area. This thesis will argue that KE seminars which are organised in such a way as to meet those ongoing political and policy interests will more easily attract and engage non-academic audiences. Thus, identifying those ‘windows of opportunity’ as they arise is important to the organisers of KE seminars.

4 Literature Review

4.1 Introduction

This chapter reviews the conceptual and empirical research on non-academic engagement. It focuses specifically on theories of interaction and their relationship to networks and Knowledge Exchange (KE) seminars. This literature review draws from both the KE and sociological literatures. From the KE literature, this review focuses on Spaapen and van Drooge (2011) and Molas-Gallart and Tang’s (2011) concept of ‘productive interactions.’ From the sociological literature, this thesis draws on the concept of ‘corporeal co-presence’ as outlined and developed by the work of Goffman (1966; 1971) and Urry (2002; 2003; Larsen et al, 2006).

The position of this thesis is that ‘productive interactions’ are those which permit knowledge exchange, knowledge co-construction, reflection, and networking. To do this requires two-way and multi-way dialogical exchanges which are facilitated by academics and Non-Academic Professionals (NAPs) being corporeally co-present. KE seminars are an important example of such social occasions which permit such corporeal co-presence. Yet KE seminars remain under-researched and under-theorised within the KE field. This literature review will explore, critique, and build on the concept of ‘productive interactions’ via corporeal co-presence in the context of KE seminars.

This is a selective review which includes work from across the KE field, sociology, and social policy. This reflects the cross-cutting interests of the thesis and a personal belief that each of these perspectives had something useful to offer the study. The process began with a reading of Nutley et al’s (2007) work ‘Using Evidence’ followed by reading the literature reviews which have been produced in the KE field within the last 10 years. This gave me a basis for understanding the contemporary issues and themes which were being discussed within the field. As this thesis is based in the department of sociology, I read a number of sociological theories on social interaction and social networks. Much of the literature cited in this

thesis was identified subsequent to data analysis once the key themes had been identified. It was at this stage that the work on ‘productive interactions’ came to the fore and became a key conceptual tool for exploring and understanding the data.

This literature review includes a degree of analysis from the sociological literature that is not developed within the current KE literature. In doing this, this review aims to bring something theoretically new to the KE field (Grant and Booth, 2009).

4.2 The knowledge exchange ‘gap’

Within the KE literature, there has been considerable concern with the ‘gap’ between research and its impact on policy and practice (Morton and Flemming, 2013; Court and Young, 2003; Stone, 2002; 2001). This ‘gap’ is given many names within the KE field, inter alia: the ‘knowledge-to-action gap,’ the ‘know-do gap,’ or ‘knowing-doing gap’ (Graham et al, 2006; United Nations, 2005; Pfeffer and Sutton, 2000). It exists ‘between what we know (according to knowledge producers, including academic researchers) and what we do (defined by the actions of knowledge users, including practitioners)’ (Cousin and Simon, 1996: 200). There is a significant body of work attempting to identify the barriers which create and sustain this ‘gap,’ and how best to remedy it (sometimes called ‘bridging’: Greenhalgh and Wieringa, 2011; Court and Young, 2003, Walter et al, 2003a; Stone, 2002; 2001; Stobell, 1996).

The ‘gap’ between social science and wider society is perceived to be more pronounced when compared with STEM and healthcare subjects, which was discussed by Olmos-Peñuela et al (2014a). STEM and the healthcare sciences are often assumed to be more ‘useful’ to society, and to have clearer ideas about what the ‘use’ of research would look like (ibid). KE in healthcare and STEM are the source of mechanical-linear or rationalist models (Shaxton et al, 2012; Nutley et al, 2007; Graham et al, 2006). Conversely, research on social science engagement with

wider society has tended to draw on relational, interactionist, and complexity models (Morton, 2012; Best and Holmes, 2010).

Even if one could reduce this ‘gap,’ in what precise way one would identify and measure how academic social science research is ‘used’ is less clear (Olmos-Peñuela et al, 2014). The European Commission (2005) states that while it considers research it funds (including research from the social sciences and humanities) to have benefited society through informing policy and practice, and to have stimulated debate across wider society, it also recognises that how research is used, and its impact, remain complex and contested. There are four core challenges to identifying research use and impact.

First, research can have a direct or indirect impact on policy and practice, or something in between (Nutley et al conceptualised this as an ‘instrumental to conceptual’ spectrum of research use, 2007: 51), or a simultaneous combination of direct and indirect impacts achieved through various channels and actors who use research in different ways (Bornmann, 2012; European Commission, 2005; Molas-Gallart et al, 2000).

Second, there are difficulties in judging the time that must elapse before research use occurs, and its longevity. Sometimes the ‘use’ then ‘impact’ of research in policy and practice might be immediate and short-term; at other times it might be more lasting yet take many years before it creates any discernible impact. The research might also have a combination of both short- and long-term impacts (Meagher et al, 2008; Nutley et al, 2007; European Commission, 2005; Molas-Gallart et al, 2000).

Third, once an impact is made, there are problems of attribution. Given that research interacts with society in complex, indirect ways (Morton, 2015; Olmos-Peñuela, 2014a; Byrne, 2011), it is difficult to disentangle the contributions made by individual projects or programmes of research on policy and practice from other sources of knowledge, including those produced by think-tanks, interest groups, other academic and non-academic research, etc (Nutley et al, 2007: 293; Rich, 2004; Court and Young, 2003; Vivian and Gibson, 2003).

Fourth, and finally, even if identifiable, there remain challenges in how best to measure research impact; and what models might be developed in order to do so (Morton, 2015; Morton et al, 2012; Nutley et al, 2007). It is extremely unlikely that a single, all-encompassing model or tool can be developed with which to identify and assess all possible non-academic impacts of social research across academic disciplines, policy, or practice areas (Bornmann, 2012; Molas-Gallart et al, 2000).

In 2010, Cozzens and Snoek claimed that there was a further gap between academics’ and KE professionals’ practices of KE, and how they evaluate their impact (ie what they do ‘on the ground’ in terms of publishing policy or briefing papers, organising and attending seminars and conferences, mass media engagement, etc) and the KE literature’s description of the connections between research and policy (which describes complex and sophisticated models for identifying research use, tracing, and then evaluating its impact).

Spaapen and van Drooge (2011) took up this point and said that future research in the KE field must focus on what happens during the research production and KE processes, and situate that within the real world occasions where researchers and other stakeholders are interacting with each other. Such a call was repeated by Molas-Gallart and Tang (2011) and de Jong et al (2014) when they asserted a need for more qualitative work examining interactions between academics and their stakeholders. It is a position which shifts the focus from **outcomes** via identifying and evaluating research *use* and *impact*, towards studying the **process** via the nature of *interactions*, and the *relationships* which mediate them.

A focus on interactions means that research use, impact, and evaluation are no longer the empirical focus. Instead, they are replaced by a concern for enhancing our understanding of the process of engagement through the development of professional relationships between academics and NAPs (Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011; de Jong et al, 2014). This thesis argues that such engagements are mediated through social networks and interspersed by social

occasions where academics and NAPs are physically co-present, of which, this thesis argues, KE seminars are one such example.

KE seminars, like all social occasions where people gather to engage with academic research, are a forum for facilitating interaction and network-building: how they come to exist, how people come to know about them, what their purpose is, and why NAPs attend them (or not) are worthy of sociological study. By studying interactions between academics and NAPs within KE seminars, this form of engagement can be made more transparent which, it is hoped, will assist in understanding how KE seminars come to happen, how they function, and how to better facilitate interactions within them.

4.3 The importance of interaction

Interactions between academics and NAPs are constantly found to be an important factor in facilitating successful KE. Mitton et al (2007) claimed that knowledge exchange was essentially an interactive and relational process, and understanding this process is of the utmost importance in identifying any future societal impact of research. In a qualitative study of healthcare policymakers, Innvær et al (2002) found that interaction between academics and policymakers was one of the most important factors in influencing policymakers’ use of research in their work. They concluded that ‘close,’ personal, two-way interaction between academics and policymakers was a precondition for research use and eventual ‘impact.’

The importance of interaction has long been discussed within the KE literature. In 1979, Weiss described the ‘interactive model’ as a process through which academics can play a role in influencing society (while recognising that academics will play just one role among many other knowledgeable professionals in the creation of new, socially useful knowledge).

Along with the historical antecedents, the importance of ‘interaction’ has been identified cross-sector. In a cross-sector systematic review, Walter et al (2005) found

that interactions between academics and NAPs which were buttressed by a supportive organisational culture which supported those interactions were vital to research use across health, social care, criminal justice, and education sectors.

In short, there is broad consensus that frequent and regular interaction plays a pivotal role in whether academic knowledge is engaged with and used by NAPs.

4.3.1 The interaction model

The interaction model of the influence of research on wider society emerged from a critique of earlier, linear models within the KE field which was developed within the STEM subjects and had suggested that research moved from academia to policy or practice via a sequence of tangible and rational steps (Hannely et al, 2003; Landry et al, 2001). Proponents of interaction models argue that NAPs’ use of academic social science knowledge use depends on sustained - yet often disorderly and ad hoc - interactions between academics and NAPs (Moore et al, 2011). Unlike prior linear models, interaction models place greater attention on the social context of such interactions, particularly the interpersonal relationships between academics and NAPs across the knowledge production and dissemination process. Such relationships can be formal (contractually obligated) or informal (Olmos-Peñuela et al, 2014b; Molas-Gallart and Tang, 2011).

Meagher et al (2008) claimed that these interpersonal relationships are ‘not well understood by either universities or research funders’ (2008: 165), and therefore there is more work needed to examine them. Castro-Martínez et al (2010; 2008) point out that the formal (contractual) relationships are much more visible institutionally than informal ones, and thus more identifiable using traditional KE identifiers. This is particularly true in cases where non-academic organisations, including government, directly commissions research (Allen et al, 2007). Yet they argue that it is the informal, ad hoc relationships are perhaps much more important to the process. Regardless of the nature of the relationships (contractual or informal), the absence of such interpersonal relationships between academics and their potential

audiences which mediate interactions has been identified as a major barrier to research use (Best and Holmes, 2010; Best et al, 2008; Mitton et al, 2007; Crewe and Young, 2002). Enhancing interactions via relationships have developed into models such as the ‘linkage and exchange model’ (Lomas, 2007; 2000b; CHSRF, 2000), and the development of professional roles to broker them (Lomas, 2007; Lightowler and Knight, 2013).

4.3.2 ‘Productive interactions’

While interaction has been identified as one of the most important components of the knowledge exchange process, there is sparse work examining the nature of those interactions, and the wider social, economic, and political context in which those interactions exist. It is in this lacuna that Spaapen and van Drooge (2011) and Molas-Gallart and Tang (2011) and de Jong et al (2014) attempted to create a framework for understanding ‘interactions’ and its social context through their concept of ‘productive interactions.’ Spaapen and van Drooge (2011) first introduced this concept in *Research Evaluation* 20 (3) on behalf of a wider team.

‘Productive interactions,’ as understood by its proponents, are exchanges between academics and NAPs (and other interested stakeholders) in which knowledge which is both scientifically robust and socially-relevant is created and shared (2011: 212). This definition offers a starting point for how one might theorise about the role of interactions within the KE process in the context of KE seminars.

The purpose of the ‘productive interactions’ framework is to try to focus on the nature and quality of interactions between academics and other stakeholders, and the wider social context in which those interactions are taking place. It focuses on on-the-ground reality of communicating (disseminating) research and building knowledge through and dialogical exchanges between academics and NAPs:

‘You are warmly invited.’

Instead of speculating about potential impacts of research, we argue that *current* productive interactions of researchers with societal stakeholders improve the probability that *future* societal impact will occur. (de Jong et al, 2014: 1; italics in original).

This approach deals with that fact that not all research leads to impact. After very productive and illuminating conversations with academics, NAPs may use research only as background information, or choose not to recommend a change to policy or practice, or they may conclude that to achieve desired outcomes might be politically or economically unviable. Not all useful and relevant research will lead to impact (ibid), but this does not mean that the interactions between academics and NAPs are ‘unproductive’ or pointless. Those interactions may still have value which was worth exploring, or have value only after it mixes with other sources and forms of knowledge that NAPs bring to the exchanges.

The concept of ‘productive interactions’ assumes that *if* academics’ research is to have societal impact (even if that impact results in no change in policy or practice), there needs to be ‘personal contact’ between them and NAPs. By ‘personal contact’ Molas-Gallart and Tang, like the other proponents of the concept, do not regard corporeal presence as a necessary requirement. They state that personal contact can be mediated through various channels, including email exchanges or other written forms of communication: it need not be personal (ibid: 226).

When thinking about what constitutes ‘productive’ interactions, Spaapen and his colleagues are less clear than one might expect. For them:

Interaction is *productive* when it leads to efforts by stakeholders to somehow use or apply research results or practical information or experiences. (Spaapen and van Drooge, 2011: 212; italics in original).

When this contact leads to an effort by the stakeholder to engage with the research we refer to it as ‘productive interaction.’ (Molas-Gallart and Tang, 2011: 219).

Productive interactions are defined as encounters between researchers and stakeholders in which both academically sound and socially valuable knowledge is developed and used. (de Jong et al, 2014: 4).

Within these quotations, it is clear that for the developers of the concept, productive interactions are those which lead to efforts by NAPs to think about, use, or apply academic research in some way to their professional work. It is a two-way, reiterative, and dynamic process of dialogue, debate, and discussion which in turn produces knowledge that is both scientifically robust and socially relevant. By focusing on interactions within KE practices, Spaapen and van Drooge had to liaise closely with academics during their study. They claimed that it was possible to observe an ‘enlightenment function’ (2011: 216). Although never explicitly stated, their concept is underpinned by interpretive and social constructionist views of the knowledge exchange process.

Molas-Gallart and Tang (2007; 2011) argued that informal professional networks and relationships are important in trying to understand how interactions come to happen, and they shape those interactions. For example, Molas-Gallart and Tang (2011) found in their empirical work that ad hoc interactions and ‘serendipitous’ (p. 222) meetings between academics and NAPs often developed into longer-lasting informal professional relationships. These may go on to develop into a contractual relationship (via collaborative research, for example), or vice versa, or not. Likewise, Spaapen and van Drooge (2011) found that during their study they came to recognise an intricate network between various actors including academics and other professionals. De Jong et al (2014) argued that the network configuration of researchers, intermediaries, and other stakeholders all influence the nature and

function of interactions which, in turn, can influence societal impact (see also Molas-Gallart et al 2000; Walter et al, 2007; Krücken et al, 2009). In each of these papers, the development of such relationships during periods of interaction can be beneficial in accessing new information, sources of funding, and material or intellectual opportunities for the future. This can be highly beneficial for both academics and the NAPs. De Jong and his colleagues concluded that there was a need for more in-depth study of these networks. This thesis attempts to provide that.

While the concept of ‘productive interactions’ is concerned with the nature of interaction and relationships/networks which facilitate/mediate it, it is also more expansive than that. The wider political context outside of academia can significantly shape the nature of interactions between academics and NAPs. It also attempts to qualitatively capture and understand the external political/social/economic/commercial contexts which lead to those interactions occurring, and how those contexts in turn shape interactions (Court and Young, 2003).

4.3.3 ‘Direct’ and ‘indirect’ productive interactions

The concept of ‘productive interactions,’ like most of the KE literature which explores research dissemination practices, distinguishes between two types of interaction: ‘direct’ and ‘indirect’ (Spaapen and van Drooge, 2011).

‘Direct interactions’ are those which involve personal, two-way, communication between people who are: face-to-face, talking via a telephone, exchanging email, or via videoconferencing technologies (Spaapen and van Drooge, 2011). They can be with the target NAPs themselves, or mediated via knowledge brokers (Ward et al, 2009; Morris et al, 2013; Lomas, 2007; Mitton et al, 2007) or knowledge ‘purveyors’ (CHSRF, 2000). Such communication can occur prior to, during, or post-research (Nutley, 2003b; Denis and Lomas, 2003; Huberman, 1994). Such sustained interactivity across the life-course of research projects and beyond offers the chance for potential research users to help generate research questions, shape the research

agenda, improve access to new contacts and resources (including additional funding), assist in knowledge diffusion, and help organise KE activities for a wider audience beyond the contacts which the academics directly have access to (de Jong et al, 2014; Morris et al, 2013; Lomas, 2007; 2000b; Molas-Gallart and Tang, 2007; Mitton et al, 2007; Stewart et al, 2005; Kramer and Cole, 2003; Kramer and Wells 2005; Ross et al, 2003; Molas-Gallart et al, 2000; Cousin and Simon, 1996; Huberman, 1994).

‘Indirect interactions,’ on the other hand, are those in which academic researchers are not directly communicating with NAPs but are instead mediated through ‘information carriers’ (de Jong et al, 2014: 2). These can be text-based artefacts such as academic and professional journals, briefing papers, the media, exhibitions, etc (Rickinson, 2005; Freemantle et al, 2005; Molas-Gallart et al, 2000; Molas-Gallart and Tang, 2007), or through technology.

Internet technologies are increasingly important for academics disseminating their research, and for NAPs accessing it (Rickinson, 2005; Percy-Smith et al, 2006; 2002). Virtually all documents produced in academic research centres, including the CPC, are now published online and are often supplemented by rich multimedia such as videos and interactive websites. That being said, there is a paucity of work which has really fully examined the role of technology in the dissemination KE process.

Indirect interactions are more common than direct interactions, and are possibly one of the most prevalent forms of communicating research to non-academic audiences (Nutley et al, 2007: 133; Rickinson, 2005). Despite their pervasiveness, very little work in the KE field has examined and evaluated their usefulness and impact. The work that has been done suggests that linear, unidirectional, indirect forms of communicating research are largely ineffective in having any tangible (instrumental) impact (Freemantle et al, 2005; Grol and Grimshaw, 1999), but they may have a role in informing NAPs’ broad awareness of current academic interests and thinking (Nutley et al, 2007: 51; Lomas, 1991). Professional, colourful, glossy, research outputs (such as policy, briefing, or working papers) can be used alongside

‘You are warmly invited.’

direct forms of engagement as a form of ‘primer’ to the research findings and raised issues which may be discussed within the KE seminar (Bogenschneider et al, 2000; Weyts et al, 2000; Norman, 2004). They can also be useful if they are carried through knowledge brokers as an indirect form of communicating with NAPs that might not otherwise be directly accessible to academics, by acting as a ‘bridge.’

Grimshaw et al (2012a) suggested that indirect (textual) forms of communicating research might be a low-cost but low-impact form of disseminating research which might be beneficial if time and financial resources are limited. Such a strategy can be useful when the benefits accrued by change-of-practice are smaller than the cost of direct interventions.

Spaapen and van Drooge’s (2011) conceptualisation of productive interactions also included a third type of interaction, which they called ‘financial interaction.’ For them, financial interactions are where stakeholders are engaged in an economic relationship through commissioned research, research funding, or any other ‘in-kind’ contribution. It is, in effect, a form of obligation in which interactions are structured around duty and compulsion, one in which contractual partnerships shape the direction and content of interactions. Olmos-Peñuela et al (2014b) and Castro-Martínez et al (2011; 2008) argued that informal relationships may be more important than formal (contractual, financial) ones, yet are often difficult to identify. However, they recognised that there was a relationship where informal contacts become contractual ones and vice versa.

The nature of these relationships profoundly shapes the nature of engagement between academics and NAPs. The CPC engages in financial exchanges with research users, most notably Soton’s forecasting project with the Office of National Statistics (see chapter 2). It is important to note the influence that research funders have in shaping ‘productive interactions.’ The ESRC, through its application process and expectations for engagement (see chapters 2 and 3) shapes the nature and scale of KE activities that the CPC engages in. The relationship between CPC academics and NAPs is shaped by the research funder, which expects its investments to

contribute to society through engaging in KE practices. However, this thesis asserts that while financial relationships can profoundly mediate and shape productive interactions between academics and NAPs, they are not a type of interaction itself.

When discriminating between direct and indirect interactions, it can be easy to make the distinction too sharp. In practice, most researchers and KE specialists use a combination of both ‘direct’ and ‘indirect’ intervention methods – what Walter et al (2003b) referred to as ‘packages of activities’ - when developing their KE strategies.

In a systematic review of quantitative research examining dissemination strategy effectiveness, Freemantle et al (2005) found that there was a small additional impact if textual publications were produced alongside ‘active interactions’ - where academics and NAPs were both co-located and engaging with each other in sites such as seminars, conferences, and workshops. Weyts et al (2000), Bogenschneider et al (2000), and Norman (2004) all found that textual artefacts outlining research findings and emerging issues, such as briefing papers, sent out in advance of seminars, helped ensure that people arrived primed, thus maximising the time available for discussion during the seminar event. Thus, the literature seems to conclude that a combination of direct and indirect forms of disseminating and engaging with research might maximise strengths derived from each approach.

While indirect forms of interaction via published texts and online media have a place in the KE process, the KE literature has tended to focus on direct interactions.

There is now a growing body of evidence which demonstrates that successful uptake of research requires more than one-way or vicarious forms of communicating with NAPs (Mitton et al, 2007; Nutley et al, 2007; Lavis et al, 2003).

Thus, indirect or financial interactions are not considered within the scope of this thesis. This thesis is concerned with developing and building the concept of ‘productive interactions,’ but contributes only to the discussion of direct two-way (or multi-way) interactions between academics and NAPs in the context of KE seminars, and the wider social, economic, and political context in which those direct

‘You are warmly invited.’

interactions are occurring. In other words, this thesis takes only a small component of the concept (ie ‘direct interactions’) and attempts to conceptually build on that.

4.3.4 Focusing on corporeal ‘direct interactions’

This thesis maintains that indirect interactions are not interactive, and that there is a greater need to focus on direct interactions, particularly those which are corporeal.

To elaborate, Spaapen and van Drooge’s (2011) conceptualisation of ‘direct interactions’ combined a number of different types of engagement practices within the single term. For them, ‘direct’ interactions could be face-to-face or mediated through technology (eg, telephones, email, and videoconferencing).

This thesis makes a distinction between direct interactions which are face-to-face (corporeal) and technologically mediated (incorporeal). Furthermore, one of the concerns of this thesis is to highlight a problem in lumping together corporeal and incorporeal forms of engagement within the term ‘direct interactions,’ and argues for the primacy of the former, while recognising that academics and NAPs engage in both (Molas-Gallart and Tang, 2011).

While direct two-way interactions of all types are important for research uptake and impact (Meagher et al, 2008), some KE scholars have gone further and argued that two-way interactions should not only be person-to-person (‘direct’) but also face-to-face as the best strategy to support knowledge dissemination, diffusion, integration, and eventual use (Wilkinson et al, 2012; Mitton et al, 2007; CIHR, 2006; Kothari et al, 2005; Jacobson et al, 2006; 2003; Lomas, 2000a; Weiss, 1995). Such work emphasises the need for researchers and NAPs to be physically copresent as a precursor for engaging effectively in the process of sharing and co-constructing knowledge within ‘joint interpretive forums’ (Mohrman et al, 2001: 360; Golden-Biddle et al, 2003; Rynes et al, 2001; Boland et al, 2001).

This adds a corporeal dimension to ‘direct interactions,’ and is a position which differs from Spaapen and van Drooge (2011) who implied that direct interactions

which are face-to-face are equal to those which are mediated via technology (telephones, email, and videoconferencing). Making this distinction between face-to-face and technologically mediated interactions is important, particularly in academic social science research, where research-derived knowledge must interact with other forms of knowledge such as experiential, tacit, and expert-practitioner, if it to be made socially relevant and useful (an issue covered in 4.6: see also Molas-Gallart and Tang, 2011). This finding has a very clear implication: if academics and NAPs being physically together is important for effective KE, then it seems pertinent to examine the social occasions where people physically meet to talk about research and its implications. Thus, to talk about situations of corporeal two-way engagement activities is to describe knowledge exchange events.

4.4 Knowledge exchange events

While the KE literature has described the importance of face-to-face interactions as key to facilitating knowledge exchange/interaction/use, there has been less interest in the real social settings in which those face-to-face interactions occur – what this thesis terms KE events. The KE literature has also been largely interested in avant-garde and innovative approaches to non-academic engagement such as collaborative and participatory research programmes (Denis and Lomas, 2003; Court and Young, 2003; Ross et al, 2003). Yet these specialist/innovative programmes and projects are rare within academia. This has left a lacuna in the literature for exploring the mundane, day-to-day, almost canonical, forms of KE practices that many academics and KE professionals will recognise in their everyday professional lives (Cozzens and Snook, 2010): organising meetings with policymakers, seminars, professional conferences, and so on. It is this commonality that makes these ‘unexceptional’ events worthy of study.

So what are KE events? KE events are occasions in which academics and non-academics are physically together, interacting face-to-face. KE events are typically

‘You are warmly invited.’

academics engaging with NAPs, but increasingly they are engaging with the wider public through programmes like the ESRC Festival of Social Sciences (ESRC, 2015c). KE events can be small informal meetings in cafés or offices between just two or three people (Kramer and Cole, 2003), or large professional conferences in international-class hotels, or somewhere in between, such as seminars, workshops, roundtable discussions (ESRC, 2015c; Percy-Smith et al, 2006; Norman, 2004; Philip 2003; Bogenschneider, 2000; Weyts et al, 2000). These types of aforementioned events are most common, but there are also more innovative projects. Davis and Powell (2012) describe innovative and novel ways of directly engaging with non-academics via the arts, including exhibitions, drama, and music. Such strategies remain rare (ibid).

Unlike ‘indirect’ dissemination interventions, KE events are situated spatially and temporally. They are not like PDF working papers archived online which can be accessed any time. They are an active intervention that exists at a particular point in space and time. There are two aspects to the timing of KE events which will be discussed here.

The first is in relation to the timing of the research project. It is clear that the ESRC views KE activities as a post-research activity (ESRC, 2015a). This may also be how many academics view KE - as a post-research appendage. Yet the small literature which does examine KE events found that their effectiveness is not when they come end-of-project, but as part of a series of ongoing interactions which occur at different stages of the research-production process (Bogenschneider et al, 2000; Mitten et al, 2007; CIHR, 2006; Kothari et al, 2005; Kramer and Cole, 2003; Cousin and Simon, 1996; Huberman, 1994). While sustained interactivity over time (such as via a seminar series or regular planned meetings) has been identified as one of the strongest strategies for creating impact (Moore et al, 2011), Ross et al (2003) found that policymakers were more likely to be involved in KE projects when minimal commitment of their time was required but where they felt they would still gain something from participation. Furthermore, Percy-Smith (2002) and Feldman et al,

(2001) pointed out that the opportunities for front-line practitioners and less senior policy staff to engage with academics and participate in KE activities were more limited than senior staff– suggesting that there are power relations at play. Davis (1998) was more sceptical of the value of KE events, claiming that the typical one-day (or shorter) events are ineffective in generating outcomes in terms of change-in-practice. Yet, he also recognised that sometimes a day or less is all that KE event organisers might have with their target audience. While some were dismissive of single intervention (stand-alone) KE events, others disagreed. Conklin et al (2013); Norman (2004), Weyts et al (2000), Bogenschneider et al (2000) and Shanley et al (1996) all concluded that while not always ideal, single intervention activities could be valuable and productive so long as they enable ample time for discussion among participants: possibly making up the majority of the event time. Therefore, there is a balance of competing interests where, on the one hand, sustained interactivity over multiple KE events and meetings maximises the impact of the dissemination intervention. On the other hand, the amount of time academics can realistically expect to spend with time-pressured NAPs limits that potential (and handle their own time-pressures as well, see Tang and Sinclair, 2001). Thus, academics and KE professionals need to work within that constraint to maximise the value of their events, given the time that they have to deliver them (Norman, 2004).

The second temporal dimension to consider is the timing of the event in relation to ongoing wider debates of society. Even ‘one off’ KE events exist within a social and political environment.

Bogenschneider et al (2000), Mitton et al (2007), Nutley et al, 2007, and Innvær (2002), all found that the timing and timely availability of relevant social research in relation to the wider social and political interests of NAPs were among the most important factor for encouraging participation in KE activities (see also Percy-Smith et al, 2006; 2002; Jacobson et al, 2003; Weyts et al, 2000; JFR, 2000). Thus, academics and KE professionals organising KE activities cannot rely on the ‘sleeping effect’ where research findings and the significance of their implications for policy and

practice remain dormant until needed (Whitehead et al, 2004). One of Bogenshneider et al’s four conclusions to their empirical research on family seminars in the US was to advise academics to take care of the timing of the event by recognising when debates arise. They offer an example of this within their article’s discussion, saying:

The seminars have taught us that careful attention to timing is fundamental to the success of policy dissemination efforts [...]. For example, the welfare reform seminar, held the day before the vote on Wisconsin’s welfare legislation, attracted 28 state legislators which is more than any other seminar. One legislator remarked that the seminar helped him decide how to vote and that he was able to use information from the seminar in the assembly floor debate the next day. (2000: 332).

This quotations illustrates the point that KE events do not exist in a socio-political vacuum, and once ‘windows of opportunity’ (Kingdon, 1995) have been identified as being open, KE events can be an excellent opportunity to target and draw in a receptive audience as policymakers and elected representatives are willing to invest time and energy into KE activities, such as seminars, if the focus is on issues that are more immediately pressing in their professional lives. As Pawson (2002) pointed out, it is not the intervention of events itself which drive change, but the underlying reasons for their existence which enable people who are seeking information, and the intellectual, social, and physical resources that they offer participants, which make them participate.

4.5 Theories of interaction in the knowledge exchange process

In 2008 Best et al (also Best and Holmes, 2010) claimed that over time the conceptualisations of the KE process (and the models which are built on those

conceptualisations) moved from viewing academic research knowledge as an objective commodity that can be passed from academic researchers to a willing and passive audience (knowledge transfer, which has been derived from the STEM subjects), to one which focuses on interaction between researchers and NAPs as two active groups of professionals which embody specialist knowledges which is of value to the other (knowledge exchange). NAPs have expert, specialised and sophisticated knowledge, but it is also partial, flawed, and even incorrect (Ward et al, 2012; Grimshaw et al, 2012b; Davies et al, 2008; Rushmer and Davies, 2004), much like the academics themselves. This paradigm shift is significant. It moved academic knowledge from being an abstract object that can be passed around disembodied from the producers (academics) to the users (decision-makers, policymakers), to being something that must be interpreted and constructed through dialogue, debate, and discussion among real people – in other words, dependent on interactions between embodied people: the conceptualisation of the KE process moved from being rational to relational.

Best et al (2008; Best and Holmes, 2010) claimed that there has been a further paradigm shift in recent years within KE scholarship into what they referred to as the ‘third-generation’ of the field, called ‘knowledge integration’ (Best et al, 2008: 322; also Best et al, 2009). This conceptualisation of the KE process is concerned with embedding research knowledge into organisational practices, which is achieved through understanding organisational systems in which those interacting agents (people) are a part (Best and Holmes, 2010: 148; Best et al, 2008; 2009). This ‘third generation’ draws on complexity and systems models; focusing on interactions, interpersonal relationships, networks, and organisational structures & governance (Morton, 2015; Molas-Gallart, 2000). For Best et al (2008; 2009) the result of this evolution within the KE scholarship was to alter:

1. The nature of relationships between academics and NAPs from being two non-overlapping homogenous ‘communities’ (Caplan, 1979; Vivian and

Gibson, 2003) towards one of embedded and overlapping networks (Best and Holmes, 2010; Leischow et al, 2007). And;

2. Viewing the nature of successful dissemination of academic research knowledge from the movement of a tangible disembodied objective product which can be directly ‘transferred’ from academic to non-academic organisations, towards an entity that can be ‘exchanged,’ and then finally something which must be constructed, interpreted, and embedded which is mediated through interpersonal (and organisational) relationships for it to be successfully ‘integrated’ into other knowledges.

These two paradigm shifts have changed the focus of academic knowledge production and engagement so that academics (and academic research knowledge) are no longer viewed as the core of the process. Network and systems (and complex systems) perspectives of KE mean that academics are now working with, or even competing against, other forms of knowledge produced by other (academic and non-academic) sources (Byrne, 2011; Davies et al, 2008; Vivian and Gibson, 2003; Greenhalgh et al, 2004).

One important feature to note about the models of KE from each ‘generation’ is that one does not supplant the other. Earlier models were dominated by experiences of the STEM subjects, while scholars who were interested in the social sciences (even in the earlier ‘generations’) were consistent in highlighting the importance of understand the complex social environment in which KE takes place (See Weiss 1979; 1995). Furthermore, Best et al were specific in stating that even if the methods and models of KE evolved over time, it does not mean that previous elements of earlier models become obsolete; rather they are ‘building in sophistication and contextual sensitivity with each generation’ (2008: 322). How one understands the different theories of the process of KE is important to understanding the context of this thesis because, as the analysis will later show, KE seminars have several KE mechanisms occurring simultaneously within interactions at the seminars, so to

understand this process is pertinent and is elaborated upon in the following three subsections.

4.5.1 Two-way interactive model of knowledge exchange

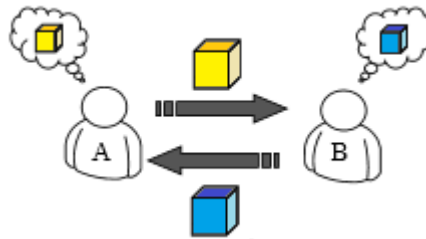


Figure 2 Basic interactive two-way model of knowledge exchange (based on Huberman, 1994).

The interactive two-way model of knowledge exchange is exemplified by the archetypical and influential work of Huberman (1994) which is illustrated in figures 2 and 3. In this model, the academic research community (*A*) produces knowledge (1) which is then transferred (2) to non-academic professional ‘research users’ (*B*). Research users then utilise this knowledge in policymaking and practice (3). Changes in the social environment as a consequence of implemented policies or practices are then fed back as new needs (4) from the research users to the researchers - completing the two-way interactive KE process.

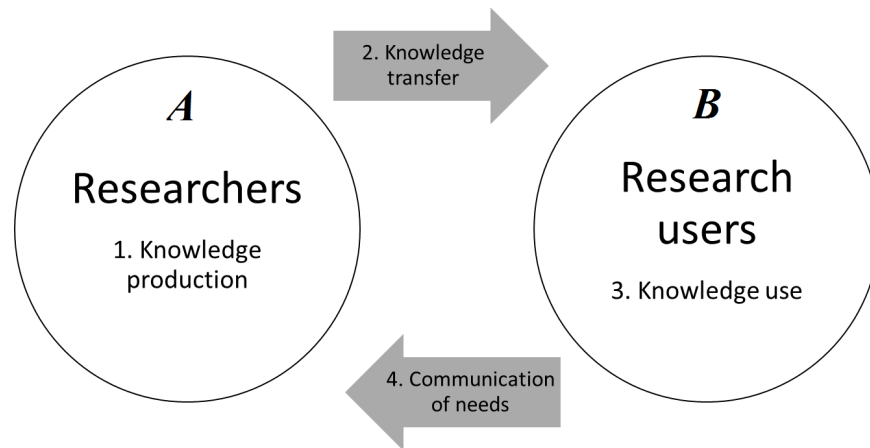


Figure 3 Two-way model of the knowledge exchange process (Source: Huberman, 1994).

Nutley et al (2007) and others have pointed out the limits of this model, including the assumption that research users are typically viewed as passive with only a limited role in the production and creation of ‘knowledge.’ Such models fail to appreciate the importance of the NAPs’ own contributions to knowledge, relationships, and the political & organisational contexts in which research, policymaking, and practice exist (Kothari et al, 2009; Clarke and Kelly, 2005; Court and Young, 2003; Kitson et al, 1996). Kitson et al (1996) developed a more nuanced version of the model which added considerations such as the organisational culture in which academic research dissemination is facilitated at an institutional level (see also Best and Holmes, 2010).

Whilst an improvement, such models continued to view academic knowledge as an objective entity which is transferable and usable across different organisational contexts. Furthermore, policymakers’ and practitioners’ knowledge within such models are viewed as tacit and subjective, and thus inferior: something to be ignored or managed. More sophisticated versions of this model placed greater emphasis on the two-way nature of interactions between academics and NAPs, but they did continue to view them, either explicitly (Caplan, 1979) or tacitly (Kitson et al, 1996) as ‘two-communities’ – two separate and non-overlapping realms of thinking and operating. This creates ‘gaps’ which can be partially bridged by

‘You are warmly invited.’

effective communication, but which might never be fully spanned. The ‘first generation’ of KE was concerned with how to bridge that gap through effective communication between the two communities (Best and Holmes, 2010; Hubberman, 1994; Vivian and Gibson, 2003; Caplan, 1979). This view of interaction within the KE process is problematic, particularly within academic social sciences where ‘valid’⁶ knowledge cannot be transferred from one party to another, but is something which is co-constructed.

4.5.2 Co-construction models of knowledge exchange

The KE literature focusing on the social sciences places a greater interest on pedagogical and social constructivist perspectives of knowledge exchange - where knowledge is *created* rather than *transferred* through the interaction encounter.

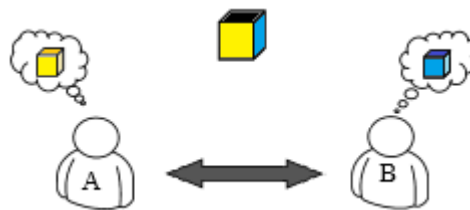


Figure 4 Basic model of the co-construction of knowledge through interaction

Co-construction models of knowledge exchange focuses on the idea that social science knowledge is *created* through social interaction (Davies et al, 2008; Davies and Powell, 2012). It is a social constructivist-learning view in which the knowledge exchange process is framed as a socio-cultural activity which can lead to individual and, by proxy, organisational learning. It is a ‘transformatory’ process (Desforges, 2000) in which knowledge is shaped and filtered through the pre-existing tacit and

⁶ The term ‘valid,’ in suspended quotation marks, is used here to signify the fact that there are substantial differences among NAP research users as to what constitutes ‘valid’ knowledge and evidence – particularly from the social sciences and healthcare disciplines: this is discussed extensively by Walshe and Rundall (2012), Nutley et al (2007) and Davies et al (2000).

explicit knowledge and perspective of all participants who are engaged in the interaction (Cousins and Simon, 1996). Such a view:

Reject[s] the notion that research offers neutral ‘facts’ that can simply be applied, and instead see[s] research as a socially mediated process. Research is not merely adopted; it is adapted, blended with other forms of knowledge, and integrated with the contexts of its use. (Nutley et al, 2007: 119).

Within figure 4 this is shown by each participant possessing their own valid yet distinct knowledge (represented by the yellow and blue boxes). Their dialogical engagement with each other (represented by the double-headed arrow) creates *new* knowledge which incorporates the perspectives and knowledge of each participant (represented by the new box incorporating yellow and blue surfaces).

Participants involved in the co-construction process share perspectives, ideas, and practical limits (of research, policy options, of practice). Successful engagement between academics and NAP participants is also dependent on developing effective communications and strong interpersonal relationships (Grimshaw et al, 2012b; Castro-Martínez et al, 2011; Best and Holmes, 2010; Best et al, 2008; Mitton et al, 2007; Jacobson et al, 2006; Kramer and Cole 2003; Court and Young, 2003). The co-construction of knowledge is more intensive in terms of the commitment required (particularly if NAPs are involved in the research-production process itself) when compared with the previously described two-way interactive models, yet there are potentially greater rewards in terms of skills in understanding and contributing to the knowledge-production process, understanding its results, and implications for NAPs, which can all outweigh the costs (Cousin and Simon, 1996; Ross et al, 2003).

Much of the KE literature which examines the co-construction of knowledge has tended to focus on co-production, where NAPs become part of the research-production and dissemination processes in terms of working in partnerships and

collaborations (Lomas, 2000; Denis and Lomas, 2003; Ross et al, 2003; Crewe and Young, 2002). This is what Van de Ven and Johnson (2006) refer to as ‘engaged scholarship,’ which opens up multiple opportunities for actors (including academics, NAPs, research funders, and brokers) to influence each other during the life-course of the research process, and beyond. Some have argued that the co-production of knowledge may be one of the most important routes for social science research to impact on policy (Nutley et al, 2007; Armstrong and Alsop, 2010).

Partnerships are critical to this process. This is what the CHSRF (2000 and Lomas 2000; 2007) refer to as ‘linkage and exchange.’ Partnerships (or ‘linkages’) between academics and NAPs vary in terms of the levels of commitment required, and the degree to which those commitments are formalised contractually, and how complimentary such contractual versus informal obligations are (Olmos-Peñuela et al, 2014b; Amara et al, 2013; Castro-Martínez et al 2011; 2008; Sapaan and van Drooge, 2011; Molas-Gallart and Tang, 2011; special issue of the *Journal of Health Services Research and Policy*, see Golden-Biddle et al, 2003).

The literature has identified several barriers to academics and NAPs engaging in a process of co-constructing knowledge with one another.

First, it requires a substantial commitment by all the actors involved in terms of time, energy, finances, staff, and other resources. This can be problematic given the time pressures that both NAPs and academics face (Ross et al, 2003; Goering et al, 2003; Innvæer et al, 2002; Tang and Sinclair, 2001). Academics must consider how to best use limited resources (including time) with their NAP counterparts.

Second, differences in professional cultures, rewards, incentives, pressures, and the timescales to which researchers and policymakers operate can all be barriers to the engagement and interaction process (Molas-Gallart and Tang, 2007; Walter et al, 2005; Greenhalgh et al, 2004; Ross et al, 2003; Goering et al, 2003; Tang and Sinclair, 2001). Thus, the success of academic-NAP engagements is highly dependent upon a supportive organisational and institutional environment (Antil et al, 2003; Goering et al, 2003).

‘You are warmly invited.’

Increasingly, whilst the co-construction of knowledge (and eventual impact) is not seen as an end-stage activity to be achieved after completion of research (Nutley et al, 2007: 286), the reality is that most social science research is not conducted as a collaborative project over longer periods of time. Most academic social research is autonomous from the NAPs who may ‘use’ that research at some point in the future. There is a prevailing view within academia that the knowledge exchange process begins once the research is complete (or at least sufficiently underway to report preliminary findings), and that KE strategies are typically designed around an end-of-research-project approach.

4.5.3 Integration models of knowledge exchange

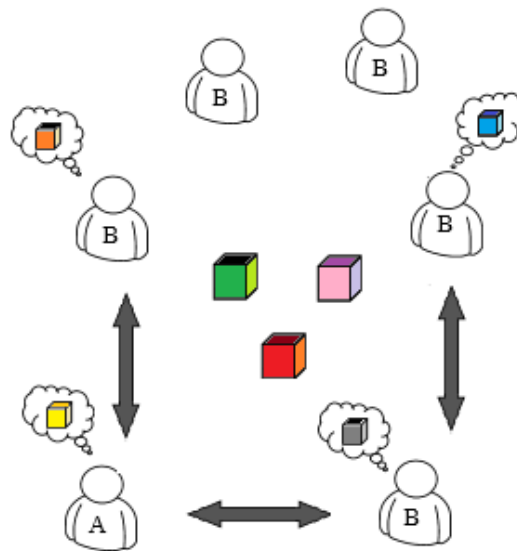


Figure 5 Basic model of decentralised interaction and knowledge integration

The term ‘knowledge integration’ is used here to refer to a number of different models and conceptualisations of the KE process which focus less on the interactions between academics and NAPs, and more on the nature of the exchange between multiple participants. The co-construction of knowledge is a messy, complex engagement with multiple actors possessing diverse sources of knowledge (Greenhalgh and Wieringa, 2011; Davies et al, 2008). It is a multi-direction form of

interaction which is mediated around a research project or programme, but in which the academic may or may not be involved at all (Davies et al, 2008; Haas, 1992; Gabby and le May, 2004). This process of multi-directional engagement comprises a process of learning, unlearning, and relearning (Hislop et al, 2004; Rushmer and David, 2004). Davies et al (2008) describe this as an:

Interactive, iterative and contextual view of using research [which] emphasizes social, dialogical and interpretative ways of knowing. Using research is seen as an ongoing, creative and unfolding process rather than any clearly delineated event. Such a model [focuses on] how new knowledge is created through social interaction. (Davies et al, 2008: 190).

Figure 5 shows this by using arrows to represent two-way communication not only between academics and NAPs but also between NAPs themselves. The colour of the boxes in the thought bubbles represents different knowledge (recognising that NAPs’ knowledge can be diverse). The 3 coloured boxes in the middle represents two things; first, having 3 boxes represents the fact that interactions between participants do not produce one single interpretation of research that is useful to all participants from every organisation, but rather they produce a number of different ways of thinking and understanding research, its implications, and its value to their professional lives. Second, the colour (knowledge) of the three boxes is unique from any single contributor’s input; it is a mixture of all participants’ contributions. This mixing of the colours is used here to represent how difficult it is to discern how the academics’ (A) knowledge (yellow) is actually present in any particular resulting *new* knowledge, but recognising that it is there in the hue. This is symbolic of the fact that once academic research is disseminated and integrated across networks of professionals, there are difficulties in identifying attribution (as previously described), and the fact that such complex engagements produce different outcomes

‘You are warmly invited.’

for different actors from different organisations means that a single evaluation tool cannot efficiently measure all possible outcomes and impact resulting from any KE activity (de Jong et al, 2011; 2014; Bornmann, 2012; Morton, 2012).

A number of different authors propose a variety of names for this multi-directional interaction process; with each ascribing different attributes and emphasising different aspects. Davies et al refer to this as ‘knowledge interaction’ – a ‘messy engagement of multiple players with diverse sources of knowledge’ (2008: 188), while Tyndèn (1993) uses the term ‘knowledge interplay.’

For Tyndèn, dialogue is the core of creating an ‘interplay’ of knowledge between all participants. Through this process, researchers and participants are able to share their understanding of the social problem which brought them together, they are able to share perspectives, their knowledge, the gaps in their knowledge (1993); participants take on one another’s perspectives, differences can emerge, as can opposing viewpoints as well as areas of common agreement. The result of this multi-directional dialogical process allows participants to build something qualitatively new and distinctive from any original contributor’s knowledge (Tyndèn, 1993). This is why in figure 5 the boxes outside the thought-bubbles are mixtures of the different colours of each contributor. The resulting knowledge from the dialogical interactive process is not a single one-size-fits-all entity (which is why there are three boxes), but rather different participants will take different things from the engagement; they are ‘joint interpretive forums’ (Rynes et al, 2001; Golden-Biddle et al, 2003; Mohrman et al, 2001).

While the names of the process might differ, one element remains core: relationships. Davies et al summed up the relationship between actors and actors’ different contribution to the co-construction of knowledge succinctly when they said:

interpersonal and social interactions are often seen as key to
accessing and interpreting social research knowledge,

‘You are warmly invited.’

whether among policy or practice colleagues, research intermediaries or more directly with researchers themselves. Thus, knowledge use is an **elaborate and dynamic process involving complex social processing and unpredictable integration with pre-existing knowledge or expertise.** (Davies et al, 2008: 189, **bold added**).

This quote illustrates the points that relationships are key to the process as interactions are not always between academics and NAPs, but can also be between NAPs themselves (see also Gabby and le May, 2004). This has recently led to discussions within the KE field about the importance of social networks for understanding the social context through which these multi-directional interactions occur and are facilitated (Best and Holmes, 2010).

While academics may not always be at the centre of this interaction process, researchers often remain in a position of power (Cousin and Simon, 1996), and can dominate interactions within the dialogue encounter (such as at KE seminars), for example by directing questions and facilitating discussions in which they set the boundaries of the interaction. For example, in a KE seminar some academics suggest topics for discussion within their ‘break-away sessions.’ By doing this, the academic may (inadvertently) be constraining and shaping the nature of the dialogue between NAPs, even if that academic is not directly a part of those discussions. As an extension to this point, Bogenschinder et al (2000) claimed that academics’ ability to produce high-quality research far outstrips their ability to disseminate it to policymakers and to discuss it in ways which their knowledge is not central to the interpretation and co-construction process (see also Escobar, 2011).

4.5.4 Summary

This section has presented three conceptualisations of the nature of the interaction process among academics and NAPs. The first was the two-way interactive models; second are co-construction models; and third are integration models.

The specific names and conceptualisation of this knowledge exchange process vary hugely, but for the sake of clarity and conciseness this thesis uses the term ‘knowledge exchange’ to refer to a range of different interactive models which move research beyond academia. In doing so, the term ‘KE’ is used as a single term for a number of different processes through which the movement and co-construction of knowledge occurs across multidirectional exchanges between many actors. The term ‘knowledge exchange’ is not used in the way Best et al (2008) - as a simple two-way flow of information between academics and NAPs: it is more comprehensive than that. This is important for understanding how this thesis operationalises the term ‘knowledge exchange.’

4.6 Corporeal co-presence: theorising bodily presence in knowledge exchange activities

Earlier this literature review cited literature claiming that interaction between academics and NAPs (and NAPs themselves) are important to KE and that those interactions are best mediated through interpersonal relationships and face-to-face encounters. In doing so, this thesis is claiming that physical presence is a precursor the exchange and co-construction of knowledge. No matter if NAPs are involved in the co-production of research, or involved in a single post-research KE event; it is the times and spaces where academics and NAPs are physically together (in research team meetings, seminars, workshops, etc) which best facilitate productive interactions. This view is also mirrored by the ESRC (2015a) and RCUK (2015) where they also implied that interactive dialogue should be orientated around face-to-face (direct) interactions.

Yet while face-to-face interaction has been identified as important in the KE process within the KE literature (eg Wilkinson et al, 2012) and by research funders, there has to date been very little work theorising the corporeal dimensions to interaction and the wider KE process. This thesis addresses this lacuna by turning to the sociological

literature and situating understandings of face-to-face interactions within the concept of ‘corporeal co-presence.’

The central argument of this thesis is that to facilitate productive interactions between academics and NAPs requires both co-location and co-presence: both a spatial and social connectivity. To make this case, the thesis draws on the ideas of Goffman (1966; 1971) and Urry (2002; 2003; Larsen et al, 2006) on social interaction, co-location (spatial) and corporeal (embodied) co-presence (engagement). This makes participation in physical meetings vital to engage with research through personal and embodied exchanges (Larsen et al, 2006). This section also examines the literature on the possibilities for the use of technology in mediating ‘direct’ interactions between KE seminar participants. In the case of this thesis, it is using VideoConferencing Technologies (VCT) to ‘dial in’ to KE seminars. This is conceptualised as what Zhao (2003; Zhao and Elesh, 2009) calls ‘corporeal telecopresence.’

4.6.1 Corporeal co-presence

Corporeal co-presence refers to the embodied nature of social and professional life which makes co-location at physical sites desirable and often necessary (Larsen et al, 2006; Urry, 2002).

Co-location refers to the physical (corporeal) presence of two or more people in the same place. It is a spatial relationship defined by the proximity of individuals (Goffman, 1971). Co-location provides the ‘physical distance over which one person can experience another with the naked senses’ (Goffman, 1966: 17).

Co-presence refers to the act of two or more people engaging with one another through an unmediated sensory perception of each other (Goffman, 1966: 22). This makes bodily presence ‘fundamental to social intercourse’ (Urry, 2002: 259). This is sometimes referred to as incorporeality (Csoras, 2008) because not only are bodies present in the same space, they are also interacting. Co-presence is the condition

through which co-located people are mutually and ‘uniquely accessible, available, and subject to one another’ (Goffman, 1966: 22) through verbal and non-verbal communication. It is primarily a social relationship where individuals are not only in close proximity (co-location) but are also reciprocally orientated towards one another when they are interacting. This, then, implies a social state where individuals are close enough to perceive what others are doing, and are able to be perceived by others, and to be aware of being perceived (Goffman, 1966: 17). Co-presence is always reciprocal (two-way), embodied, and instantaneous. This instantaneousness and physically present form of communication means that co-presence is also a spatiotemporal condition. The concept excludes non-present and non-instantaneous diachronic exchanges such as email and postal correspondence. It also excludes parasocial activities such as listening to a lecture or watching television together, where people are physically together but not reciprocally engaging with each other.

While the two concepts of co-location and co-presence are related, they are not interdependent. Co-location is not enough to ensure engagement and reciprocal dialogue. Consider the parasocial activity of watching television – two people might be sitting beside each other on a sofa but not speaking to one another. Consider also two people who might be sitting beside each other in a café, but each on their own laptop and each not communicating with the other; they are co-located but not co-present (Hampton and Gupta, 2008). Conversely, due to advances in telecommunication technology, it is now possible to communicate with others who are not physically proximate but are still involved in an instantaneous, two-way, partly embodied exchange via a Skype video feed. They are co-present but not co-located (Zhao and Elesh, 2008). Yet even via a Skype video feed, there is still an embodied nature to the co-presence as the participants are still able to *see* and *hear* one another, even if they are not co-located. Yet such exchanges are not experienced directly through ‘naked’ senses (Goffman, 1966) but rather mediated through technology.

4.6.2 The sensory experience of being with others

For both Goffman (1966; 1971) and Urry (2002, 2003), corporeal co-presence requires co-location, and is a form of social engagement where talking is the basic medium of the social encounter. Yet talking alone is not enough to create a ‘meeting of the minds’ as effective communication is also rooted in the sensory experience of perceiving and being perceived. For Goffman, the body is not simply a tool for communication, but the very core of it. For him, and Urry, it is the body which mediates interactions through a sensory perception and intercorporeal experience of engaging with others. Information (or knowledge, or knowledge exchange) is ‘embodied,’ not disembodied (Goffman, 1966; 1971). By ‘sensory perception.’ Goffman is referring to the ability of individuals to hear, see, and touch (and smell!) one another, acting as channels of normative performances and social rituals. This in turn mediates, regulates, and facilitate social interaction. In short, the body anchors social interaction. For Urry, this embodied element means that co-presence is based on:

Not just words, but indexical expressions, facial gestures, body language, status, voice intonation, pregnant silences, past histories, anticipated conversations and actions (Urry, 2002: 259).

4.6.3 The interaction order: a grammar of interaction

For Goffman and Urry, there is a relationship between sensory perception and normative social performances & rituals through which all social interaction occurs. For example, when two professional acquaintances meet they shake hands (touch), they will look at their acquaintances in the eye (sight), exchange standard pleasantries (hear, and speak), and so on. It is intercorporeal. Such encounters constitute what Goffman (1983) referred to as an interaction order: they are formulaic social procedures, a grammar of interaction, or ‘the ground rules for a

‘You are warmly invited.’

game’ (1983: 5). Following this grammar in different social situations helps facilitate interaction because each participant knows and understands the basic grammar of the encounter ritual. For example, in the context of a seminar we are aware of the standard format (an introduction to the speaker, the presentation, the Q&A, a tea break, etc). This format comes with specific ritualistic performances which are shaped by situational norms. Such rituals are unspoken and often imperceptible to the participants because they are so normalised (ibid). Knowing those social rituals within a given social context can enable productive interactions as the individuals present tend to know what to expect and how to respond.

4.6.4 Corporeal co-presence and ‘the meeting’

KE seminars, like all professional meetings, are about offering a corporeal, sensory, social experience to the meeting’s participants (Boden and Molotch, 1994; Urry, 2002; 2003; Larsen et al, 2006). For Boden and Molotch and Urry, despite significant technological advancements in how we communicate by proxy (telephoning, emailing, and teleconferencing), these are not sufficient for fully replicating many forms of social life, including professional meetings. Urry argues that technologically mediated interaction create a peculiar form of engagement with others:

Virtual travel does seem to produce a strange and uncanny life on the screen that is near and far, present and absent. (Urry, 2002: 255).

While technology can replicate many aspects of communication, it lacks the warmth and intimacy of co-present engagements which makes people want to travel to business meetings, family reunions, etc. These leads to what Boden and Molotch (1994) refer to as the ‘compulsion of proximity:’ the need for individuals to be physically together. This is because the interaction is richer and more meaningful.

‘You are warmly invited.’

Many people feel that they can express themselves better in person, and are better able to convey their views and positions on matters, and to be judged more sincerely in their convictions. Co-present interaction is important for effective communication and building or maintaining relationships.

The relevance of this description of embodied interactions for knowledge exchange should be obvious by now. If an academic is interested in sharing their research work with others, it is better to communicate those ideas, and to engage with NAPs person-to-person. From the KE literature, the work of Gabby and le May (2004) and Weyts et al (2000), and others, demonstrated empirical evidence for this, despite not being couched in those terms.

Urry makes several interesting points regarding corporeal co-presence which are relevant to KE seminars. Deciding to travel to participate in any social event is itself a significant step. A professional travelling to attend a conference, a workshop, an exhibition, or a seminar has made an investment in time and often money. The presence of their body in the venue space represents a symbolic act of commitment to the endeavour of that event and the other participants who will attend it. It signals that the event is worth the resources and effort (Urry, 2002; 2003; Larsen et al, 2006).

Goffman (1971) and Urry (2003) also examines the role and value of ‘small talk’ and ‘loose talk’ in establishing conversational flow among new acquaintances. Small talk is informal and inconsequential interactions which can develop into something more substantive, including ‘loose talk’ (Urry, 2002; 2003). Loose talk refers to informal conversations that take place between participants which may or may not relate to the core subject under discussion, or may thread through a number of different topics including the core matter under discussion. Within the context of professional meetings, such informal conversations often take place prior to, or immediately after, the formal components of the meeting (Larsen et al, 2006).

These informal interactions can be used by professional attendees to: reflect on the nature of the formal meetings and their implication for their professional work, to

‘You are warmly invited.’

correct mistakes and misunderstandings, or demonstrate commitment (or opposition) to particular ideas or points raised, and to talk through ‘troubles’ (Larsen et al. 2006). As Urry (2002) says:

Co-presence is likely to be necessary to talk through problems, especially the unmediated telling of ‘troubles’. Face-to-face conversations are produced, topics come and go, misunderstandings can be corrected; commitment and sincerity can be directly assessed. (Urry, 2002: 259).

This makes these informal conversations before and after the formal components of the meeting very important. Corporeal co-presence is a necessary precondition for such informal, yet productive, conversations to occur. To illustrate what is meant by this, consider a formally organised meeting. The meeting itself may offer opportunities to interact with other participants in a structured, agenda-orientated way. Such formal interactions could easily be replicated using teleconferencing technologies. For Larsen et al (2006), it is not these formal, structured discussions which justify physically travelling to those meetings, but the ‘catch up’ in the corridors outside the meeting room afterwards, or in ‘huddles’ in the drinks reception which follows. These are where participants talk to one another quietly about what they feel about the points raised in the meeting, what they think about the information they have heard, express support for those ideas, or not. These informal exchanges can be highly beneficial not only for the participants but also in shaping the interactions in the formal aspects of the meeting itself.

A second function that ‘loose’ talk can play in professional meetings is a social one. Loose talk helps develop trust and commitment among attendees as part of a wider professional network, without which the networks would eventually deteriorate and disappear (Urry, 2002; Larsen et al, 2006; Boden and Molotch, 1994). By physically attending meetings participants can have that ‘chance encounter’ with new and potentially useful contacts. Letters, emails, telephone conversations, and

‘You are warmly invited.’

Skype chats cannot act as effective substitutes for these unplanned yet beneficial encounters. One cannot contact someone via Skype if one does not know they exist in the first place. It is also more difficult to engage in a more meaningful email correspondence if one has never met one’s correspondent. Meeting people changes the nature of relationships, develops trust and commitment (Boden and Moltch, 1994). Thus, the ‘official’ and structured parts of the meeting itself are only one component in creating a social environment in which productive interactions can occur. It is this wider (informal) social environment which helps to justify the effort and commitment of resources in participating in meetings.

Larsen et al (2006) and Weber and Chon (2002) argue that, increasingly, professional meetings are no longer about transferring information from a presenter standing in front of a whiteboard to a passive audience receiving information, but rather their core purpose is to provide social networking opportunities. Davidson and Cope (2003), Jacobson et al, 2003, and Urry (2002; Urry, 2004) concluded increasingly, professional meetings focuses on building and sustaining networks, rather than the one-way transferring of information via presentations and ‘passive listening.’ As the business travel writer Collis (2000) stated: ‘Who, for example, goes to a conference to listen to the presentations? It’s the networking that counts. [It’s] a chance to bond with your boss or other colleagues’ (p. 64). This thesis will argue that the same argument could be made about KE seminars.

4.7 The social dimensions of knowledge exchange seminars

This thesis frames KE seminars as opportunities for creating and maintaining professional relationships. The analysis chapters of this thesis will argue that learning is not the only reason why people attend KE seminars, and so it is pertinent to examine the KE and sociological literatures for their insights into the connection between KE activities and professional relationship- and network-building.

From the KE literature, the ‘linkage and exchange’ model of KE focuses on the development of relationships between academics and NAPs (Warde et al, 2009; Lomas, 2007; 2000). Research which has examined relationships between academics and NAPs has consistently found that regular personal encounters are one of the most efficient mechanisms for developing them (Ward et al, 2009; Kramer and Cole, 2003; Lomas, 2000; Cousins and Simon, 1996). This has been reinforced by Mitton et al’s (2007) systematic literature review which finds that personal contact develops rapport and the fostering of trust which were among the greatest facilitators to encouraging KE and generating research use. Therefore, developing strategies for fostering those interpersonal relationships and networks are important, if not critical, for successful KE (Morton, 2014; Lightowler and Knight, 2013; Wilkinson et al, 2012; Olmos-Peñuela et al, 2011; Byrne, 2011; Best and Holmes, 2010; Ward et al, 2009; Nutley et al, 2007; Lomas, 2007; 2000; Walter et al, 2007; Greenhalgh et al, 2004; Jacobson et al, 2003; Kramer and Cole, 2003; Crewe and Young, 2002; Molas-Gallart et al, 2000; Haas, 1992).

Mirroring this conclusion, Mitton et al’s (2007) systematic review and Innvær et al’s (2002) empirical work found that a lack of personal contact between academics and NAPs was the greatest barrier to the KE process. The inability to develop good relationships is a key factor in understanding why some academic research knowledge is not effectively engaged with (Jacobson et al, 2003).

Some have argued that face-to-face contact is a necessary precondition for this linkage and exchange to occur. Innvær et al (2002) and Gabby and le May’s (2004) empirical work on healthcare workers illustrates that. To use the second paper as an example, Gabby and le May’s (2004) ethnographic research examined how medical staff came into contact with, and subsequently trusted, academic research. They observed staff in two general practitioners’ practice meetings and interviewed them afterwards. They found that healthcare practitioners’ trust in research findings depended on their faith in the researchers and other external actors that the practitioners physically met. Meeting these stakeholders was key to enabling

‘You are warmly invited.’

practitioners’ decisions about who was authoritative and were trustworthy sources of information (ibid: 3). From this, Gabby and le May (2004) developed the concept of ‘mindlines’ in which they claim that clinicians access and evaluate research **not** from their own reading material, but rather by their interactions with researchers, each other, opinion leaders, and other external actors, including patients and pharmaceutical representatives. ‘Networking was vital in order to know which colleagues to trust’ (ibid: 5). Meeting and interacting others fosters trust, through which practitioners came to judge sources of information. These trusted relationships become integral to the development of how research moves across a network, is understood, and then accepted by healthcare practitioners. Building, fostering, and maintaining such networked relationships through regular and sustained interactions is therefore critical to the KE process.

This is one example of many. But the lesson from the empirical literature is that regular face-to-face interactions are important for relationship-building which is important for KE. Such relationships may be ad hoc and informal, or structured around regularly scheduled (sometimes contractual) meetings, or a combination of both, or move from one to the other (Olmos-Peñuela et al, 2014a/b; Molas-Gallart and Tang, 2011; Moore et al, 2011; Sapaan and van Drooge, 2011; Lomas, 2007; Castro-Martínez et al, 2008; Mitton et al, 2007).

Yet while interpersonal relationships (either informal or contractual) are important within the KE process, very little attention has been paid to the physical sites where people come together to create and sustain them. This thesis will argue that while non-corporeal forms of interaction are important, telephones and email do not create or sustain strong positive and trusting relationships that are needed for linkage and exchange to fully work. They can only (help) start tentative ones, or (help) maintain existing ones (Larsen et al, 2006).

4.7.1 Creating social spaces for interaction within seminars

KE seminars are sites where academics and NAPs physically meet to talk about academic research, its implications for policy and practice, and network with others with who they share a common interest. While they are a ‘single event’, they contain a number of different dissemination and interaction mechanisms (Walter 2003a), they include different components. This section elaborates on these different components by distinguishing between formal and informal components (Percy-Smith, 2002) which creates different social environments for engaging in productive interactions.

Formal interactions

Formal interactions refer to the times and spaces within the KE seminar which are planned and scheduled. They are ‘top-down’ forms of interaction which are scheduled for a specific time and always with a specific agenda. They include lecture-style presentations, panel discussions, debate, demonstrations, workshops, break-away sessions, Q&A sessions, roundtable discussions, paired discussions, debates, etc.

Within such spaces, researchers and KE professionals often remain in a position of authority as they organise and shape the boundaries for such interactions; sometimes dominating the interaction encounter in which questions and discussions are directed and controlled by them (Escobar, 2011; Cornwall et al, 2008a/b; Cousin and Simon, 1996). Such structured, formal interactions can, nonetheless, be productive.

ESRC research examined event feedback forms from participants who attended an ESRC Festival of Social Sciences event (2012). They found that the time for discussion was an important part of the participants’ overall satisfaction with the events. They concluded that event organisers should ensure that there was ample

‘You are warmly invited.’

time for structured discussion among participants, rather than passive forms of engagement via presentations. Similarly, Percy-Smith et al (2006), Bogenschneider et al (2000) and Weyts et al’s (2000) work on KE seminars concluded that the attendees felt that they gained the greatest benefit from the (non-partisan) discussion elements of seminars which focused on the implications of research findings, rather than research findings themselves. Each of these papers recommended creating forums for exchange of views with other event participants. The Commission on the Social Sciences (2003) noted that academics must be given encouragement and guidance in the development of their KE event programmes to allow plenty of time for discussion; even if this can be time-consuming and fraught with difficulties.

Break-away sessions are important for learners as they create opportunities to experiment and think through different ideas. They are a sounding board for ideas, allowing participants to incorporate research knowledge into their own professional experiences, and then relate that to others within the group (Escobar, 2011). As mentioned, NAPs are often specialists with expert knowledge in their respective areas, and so these formal, structured group discussions might be of great benefit to other NAPs **and** academics who are present.

Informal interactions and ‘open regions’

Informal interactions are less structured in terms of their content and nature; they are ‘bottom-up’ (Escobar, 2011; Cornwall et al, 2008b). There is still purpose to the interactions, but they are less agenda-orientated (Larsen et al, 2006). They also remove the academic and seminar organisers from their powerful position because they do not set the parameters of the discussions. Such informal interactions occur at the periphery of the formal components of the meeting; they are the chats before or after the meeting proper, or during the tea breaks or wine receptions within them. As mentioned, they can be very useful for reflecting on the nature of the formal meeting and its implications for participants’ professional life. It is also in

‘You are warmly invited.’

these social spaces that relationships are reinforced and new acquaintances met (ibid).

These informal ‘peripheral’ interactions can be particularly important between colleagues and acquaintances who work for different organisations, or for colleagues who work for the same organisation but are geographically dispersed. This is because they will have fewer opportunities to physically come together to have these informal face-to-face chats which are important to professional life.

Goffman called the social spaces which are available for such informal interactions ‘open regions’ (1966). Open regions are places where:

“Any” two persons, acquainted or not, have a right to initiate face-to-face engagement with each other for the purpose of extending salutations. (Goffman, 1966: 132).

Open regions are also what Oldenburg (1991) called ‘third place’ – any ‘neutral,’ semi-public forum such as bars, conference halls, seminar suites, community centres, etc can be an open region. Within such spaces, people can make themselves mutually accessible for interacting with or without prior acquaintance (Shaviro, 2003; 129). These are locations which are frequented by regulars in spaces where there is no compulsion to be there. They are also open to others, so in addition to meeting regular people, they are spaces where strangers or acquaintances can gather to socialise and converse.

4.7.2 Using hospitality as a way of creating ‘open regions’ for informal interactions

Corporate events organisers can spend considerable sums of money on ‘hospitality’ such as cocktails, wine, canapé receptions or dinners in order to bring together investors, company management, and clients, ultimately for the host organisation’s benefit (Allen, 2009). Likewise, within the academic community, food is often

provided at events (from small departmental seminars up to international conferences). It is expensive but often viewed as important not only because it provides material comfort to attendees, but because of its social value in facilitating networking and exchanges between the participants. Food creates ‘open regions’ which permit networking and informal exchanges.

This section of the literature review attempts to draw on a number of concepts from the sociological literature to frame how food might be theorised in the context of KE seminars.

Mealtimes and the creation and sustaining of relationships

Simmel wrote extensively on the sociology of food and viewed mealtimes as a ‘primordial social institution’ (Symons, 1994: 333) and a ‘paradigmatic instance of social interaction’ (Symons, 1994: 341) beyond mere bodily sustenance. It marks out time, and indeed, it creates time, time away from the routine of work for people to come together to socialise – be it staff in a factory cafeteria or a state banquet, mealtimes are generally perceived as a social activity (Warde and Martens, 2000).

Mealtimes are social spaces where people collectively come together to create new, or strengthen existing, relationships (Symons, 1994; Mintz and du Bois, 2002; Ochs and Shohet, 2006). When we eat together, we are engaging in a pleasant shared sensory experience (Symons, 1994). This shared experience helps create a focal point in which ‘small talk’ and ‘loose talk’ can occur (Urry, 2002). It can help to ‘break the ice’ between people previously unknown to each other by talking about the food and the sensory experience of it (‘it looks lovely,’ ‘the cake is great, you should try it,’ ‘oh, I don’t know if I could sit much longer without a cup of tea’) (Larsen et al, 2006). This small talk around food is an entry point for engaging in initial contact with new acquaintances from which loose talk (or ‘bottom up’ conversations) can develop. Eating has what Goffman would call an interaction order: a set of rules and

‘You are warmly invited.’

ritualised practices around food in which, for example during a buffet lunch or ‘standing tea break,’ it is acceptable to approach and engage strangers.

Along with helping people approach new acquaintances, food also helps strengthen existing ones, particularly for colleagues and professional acquaintances who may not have the opportunity to meet one another outside such social occasions (Urry, 2003; Larsen et al, 2006). Nandhakumar (1999) presented qualitative evidence from an interview with a manager of a technology specialist ‘virtual team’ for a large global company. He was arranging a meeting in which all the team members were to physically meet, pointing out the irony of the specialist ‘virtual team’ travelling significant distance to meet each other, but the manager retorts: ‘I say we can’t do [the meeting] virtually, we can get so far virtually, but because until we have a real good drink and a good meal and a good social chat at length we are not going to be a “real team”’. (1999: 52).

Food and facilitating interactions

Within professional environments food can play an important function in facilitating productive interactions. Collins declared that it was: the social drink [that] can be pure gold (2000: 64). Mealtimes can facilitate the construction of shared knowledge by creating ‘open regions’ which allows for informal exchanges which enfold the occasion. It is a space where knowledge can be created, recreated, and disseminated around exchanges centred on mealtimes (Ochs and Shohet, 2006). This thesis will present evidence to show how mealtimes and refreshment breaks in KE seminars are used to create social spaces where people can feel comfortable approaching and interacting with unknown participants. As such, they are important sites for the development of informal relationships (which may develop into something more substantial/contractual in the future), yet are barely recognised within the KE literature. There is only a passing reference to the significance of food in Golden-Biddle et al (2003).

4.7.3 Technologically-mediated interactions

Earlier in this literature review, the importance of physically being with others face-to-face was highlighted as an important dimension for facilitating productive interactions. This was framed theoretically through the concept of corporeal co-presence. It also briefly mentioned the possibility of mediating communication through VideoConferencing Technologies (VCTs) in KE seminars; where people are engaged in a partly-embodied two-way dialogue using VCT such as Skype. In such circumstances, participants are co-present but not co-located, what Zhao and Elesh (2008) call corporeal telecopresence.

Technology has become ubiquitous in our professional lives, with telephone, email, websites, and teleconferencing playing an increasingly dominant role in how we communicate with each other (Jones et al, 2002; Liscoppe, 2004). KE seminars are no exception, with the incorporation of PowerPoint, videos, online demonstrations, ‘Smart’ boards, and electronic voting systems all designed to help communicate research and facilitate discussions. It is also undeniable that, with improvements in file-sharing and videoconferencing technologies, the dominance of technologically mediated interactions between professionals, including academics and NAPs, will increase in the future.

There is a small but not insignificant literature examining technologically mediated interactions and their role in the KE process. This has been particularly salient in the healthcare sector (Greenhalgh et al, 2008; Conklin et al, 2013; Ali et al, 2012). This thesis will contribute to this discussion by looking specifically at the use of VCTs within KE seminars.

This section of the literature review examines both the opportunities and limitations of VCTs in professional life. As before, it frames this through the insights of Goffman (1966; 1967; 1971), Urry (2002; 2003), and includes work from Zhao (2003; Zhao and Elesh, 2008) regarding the nature of corporeal co-presence and corporeal telecopresence.

Before continuing, it is important to distinguish between different forms of technologically mediated presence. Zhao (2003) offers a helpful taxonomy with 6 classifications of co-presence; the two which are relevant here are:

1. Corporeal telecopresence. This refers to a social situation where a group of people are co-located and co-present, but where one or more individuals are corporeally present via technological projection. Those who are ‘present’ at the event site by ‘dialing in’ are said to be corporeally telecopresent. Whilst not physically present, VCTs do allow a form of embodied co-presence to the non-co-located person as they can see, be seen, listen, and be heard by those who are co-located. There is a sensory presence, but it is mediated through an electronic network. Zhao (2003) describes corporeal telecopresence as a form of interaction that is ‘person-to-person,’ yet ‘face-to-device’ (p. 447). VCTs allows for simultaneous and instantaneous audio and video communication across huge distances. They are dependent on increasingly sophisticated hardware and software technologies.
2. Virtual telecopresence. This is a social situation where none of the participants are co-located, and the interaction site exists only in virtual space. ‘Webinars’ or online conferencing are two examples of this.

VCT technology is now increasingly replacing corporeal travel within professional and business environments (Cairns et al, 2004). Licoppe (2004) and Fletcher and Major (2006) asserted that the development of increasingly sophisticated technologies will create new types of interaction within personal and professional life. Telephones, email, and videoconferencing, as well as software developments running on social media platforms will become increasingly embedded within our interpersonal relationships and daily life practices.

‘You are warmly invited.’

Mediated distant exchanges [will become] woven into a single, seamless web [which] gradually crystallized as these technologies have become widespread and as each additional communication resource has been made available to users [which] coexists with previous way of managing ‘mediated’ relationships. (Licoppe, 2004: 135).

This is what Goffman might refer to as the development of a new interaction order, a grammar of interaction which will increasingly draw on the use of communication technology in its social rituals and normative relational practices. Licoppe argues that technologically mediated relationships supplement face-to-face meetings. They will become embedded within society in a ‘single, seamless web’ which ‘coexists with a previous way of managing relationships’ (p. 135) rather than replacing them.

The increasing use of VCT in professional settings is viewed by some as a viable solution to the problem of communicating with dispersed colleagues and business partners (Sole and Edmondson, 2002; Townsend et al, 1998) Townsend et al (1998) optimistically said that the rise of technology has helped overcome geographic barriers to facilitate new ways of working where professionals could be located anywhere in the world, and yet access information, knowledge, and communicate with others instantaneously. This new way of working and interaction would be:

...unrestrained by geography, time, and organizational boundaries; it will be a virtual workplace, where productivity, flexibility, and collaboration will reach unprecedented new levels. (1998: 17).

Boden and Molotch (1994) and Urry (2002; Larsen et al, 2006) disagree. They argue that technologically mediated interactions are an ancillary for physically meeting face-to-face, but not a substitute for it.

‘You are warmly invited.’

VCTs have a number of practical technical limitations. Technological problems can disrupt the intercorporeality of social interactions. Bandwidth issues can distort the audio or visual signals which can compromise the flow and structure of the interaction (O’Conaill and Whittaker, 1993) – for example, by affecting the sequencing of ‘turn taking,’ ‘interrupting’ and ‘relinquishing the floor,’ all of which form the basis for the interaction order within professional meetings. More practically, such interruptions can lead to fewer speakers, longer length of turns, or partial or misinformation as audio signals become unintelligible. Socially such disruptions in the audio or video transmissions can be salient in emphasising the physical and social distance of the absent, non-co-located person who is ‘dialing in’ precisely because such interruptions interfere with the sense of corporeal presence by disrupting the sensory nature of the exchange (O’Conaill et al, 1993).

Within the KE field, there has been a small number of studies which have explored the use of VCTs, but only ‘webinars’ – a portmanteau of the words ‘web-based seminar’ (Conklin et al, 2013; Ali et al, 2012). Webinars differ from the VCTs being discussed in this thesis. With VCT, the majority of the seminar participants are co-located and co-present, with one or more participants ‘dialing in’ to the event. This is what Zhao (2003) termed ‘corporeal telecopresence.’ Conversely, webinars have no co-located participants. The participants are each in their own location and ‘meet’ only in virtual space. This is what Zhao (2003) terms ‘virtual telecopresence.’

Sapsed et al’s (2005) insightful work found that while technology may be useful for sharing *information*, it was more limited in the exchange and co-creation of *knowledge*. Sole et al (2002) and Sapsed et al (2005) found that effective KE was more limited and ‘arduous’ with ‘regular breakdowns in knowledge exchange’ (2005: 848) when the process was conducted online with geographically dispersed teams as compared with other teams who were co-located and engaging face-to-face. The teams which were geographically dispersed used a webinar conference format for the most knowledge-intensive aspects of the project, with follow-up phone calls for ‘verification and validation’ (p. 849) post-webinar. This activity of a post-webinar

‘You are warmly invited.’

telephone call seems to mirror the ‘loose talk’ elements found in physical business meetings around mealtimes as described by Larsen et al (2006), yet the whole process of doing so was more demanding.

Conversely, Ali et al (2012) were positive about the role that technology can play in the KE process. They concluded that the use of VCT and other technologies facilitated the sharing of both tacit and explicit knowledge between clinicians, academics, and policymakers within healthcare research groups, and was effective in bringing together academics and NAPs who were geographically dispersed and who had travel-budget and time constraints.

The empirical data on the use of VCTs on professional interactions suggest that technologically mediated interactions are a substitute for corporeal interactions – a pragmatic ancillary when corporeal interactions are difficult or impossible for reasons such as lack of resources. The evidence on the effectiveness of VCTs in KE remains mixed and contradictory.

One of the important facts that VCTs fails to replicate is the establishment of rapport and trust. This was discussed by Sole et al (2003), Sapsed et al (2005), and Conklin et al (2013). Collectively, their research demonstrates that corporeal co-presence is important in gaining trust, respect, credibility, and commitment-building; and creates opportunities to create or reaffirm membership of a social network. The conclusion drawn from these studies is that geographical separation can be partly bridged by technology (Sole et al, 2002), but it limits informal spontaneous exchanges and chance encounters which detract from the ‘naturalness’ of the interaction process and development of trusting relationships among co-located, embodied people.

4.8 Relationships and social networks

Over the last few decades, there have been significant changes in how KE scholars have conceptualised the relationship between academics and NAPs, from two non-

overlapping communities (Caplan, 1979), to relational perspectives (such as linkage & exchange models, Lomas, 2000; Sabatier 1999 (republished 2007)), to complex social networks (Best et al, 2008; Best and Holmes, 2010).

While recognising the need for relationship-building, Caplan saw a profound separation between these two ‘estranged communities’ (Vivian and Gibson, 2003). There have been criticisms of his ‘two-communities’ thesis. First, it ignored the organisational contexts which can be profound in constraining or facilitating interactions between actors (ibid; Cherney et al, 2015; Best and Holmes, 2010). Second, it ignores the fact that there is movement and overlap between the two communities as many policymakers hold degrees (including up to PhD level) and many academics have been commissioned by the government to produce research or have spent time in the civil service before returning to academia (Lin and Gibson, 2003). Finally, it ignores the role that knowledge brokers and other intermediaries such as the media, professional organisations, think tanks, and professional knowledge exchange brokers all have in the process of joining these ‘two communities’ together (Lomas, 2007; Vivian and Gibson, 2003). The idea that there were two discrete, non-overlapping, and homogeneous communities was replaced by the idea of complex social networks. Within such networks, academics are one part of a much larger set of ‘interacting elements’ along with many more, ‘normally hundreds,’ of actors from different communities. Academics can feed into policy directly or vicariously through charities, lobby groups, the media and so on (Sabatier, 2007). Thus, academics can help inform the policy process but in complex, non-direct, diffuse ways. More recently there has been a recognition that those networks are constituted at the interpersonal (person-to-person) and organisational levels which collectively create a ‘systems’ perspective of KE (Best and Holmes, 2010). While understanding networks has becoming increasingly important within the KE field, the methods for doing so remain contested (Best and Holmes, 2010; Leischow et al, 2008). Olmos-Peñuela et al (2014b) recently said that understanding and building networks are important; there was now a:

...need to **facilitate social engagement** and to **build social networks** between academic researchers and potential partners of their research [which] should be included in the mix of policy instruments if the objective is to improve the contribution of [social research] to societal development. (2014b: 504, emphasis added).

These changes across the last few decades have been theorised by Best and Holmes (2010; Best et al, 2008) within their aforementioned ‘three generations’ theory as discussed earlier. For Best and Holmes (2010; Best et al, 2008), this is to be understood as complex and adaptive systems which required ‘systems approaches’ if they are to be understood. They argue that such an approach would allow for an examination of relationships via social network perspectives, and how those networks are embedded in, and shaped by, organisational structures. This is something this thesis does in chapter 6.

4.8.1 The contemporary literature

As stated, in recent years the KE literature has become increasingly interested in interpersonal relationships and network-building (for examples of the relationship between interpersonal relationships and KE (linkage and exchange) see Ward et al, 2009; Walter et al, 2007; Lomas, 2007; 2000; Court and Young, 2003; Crewe and Young, 2002). Such relationships are best sustained by personal contact (Innvær et al, 2002). In a systematic literature review on the dissemination and diffusion of innovations across organisations, Greenhalgh and her colleagues found that relational strategies such as networking, partnerships and collaborations enhance the opportunities for, and impact of, KE activities and interventions:

The adoption of innovation by individuals is powerfully influenced by the **structure and quality of their social networks** [and] most innovations spread primarily via

interpersonal influence. The ‘channel’ through which such influence flows are the social networks that **link individual members** of a social group. (Greenhalgh et al, 2008: 114; emphasis added).

Similar conclusions are found in the empirical literature. For example, Morton (2014) examined a partnership between an academic research centre and a children’s charity. She found that it was networks of relationships between researchers and NAPs which were the channels through which research made an impact:

Relationships were key to creating impact [...] in some cases it was personal knowledge of the people involved in the research. Both academic and non-academic research partners had extensive networks relevant to the research and this helped identify and engage relevant research users. (Morton, 2014: 18).

For academics to engage with wider society requires the fostering and utilisation of interpersonal relationships. Sometimes these relationships are contractually obligated; sometimes informal, or moving from one to the other. Some have argued that informal interpersonal relationships are particularly important (Morton, 2014; Olmos-Peñuela, 2014b; Grimshaw, 2012a; Molas-Gallart, 2011; Kothori et al, 2009; Lomas, 2007).

The discussion on interpersonal relationships takes us to a discussion of networks. Some research from the KE field looking at relationships have focused on networks at the inter-unit and organisational levels (Best et al, 2009; Leischow et al, 2008; Kramer and Wells, 2005). Others, including this thesis, focuses on interpersonal relationships, and how they develop into networks. Such a topic has been approached from a number of different perspectives including policy networks

‘You are warmly invited.’

(Nutley, 2003a; Crowe and Young 2002), learning networks (Percy-Smith, 2006; Bessant et al, 2003), and the ‘diffusion of ideas’ (Greenhalgh et al, 2008; 2004a/b).

Best and Holmes (2010; Best et al, 2008) believed that networks were ‘powerful strategies to increase the effectiveness’ of KE and that they ‘provide a nexus for further study of the critical relationships between leadership and network influences (2010: 152). De Jong et al also argued that ‘the network configuration of actors [...] influence societal impact, and the way it is, or isn’t, generated’ (2014: 3). There is an urgent need for more research examining those relationships from network perspectives.

4.8.2 Social network analysis as a method for exploring interpersonal social networks

While the KE literature is replete with citations of the importance of networks in the KE process (or aspects of it), it generally remains at the descriptive and qualitative level (Greenhalgh et al, 2004a; Best et al, 2008). There have been very few attempts to reveal those networks through explicitly network methodologies (Leischow et al, 2008). This is surprising given how important it appears to be, and thus, despite the discourse from the literature, interpersonal social networks remain understudied within the KE field. If one is to understand networks more fully, methods are required that will reveal them. This thesis argues that one of the most effective ways to do this is to draw on the concepts, methods, and analytical techniques of Social Network Analysis. SNA is rare in the KE field. This is possibly because network methodologies, such as SNA, require specialist knowledge and software. This is unfortunate because Leichow et al (2008) argued that understanding social networks through network methodologies like SNA allows us to examine the complex interpersonal professional relationships across groups of actors, and explore how information is shared across that group. SNA allows us to identify communication gaps and information silos (2008: 200). It is an area this thesis seeks

to address and will map CPC members’ interpersonal relationships with each other and NAPs into a social network.

Spaapen and van Drooge’s (2011) conceptualisation of productive interactions included social networks as an influence in shaping interactions, but did not conceptualise how productive interactions were shaped by social networks, nor how to best study them. Rather, they merely claimed that within their data they could identify ‘intricate pattern’ (2011: 215) across a network of actors from academic research centres, spin-off companies, and other professional users.

This thesis adopts the view that by understanding social networks through the sociometric and sociogram analysis that social network analysis offers, it is possible to examine in detail some of ‘intricate’ network structures which facilitate or hinder interactions among actors within that network.

In particular, this thesis is interested in the relationship between interpersonal relationships and institutional affiliation, and the effect that organisational structures and geographic distance have on those networks. More specifically, this thesis is interested in how the CPC’s distribution across Southampton and the Scottish Consortium shapes its internal and non-academic networks. A claim that has been made within the KE literature is that a country’s population size and the structures of state institutions seems to matter (Nutley et al, 2010; 2007; Delvaux and Mangez, 2008). Countries with small populations (such as Iceland, Norway, and Scotland, Nutley et al, 2010) seem to develop better interpersonal relationships between academics and NAPs as it is relatively easier access to civil servants and elected representatives (Nutley et al, 2007). The structure of government (unitary, regionalised, or fully-federal) also seems to exert a strong influence on the network patterns between academics and non-academic stakeholders (Nutley et al, 2007; Delvaux and Mangez, 2008). To test this hypothesis and examine those network structures, this thesis will use SNA.

SNA as a method takes the position that every individual is embedded in webs of social relationships (Borgatti et al, 2009). As in our personal lives, our professional

lives are mediated through interpersonal relationships and interactions with others will, over time, strengthen to form a network. The method itself is described further in the methodology chapter; suffice here to say that SNA is an approach for attempting to reveal the social connections between actors which comprise of interacting agents (Wasserman and Faust, 1995; Crossley, 2008; 2010; Borgatti et al, 2009; Butts, 2009). SNA is based on the assumption that interactions are important for the agents, and that those interactions create consequences not only for the agents themselves but the wider networks (and their respective organisations) in which they are all embedded. It is a multi-level understanding of social relationships not only between individuals but also their teams, organisations, etc. SNA does not assume that organisations are monolithic homogeneous entities, but rather made up of networks of relationships between actors who are connected in different ways to different networks (Borgatti, 2009; Borgatti and Cross, 2009).

4.8.3 Social networks and knowledge exchange seminars

For Larsen et al (2006) corporeal co-presence is a critical component of creating and maintaining social networks which make travelling to attend social functions such as KE seminars indispensable. For Larsen et al, such gatherings:

Embody [the] making of networks, performances and practices of network. Social networks come to life and are sustained through various practices of networking [...] performing meetings, making two-minutes of bumping-into-people conversations, attending conferences, chatting over a coffee, meeting up for a drink. (2006: 125).

This thesis will later argue that KE seminars social occasions, points in space and time, where academics and NAPs create, sustain, and reaffirm their networks (Larsen et al, 2006). KE seminars are embedded within social networks which all have consequences for who finds out about the seminars, who comes, and how

‘You are warmly invited.’

participants engage in interactions with one another within them (Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011). Revealing these networks can offer valuable insights into the social environment in which people come together in the context of KE seminars and by extension the KE process.

4.9 Conclusions

This chapter has drawn on the KE, SNA, and sociological literatures and pointed out gaps and areas which this thesis will attempt to address empirically within the analysis.

First, while interpersonal informal interactions between academics and NAPs have been identified as important in the KE process, there is very little work examining the day-to-day social occasions (the physical spaces) in which such interactions occur – such as KE seminars – and the wider social, economic and political context which enables, mediates, and constrains such interactions at these occasions. This lacuna is what Spaapen and van Drooge (2011; Molas-Gallart and Tang, 2011; de Jong et al, 2014) have addressed through their concept of productive interactions.

This thesis attempts to build on this concept by focusing on face-to-face ‘direct interactions’ in the context of KE seminars.

The literature places significant emphasis on face-to-face interactions as being core to the KE process within the social sciences. The starting position of this thesis is to examine that claim, and to seek to understand why face-to-face interaction is an important aspect for facilitating productive interactions. This view was supported by some evidence from the literature, but is one which differs from Spaapen and van Drooge who place seemingly equal weight on mediated (‘indirect’) and unmediated (‘direct’) interactions, and between corporeal and incorporeal direct interactions. This thesis marks such a distinction and presents evidence to promote the primacy of direct, face-to-face interaction for facilitating the KE and relationship-

building processes which cannot be replicated by incorporeal or indirect interactions.

While the KE literature recognises the importance of face-to-face interactions, there is another lacuna in addressing the role of the body and bodily presence within them. This thesis will also address this gap. To set this up theoretically, the literature review turned to the sociological literature, drawing on the concept of corporeal co-presence, and the role that such presence can have in facilitating interactions among academics and NAPs. The review also cited concepts and empirical works regarding the role of food and technology in facilitating interactions – two aspects which are covered in detail in the analysis sections.

Finally, the literature review pointed out a significant body of work from the KE field which highlights the importance of social networks in the KE process. Yet there is limited work exploring those networks through network methodologies, and particularly through interpersonal networks rather than organisational ones. This thesis explores those interpersonal networks via a social network analysis. It is the position of this thesis that KE seminars are not socially isolated: many of the participants are known to one another, and networked to each other. Such networks are of mutual benefit both for the academics and the NAPs, and this thesis will examine those connected relationships using a social network analysis.

The following chapter describes the methodology and research design of the empirical research on which this thesis is based.

5 Methodology and research design

5.1 Introduction

This chapter describes the overall research design, including: the development of the research instruments (the interview schedule and the questionnaire), the method of recruitment, the method of analysis (thematic and Social Network Analysis (SNA), some practical and methodological considerations, the decisions that were made, and the implications of those decisions for the data and its analysis. This chapter also sets out the epistemological premise and reflections of the research process.

This thesis primarily focuses on examining what is special about face-to-face interactions; if they are more ‘productive’ than indirect ones, as the literature suggests, and if so, why. It explores this through one specific aspect of ‘direct’ interactions between academics and Non-Academic Professionals (NAPs), those which occur within Knowledge Exchange (KE) seminars. It also examines the wider social context (including the social networks) in which those KE seminars are created and which shape productive interactions within them (Spaapen and van Drooge, 2011).

5.2 The research design

5.2.1 Epistemological underpinnings of the research

This thesis is an examination of KE seminars through the perspectives of those who participate in them. It is concerned with their understanding of why they choose to participate in such activities; and what they feel they gain from them. As such, this research primarily draws on qualitative methodologies, taking an interpretivist approach; drawing on empirical phenomenological traditions (Aspers, 2004; 2009).

Empirical phenomenology is built upon the contributions of the philosophers Husserl, Schütz, and Heidegger. It starts from the assumption that all humans actively make society through their practices and interactions with each other and possess an understanding of society. In other words, the social world is both constructed and understood by actors within it. One implication of this assumption is that scientific explanation of the social world must be grounded in the perspectives of the actors who understand and participate in society. As such, the actors’ perspectives become central to any analysis of the social realm. However, it must also be recognised that the researcher (in this case, myself) is also an actor within this society, and that I also both reflect *and* construct a social reality to you, the reader, through this thesis by selectively presenting and interpreting the collective words of all the research participants, *and* integrating that interpretation into social theory. Thus, empirical phenomenology recognises the central role of both the researcher and social theory (and their consequences) in interpreting the social world (Aspers, 2004; 2009).

The result of this is that research is a two-fold interpretation process. First is the ‘first-order constructs’ of the research participants in how they interpret their own actions and the social world around them. These individual constructs (accounts) are then brought together into a collective body of evidence, which are then interpreted by the researcher – this is called the ‘second-order construct.’ This thesis is the product of the second-order construct as it is the interpretation of the researcher which is presented; it is the researcher who connects the individual lived realities of the first-order with the collective and theoretical understanding of the second (Aspers, 2009).

Research using empirical phenomenology must start from actors’ first-order constructs. This means that any research methods used must allow participants to speak for themselves (Aspers, 2004; 2009). It is important to preserve their narratives through the research analysis and into this written thesis. This thesis has sought to do so by transcribing interview recordings verbatim, analysing those verbatim

transcripts, and then presenting their quotations within this thesis as unaltered as is possible in order to safeguard the research participants’ voices.

Aspers (2004; 2009) recommends the use of observational methods as a type of pilot study, the function of which is to develop an understanding of the research environment and to generate research questions. That is what this research has done.

The ‘first-order’ construct is the understanding that each individual respondent has of their own interpersonal social network within the CPC, which was derived via an online questionnaire, while the second-order construct is the researcher’s (my) interpretation of the collective responses - this was derived from a mathematical SNA analysis of the questionnaire data.

The purpose of the SNA was simple. People only know their own interpersonal professional contacts. One needs to systematically collect the responses of all actors to see overall patterns among the collective. SNA takes a relational view of society (Borgatti et al, 2009). It is a constructivist approach to understanding social relationships (ibid).

Combining two methods which draw from separate epistemological paradigms raises questions about how they can be united philosophically and analytically (Crossley, 2010). For Crossley (2010) the answer is that divergent methods can be united within the analysis through the case study. For him, each approach draws a new perspective to the ‘case’ which allows the analysis to describe and explain the social world in different ways, but must do so within carefully considered boundaries (Heath et al, 2009). Researchers can use SNA in combination with other methods to serve an analytical purpose, rather than an epistemological one (Crossley, 2010; 2008). Others disagree, of course, and argue that SNA cannot easily be reconciled with other methods (Wasserman and Faust, 1995). Their criticism comes from an epistemological position, rather than an empirical one. This thesis agrees with the former position, and so the analysis of chapter 6 presents evidence from both the SNA and interview data.

The reason for combining SNA and qualitative data is simple: mathematical and graphic representations of social networks can be useful in visualising complex multi-directional networks. However, they are limited in explaining how networks work, and therefore can only be fully understood if they are combined with other methods. As Crossley argues:

SNA's mapping is too abstract, overly formal and insufficiently attentive to inter-agency and process. It filters out important elements of social life. [Conversely], qualitative tools, whose limitations are they are often overly sensitive to concrete particulars, fail to standardise and lack the means to identify structures provide an important complement. (2010: 2).

It is important to combine methods when using SNA to better understand the case in question as each tool (SNA and qualitative data) serve different functions. It is when they are combined that they can offer valuable insights to the social environment which the case study is seeking to understand (ibid, Crossley, 2008). In other words, SNA *requires* other methods to understand people and their relationships which are visualised within the sociograms and sociographs.

5.2.2 The case study

As described in chapter 2, this thesis is built on a case study of the ESRC Centre for Population Change (CPC). The choice of the CPC as a case was predetermined as a funded PhD studentship examining the CPC's KE activities was part of the programme of research within the CPC's initial application to the ESRC (CPC, 2007).

The term 'case study' has become a 'definitional morass' (Gerring, 2006: 17) and so this section attempts to make clear how this thesis conceptualises and operationalises the term.

Case studies are a form of in-depth empirical enquiry which can be effective when the social phenomenon being examined cannot be separated from the context in which it occurs (Yin, 2009). Certainly this is true for the case of the CPC where its policies, strategies, and practices of Knowledge Exchange (KE) cannot easily be detached from the wider context in which the CPC is disseminating its research and engaging with wider society. Much of the insights from the KE field is derived from case study research (Nutley et al, 2007).

Case studies need to have clearly defined boundaries (Yin, 2009; 2013; Gerring, 2004). The case study site here is the ESRC CPC, which is a demographic research centre based across a number of different academic institutions and disciplines (see chapter 2). The research presented here examines only the time period between 2011 and 2013. The research is focused only on CPC members’ practices of engaging with NAPs in relation to their CPC-funded research through KE seminars, and the wider context in which those seminars exist. This research does not examine other activities of the CPC (including the production of the research or other dissemination activities such as producing journal articles or briefing papers).

This boundedness allows the case study an opportunity for the incorporation of multiple methods from both quantitative and qualitative traditions, which allows for different ideas to be explored in novel ways, thus drawing out new insights (Yin 2009; 2013; Bryman, 2012).

The limitations of the case study should also be recognised. Most important is the issue of external validity (generalisability). While the CPC allows for an examination of its KE seminars in their contextual setting, it is difficult to offer generalisations beyond the particular (Yin, 2009; 2013; Bryman, 2012).

The CPC’s structure, practices, and the nature of the research being disseminated, and the political and policy context, its organisational relationships, etc, all mean that insights produced by this case may or may not be relevant or useful to other research centres which may find themselves in a different set of circumstances. However, this thesis has attempted to leave some of the specific content of KE

‘You are warmly invited.’

seminars to one side in order to focus on the general issues which may be of relevance to other centres. A second limitation of case study research relates to methodological rigour. There is a view that case studies absolve researchers from methodological considerations where anything goes (Yin, 2013). This view derives from the fact that many case studies draw on a number of methods which can span the quantitative-qualitative divide. Thus, there is a risk of lacking methodological rigour because of a lack of focus on the purpose of each method used. Having a clear view as to why specific methods are chosen, used, and combined has been a particular concern of (and challenge to) this research.

5.2.3 An overview of the empirical process

This section presents the research log-frame and the overall research praxis which are presented in figures 6 and 7.

Figure 6 Research log-frame

Research question	Approach	Data	Analysis
What is the social context in which CPC members’ disseminate their research?	Interview CPC members and their NAPs about their social interpersonal relationships Questionnaire to examine links between actors within a social network.	Textual Numeric	Thematic Social network analysis
Why do academics and non-academic professionals commit to hosting and attending CPC KE seminars, and what resources are required of them to make such commitments?	Interview CPC members about why they choose to host KE seminars. Interview NAPs about why they choose to attend KE seminars; and the barriers and opportunities for attending them.	Textual	Thematic

What makes face-to-face interactions, in the context of KE seminars, ‘productive’ in the view of the academic and NAP participants?	<p>Interview academics about what benefits they think they gain from hosting KE seminars.</p> <p>Interview NAPs about what functions they think KE seminars fulfil in their professional lives.</p>	Textual	Thematic
Why do KE seminar participants choose to physically meet other professionals face-to-face in order to engage with academic research findings and their implications?	<p>Interview academics about why they chose to disseminate their research face-to-face through KE seminars.</p> <p>Interview NAPs about why they choose to travel to be with others when accessing academic research findings.</p>	Textual	Thematic

The research log-frame in figure 7 demonstrates the connection between the research questions, the approach to the research, the type of data produced, and method of analysis used to answer each of the research questions.

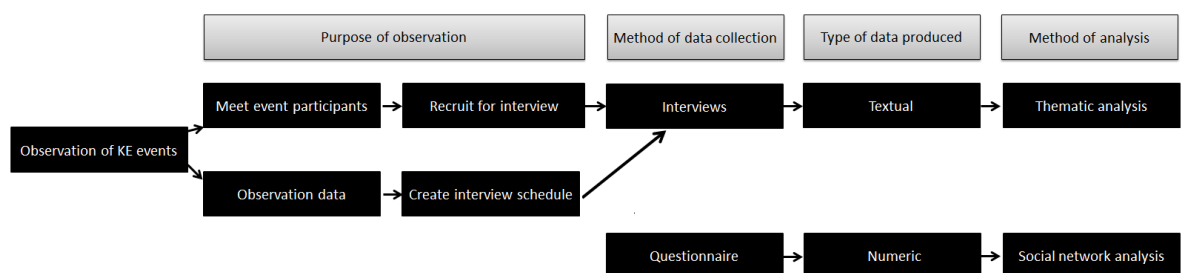


Figure 7 Research log-frame

Figure 7 shows the four phases of this research. The research started with observations of KE seminars. In line with the thinking of Aspers (2004; 2009), participant observation enabled the researcher (myself) to gain an overview of what

‘You are warmly invited.’

was happening in the field – in this case, KE seminars, which placed me in a better position to make judgements about strategic research decisions. Thus, the purpose of the observation was to:

1. Familiarise myself with the research setting.
2. Gather observation data which was used to develop the interview schedules.
3. Access potential interview participants (this was the method of interview recruitment).

The empirical data presented in this thesis comes from the second phase which is derived from 27 interviews which were conducted with academics and support staff (13) and NAPs (14). The interview data was examined using a thematic analysis (Ryan and Bernard, 2003). The quantitative data was derived from an online questionnaire which was hosted between June 2012 and February 2013. It collected 48 responses from CPC staff members, representing 75% of the total CPC population. This data was examined using Social Network Analysis (SNA).

5.2.4 Ethics

There were two significant ethical considerations which impacted on how the research was conducted: consent and anonymity.

For the interviews, informed consent was obtained by means of the following procedure:

1. After approaching a potential NAP interviewee at the seminar and securing preliminary agreement to participate, an email was sent with an information sheet attachment (appendix I) detailing the study. The email asked potential participants

‘You are warmly invited.’

if they were still happy to participate, and if so to select an interview date and time from a list (or suggest another if none were suitable).

2. On the interview day itself, a copy of the information sheet was given to the participant and they were asked to co-sign a consent form with me (appendix II). This procedure was completed prior to the interview commencing.

For the online questionnaire, obtaining informed consent was trickier. Following the advice of Madge (2007), respondents logging onto the host website were first greeted with an information sheet. Respondents were asked to read carefully and click a button confirming that they had done so. To consent, respondents were asked to type their name and press an ‘accept’ button, thus giving their consent and beginning the questions proper on the following page.

In both the interviews and online questionnaire, participants were informed that there were no known risks to participating, and they were free to withdraw their participation at any time. However, this is significantly easier for the online questionnaire respondents than for the interviewees as it simply entails the respondent closing the browser. The interviews required an ethically reflexive process of ‘ongoing’ consent within the interview encounter and beyond. This required me, as an interviewer, to be vigilant to changes in expression (spoken and body language) which may signal discomfort (Wiles et al, 2006).

The second issue was one of anonymity. Given that all of the research respondents/participants know each other, the way the data was anonymised and presented in this thesis had to be carefully considered. As Punch argued: ‘The cloak of anonymity may not work with insiders who can easily locate the individuals concerned’ (1994: 92). This is particularly true when researching in close professional communities. Following the advice of Snyder (2002), research participants were informed that they and their employer *may* be identifiable in the research. This fact was detailed in the consent form (appendix II). Research

participants who did not want to be identifiable had their transcripts subjected to a process of redaction and alteration in which some details were censored or subtly changed, such as removing job titles, or replacing references to specific organisations with more general ones. Such a process has consequences for how their quotations are represented in this thesis. Some of the interviewees are senior civil servants and did not want to be identifiable. This has implications for the strength of their evidence as their words would carry more weight if they were attributable to them. But in the interests of confidentiality, their specific roles within their respective organisations, and the names and details of the organisations themselves (except the CPC and the more generic term of ‘Scottish’ and ‘UK’ Government) are obscured; thus, the power of some of the quotations is, unfortunately, diminished.

At a procedural level, a self-audit ethical review was passed at level 1 in August 2011 through the University of Edinburgh’s postgraduate (research) (College of Social Sciences) ethical procedure and is presented in appendix III. All data was secured as directed by the University of Edinburgh’s data guidelines (the University of Edinburgh, undated document). Interview transcripts were anonymised and stored on a password-protected PC. Pseudonyms are used in this thesis, and details which may identify individuals were removed.

5.3 *Methods of data collection*

As this thesis is about KE seminars, and the wider social context in which they exist, it is prudent to examine first-hand those events which are central to the thesis. Yet the thesis is primarily concerned with the views of those who participated in them. Thus, KE seminars are examined from the perspective of the researcher (myself) through observation and the perspectives of their participants through interviews.

There were three methods of data collection used in this research: observation of KE seminars as a pilot, semi-structured interviews, and an online questionnaire. This section describes the process of each method.

5.3.1 Observation of seminars

By observing and recording details of seminars, it was possible to develop a researcher-centred account of what was occurring in those events before interviewing participants about their individual motivations for, and experiences of, participating in them.

This gave the researcher (myself) a better grounding in understanding the nature of interactions between seminar participants first-hand, rather than relying solely on the participants’ recounting of those events. This approach ‘is of particular value where behaviours and interactions (whether acted, spoken or written) need to be understood in “real world” contexts’ (Richie, 2003: 34). By participating and recording the details of seminar events, it becomes possible to ask interview participants questions which are relevant and tangible to them. Furthermore, it situates me as an ‘insider’ which, it was hoped, would lead to a greater depth in detail in the questioning because I was able to ask details about an event in which we were both participating.

While observation was included in the data collection, none of that data is included in this thesis as evidence. Instead, the observation was treated as a pilot. While most pilots act as a miniature test of the research design and instruments (such as testing a questionnaire or interview schedule), this need not always be the case. Teijlingen and Hundley (2001) developed a typology of 16 types of pilot studies; not all of them miniature versions of the study proper. Some are designed to explore the parameters of the research or help design the research instruments, which was the purpose of observation in this PhD research. It is the groundwork for the proper study which is particularly important for relatively new research terrains (Tashakkori and Teddlie, 1998).

‘You are warmly invited.’

The observation pilot served four purposes. First, attending and observing KE seminars created observational data which was used to shape the content of the interview schedule. Second, it facilitated access to potential NAPS interview participants. By physically being present at the KE seminars it was possible to talk to potential participants, swap contact details, and eventually recruit them via subsequent emails. Third, by participating in these seminars it was hoped that this would enrich the quality of the interviews by repositioning myself from a naïve outsider to that of an insider with a shared experience (Alvesson and Sköldberg, 2009). Fourth, the observation data was useful in assisting the interpretation of the interview data.

Criteria for inclusion in seminar observation

Access to the case study sites (KE seminars) was facilitated by CPC academics who acted as gatekeepers. This was helped by my status as a CPC member and the fact that this research is a product of a CPC-funded studentship.

There were 5 inclusion criteria for a CPC KE seminar to qualify for observation.

1. The seminar must be a ‘CPC’ event. This means that the event must be organised by, or co-organised with, CPC members and branded (or co-branded) as a CPC event. It must include discussing CPC-funded research in the seminar programme schedule.
2. The seminar must be a ‘knowledge exchange event’ which was designed and targeted primarily for a non-academic professional audience. Some of the seminars were targeted for members of a wider public. These were excluded.
3. The seminar must be openly advertised. A small number of the CPC’s KE activities were ‘closed’ events meaning they were hosted exclusively for a targeted audience; usually senior civil servants or politicians. Such events

‘You are warmly invited.’

were not publicly advertised, and were thus excluded. Only KE seminars which were openly advertised and permitted any NAP to participate if they chose (even if registration was required), were included.

4. The events included for observation were those organised between September 2011 and December 2012. This inclusion criterion was determined by the specific start date of my PhD (year 2 of my PhD programme). Many of the CPC’s KE seminars did not fall within the data collection period as many of the CPC’s dissemination activities only occurred after 2012 as individual research projects were being completed.
5. Most of the KE seminars attended were in Scotland (9), 3 were in England (representing a 3:1 ratio). This decision was based on pragmatism as budgets were tight and my own location in Scotland meant it was difficult to attend an equal number of seminars in both countries. Therefore, it was decided to focus on CPC seminars held in Scotland, but efforts were made to attend some of the seminars in England. It should be noted here that an overrepresentation in participating in Scotland-based KE seminars does not mean that Scottish Consortium academics are overrepresented, as a number of KE seminars held in Scotland involved academics from Soton.

12 KE seminars met the criteria and were included in observation over the 10 month period between September 2011 and December 2012.

Method of recording observation data

Observational data was recorded in diaries in line with an approach advocated by Carspecken (1996) in his writing on observations in an educational setting.

Carspecken recommends using two diaries in observation. The first is the ‘primary record’ which records descriptions of events as they are unfolding during the KE

seminars. It attempts to use low-inference language. The second is the ‘field diary’ which is a preliminary form of analysis. It was written immediately after the seminar event, and its purpose was to record the researcher’s reflections on the event. It was used to produce questions and themes which were ultimately developed into the interview schedules.

Having two diaries helps with the validity of the research as it forces the researcher to think about how they separate a factual description of the events from how they are interpreted (Carspecken, 1996).

5.3.2 Semi-structured interviews

The majority of the evidence presented in this thesis derives from one-to-one, face-to-face, semi-structured interviews. There were three exceptions to this: 2 CPC administration staff were interviewed together, and 2 interviews with NAPs were conducted via Skype (one on a Scottish Island, and another in London). This was done because of practical constraints.

The strengths of this method are its ability to obtain a rich source of qualitative data in which interview participants can speak about their experiences, motivations, and actions in their own words. Their voice is important as the interviewees are highly educated and articulate participants who are more than capable of speaking for themselves (Burnham et al, 2004). This allowed the research to reflect the participants’ own contribution and ‘inside’ knowledge, and to let their narratives take precedence within the evidence being produced in this thesis (Morris, 2009). Semi-structured interviews also allow participants the freedom to raise additional points, or draw attention to connections between different issues in ways that closed questions cannot. It also gives the researcher the liberty to ask further questions as a rejoinder to what may later become subthemes. A semi-structured interview also provides a basis for a level of comparable data across the interviews which open interviews cannot (Bryman, 2012).

‘You are warmly invited.’

Being face-to-face allows for synchronous communication. This makes it possible to experience social cues and body language; helping build rapport and engage in nuanced dialogue where the body matters within social exchange (Opdenakker, 2006; Goffman, 1966; 1971)

One weakness of this approach is the issue of social desirability bias - where respondents answer in ways which they think the researcher wants to hear. This can affect the validity of the research (Morris, 2009). This can be salient when interviewing colleagues as there is a mutual desire between the interviewer (me) and the interviewee to remain on cordial terms, with each person attempting to be ‘helpful’ to the other and prevent the interview from being a socially awkward experience.

The research instrument: interview schedule

The research instrument used was an interview schedule.

The schedule was developed from questions raised during the KE seminar observation. A list of possible questions was drawn up. These were reduced and organised in order to be coherent. Two decisions were made at this stage. First, was to develop two separate (but similar) schedules - one for CPC members who were involved in organising/hosting KE seminars (appendix IV) and another for non-CPC NAPs who participated in those events (appendix V). Second, following the advice of Mason, the interview questions were ordered to start with ‘situational rather than abstract’ questions (2002: 64). These ‘situational’ questions were based on the shared common experience of co-participating in the KE seminars. By doing this, it was possible to contextualise otherwise abstract questions. Both the interview schedules contained four sections. These were:

1. The career trajectories of the respondent;
2. Experiences of communicating with academics/NAPs; advantages and disadvantages of different ways of communicating/finding research;
3. Social networks; exploring the importance of professional contacts; reputations, leadership, expertise; and
4. Barriers and opportunities for engaging with academics/NAPs.

Each section contained several questions, and for each of those questions there were possible prompts to elicit responses, if required.

The interviewee sample

The research sought to collect the views of both CPC members who organised KE seminars and non-CPC NAPs who attended them. It also sought to gather the views of those based in Scotland and England. Thus, the design called for a purposive sampling strategy which allows for the incorporation of two of these different ‘dimensions’ (Robson, 2011; Ritchie et al, 2003). The two ‘dimensions’ chosen for the sample were the respondents’ location (Scotland or England), and their employer organisation (CPC or non-CPC). This choice reflects the geographic distribution of the CPC (see chapter 2) and devolved nature of some of the government structures of the UK. For example, some civil servants work for the Scottish Government, others the UK Government. Local Authorities in England are responsible to Westminster, while Scottish Local Authorities are responsible to Holyrood. Finally, the statistical agencies are devolved, with the National Records of Scotland (NRS) being based in Edinburgh, and the Office of National Statistics (ONS) based in Titchfield (near Southampton). As a result of these structural arrangements between the CPC and the state, it was decided to ensure that NAPs in both Scotland and England were represented in the sample.

In total, 27 interviews were carried out between September 2011 and December 2012. Participants were given pseudonyms which are presented in appendix VI along with their attributes. CPC members included permanent academics, academic researchers (those on contracts linked to specific CPC funded projects), and administration staff (who assist academics in organising KE events and have some responsibilities for circulating information across the CPC’s professional networks). The non-academic professionals were people who had attended at least 1 CPC KE seminar. The NAP interviewees in this research worked for:

1. The UK or Scottish civil service – including policymakers and members of their support teams. It includes participants from various government departments;
2. Statutory agencies – including those responsible for gathering and analysing state statistics, such as the ONS, NRS and the NHS; or
3. Local authorities – including organisations funded through public money to support local authorities in England and Wales such as COSLA and the LGA.

There were no interviewees from Non-Government Organisations (NGOs) or commercial organisations, although they were not excluded. This probably reflects the nature of the CPC’s demographic research which may be of more interest to public institutions than commercial ones. The sample framework presenting the ‘dimensions’, and the numbers of interviewees in each category, are presented in figure 8.

CPC members				Non-academic Professional (non-CPC)		
<i>England</i>	Academic	(5)	4	(5)	4	<i>England</i>
	Administration	(2)	2			
<i>Scotland</i>	Academic	(5)	7	(5)	10	<i>Scotland</i>
TOTAL			13		14	

Figure 8 Sample frame of interview participants

(Note: Numbers in (brackets) indicate minimum desired sample size within the group while the number in **bold** is the actual number interviewed).

Method of recruitment

The CPC academics were more or less aware of this PhD's existence from the start. From September 2011, CPC academics were asked to keep me updated about any KE activities, especially seminars, they were planning. All were happy for me to attend their events, and to interview them afterwards. No CPC members rejected the request for participation.

The method of NAP recruitment took a site-based approach. Arcury and Quandt, (1999) offer helpful insights to recruiting research participants from 'sites' where potential participants congregate, eg public places, employment premises, religious and community buildings.

In terms of the procedures at site-based recruiting approaches, Arcury and Qandt (1999) recommended two techniques: to use gatekeepers to identify potential participants, and to ask them to introduce the researcher to them; or for the researcher to approach possible candidates directly to request participation. My own preference was for the latter. Potential participants were approached during tea or lunch breaks and told about the PhD research. After this initial contact, I followed up via email to arrange interviews.

‘You are warmly invited.’

Regardless of the method of recruitment, it was important to keep records of the characteristics of the participants to ensure that the distribution of the sample followed that of the design, and to make a special effort if certain subgroups were becoming underrepresented in the target sample. This made the recruitment process an ongoing dynamic one, involving continual monitoring.

19 NAPs were approached using the site-based technique, and from this 13 people were successfully interviewed, a participation rate of 68%. 5 participants did not respond to the follow-up email, and 1 said that they were no longer able to offer any time to be interviewed.

The interviews

Once they agreed to participate in principle during the seminars, potential interviewees were emailed with an information sheet about the study which allowed them to consider the project in their own time.

In Scotland the interviews occurred between one and three weeks after the seminar. In England the interviews were sooner as I was only based in Southampton for two weeks over two occasions. A change in one interviewee’s schedule lead to one interview being rescheduled and conducted via Skype. A second participant in Scotland was interviewed via Skype because of their remote location.

21 interviews took place either in the respondents’ office or in a private space within their employment premises. 1 took place in my office. 3 took place in cafés near the interviewees’ workplace, and 2 via Skype. The interviews lasted between 35 and 155 minutes, with a mean average of 54 minutes.

Method of recording interview data

Transcription is a powerful act of representation of those who gave their time and knowledge to the research (Oliver et al, 2005). Yet it is not a neutral process and I, as the transcriber, exert a powerful influence on that process.

In order to retain the participants’ ‘voice’ within the evidence, the interviews were audio-recorded and transcribed verbatim. Transcriptions were then read alongside a second listening to ensure that the words were accurately recorded. The transcripts were read a final time, this time for readability. The transcripts were edited at this stage to ensure that the participants’ meaning was clear and that the narrative flowed, unhindered by superfluous words, false sentence starts, confusing idioms, etc. It is important to reflect on the limitations of representing spoken language through written text (Ross, 2010) yet ensure some form of consistency to make those words comprehensible in written form. A protocol was developed in order to ensure grammatical, syntax, and stylistic conformity across the transcript data - this is presented in appendix VII. Thus, there is a compromise in the transcription process between accurately reflecting the interview participants’ words, and creating a comprehensible, standardised transcript document in the written word.

5.3.3 Online questionnaire

An online questionnaire was used to generate data for a social network analysis (SNA).

There are a number of ways to obtain network information such as through questionnaires, interviews, self-completed diaries, or observation (Wasserman and Faust, 1995; van Duijn and Vermunt, 2006; Crossley, 2010; Heath et al, 2009).

Questionnaires are more limiting in that they can only examine specific types of relationships. But it means they have clearly defined boundaries and allow the researcher to ask respondents to identify their own professional contacts in a systematic and standardised way. This thesis used a whole network (census)

approach. Whole networks are when information is collected about all actors’ professional ties within a bounded entity (in this case, the CPC) (Hanneman and Riddle, 2005; Heath et al, 2009). It is not a sample.

It was decided to conduct the questionnaire electronically and online. This has a number of advantages, both for the respondent and the researcher (van Selm and Jankowski, 2006; Wright, 2005). For the respondents there is no need to post physical questionnaires back to the researcher, increasing the likelihood of completion. For the researcher, an online questionnaire is easier to distribute to the respondents, data is less prone to input errors, and it is easier to input data to Excel (Microsoft). It is easier to then upload those files to the SNA software – UCINet and NetDraw (Analytic Technologies).

While online questionnaire templates are very common and freely available for purchase, a disadvantage is that the format required for social network analyses depends on a system called ‘piping’ where respondents’ answers are used to generate a bespoke follow-up question. The lack of functionality in generic online templates to pipe questions has long been a source of difficulty for researchers interested in using online questionnaire templates to generate social network data.

After email exchanges with a number of online questionnaire providers, it became clear that piping questions more than once was not possible (although in the last few years a number of products which do pipe multiple times have come onto the market). At the time of this research, the only solution was to design a website to host a bespoke questionnaire. This online questionnaire was programmed by me and a professional software programmer⁷. However, there were a number of initial bugs in the software which were reported by 5 respondents. The bugs created a situation where some pages failed to load or correctly pipe questions which

⁷ I am entirely indebted to Graham Cannell for spending weeks with me every evening trying to programme the online questionnaire.

‘You are warmly invited.’

discouraged participation. Those 5 participants did eventually go on to complete the survey, but they felt that their time had been wasted. A further issue was that the questionnaire, while not long, is tedious.

The research instrument: online questionnaire

The research instrument was a self-completed online questionnaire. It was hosted at <http://www.cpc-socialnetworks.com/> from June 2012 to March 2013.

The questionnaire was designed to try and understand the connections that each CPC member had with other CPC members, and their non-CPC NAP connections. The questionnaire had a databank of every CPC member, plus NAPs who had some formal/contractual connection to the CPC (such as those on the advisory board). It also contained open-questions for respondents to nominate NAPs (and their organisations) with whom they had a professional relationship in connection with their CPC-funded research.

The questionnaire is reproduced in appendix VIII. The opening page details the information about the study and basic instructions. Respondents are then required to type their name and other basic information about themselves. The entry of their name then removes it from the database of names so they are not answering questions about their connection to themselves. Each question within the questionnaire had had ‘more information’ button which elaborated on the question being asked, if more guidance was needed. There were four sections in the questionnaire:

1. The **frequency** of interaction with named persons within the CPC. This examined how often respondents communicate with others. This was ranked along a Likert scale from 0 (Never) to 3 (Most days/ daily).

‘You are warmly invited.’

2. The **importance** of interaction with named persons within the CPC. This list was generated by the piped responses from question 1. This examined how important each contact was. It is possible to speak to a person every day, but without it being of much importance. Conversely, some people might only communicate once a month, but it was vitally important for them. The responses were ranked from 0 (Not at all important) to 3 (Very important).
3. The person or persons to whom the respondents would turn to in order to discuss the dissemination of their CPC-funded research to non-academic audiences.
4. Respondents were asked to cite their NAP contacts outwith the CPC.

The population

The population being questioned was every CPC member, including: all the academics, the administrative team, and those on the Centre’s advisory board. At the time the data was collected there were 64 CPC members. There were 48 completed responses, representing 75% of the CPC population.

In the final question, respondents were asked for the names of their non-CPC NAP contacts. This information was separated into 6 categories, those working in: Government (national), local government, NGOs, public organisations (eg the NHS), profit-making organisations, and others. The 48 CPC members who completed the questionnaire nominated a total of 39 NAPs and their organisations. This makes the total network n=87.

Method of recruitment

In June 2012, a bulk email was circulated inviting CPC members to respond to the questionnaire. This was followed up by two further bulk emails; one from myself

‘You are warmly invited.’

and another from a CPC co-director. Initial uptake was slow. It was then decided to send individually tailored emails to CPC members who had not yet completed the questionnaire. This was done in November and December 2012 and was very effective.

Method of recording data

Once respondents had ‘submitted’ their responses, the data was stored in an online databank. The data was both numeric (questions 1-3) and textual (question 4). This was then downloaded into Excel. The data was manipulated to conform to a format that could be understood by the social network software, UCINet and NetDraw (Analytic Technologies).

5.4 Method of analysis

This section now describes how the data collected was analysed.

5.4.1 Thematic analysis of the interview transcripts

The interview data was analysed thematically. This common method of analysis was selected because it is flexible; it is an ongoing process in which sections of the textual data are organised and grouped into themes and subthemes for theoretical and/or analytical purposes.

Developing the analysis involved three tasks: building hierarchies of themes and subthemes, reducing those hierarchies into a manageable few, and building an argument by linking data to theoretical models (Ryan and Bernard, 2003: 85).

Thematic analyses might present data on the most common themes raised, or opt instead to describe unusual themes that emerged from the interviews. This thesis attempts to do both, where the empirical chapters draws attention to themes which

were common across the interviews, as well as indicating the diversity of opinion that existed. It is an ongoing and reiterative process.

The thematic analysis began with the structure of the interview schedule itself, which was arranged in broad themes. The resulting 27 transcripts were uploaded to the NVivo software (QSR International). Thematic categories can be identified using an inductive approach (data lead, sometimes called a ‘grounded approach’), or a priori approach (using themes derived from the existing literature and research pilot) (Ryan and Bernard, 2003: 88). This thesis takes the latter approach where the pilot and interview schedule were the priori themes (ibid). The initial meta themes were:

1. Academic and non-academic career paths
2. Professional social networks
3. Forms of disseminating/receiving academic research knowledge
4. Motivations for organising/attending KE seminars
5. Opportunities and barriers to organising/attending KE seminars
6. Preparing for KE seminars
7. Post-seminar activities and outcomes.

Ryan and Bernard (2003) offer a helpful framework of 8 different approaches to the coding process. In practice, many of these are combined. The analysis drew heavily on the ‘constant comparison method’ which focused on the similarities and differences across and within the transcripts. Similarities are most evident in the repetition of points, words, or phrases across the transcripts; with multiple respondents mutually collaborating with one another to form a consensus view. Differences are most evident when interviewees offer atypical responses. The process involves the researcher constantly asking: ‘is this similar or different to what

‘You are warmly invited.’

the interviewee said earlier’ (within)? And: ‘is this different or similar to what others have said’ (across)? The answers to these questions develops the analysis. However, Ryan and Bernard (2003) warn against two problems. One is what they called ‘lumping,’ where researchers conducting the analysis attempt to minimise differences in order to find overarching themes. The other is when researchers focus too much on the minutiae and ends up identifying many sub-themes. This increases the nuance but reduces the number of instances within each sub-theme. Both come with analytical problems and the investigator must decide on an ongoing reflexive basis where a subtheme may break into two or more subthemes, or the reverse, where two or more subthemes need to be brought together.

5.4.2 Social network analysis

The questionnaire data was analysed using Social Network Analysis (SNA). SNA posits that organisations such as the CPC are not homogeneous organisational edifices, but are created through a network of actors who have complex interpersonal relationships with one another. SNA allows for an examination of those patterns of social ties between people. Different social ties among people create functions and roles for individuals within the network, which they may neither been aware of nor appreciate its significance to the network as a whole. Viewing an organisation as a network allows an exploration of how those organisations work at the network level which shape actors’ opportunities and constraints within the wider social system in which they operate (Best et al, 2008; Brass et al, 2004: 75). For example, SNA can identify those in brokerage positions, liaison or leadership roles which can shape how information is moved around a network (Borgatti and Cross, 2009).

SNA draws on graph theory to create sociometrics which can be used to construct sociograms – graphic visualisations of actors and their relationship to one another (Robins, 2015; Borgatti et al, 2009; Butts, 2009; van Duijn and Vermunt, 2006). Both

the sociogram and the sociometrics which underpin them will be presented in this thesis as evidence.

The basis of SNA rests on two concepts: nodes (actors), and edges (relationships between those actors).

Actors are the entities under examination. They are represented in the sociographs as nodes. They can be people, departments, organisations, cities, states, etc (Butts, 2009). In this thesis, a node is a member of the CPC or one of their NAP contacts. Nodes have attributes in the same way as conventional quantitative analyses: sex, age, occupation, etc, which can be analysed using conventional statistical methods to identify how such attributes may shape the wider network (ibid).

Relationships are the connection that holds actors together. They are represented in sociograms as the lines (edges) connecting the nodes.

A pair of nodes is connected by an edge and is called a dyad. The relationship between all dyads’ collective connections with each other is what creates the network (Robin, 2015; Wasserman and Faust, 1995). Every actor has multiple types of relationships to other actors and they are simultaneously members of multiple networks (ie friendship networks, family networks, professional networks). This thesis is only concerned with the CPC members’ connection to other CPC members and their NAP contacts.

Connections between dyads also have a temporal element. Some relationships may last many years while others may be episodic and focus on a single event. They can vary in intensity over time. This is a methodological problem common to all SNA (Borgatti et al, 2009), and is particularly pertinent if relationships develop for specific purposes and for a fixed duration to fulfil a specific goal – for example around the organisation of a KE seminar – before quickly disappearing. This requires the researcher to make judgements about how temporality is understood within social networks.

The questionnaire data was first converted into Excel (Microsoft) tables. Attribute data was tabulated as a conventional data array while the network data was converted into an adjacency matrix (Hanneman and Riddle, 2005).

Scores from the ‘frequency-’ and ‘importance’ of interactions questions were ranked from 0 (never/not at all) to 3 (most days/very important). The scores were multiplied together. They were then converted to binary to create the data for edges. (It is binary so that a connection either exists between two nodes, or it does not.) Any score ≥ 1 is marked as an edge and a score of 0 is not. (A person may interact a lot with a colleague (ranked 3), but that contact might be completely unimportant (ranked 0), so the overall score is 0). The matrices consist of undirected ties, reflecting an assumption of symmetry. This means if actor *A* claims a relationship to actor *B*, then the analysis assumes that actor *B* has a relationship to actor *A*. This is common in SN analyses as directional ties are extremely complex mathematically, and would add very little insight to this thesis (Wasserman and Faust, 1994). The majority of social network analyses requires symmetrical data (Robins, 2015; Scott, 2007; Hanneman and Riddle, 2005). Such an approach also acts as compensation for those who did not respond to the questionnaire. Even if Actor *B* did not complete the questionnaire, it is possible to say something about their relationships if Actors *A*, *C* and *D* all claimed to have a connection with actor *B*.

The following sections present the method for conducting the four primary types of SN analyses which are presented in the empirical chapter which follows.

Network density analysis

Network density analysis can offer insights into the speed and routes through which information passes through networks, and the extent to which actors facilitate the dissemination and diffusion of information across their network. This clearly has implications for the KE field. This measure is relevant to this thesis because the more interpersonal connections between actors the greater the density,

making it easier for information to move across all parts of a wider social network than is possible for less dense networks.

Actors within a network are not uniformly connected to each other and a density analysis is a measure of network cohesion (Borgatti et al, 2009). The density score is socio-centric; in other words, does not examine actors’ individual connections, but rather the density of the whole network, or parts of the whole network. This latter technique has been used in this thesis where parts of the CPC network have been partitioned by attribute (Hanneman and Riddle, 2005). When partitioned, the density score is given for the nodes within that partition but includes their ties to nodes outside the partition. This has been done to examine how certain attributes affect the structure of the CPC network, these are:

1. Location (partitioned into: Scotland, England)
2. Institution (partitioned into: Southampton, St. Andrews, Edinburgh, Stirling, Strathclyde)
3. Role (partitioned into: Professor, administrator, academic, academic researcher [Research Fellow/Associate], PhD student).

As the analysis used undirected ties between dyads, network density is very simply calculated by counting the number of actual edges as a proportion of all possible edges. Network density is equal to half the sum of the edges, minus 1 (Robin, 2015; Scott, 2007) (the -1 comes from the fact that a node cannot be connected to itself). Therefore, where n is the number of actors and where l is the number of connections that all the actors have (to either the whole network or parts of the network, if

partitioned), then the formula for density (D) is simply:
$$D = \frac{l}{n(n-1)/2}$$

The result is a ratio expressed as a decimal fraction.

Centrality analysis

Centrality analysis is an examination of the importance or prominence that each actor has within the wider network structure. Actors who have more ties *may* be in an advantaged position because they have access to more people, are able to call on more resources from across the network, are more likely to catch information passing through a network, and are less dependent on other individuals because they have a number of different routes to reach other actors within the networks (Robins, 2015; Hanneman and Riddle, 2005; Scott, 2007). This has implications for a KE network as actors with high degree centrality can also act as liaisons or brokers between different parts of a fragmented network. Without those actors, a network may fracture into two or more components. Because of all this, actors’ centrality is linked to social influence and power (ibid).

There are a number of methods to calculate actors’ centrality within a network (Bonacich, 1987). The standard form is the ‘degree-centrality’ measure. This examines the number of connections that each actor has within a network, which is then normalised by dividing that by the total number of possible connections. The more connections that an actor has, the higher their degree-centrality. This alone is a crude approach to centrality. A more sophisticated measure is the eigenvector centrality.

Eigenvector centrality is built on the concept of ‘closeness.’ This refers to the shortest path required to connect any two actors within a network (called the geodesic distance). The more a node is used to connect one node to another in the shortest possible path (technically referred to as the ‘shortest farness,’ (Hanneman and Riddle, 2005), the greater that node’s importance in connecting the whole network. In other words, nodes with high eigenvector centralities are connected to other well-connected nodes. They are nodes through which actors/information must pass if they wish to reach other actors in the network. This idea is the basis of the eigenvector centrality measure (Robins, 2015; Bonacich, 1987). To illustrate the differences between ‘degree centrality’ and ‘eigenvector centrality,’ consider figure

‘You are warmly invited.’

9. It shows two actors: *A* and *B*. If one were to use ‘degree centrality,’ then actor *B* has a higher centrality than actor *A* because actor *B* has 4 out of a possible 12 ties in the network (a score of 0.33), whereas actor *A* only has 3 ties (0.25).

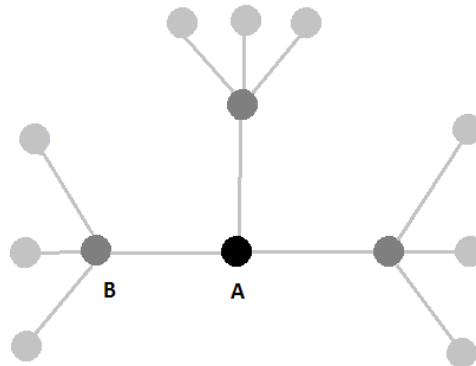


Figure 9 Demonstration network

While actor *B* has more connections than *A*, 3 of those connections do not connect to any other part of the network. They are called pendants: connected to the network by a single connection. Conversely, *A* has fewer connections, but those connections have a greater reach across the whole network; something that the degree-centrality analysis cannot recognise, but it is picked up by the eigenvector centrality measure which would mark actor *A* as more central to the network than actor *B*.

Centrality measures link together the individual and network levels within the analysis. This method also allows an examination of the cohesion of the whole network by giving a ‘centralisation’ score. Networks which have high centralisation scores indicate that actors within them are more connected to each other and thus are described as more ‘equal.’ Low centralisation scores mean that there are many missing edges connecting nodes meaning that the network is less cohesive and held together by a smaller number of actors – it is more ‘unequal’. Figure 9 is typical of a very hierarchical structure like a company – with actor *A* the CEO, actor *B* the middle management, and the pendants the employees.

The relevance of this measure for this thesis is that it helps to show who is holding the CPC network together; how information moves within the CPC network, and how information is transmitted beyond it to others.

Subgroup analysis

One of the most interesting aspects of SNA is the ability to examine sub-structures within the network. Such analyses can identify cliques, reveal cleavage and divisions, identify semi-autonomous components, bridges, liaisons, brokers, and so on (Wasserman and Faust, 1995).

In the context of SNA, ‘bridges,’ ‘liaisons,’ and ‘brokers’ all refer to specific positions within social networks. A ‘broker’ for example is a node which sits within one subgroup but has connections to another ‘outsider’ subgroup. To illustrate this, a CPC member might be connected to the Office of National Statistics (ONS), by maintaining a connection to a person within the ONS. By contrast, a ‘liaison’ in SNA terms is a person who is not formally/contracted connected to either the CPC or the ONS, but who maintains informal connections to both.

There are several methods for identifying subgroups. They are separated into ‘bottom-up’ and ‘top-down’ approaches. The ‘bottom-up’ approaches starts with dyads and adds more connections until more nodes are added to the network to form components⁸. The ‘top-down’ starts with the whole network and identifies substructures by finding the fewest number of edges that can be removed to split the network into 2, 3, 4, etc components. This analysis uses top-down approaches; a faction analysis and a Girvan-Newman analysis.

The faction analysis seeks to find groups within the network. It does this by permuting the adjacency matrix to try and calculate how many edges an actor

⁸ A ‘component’ is the name given to a network where all of its nodes are linked to the network through at least one other node. If a network is held together by one node, then removing that node may split the network into two. In such a case, the network is thus said to have two components.

‘You are warmly invited.’

would need to lose before they and their contacts detached from the main network. This technique is called the tabu search minimisation procedure. Within figure 9, this would be the edge which connects actor *A* and *B* being removed to detach actor *B* and her connections from the network. The test is an exploratory tool which does not identify cohesive subgroups and must be run a number of times with different cut off levels in order to find the best goodness-of-fit (measured as a Q score) (ibid).

The second technique for finding subgroups is the Girvan-Newman analysis. This algorithm uses a different approach to the faction analysis because unlike the faction analysis, it is a self-iterative process which attempts to find *cohesive* subgroups. The procedure calculates the tie betweenness scores of each node and deletes edges until a cohesive group is detached from the network.

A subgroup is ‘cohesive’ when the actors within an identified subgroup have strong and direct connections to others within the subgroup.

Understanding such structures within networks is important in the context of this thesis for understanding how information may move across different parts of the network, or hindered by fractures within that network, all of which has consequences for how the CPC engages with KE practices.

Core-periphery analysis

In the previous section, I mentioned that a *cohesive* subgroup is when actors within a subgroup are relatively well connected to each other. Some social networks consist of a dense and cohesive core (with lots of connections between the actors), and a sparse and relatively unconnected periphery. Borgatti and Everett (1999) devised an algorithm for mathematically identifying such core-periphery structures which are a variation of a subgroup analysis. The technique identifies the degree closeness (geodesic distance) of each node by positioning it within a core and placing all other

nodes in the periphery within Euclidean space⁹. It is calculated from a correlation between the actors creating a ‘coreness’ score (Borgatti and Everett, 1999). It is a reiterative process which successively builds up a core by moving actors with the highest coreness scores from the periphery to join the original actor within the core.

The relevance of this measure to this thesis is its ability to identify if the CPC has a core-periphery structure, and if so, who forms the core and who is on the periphery, and how such a structure shapes the CPC’s KE practices.

5.5 Writing: the overall analysis

Once the NVivo coding and SN analyses were completed, the next stage was the thesis-writing process. Writing is not a neutral act, and it involves making decisions about what evidence to present; what quotations to replicate, what sociograms to include, and how to interpret them (Mauthner and Doucet, 2003; Crossley, 2010).

The following analysis chapters were designed to pull together themes that would speak to each other and to the core interest of this thesis which is the KE seminars. The KE seminar is a shorthand for a process that is being exemplified by what is going on within them – it is a key site for the KE process which are situated within, and connected to, a wider social, economic, and political context.

The analysis begins with the broad issues which are the CPC’s social networks and the wider economic and political context in which the KE seminars exist. As the analysis progresses through the empirical chapters, it narrows in focus until the final one describes the specific issue of the role of corporeal co-presence in shaping the nature of productive interactions within KE seminars.

⁹ Euclidean space simply refers to where nodes are within the sociograms. Algorithms such as multidimensional scaling places the nodes which are within the core into the centre of the sociograph, and surrounds less-connected nodes around it, pushing them to the physical periphery of the sociogram. This has the effect that nodes on the periphery of the Euclidean space are physically closer to each other, but are in fact closer only to the core.

Considering which quotations to include as evidence was difficult as it required compromises.

First, quotations were sometimes chosen because they represented a typical or atypical view. Sometimes an interviewee’s views might be atypical because they differed from other interviewees’ evidence, contradicted, or added an extra dimension to other interviewees’ accounts. Quotations have been presented to demonstrate how interviewees might have contradicted themselves or other people, or might have held more than one viewpoint simultaneously. In other words, the analysis attempted to present some nuances.

Second, while all the participants in this study are highly educated (with many holding senior-ranking academic and professional positions), some participants were clearer and more articulate than others. There was a temptation to use articulate interviewees’ evidence as quotations because they spoke eloquently. To avoid this, there was a conscious effort to ensure that the voice of every participant who was interviewed was included in this thesis.

Third, by presenting some quotations and excluding others, the researcher is creating a second-order construct through this thesis (Aspers 2004; 2009). As part of this construction, the researcher interprets the words of the interviewees, and by presenting them outside their original context as quotations the researcher is framing the interviewee in a particular light. I have attempted to be alert to this and have included contextual detail to the quotations, where appropriate, in order to contextualise them and avoid ambiguity which might, inadvertently, attribute a view to the interviewee that they might not actually hold.

Fourth, to deal with anonymity issues, specific details were removed from the analysis chapters including details of interviewees’ employers and their professional roles. This is a compromise as some of the interviewees’ quotations would carry greater weight if it were known who was speaking, given their senior professional positions.

Writing this thesis was a challenge. The thesis is both interdisciplinary – spanning the KE and sociological fields – and mixed methods (spanning the qualitative and quantitative methods – with the latter drawing on social network analysis). My background is in population geography and so most of my research experience comes from a quantitative tradition. For this thesis, I had to go on courses to learn how to use NVivo, UCINet, and NetDraw. The scale of data, both textual and numeric, was overwhelming for me, and it took a long time to develop a thesis plan which would draw out themes that would coherently fit together in the context of a single thesis.

The thesis writing itself has been the most taxing aspect of the PhD programme. Earlier drafts of this thesis developed several ideas which did not make it into the finished work. Furthermore, I left my PhD programme between May 2013 and May 2014 to take up a post at St. Andrews as a Research Fellow. When I returned to my PhD, it took me 6 months to find my bearings again. This loss of time then created anxiety.

5.6 Reflexivity

Although a technical process, the construction of a PhD thesis is not a neutral one. It is a process in which I am personally a part (Mauthner and Doucet, 2003). So, in light of this, this final section of the methods chapter offers some reflections on the research process. It consciously uses the first-person pronoun to place myself in the experience of researching and the many lessons I learnt from that process.

5.6.1 On the process

I kept a research diary throughout my PhD degree programme in order to record thoughts, ideas, choices I was faced with, the decisions I made and the consequences of those decisions for the research.

The SNA component of this thesis required the single greatest investment of my time. I had to learn the foundations and methods of SNA, the development of the questionnaire took time to programme and test, and the analysis took much longer than anticipated. This task was further complicated by the fact that the data which I had gathered does not specifically address the role of social networks in KE seminars. The reason for this is that initially my research did not seek to examine KE seminars alone. The thesis eventually became shaped around seminars as key sites of KE.

The process of interviewing and conducting the thematic analysis was much more enjoyable. As my PhD is from a CPC studentship, negotiating access to the academic interview participants was simple. Even the NAP interviewees were happy to speak to me about their professional engagement with academic research through participating in KE seminars. The semi-structured interview allowed room for discussion which was enjoyable. Upon reading my research diaries, it became clear that academics were much more forthcoming in their engagement with the interviews than some of the NAPs. I noticed that (senior) academics engaged in a slightly more conversational style whereas NAPs tended to view the interview as more of a Q&A style; with me asking questions, them answering, then waiting for the next question.

There are many aspects of the research process which I could reflect on but I have chosen to focus on four areas which are: working *within* and *on* institutions, and interviewing peers, researchers, and elites. These four aspects impacted the research more than any other with regard to how the interviews unfolded and how the interviewees’ accounts were shaped within the context of this research.

5.6.2 On working within the institution under examination

My PhD was funded by the CPC to examine CPC academics’ practices of disseminating their CPC-funded research to a non-academic audience. This made me an ‘insider’ which gave me easy access to the case study site, yet it also brought

challenges as it also placed me within the authority and the power structures of the institution which I was examining. As Munro et al (2004) comment, the research process itself will reveal power structures and dynamics within institutions when one is conducting research on it, even if such power dynamics are not directly under examination. I am within the CPC critically examining the CPC. It is the CPC’s policies and the decisions of those in positions of authority which shape my access to the sites (KE seminars) and the interview participants. I had to be reflective in keeping details about the constraints that the CPC placed on me, what was expected of me as one of their students, and as a researcher examining them. I kept emails, notes of policies, and details of conversations in my research diary to help me think about how the operation and exercise of power in everyday settings shapes how the interviews unfold and the potential problems that inattentiveness to those power dynamics can create (Nairn et al, 2005).

5.6.3 On interviewing peers

One of the greatest challenges of the research process was interviewing peers (or colleagues). It posed ethical challenges (Etherington, 2007; Wiles et al, 2006), data collection challenges (Chew-Graham et al, 2002), interpretation and representation challenges (McEvoy, 2002; Aberbach and Rockman, 2002), and reflexive challenges (Platt, 1981; Finlay, 2003; Bryman and Cassell, 2006).

Most of the methodological literature assumes that research is conducted between a researcher and a group between whom no prior relationship exists, and from which no subsequent relationship is expected to develop (Platt, 1981). Yet in this study, I was interviewing some people with whom I had a pre-existing professional relationship, specifically some of the academics based in the Scottish Consortium. In fact, between May 2013 and 2014 I worked for some of the academics at St. Andrews as a Research Fellow. This all affected the nature and conduct of the interviews, and their resulting data (Coar and Sim, 2006; Chew-Graham et al, 2002). This situation meant I was working *alongside* and *on* colleagues within the CPC. This reality

‘You are warmly invited.’

required me to think about the practical and ethical implications with regard to how far participation in this research can be separated from other professional relationships which already existed, or might exist in the future.

A further issue of consideration was the extent to which my CPC interviewees are ‘peers.’ I am simultaneously a junior colleague, a peer, a researcher, and a student. ‘Peer’ in this context does not connote equal status (Platt, 1981). My academic interviewees and I are peers within an organisation which also delineates its members in a hierarchical system. Chew-Graham et al (2002) and Coar & Sim (2006) offered guidance on how to reflect upon and deal with the power dynamics involved in interviewing peers who occupy different strata within hierarchical organisations. This is something I was sensitive to because I was interviewing academics from across that hierarchy: from researchers who had only recently completed their PhDs, to the Centre’s directors and administrators. How I communicated with a newly-appointed research fellow would be different to communication with a senior professor.

The ESRC and the CPC expects academics which it funds to engage in KE activities (see chapters 2 and 3), and for me to examine those activities. Thus, it *may* be difficult for potential participants to refuse my interview request given this level of institutional expectation. Some CPC members may have felt pressured to accept my interview request in order to appear cooperative. Indeed, none of the CPC academics refused to be interviewed. I tried to make it very clear that participation was voluntary and that they were not obliged to participate in my research either by me or by the CPC.

I got the impression that some academics felt that my presence at their seminars was to scrutinise their KE event. I wrote in my research diaries after 2 interviews with junior academics (Research Fellows) that I felt that they thought I was interrogating them on their KE activities. The two research fellows in question even produced their CVs and listed their KE activities for me during the interview. I got the impression that they felt it was a test of their knowledge (Chew-Graham et al, 2002;

Coar and Sim, 2006). I had no such post-interview reflections with senior academics or NAPs.

A further issue with interviewing peers is the impact that ‘insider’ status has on the data being produced. Being an ‘insider’ means that the interviewees and I share a broadly similar background and also an understanding of what is happening. This allows for ‘confessions,’ admission of errors, regrets, and mistakes (Platt, 1981; Chew-Graham et al, 2002). Many of the senior academic interviewees made such statements as ‘I’m not sure that this was particularly successful,’ or ‘this could have gone a lot better.’

There are, however, disadvantages to ‘insider knowledge.’ ‘Insider’ status can produce ‘thin’ data as both parties know what is being described. This occurs when the interviewee does not explicitly outline what they mean by something in a way they might otherwise have done if they had been speaking to an ‘outsider’ (Coar and Sim, 2006; Bryman and Cassell, 2003). This issue only came to the fore during the transcription where interviewees were making connections between issues which, to an insider, seemed obvious, so at the time I did not ask questions about such connections, and, as a result, the data produced was slightly thinner than might otherwise have been the case. In later interviews, I endeavoured to make sure that I asked questions as if I was a naïve outsider. Yet doing this created a disjuncture. I found myself saying things such as: ‘I realise that I was at this seminar and that we spoke about it at the time, but I need you to tell me again what format the seminar took.’ Taking on the mantle of naïve outsider seemed artificial and created a tension: am I part of a shared community, or not? This dilemma of whether or not to take an ‘insider/outsider’ position was described in Harvey (2010). I took no stance at the time, and so my position varied both across interviews and within them. It was never resolved which stance I would take, but it was something that I was aware of.

5.6.4 On interviewing researchers

My research interviewees were not only my ‘peers,’ but also researchers; all of whom were far more experienced than I. This made my ‘peers’ different from Chew-Graham et al (2002) and Coar and Sim’s (2006) studies of medical practitioners interviewing medical practitioners. It was, I felt, a double-edged sword. On the one hand, many of the CPC’s academics were gracious to me, particularly in the early days of interviewing where it must have been clear that I was nervous and inexperienced. On the other hand, most of these interviewees know how an interview ‘should be’ which put pressure on me. Some interviewees made comments about my research or the interview process or answered questions and then went on to try and analyse what they think that their answers means; pre-empting the analysis. In other words, some academics were not submitting to the role of interviewee. Such problems can be salient if the researchers are part of a ‘knowing community’ (Bryman and Cassell, 2006; Platt, 1981) - such as a community of social scientists as was the case here.

The result of this was the opposite problem to what I felt about some of the junior academic interviewees, where they felt they were being interrogated. In this case, some senior academics made me feel that I was being examined on my own skill – which was limited at the time. Researchers interviewing researchers is a process fraught with anxiety. I felt this pressure and wanted the interview to be both ‘correct’ and not socially unpleasant, particularly since, as mentioned before, I would be seeing these people in the future (Platt, 1981).

5.6.5 Interviewing elites

The status differentials between me and many of my interviewees were significant. I was interviewing senior academics, and many civil and public servants who should be considered ‘elites.’ Platt (1981) points out that there is a typical assumption that the interview encounter is between a powerful and knowledgeable interviewer, and a comparatively less knowledgeable and less powerful interviewee. This is not the

case in research which is ‘interviewing up.’ Desmond argues that there is inevitably an asymmetrical relationship between interviewer and interviewee; and there are different challenges which stem from ‘researching up’ as compared to ‘studying down’ (2004: 262; also Morris, 2009).

Elites are fewer in number and possess specialist knowledge and so I am more dependent on their cooperation. Early on in my PhD programme, my supervisors asked me to prepare myself for interviewing elites. The work of Desmond (2004), Smith (2006), Wiles et al (2006), Rice (2009), and Harvey (2010), Morris (2009) and Mikecz (2012) were all helpful in shaping my thinking about some of the issues involved in ‘interviewing up.’ Interviewing elites often required dealing with intermediaries such as secretaries, accepting that interview dates might be changed, and sticking strictly to the time that they allocated to me (Desmond, 2004).

While elites might be in a comparatively powerful position as they are in a position to influence and direct others, they are not a homogeneous group (Smith, 2006). ‘Elites’ can occupy different positions of seniority within very different organisational structures. They too, I reflected in my research dairies, feel vulnerable, particularly when talking about (perceived) sensitive issues, despite being in a position of power.

Smith’s (2006) work helpfully problematises this dualistic understanding of ‘powerful elites’ versus ‘powerless others.’ She describes interviewing elites as one of negotiated, contested and inscribed power dynamics. Nairn et al (2005) points out that power is not a single characteristic such as a professional role within an organisation, but has multiple facets which can shift the power dynamics back and forth between the interviewer and interviewee. Desmond (2003) and Chew-Graham et al (2002) employed a technique where the interviewer assumed a supplicant role where they were the ‘pupil’ rather than an ‘expert’ so that they were not perceived as posing a threat in what can be a competitive and/or confidential environment. I attempted to deal with this by being as open and flexible as possible, attempting to be sensitive to the power dynamics unfolding within the interviews, and trying to

‘You are warmly invited.’

avoid areas which might create discomfort. As this required skill, I intentionally left elite interviews until the later stages of the data collection phase by which time I had built up confidence and a better understanding of power dynamics within the interview process.

5.6.6 Interviewing over Skype

As mentioned above, two interviews were conducted over Skype. The first was with a participant that I was supposed to meet in London during my time in Southampton. He had to reschedule the interview because of a clash in his diary. I initially thought he might have changed his mind about participating and was using this as a cover to opt out. I cautiously asked him if he still wanted to participate and he said that he was still happy to speak to me. He said I could interview him the following week but I was back in Edinburgh by then and I felt that it would not be cost-effective to travel to London to conduct what may be a short interview. I asked him if he was happy to be interviewed over Skype. He said that if it was over Skype, we could chat the following evening after he had returned home. I Skyped him while in Southampton. I reflected on the email exchange that the participant and I had in organising the Skype interview and it occurred to me that both of us implicitly framed this as the less desirable option – the alternative to be used when physically meeting is impractical.

The interview itself was strange. Participating in semi-structured interviews is not normal for most people, neither is being recorded. Being conducted on Skype adds to this level of artificiality, I felt. The interview lasted for 41 minutes, which is considerably shorter than the average. I also did not feel that we had built up a rapport across the interview encounter, nor did I feel that the interview was particularly fruitful.

The second interview conducted over Skype was with ‘Mhari’ who works for a local authority on a Scottish Island. Mhari participated in the KE seminar via Skype. This was unusual so I emailed her after the seminar event to ask if I could interview her

‘You are warmly invited.’

regarding her experience of participating in a KE seminar in this way, and to get a rural perspective on practices of KE because at that time I was starting to think about how geographic distance shaped NAP’s participation in KE activities (and this is a theme which has now been incorporated into this thesis). She agreed to be interviewed but said that she was rarely on the mainland for work and so it would be difficult to arrange a place and time to meet. I offered to interview her over Skype – which she agreed to do.

The one thing that was most obvious about Mhari’s interview was that she spoke in third person about her own employer and colleagues. This may be a local dialect, a personal idiom, or derived from the fact that she was speaking to me via Skype. If the latter, the implication of this is that she is emphasising social distance between herself and her own colleagues and employer when she was communicating to someone (me) who was geographically distant.

Mhari’s interview was very fruitful in shedding light on some of the challenges that she and her colleagues faced in communicating not only with academics, but also other stakeholders and even colleagues from other local authorities. This interview was 1 hour 43 minutes long. However, this was not continuous talking as the screen froze, and at several times the connection cut out. This emphasised again distance and latterly shaped my thinking around the role of technology in the KE process.

5.7 Summary

This is an interdisciplinary thesis which draws on a mixed-methods research design. This chapter has presented the epistemological foundations of the thesis and the overall stages of the research design. It has detailed the specific methods of data collection and analysis. It has also presented some reflections on the research and thesis-writing process. The following four chapters now present the empirical findings of the PhD research.

6 The social networks of the Centre for Population Change

6.1 Synopsis

The contemporary Knowledge Exchange (KE) field has increasingly emphasised that knowledge exchange within the social sciences and humanities is not a linear or mechanical process, but a complex and social one. There is an emerging consensus in the field of the (sometimes critical) importance of interpersonal relationships between academics and Non-Academic Professionals (NAPs) (sometimes called ‘linkage’) in facilitating the dissemination, uptake, and use of academic research (Morton, 2015; 2014; Wilkinson et al, 2012; Molas-Gallart and Tang, 2011; Nutley et al, 2010; 2007; Ward et al, 2009; Mitton et al, 2007; Lomas 2007; 2000; Jacobson et al, 2006; Kramer and Cole, 2005; 2003; Greenhalgh et al, 2004; Gabby and le May, 2004; Court and Young, 2003; Crewe and Young, 2002).

When conceptualising interpersonal relationships, one must not consider them as single academics attached to a number of NAPs akin to a hub-and-spoke model. Instead, interpersonal relationships between academics and NAPs are complex and embedded within much larger networks which involve many people. Those networks are embedded within and across organisations which, in turn, shape the structure and nature of the network itself (de Jong et al, 2014; Best and Holmes, 2010; Best et al, 2009; 2008).

The dissemination of research beyond academia is often ad hoc and relies on informal networks and ‘serendipitous’ relationships (Molas-Gallart and Tang, 2011; Castro-Martínez et al, 2011; 2008; Percy-Smith, 2002). Yet those relationships (both formal (contractual) and informal) are embedded within a wider network of actors which are in turn shaped by institutions and organisational boundaries (Best and Holmes, 2010). Thus, understanding social networks becomes pertinent to understanding the social environment in which KE (and KE seminars more specifically) occur.

In the specific context of this thesis, KE seminars are not socially isolated – how they are organised, who finds out about them, and who attends them are all functions of the complex social networks in which people are connected to each other. This chapter examines those networks using Social Network Analysis (SNA) – a technique that some have suggested that the KE field needs to engage with more than it hitherto has done (Best and Holmes, 2010; Best et al, 2008; Leischow et al, 2008). This thesis aims to contribute to that discussion. This chapter has two functions.

The first is to answer the first research question: What is the social context in which CPC members’ disseminate their research? The second is to demonstrate the viability of SNA as a methodological technique which may be useful to the KE field. SNA has the potential to be an important tool for KE scholars given what is known about the role played by interpersonal relationships and networks within the KE process. SNA can be combined with other sources of data (Crossley, 2010; 2008) to help our understanding of those complex interpersonal networks.

This chapter achieves these two goals by integrating SNA and interview data where respondents/participants were asked about their connections to other CPC members and their NAP contacts which were relevant to their CPC-funded research. When analysed collectively, it was possible to reveal the complex network structures which can be described mathematically and then explained qualitatively through the interviews. By revealing the CPC’s network structure, it is possible to understand how CPC members strategically engage with each other, as well as NAPs (and their organisations), when disseminating their research beyond academia.

Section 6.2 examines the CPC’s internal network and presents evidence which suggests that the CPC exhibits a core-periphery structure in which administration staff and several senior academics (mostly from Southampton, Soton) form a tight core, surrounded by a significantly less dense periphery (mostly constituted of less senior academic researchers, and those from the Scottish Consortium (SC)).

Evidence is then presented from a faction analysis which shows that the CPC has several factions within it which are delineated by Higher Education Institution (HEI) and geography. This is evidence of the impact that the CPC’s organisational boundaries and geographic distribution has had on the overall social network and cohesiveness of the Centre.

Section 6.3 examines the CPC members’ internal KE network. It shows whom the CPC’s membership would contact in order to organise, advertise, or co-host KE activities. In essence, it is an attempt to explore how the CPC as an organisation collectively comes together to make KE activities happen. It presents evidence which shows that CPC academics would call on the assistance of the Centre’s administrative staff and a very small number of senior academics in their KE activities.

Section 6.3 also identifies the non-CPC NAPs with whom CPC members are connected (in relation to their CPC-funded research). An interesting feature of the CPC’s KE network which emerged from the analysis was that there is very little overlap between the SC’s and Soton’s NAP contacts. The conclusion of this section is that the structure of the CPC *and* the UK’s public institutions discouraged CPC Soton academics from connecting and engaging with Scottish public institutions, and vice versa where CPC SC academics were not engaging with English (or UK) institutions.

Section 6.4 draws together some conclusions. It discusses the role that geography and organisational boundaries have on the structure of the CPC network and the CPC memberships’ interpersonal connections to NAP. In other words, institutional boundaries and geography shape social networks and the knowledge exchange process. It concludes with a broader point about the value that SNA insights can offer the KE field which can help KE scholars understand the process of KE through relational and network perspectives (Best and Holmes, 2010; Leischow et al, 2008).

6.2 *The internal structure of the Centre for Population Change*

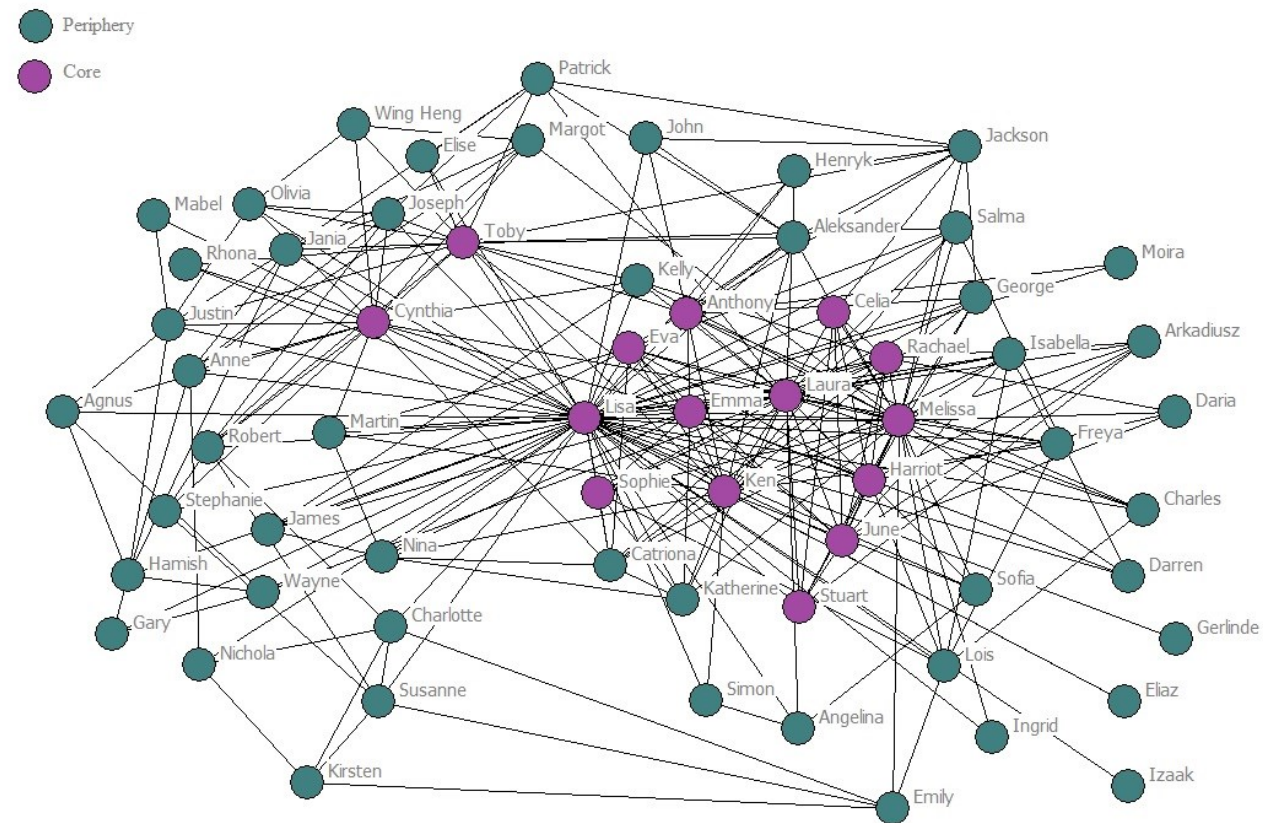
This section is an examination of the internal network structure of the CPC; a SNA which only includes the CPC membership: co-directors, administrators, principal investigators, academic researchers, and PhD students.

The purpose of mapping the CPC’s social network is simple: SNA does not assume that organisations like the CPC are homogeneous entities (Borgatti et al, 2009), but a network of professionals who have interpersonal relationships with one another that collectively constitute the Centre. SNA is a method to reveal those relationships. It is an examination of who interacts with whom within the CPC and is derived from questions 1 and 2 of the online questionnaire which asks about CPC members’ frequency and importance of contact between their peers. The result of this analysis is presented as a sociogram in figure 10 (overleaf).

This sociogram has three interesting features. First, there appears to be a core group of actors within the network which is surrounded by a less integrated periphery. Second, as one would expect, not all CPC members are equally connected to the network. Some nodes have more edges (connections) than others. Those that have more connections are said to be more integrated into the network than those which have fewer. It appears from the data that the density of edges is shaped by professional role. Third, there appear to be several factions within the network. There is a tight cluster of members on the centre-right of figure 10, and a less dense grouping around the centre-left. These three interesting features warrant further analysis through an examination of the sociogram’s sociometrics (mathematical properties of the network). A possible explanation as to why those structures exist can then be sought through the interview data.

‘You are warmly invited.’

Figure 10 A sociogram of the internal CPC network structure.



6.2.1 A core-periphery analysis

Picking up the first issue, as mentioned in the methods, the core-periphery analysis is a mathematical algorithm for identifying core and periphery actors within networks through a degree-coreness measure of each node (Borgatti and Everett, 1999). This technique was used to examine whether it is true that the CPC has a core-periphery structure.

The output of this algorithm is presented in appendix IX. Within appendix IX, the top left quadrant contains the names of actors who form a closely connected ‘core.’ Their nodes have been retroactively coloured purple in figure 10.

It is clear that those within the core consist of the administration staff, the co-directors and some of the research strand leaders. Around that core is the periphery which is constituted of other senior academics, academic researchers, and PhD students. A structure where there is a core of administrators and managers surrounded by a periphery of less-senior ‘employees’ is typical of traditional hierarchical organisations (Wasserman and Faust, 1995). What is interesting about the CPC ‘core’ is that two of its members, Toby and Cynthia, are somewhat separated from the rest (they are in the upper centre-left of figure 10). These actors are senior academics based in St. Andrews while the rest are in Soton. Again, this is typical of larger organisations which operate across several geographic locations where the leaders are physically based in different locations, yet who have stronger connections to each other than they do to those with whom they are physically co-located. In other words, the CPC’s leaders are geographically dispersed but socially closer to each other than they are socially closer to those with whom they are geographically co-located. If this were a company, such a network would be interpreted as a hierarchical organisation with a corporate headquarters in Soton and a smaller regional office in St. Andrews.

6.2.2 Actor density analysis

On the second observation, as stated earlier, outside of theoretical modelling, actors are never uniformly connected; some people are more embedded within the CPC’s network than others. Actors’ connections to the network are shaped by their function within it, their individual attributes, and other environmental factors (Wasserman and Faust, 1995). As mentioned earlier, sociogram 11 suggests that there are variations in the network density which is shaped by actors’ professional role within the CPC. The following analysis examines how professional role shapes CPC members’ integration into the Centre’s network by conducting a density analysis which is partitioned by professional role.

The professional roles are separated into 5 groups. Senior academics are professors and readers. Academics are senior lecturers and lecturers. Academic researchers are research fellows and research associates, PhD students, and administrators. The results of the analysis are shown in figure 11.

	Senior academics	Academics	Academic researchers	PhD students	Admin.
Senior academics	0.095	0.076	0.064	0.053	0.144
Academics	0.040	0.044	0.045	0.033	0.080
Academic researchers	0.066	0.035	0.034	0.039	0.090
PhD students	0.049	0.011	0.022	0.042	0.067
Administrators	0.320	0.220	0.210	0.178	0.300
<i>Total group density</i>	<i>0.570</i>	<i>0.386</i>	<i>0.0375</i>	<i>0.345</i>	<i>0.681</i>

Figure 11 Density of network, by actors’ professional role.

(NB: **bold** shows intra-group density. *Italicised* shows total inter-group network density.)

The results show that administrators are very integrated into the CPC network. They have the highest intra-group density (0.300, or 30% of all possible ties) and the highest network density (0.681, or 68% of all possible ties). The senior academics

‘You are warmly invited.’

(professors and readers) have a high density among themselves with just under 10% of all possible ties to other senior academics (0.095), and 57% of all possible ties across the whole network (0.57). Academics, academic researchers, and PhD students have between 34.5 and 38.6% of all possible ties across the whole network. The total network density of each of these 5 groups is visualised below in figure 12.

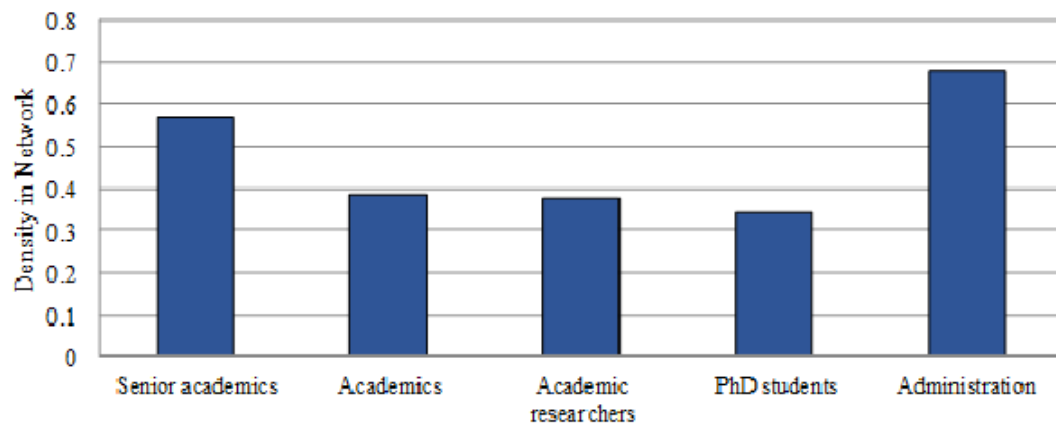


Figure 12 Density of network, by actors' professional role.

Professors and readers have the highest inter-group connectivity of all the *academic* positions (ie excluding administrators). In other words, senior academics are better connected to each other and to other groups than the less-senior academics. Again, this is typical of a traditional hierarchical organisation structure (Wasserman and Faust, 1995) where there are strong connections between management, and between managers & employees, and less strong connections between employees.

One of the most interesting features of figure 12 is the density of the administrators. This can be partly accounted for by the group's population size. Yet the analysis on which figure 12 is based shows that the CPC's administrators have the highest intra- and inter-group connectivity compared to the other four groups: they are well connected to other administrators (albeit, there are fewer of them) as well as academics (of all levels of seniority) across the CPC network.

Administrators are very integrated into the CPC network and have more direct connections to other parts of the network than the academics do. This means that

‘You are warmly invited.’

they perform vital functions as they can see the flows of information as they pass through different parts of the network (Hanneman and Riddle, 2005). It is clear from the interviews with two of the CPC administrators that they recognised they were in a ‘unique position’ within the CPC:

[So my job is to see] what they {academics} need from the Centre as a whole. If you think of the Centre as a pot, maybe, or a hub, so what do people need from us to do their job, to work effectively together to achieve their aims? And also what the people outside of that hub need from us, and what they can gain from the knowledge that we know? (Lisa, administrator, CPC).

This quote illustrates Lisa’s awareness of her position within the Centre as one which connects people in the ‘hub’ to ‘work effectively together to achieve their aims.’ Her job is to try and connect the internal components of the network (and the evidence presented in figures 10, 11 and 12 would confirm that administrators do so), as well as reach the stakeholders beyond the Centre itself.

While vital, the administrators do not reach every part of the network equally. Figure 11 shows that while the administrators have strong connections to the senior academics, they have fewer connections to the PhD students. Most traditional hierarchical organisations are tiered systems where information passes from the top to bottom of the hierarchy (and vice versa) through the intermediary levels of management. Lisa also recognised that while she and her administrator colleagues tended to use this hierarchical approach for communicating with others across the Centre, she felt it led to her missing out on some information which was moving across the network, particularly from the less-senior academics (PhD students):

It’s one of the areas we {the other administrators and I} were talking about the other day - that we haven’t engaged enough with PhD students. I think we’ve done it a lot with

‘You are warmly invited.’

academics, we’ve engaged them quite a lot, but we’ve allowed the academics to feed down to the students, and maybe I haven’t directly engaged with the PhD students enough because I’ve assumed that a link was there between students and PhD supervisors. (Lisa, administrator, CPC).

The administrators play a key infrastructural role within the CPC in maintaining the network; providing a glue-like function for the Centre’s cohesion.

If the administrators are ‘missing’ information, then they miss opportunities to act strategically with KE activities. It compromises the benefits that the Centre can bring in communicating academic demographic research to wider society. In the CPC, the administrators are not only dealing with the administration needs of the Centre, but they also provide a form of KE brokerage (Ward et al, 2009; Lomas, 2007); which was hinted at in Lisa’s first quotation. KE brokers are people who, *inter alia*, ‘move knowledge around and create connections between researchers and their various audiences’ (Meyer, 2010: 118).

We actually probably drive people crazy: the constant requests every 2-3 months for information on what knowledge exchange activities they’ve been doing [...]: if they’re involved in any new networks, if they’ve been to any meetings, those kind of things that they might not think are relevant are actually relevant to us because if we know that they went there, [then we can use this information to act more strategically]. (Lisa, administrator, CPC).

Lisa’s quotation starts off with a recognition that the requests for information of CPC academics’ KE activities might ‘drive people crazy.’ Ultimately the purpose of such reporting links back to a requirement from the ESRC for the Centre to report on the ‘impact’ that its investment is having on wider society. This was described in detail in chapter 3 as the ‘KE agenda.’ Yet, beyond being a ESRC requirement, that information can be used by the Centre to identify strategic ways of bringing

‘You are warmly invited.’

together the CPC’s research and potential audiences for that research. Suffice here to say that the CPC’s administrators have an important KE function within the centre as brokers (Meyer, 2010; Lomas, 2007). They are a hub for collecting information from across the Centre which means they have insights into the macro-level activities that the Centre is engaged in which is unknowable to the individual academics.

The CPC administrators help catalogue KE activities, help organise KE seminars and other KE events, they help create and sustain connections between the CPC and its non-academic partners, and a myriad of other functions. The KE agenda (described in chapter 3) has resulted in the emergence of a specialist set of skills in KE which is not always recognised by funders. Lightowler and Knight (2013) found in their research of knowledge brokers at the University of Edinburgh that there was a discord between the rhetoric and goals of the KE agenda, and the value placed on knowledge brokerage, with unsustainable funding models and the combining knowledge brokerage with other administrative functions which results in a squeeze on brokerage capacity and capabilities. This, in turn, limits effectiveness (ibid).

I manage the Centre. So that involves bringing together the projects in the Centre, and having an overview of what they are, and how people work together, and what links there are to other things, what else is out there, what money is out there, what funding is available, what the key things we should be thinking about, maybe. I keep an eye on what is happening within and outside the Centre. I see what opportunities there are, I send out materials across our network, I help organise events... (Lisa, administrator, CPC).

During the latter stages of the data collection phase of this PhD the CPC employed a specialist. Originally a journalist and retrained as a communications specialist,

‘You are warmly invited.’

Lianne was employed by the CPC to help ‘translate’ and communicate their research, and build networks with NAPs who may be interested in the CPC’s work:

My role in the CPC is to take research and make it understandable to various audiences, really. [...]. We’ve done a couple of events so far since I’ve been there, and I’ve put together lists of people that we might want to invite, looking out for suitable people from government, from third sector organisations, that kind of thing, what interesting things might be coming onto the agenda, and in the media, and just kind of inviting those and trying to find the most relevant people, really, to take up our events. (Lianne, academic support, CPC).

Despite Lianne’s employment, as Lightowler and Knight (2013) points out, such positions are often undervalued with short-term/partial/part-time funding. And this has been the case here where Lianne, and a number of others who have fulfilled knowledge broker roles at the Centre, have subsequently left. These professional roles are important because by acting as brokers, they promote a single entry point for non-academics to engage with the CPC, and have a function in holding together the Centre itself. Yet while brokers have access to information across the CPC network and beyond, they rely on interpersonal relationships which must be cultivated and nurtured. This takes time and skills to develop. To achieve this requires a significant investment in KE specialists which is not always available (ibid).

6.2.3 The geography of the Centre and its effect on the network structure

As mentioned earlier, KE scholars have raised questions about how social networks are shaped by geography and institutional/organisational boundaries (Best and Holmes, 2010; Morton, 2014; Nutley et al, 2010).

‘You are warmly invited.’

One assumption of social network analysis is that it does not consider organisations (like the CPC) as homogeneous edifices. The structure of the CPC is unusual – a single centre split over two ‘sites.’ One of those ‘sites’ is centralised in a single HEI, while the other is distributed across 5 HEIs (The SC). The geographic distribution of the CPC’s constituent HEIs means that the Centre can help reveal something about how geography and organisational structures influence academic social networks.

The analysis presented in figure 10 above produced evidence of several ‘factions’ within the centre which appear to be shaped by geography and organisational boundaries. In order to examine these further, two subgroup analyses were conducted to see if any factions and subgroups could be identified within the CPC.

The first is a ‘faction analysis.’ The procedure for this was described in the methods section, and the results are presented in appendix X. It shows that the best ‘goodness-of-fit’ is either 2 or 3 factions. At 5 or more factions the goodness-of-fit tails off.

The second approach to identifying subgroups is the Girvan-Newman subgroup analysis. The results of this analysis are presented in appendix XI and shows that at 2 clusters the Q score is 0.078 which dramatically increases to 0.227 at 3 clusters, after which very little is added or removed from the Q scores with the addition of more clusters.

Together, the results of the faction and Girvan-Newman analyses suggest that the smallest number of cohesive subgroups or factions within the CPC is 3. The data from the Girvan-Newman subgroup analysis was used to create figure 13 (2 pages forward). The three colours of the nodes represent the three components identified by the subgroup analysis, while the shapes of the nodes represent location (Soton are circles, and the SC are squares). The purpose of this is to show how the relationship between institutional affiliation and geography impacts on the CPC’s social network structure.

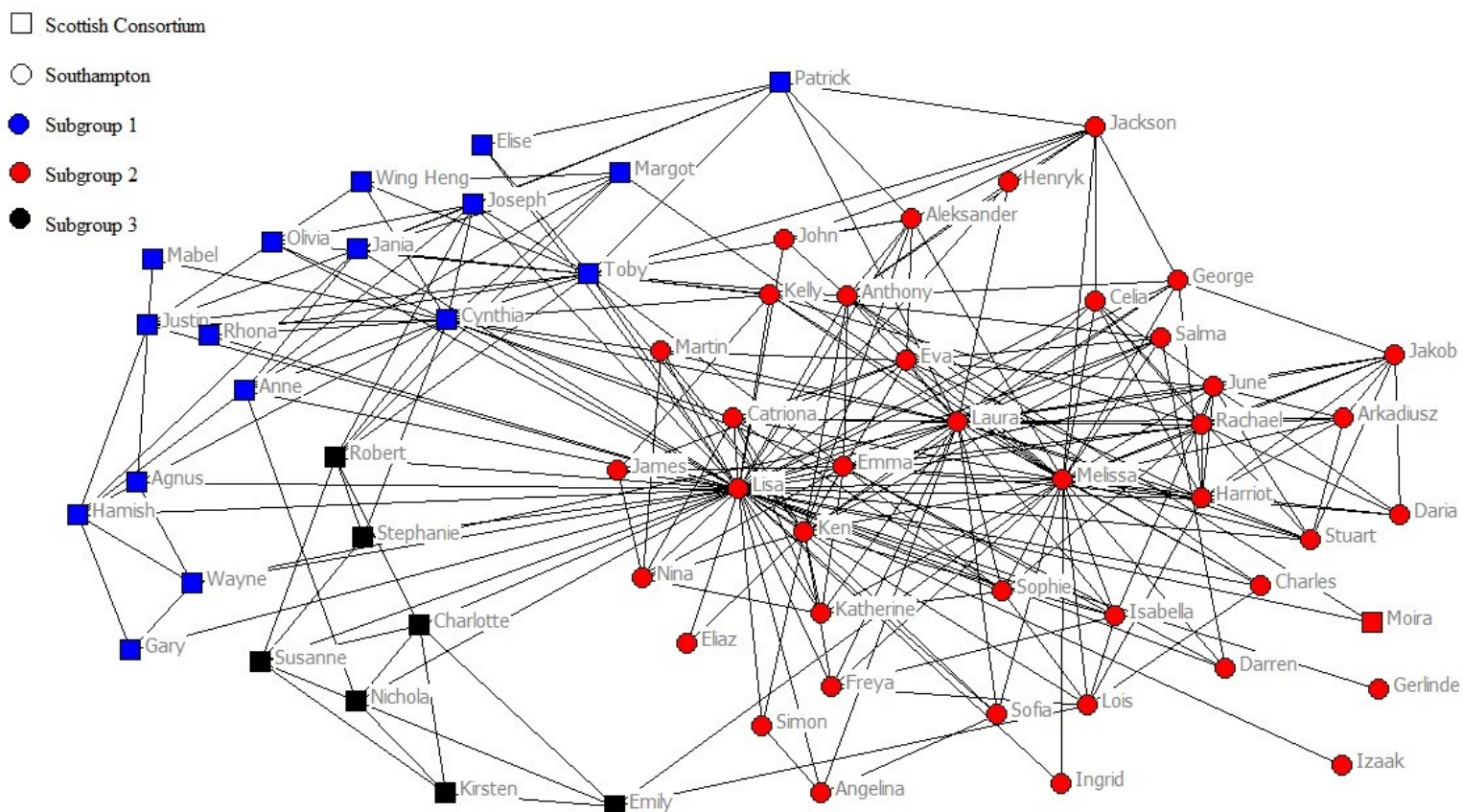
‘You are warmly invited.’

Figure 13 shows that while the subgroup analysis algorithms do not consider attributes (in this case, location) as a precursor to identifying individual subgroups, it has nevertheless identified those from Soton as a single cohesive subgroup within the CPC. The red nodes (representing 1 subgroup) match perfectly the circles (representing Soton). A second subgroup (in blue) perfectly finds another cohesive subgroup in St. Andrews, Strathclyde, and Stirling. A final cohesive subgroup (in black) perfectly identifies CPC members in Edinburgh. Edinburgh seems to have formed its own cohesive subgroup outside the rest of the SC. Why Edinburgh is not better connected to the SC is unknown. It is possible that this is because Soton and St. Andrews both house the Centre’s leadership (administrators and co-directors), while Edinburgh does not. As such, Edinburgh may have been disadvantaged in creating and maintaining better links to other parts of the CPC, or with other parts of the CPC creating links to Edinburgh.

The CPC has several subgroups (or factions) within it which are delineated by geographic location and institution which has had on the overall cohesiveness of the Centre’s network. How these divisions between Soton and the SC have impacted on the way in which the CPC engages with NAPs and non-academic organisations across the UK is the focus of section 6.3.

‘You are warmly invited.’

Figure 13: A sociogram of the internal CPC network structure with three identified cohesive subgroups



Centre members’ view of the Centre’s social network

Evidence from figures 10 and 13 presents an SNA perspective of the CPC which suggested that the Centre is fragmented along institutional lines. This view is further supported by the CPC interviewees.

While many of the CPC interviewees recognised fragmentation, the Scottish interviewees were more explicit in stating this. They also recognised the challenges that the multi-site Centre faced in creating a cohesive entity across its constituent HEIs. For example, one of the CPC’s co-directors said:

It [the CPC] should have been more integrated [...]. Basically, it just fell into two parts which I don’t think is a good idea. This is something that I will argue strongly for in proposals for CPC II: to make more of an effort to integrate Scotland into the rest of Southampton. (Cynthia, academic (CPC co-director)).

Cynthia’s view was typical of that of other senior academics. Her quotation was chosen on the basis of her seniority within the Centre but it was a view which was prevalent: the CPC consisted of ‘two parts:’ Soton and the SC. Actually, the SNA evidence presented above suggests that the CPC actually consists of three parts, with Edinburgh not forming part of a cohesive subgroup with even the SC.

This geography is further complicated as the SC is a multi-site collaboration over a wide area. Thus, the SC faced additional challenges. Not only must it integrate with Soton, but it must integrate across its own constituent HEIs.

Toby, a senior academic in the SC, viewed the SC arm of the CPC as less of a cohesive whole than Cynthia, which, in his view, derives from the fact that Scottish institutions are smaller and do not have the same dense networks between academics:

‘You are warmly invited.’

Traditionally within the ESRC, centres have been based in one place for the reasons that we have been talking about: [for creating] that density of academic contact within one big institution – it’s seen as a great advantage. So all of us in Scotland have been challenged by that over many years because even the biggest and most successful universities haven’t had that density of contact between disciplines, or may have had disciplines missing for one reason or another. (Toby, academic, SC).

There is a connection between spatial and social distance. Toby claims that one of the reasons why research centres have ‘traditionally’ (although becoming less common now) been located in a single HEI is because of the link between geographic and social distance. Corporeal co-presence matters in facilitating interactions, and creating a cohesive density of researchers at a single site. Toby also claims that because Scotland’s universities are smaller, with fewer disciplines and specialisms (with perhaps Edinburgh as an exception), they have been disadvantaged when applying for centre funding from the ESRC.

This is not to suggest that Scottish academics are isolated by disciplinary or institutional boundaries, but rather that the nature of academics’ professional networks are different, and often distributed across several disciplines and HEIs.

The other thing I would comment on about the Scottish context is that although the distribution of demographers working on academic topics are dispersed between different universities, they by-and-large - all the people who are in the Centre for Population Change in Scotland - see each other and see themselves as the experts in Scotland and on Scottish demography. (Toby, academic, SC).

‘You are warmly invited.’

It was the aim of trying to bring together dispersed demographers in Scotland which lead to the Scottish Demography Initiative (the precursor to the SC, described in chapter 2) which, inter alia, was intended to foster networks between demographers in Scotland.

While the SC is not part of a cohesive subgroup with Soton, it is important to note that the SC has a history of working together and experience of not being located in a single place. Yet as figures 10 and 13 demonstrated, the Scottish demographic community is not as cohesive nor as dense as Soton, based at a single site.

The CPC is an interesting case site because it is based in two geographic locations: one centralised in a single site, and the other based across 5 sites which are distributed across a significant geographic area. This section of the analysis has demonstrated that geography and institutional boundaries have shaped the network structure of the CPC. Understanding the CPC’s internal network structure matters because how its membership interacts with each other affects how it conducts research and, more importantly for this thesis, how it then engages with non-academic audiences and their organisations. It is to this issue that the remainder of this chapter now turns.

6.3 *The Centre’s non-academic engagement network*

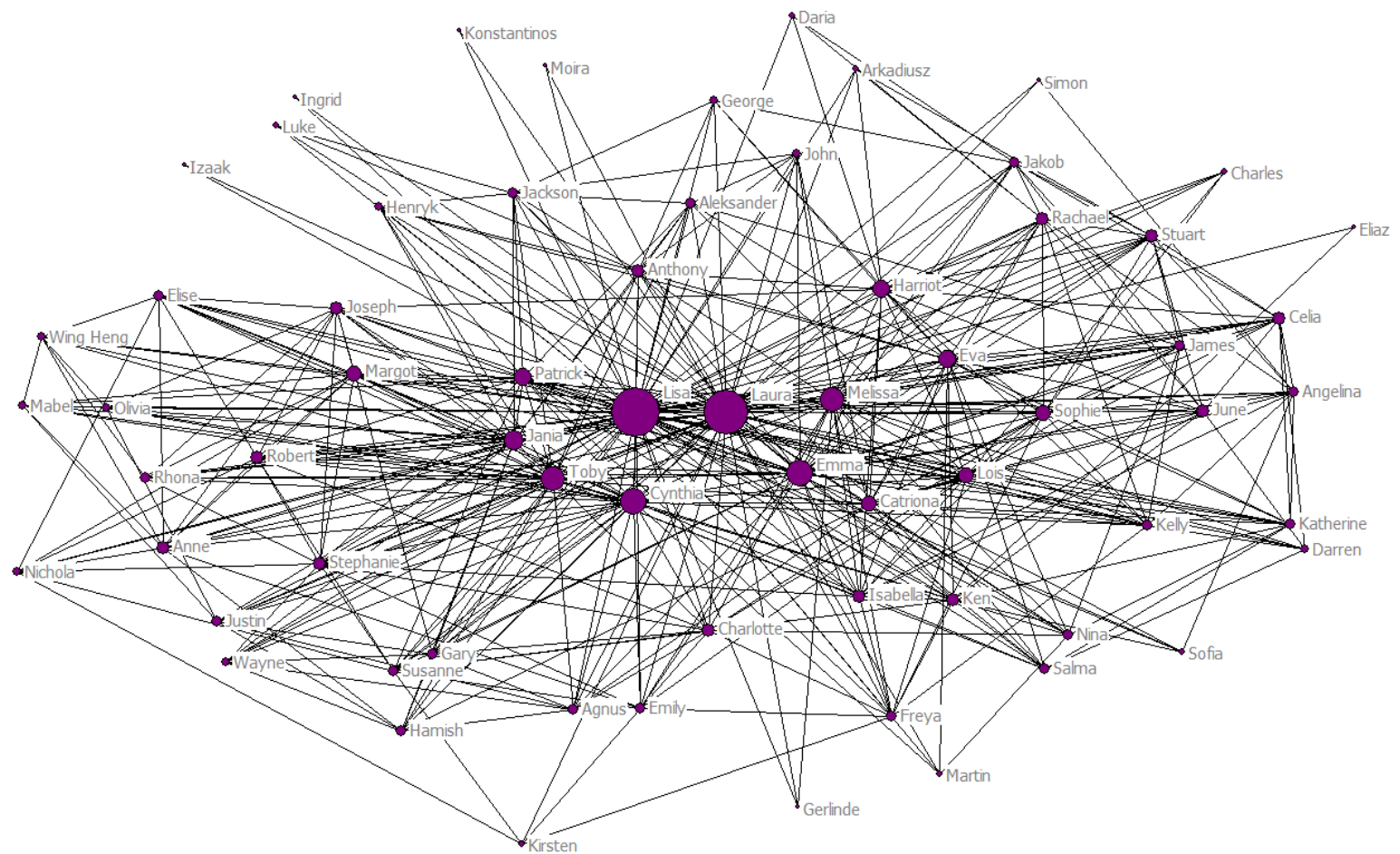
So far this chapter has examined the CPC’s internal network structure, and presented evidence for the argument that its institutional structure and geography have impacted on its internal social networks. This point was essential in making because the CPC’s social network structure has implications for how it engages with non-academic organisations. The remainder of this chapter now turns to the issue of the CPC’s non-academic KE networks.

6.3.1 The Centre’s internal knowledge exchange network

The online questionnaire asked CPC members to identify those within the CPC whom they would contact if they were discussing ideas and strategies to convey research to non-academic audiences. The purpose of this question was to examine how the CPC would organise itself internally when it sought to engage with non-academics. In essence, it examines the value that the CPC’s existence has for its membership in terms of the human resources that the Centre can offer in organising KE activities. As before, the data is symmetrical in order to minimise missing ties between dyads. The resulting matrix was used to produce a sociogram which is presented in figure 14 (overleaf). In figure 14, the node size reflects the actor’s degree centrality (connectedness). Those with higher degree centrality have nodes which are pushed into the centre of the sociogram. The larger the node, the more frequent the CPC’s members cited that person as someone who they would call on for support if they wanted to organise KE activities.

‘You are warmly invited.’

Figure 14 CPC KE peer support network



‘You are warmly invited.’

Figure 14 shows that the CPC’s membership would call on the support of a relatively small number of people within it if they were trying to organise KE activities. It was also clear from the data that the most central (those with the highest degree centrality) are those from Soton, and specifically, the administrators, co-directors, and several of the research strand leaders. Some of the most central actors have a formal professional remit to provide support for KE activities, while others do not. Some may be aware of the function they are providing (such as Lisa – as demonstrated earlier) while others may not be aware of their importance to this network or the CPC’s KE activities. This affects the Centre’s ability to coordinate effectively to draw on human resources that the Centre can provide its members since it is focused on only a few people and they are split over two sites. This shows how organisational boundaries and geography have shaped the CPC’s internal KE network and that these factors might actually be a barrier to effective KE.

The structure of the CPC’s internal KE network has consequences for how it engages with NAPs. And, as described earlier, here to the CPC has split between those in England (based at Soton) and Scotland (the SC).

As part of its commitment to the CPC, the Scottish Government (SG) employed a liaison, Stephanie (lower centre-left of the sociogram in figure 14), to act as an intermediary between the CPC and the SG. Despite being an ‘outsider’ in the sense that she is not funded by the CPC, Stephanie noticed the schism within the CPC which did impact on how she interacted with the Centre:

I think one of the problems, one of the difficulties was, in theory, I had this job: to keep up-to-date with what the CPC was doing and to make sure that relevant people knew about it, and vice versa. I only ever really achieved that to any extent with the people based in Scotland. I don’t know how interested CPC Southampton are really in keeping in touch with us [...].Well,

‘You are warmly invited.’

■ [Lisa] did try and keep a bit of a link going. She would get in touch sometimes. But I think this probably highlights the issue of a split centre: particularly when it’s such a big distance [...]. So I think there was an issue about how well connected Southampton and the Scottish ends were, particularly when it came to communicating with us. (Stephanie, Government researcher, Scottish Government).

This quote illustrates a view that the CPC is split between Soton and the SC, and that this, in turn, shaped how the Centre engaged with NAPs (in this case, Stephanie and the SG). Specifically in this case, Stephanie felt that Soton was less interested in engaging with her than the SC. The second half of her quotation went on to specifically comment on how the structure and geography of the CPC encourages such a split. Yet this issue worked both ways as Scottish academics rarely engaged much with UK/English organisations. To put this more succinctly, Scottish academics were more interested in communicating with Scottish organisations, and Soton academics with English/UK ones.

The conclusion here is that geography affects knowledge exchange networks. This argument is further developed in the following section.

6.3.2 Connecting the Centre with non-academic organisations

The CPC’s relationship with the Scottish Government, the ONS, and NRS only exists because of interpersonal relationships between representatives of those organisations. This is because the CPC is not a homogeneous organisation, but a network of scholars and NAPs which constitute the Centre’s KE network. SNA offers the possibility of mapping those interpersonal connections in a holistic manner, and examining its structure. Doing so allows for an examination of which organisations the CPC can reach through the professional interpersonal relationships of its membership. This technique

‘You are warmly invited.’

reveals which non-academic organisations the CPC has contact with, and through whom.

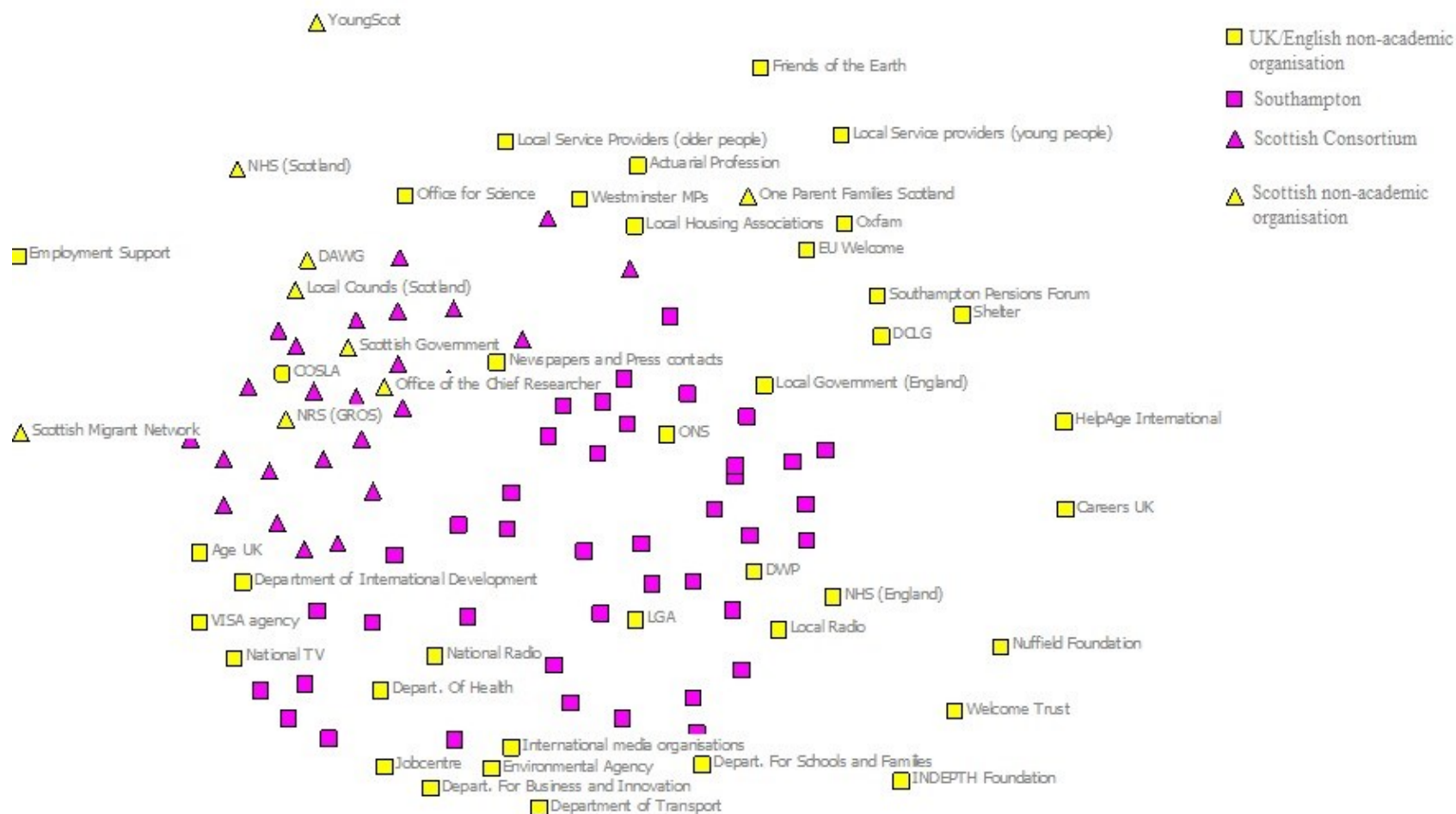
To achieve this, the online questionnaire asked respondents to list their non-academic contacts (which are relevant to their CPC-funded research) and the organisation which those contacts come from. The data resulting from this question was mapped and is presented in figure 15. The pink nodes show CPC members and the yellow nodes the names of non-academic organisations¹⁰. The shape of the node represents location: triangles for those based in Scotland, squares for those based in England/UK.

Figure 15 shows what this thesis claims is the CPC’s KE network. These are the non-academic organisations which the CPC has access to through its membership’s interpersonal relationships with professionals from those organisations.

¹⁰ The questionnaire asked the CPC members to list individual names of their NAP contacts. The analysis presented in figure 15 only uses the names of their employer organisation for confidentiality reasons. NAPs within a single organisation were collapsed into a single node. Unfortunately, the effect of this is that the sociogram loses granularity.

‘You are warmly invited.’

Figure 15 the Centre KE network



One strength of SNA is its ability to mathematically describe and visually represent how central different non-academic organisations are to the CPC’s KE network. In figure 15, the organisations which have fewer (typically 1) connections to a CPC member are pushed out to the periphery (for example, those organisations around the upper-right side), while the organisations with more connections to CPC members are brought into the centre of the sociogram.

Soton (pink squares) has many of its members connected to: the Office of National Statistics (ONS), the Local Government Authority (LGA), the Department for Work and Pensions (DWP), Local Authorities (England), the NHS (England), and the Department of Health (all shown as yellow squares close to the centre of the sociogram). The ONS’s very central position within the CPC network was not unexpected given that it has various contractual relationships with Soton which were described in chapter 2. It was clear from the interviews with Soton members and the ONS members that indeed there are some very strong links between the two organisations, particularly with the Soton members who were working on population projections and longitudinal survey data.

The SC (pink triangles) has six organisations closely embedded within its social network: the National Records of Scotland (NRS), the Convention of Scottish Local Authorities (COSLA), the Scottish Government, the Office of the Chief Researcher (Scotland), the Demographic Analytical Working Group (DAWG), and Local Authorities (Scotland). Again, the central position of the NRS among SC members was not unexpected given the NRS’s contractual role in the CPC as described in chapter 2.

To study these connections further, the analysis examined the connections between CPC members and non-academic organisations from a 2-mode network perspective. 2-mode networks are those where individuals are not connected to other individuals, but to institutions. This method offers analytical possibilities for examining ‘macro-micro’

‘You are warmly invited.’

relationships by illustrating the relationship between people and organisations – the duality of person and groups (Hanneman and Riddle, 2005).

In 2-mode networks, individuals cannot be connected to other individuals directly, but only via their mutual connection to organisations. 2-mode networks are sometimes called ‘affiliation networks’ because they describe which institutions (or groups) individuals have in common. In this case, it is CPC members’ connections to non-academic organisations.

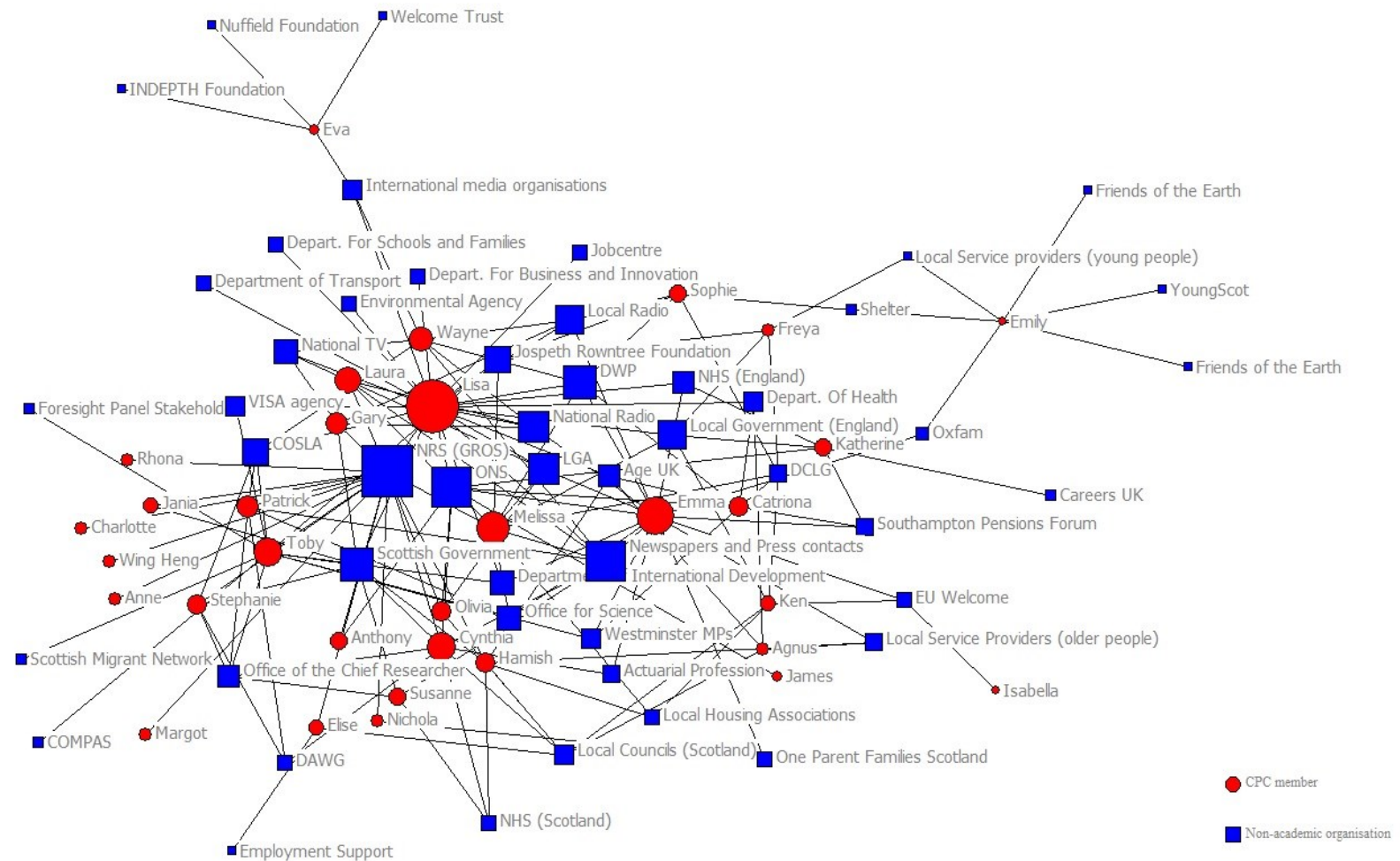
Such an analysis makes it possible to identify which non-academic organisations are the most embedded within the CPC KE network. This is illustrated by an eigenvector centrality measure which highlights which of the non-academic organisations most CPC members have ‘in common’ (Bonacich, 1987; Borgatti and Everett, undated).

The analysis is based on binary¹¹, symmetric data. The resulting sociogram is presented in figure 16. CPC members are coloured as red dots and non-academic organisations as blue squares. The results of the eigenvector centrality analysis were mapped onto the sociogram as the size of the node. The larger the CPC member’s node (red circle), the more connections that member has to a number of different non-academic organisations. The larger the non-academic organisations node (blue square), the greater the number of CPC members connected to it. A weakness of this approach is that it does not tell us how many contacts CPC members have within the respective non-academic organisations, only that there is at least one.

¹¹ Binary means that a link between two actors exists, or it does not.

‘You are warmly invited.’

Figure 16 2-mode network showing CPC members' connections to non-academic organisations



‘You are warmly invited.’

Figure 16 shows clearly the non-academic organisations which are most central to the CPC’s KE network. These are: the NRS, the LGA, the Scottish Government, the Office of the Chief Researcher, the DWP, and COSLA. These are the organisations which the CPC could engage with more easily because it has multiple routes into them via the interpersonal relationships that its membership has already established.

Figure 16 also shows through whom these contacts are made. Lisa and Melissa, Emma, Toby, Patrick, and Cynthia (the largest red circles) have the greatest number of non-academic organisation links within the CPC. Their roles within this network could be described as ‘brokers’ because they have connections to multiple non-academic organisations. These people can be useful in helping disseminate research, or circulating information about CPC activities as it is they who have connections across the greatest number of different non-academic organisations.

That being said, as mentioned before, the quantitative analysis only tells us that connections exist. It tells us nothing about the nature of those connections or how strong they are. It may be better for a CPC member to have one strong connection to one NAP in one organisation, than have weak connections to many different organisations. A further weakness is that the SNA does not tell us anything about how those relationships are established or maintained. In other words, it does not tell us anything about the lived experiences of those within the network. This is a limitation of the method and is why this analysis is buttressed with evidence from the interview data (Crossley, 2010).

It is for the reason of exploring interpersonal relationships in greater depth that the analysis will now examine just one component of the network. In figure 16 there is a relationship between 4 actors: Toby, Patrick, Stephanie (Scottish Government), and Roxanne (COSLA). In the following example, note how a contractual relationship with one NAP (Stephanie) helped Patrick make an informal connection with Roxanne and

‘You are warmly invited.’

then her colleagues. Also note how these informal relationships were then utilised for KE practices. While the following example only looks at the relationship between just four actors, consider the benefit that this network approach to examining interpersonal relationships can have if applied to whole networks. Understanding these formal and informal relationships between actors, and the relationship between these two can improve our understanding of the KE process from a relational perspective (Olmos-Peñuela et al, 2014b; Molas-Gallart et al, 2011; Castro-Martínez et al, 2011; 2008).

A social network perspective on the development of contacts

Patrick and Toby worked together on a project looking at the impact of migration. Patrick was introduced to Roxanne through Stephanie (the CPC-SG liaison; semi-contractual relationship) for the purpose of being a participant in Patrick’s research. From there, Patrick and Roxanne developed their own informal professional relationship, independent of Stephanie:

I met [redacted] [Roxanne] at the [redacted] conference last August, we were introduced by Stephanie. I introduced myself to her and told her about our research on European migration and that I wanted to interview her for a local authority perspective on the impact on migration [...]. I had an interview with her in Glasgow in October, I think it was. Afterwards I talked to her about how I was hoping to get money to look at the WRS {Workers’ Registration Scheme} and to see if she would be interested in it. And then later in October we conversed over email. And I sent her an email telling her that I got the grant and she said: “great” [...]. Afterwards, I made contact with her again to say that I was applying for a grant to disseminate this work and would she be interested in being involved in a knowledge exchange event? She thought it might be useful so it went on from there. So I had developed a good relationship with her. (Patrick, academic, SC).

‘You are warmly invited.’

Patrick’s experience is similar to that of a number of SC academics who developed, over time, informal interpersonal relationships with NAPs. Sometimes these were developed through ‘serendipitous’ (Molas-Gallart and Tang, 2011) chance encounters, and some of which were brokered by a liaison (Ward et al, 2009; Lomas, 2007). When it came to disseminating research to a wider non-academic audience, Patrick, like other CPC academics, used these informal professional contacts to help him organise and host the KE events.

This relationship was fruitful for Patrick as Roxanne’s role in COSLA meant that she has access to contacts across the organisation’s membership that he (or Stephanie) did not have directly (these contacts consist of Scottish Local Authorities and her own professional contacts):

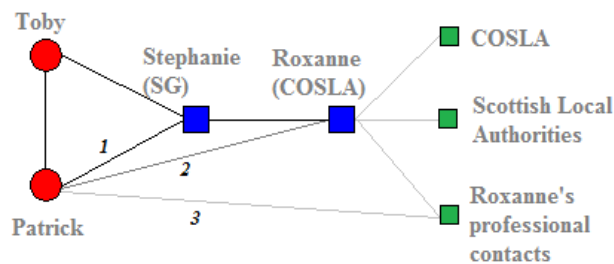
[Patrick] emailed me to say that he had done the work and was interested in organising an event with COSLA. I said that I thought his research would be of interest to our membership, and it was incredibly simple because we have a huge conference centre at Haymarket. So I got an email from [redacted] [Patrick] and really I just sent out invitations, we have email lists, and so really, it has all our key contacts. It’s quite interesting because I asked staff to make sure that they sent it onwards to their contacts. I heard a few people got it [the invitation] quite a few times [...]. I also had a list of people that I felt were interested in migration from different local authorities, so I sent it out to my own personal {professional} lists as well. So it was all really pretty straightforward. (Roxanne, Policy support, intergovernment organisation).

In this example, Stephanie was first the broker for establishing a relationship between Patrick and Roxanne. Roxanne later became a liaison for Patrick to connect his event to her contacts. At those events Patrick further developed more contacts, further

‘You are warmly invited.’

developing his informal NAP network. Patrick’s seminar event was greatly helped by the presence of those two relationships as he was able to reach an audience beyond what he could achieve on its own. If one were to represent this graphically, it would look something akin to figure 17.

Figure 17 Simplified diagram showing the role of brokers in facilitating dissemination and engagement with non-academics



Stephanie is the original contact for Patrick (1). She is a liaison who helped broker a connection directly to Roxanne (2), and Roxanne then became a broker for Patrick to reach Roxanne’s contacts (3) after she invited them to his KE seminar. Roxanne used her contacts to help Patrick circulate information about his KE seminar.

Roxanne describes how she forwarded email invitations to Patrick’s KE seminar across her employer organisation contacts, and her own professional mailing lists. While she describes the process as ‘really straightforward,’ her reach into non-academic organisations via her own personal contacts to those who might be interested in Patrick’s research was far beyond what Patrick or Stephanie could have achieved alone had there been no direct connection between the CPC (the red dots in figure 17) and Roxanne’s professional contacts (green squares) except through these liaisons (blue squares, first through Stephanie, and then bypassing Stephanie once the relationship has been established with Roxanne.

‘You are warmly invited.’

What this analysis has attempted to show is how SNA can be combined with qualitative data to help us understand complex relationships. Each academic knows their own professional contacts, but they will not know their contacts’ contacts. SNA allows us to examine the whole network to identify structural holes (Scott, 2007) or ‘information silos’ (Leischow et al, 2008). The qualitative interviews add to this by exploring the lived realities of how such networks are created and sustained from the perspective of those within them. When combined (Crossley, 2010) this information can be used to help identify NAPs and non-academic organisations with which colleagues might have contacts. These contacts can then be utilised by the Centre and can enable it to act more strategically in organising KE activities and targeting non-academic organisations for facilitating KE and strengthening contacts across the whole CPC network.

A social network perspective on the geography of the Centre’s non-academic network

Another feature that a social network perspective can reveal is the patterns of non-academic contacts in relation to geography. As described in detail at the start of this chapter, the CPC has a structure where there is a separation between Soton and the SC’s KE networks, and evidence for this view has been presented in this chapter to support this view. This section details how that structure effects the CPC’s non-academic network.

In figure 15 the SC and Scottish non-academic organisations are presented as triangles. They are clustered together at the left side of the sociogram. The SC academics seem to have many connections mainly to Scottish non-academic organisations, and fewer connections to English ones. The reverse is true for Soton and UK/English organisations. Furthermore, the SC also appears to have denser networks with Scottish

‘You are warmly invited.’

non-academic institutions than Soton does with UK/English ones. To confirm this, a density analysis by location was performed. The results are shown in figure 18.

	Number of ties within group	Density within group
Southampton	602.00	0.079
Scottish Consortium	377.00	0.182

Figure 18 Density analysis of the CPC KE by location

(Note: the final column shows the *within group* density meaning that it does not examine ties that exist across groups, ie it does not examine SC members’ links to English/UK organisations, or vice versa).

This analysis shows that indeed the SC members have stronger connections with Scottish non-academic organisations than Soton does with UK/English ones (with density scores of 0.182 and 0.079, respectively). This evidence suggests that although the SC members have a smaller KE network than Soton, it is denser; ie more of its members are connected to a smaller number of non-academic organisations. By comparison, Soton members has connections to a larger number of non-academic organisations, but with fewer people connected to them. This social structure (and the split between what happens in Soton and the SC) was confirmed across a number of interviews. For example, the quotation presented below is the view of Cynthia - in it she describes the differences between Scotland and England with regard to how academics and NAPs engage with each other. This is reflected in the CPC’s KE network:

We (the SC) don’t have good formal networks in Scotland [...]. So I think the fact that Southampton has links to the ONS is partly, if not mainly, because of their geographic proximity [...]. It’s a bit more difficult to get known to policymakers in Scotland, I think, because you don’t have those formal networks. On the other hand, once you do get known, it’s much

‘You are warmly invited.’

easier to phone them up and say: “remember me” because there aren’t that many people working in that area [...]. But we’ve also got to appear competent and responsible; people’s reputations get around very quickly in a small country as well. So there’s two sides to that. (Cynthia, academic, SC).

One the other hand the split [in the CPC] is encouraged by the fact that the ONS keeps the statistics for England and Wales, and the NRS keeps the statistical data for Scotland [...]. And it’s not helped by the fact that some of the data, like the Scottish Longitudinal Study and the Longitudinal Study, you’ve actually got to go to the place to access and process the data because you’re not allowed to take it away from the secure setting. And the way that the {SLS and LS} data is structured is different. And so again, trying to work across the two of them - - I don’t think anybody does it because it’s just so complicated. So that really does encourage the split. (Cynthia, academic, SC).

Cynthia’s quote was typical of many others within the SC. She argued that there were better ‘formal’ networks between demographers and NAPs in Soton (that they are more contractually orientated, Olmos-Peñuela, 2014b) than existed in Scotland. Elsewhere in her interview, Cynthia cited a number of organisations and institutions in which academics and NAPs interested in demography are brought together which do not exist in Scotland. However, while Scotland does not have the same capacity for creating formal networks as is available to Soton, she stated that once academics are known to NAPs, it is much easier to contact them on an informal basis because Scotland is a ‘small country.’ Such a view echoes that of Nutley et al (2010) in their finding that country size seems to matter in KE networks, where ‘developing good interpersonal contacts between research and policy communities [which] seems easier in small countries’ (p. 137).

‘You are warmly invited.’

Cynthia also felt the split across the CPC was shaped by the structure of the government institutions of the UK (Delvaux and Mangex, 2008), its statistical departments, and the way data is collected and stored. As described in chapter 2, many areas of public policy are devolved to the Scottish Government, as are the statistical agencies, with the NRS based in Edinburgh serving Scotland and the ONS serving England and Wales (with the ONS having overall responsibility for UK statistics). The NRS and ONS produce different sets of data and in slightly different ways which makes linking census, longitudinal, and other types of datasets difficult. As Cynthia mentioned, for an academic to work on those datasets requires them to be physically present in a secure room in the NRS (Edinburgh) or ONS (Titchfield). This government structure, and how its statistical agencies operate, forces the CPC to split its research between Scotland and the rest of the UK. This encourages a split between the two sites, and has left Scottish academics interested in engaging with Scottish organisations, and Soton with English/UK ones. Such a view is also demonstrated by Stephanie, the Scottish Government liaison for the CPC:

A lot of projects were supposed to be “UK” so that shouldn’t have excluded Scotland, but everybody was based down in England, and that’s clearly where their focus was and where their links are. Their links are with the ONS and things like that. The projects which did involve Scottish data or things relevant to Scotland to any explicit extent were based here, not down in England. (Stephanie, Government Researcher, Scottish Government).

In this quote, Stephanie is confirming the point that Soton was uninterested in engaging with the Scottish Government because their links and their interests were based in England. Conversely, the academics who were interested in engaging with the Scottish Government, and where research which was focused on Scottish issues ‘to any explicit

‘You are warmly invited.’

extent,’ were already based in Scotland. Such a narrative is confirmed by the SNA evidence presented in this chapter regarding the geographic split in the CPC, and why that split may exist: it is the organisational boundaries across the CPC and UK institutions which have shaped CPC academics’ interpersonal relationships with NAPs and encouraged such divides.

6.4 Conclusion

This chapter has sought to do two things. The first was to examine the CPC membership’s connections across the Centre and beyond. The second was an exploration of SNA as a methodological technique for the KE field to utilise in exploring interpersonal relationships between academics and NAPs from a network perspective.

On the first point, the CPC, like all organisations, is not an edifice in which its members are uniformly connected with each other. Rather, they are the product of hundreds of interpersonal relationships which form a network which is collectively known as the CPC. The CPC is a network of actors connected with each other and with NAPs beyond. It is the interpersonal relationship which binds the CPC to non-academic organisations: organisations cannot have connections with each other except through such relationships. SNA offers a method for exploring not only with which non-academics organisations the CPC’s members are connected, but also how those relationships come together at the network level to shape how the Centre itself engages with KE through those interpersonal relationships.

Identifying and visualising those relationships are important. As Castro-Martínez et al (2011) point out, many academics have links with NAPs, but which were often ‘informal and occasional in nature, of limited research, and invisible’ (p. 1). SNA is a

‘You are warmly invited.’

possible methodological tool for revealing those informal relationships which can often be invisible at the organisational level.

Social networks are embedded within and across organisational boundaries and offer both opportunities and constraints on behaviour which have consequences for the individual, inter-unit, and organisational levels (Best and Holmes, 2010). This chapter has examined how the CPC’s social networks are shaped by organisational boundaries which in turn influences the KE process. The analysis presented in this chapter explores how the organisational structure of the Centre, and the institutions of the UK, and geography have all shaped interpersonal relationships within the CPC, and beyond, which both offered its membership opportunities, but also constraints.

SNA is a technique that allows for an examination of who within the network fulfils brokerage roles. This can be important as people may be fulfilling brokerage roles without being aware of it. This analysis finds that the CPC’s administrators have a particularly important value-added function within the Centre as brokers; connecting different parts of the CPC network, and forming connections across a number of non-academic organisations. Without such infrastructural administrator support, it would be more difficult for the individual academics to use the Centre’s resources to facilitate KE across the Centre as a collective whole. Such a finding mirrors many within the KE field regarding the importance of brokers and their role in linking academics with NAPs, and vice versa (Ward et al, 2009; Mitton et al, 2007; Lomas, 2007). Yet as Lightowler and Knight (2013) demonstrated in their empirical research, while important, brokerage is often unrecognised and underappreciated, and combined with other remits. This is a conclusion that the evidence presented in this chapter would seem to support. Without the administrators, the CPC would fall apart into several factions. These are fractured along geographic/institutional lines, and would struggle to connect English NAPs with SC academics, and vice versa, more than it already does.

‘You are warmly invited.’

There is a small body of work within the KE field which is interested in how geography and the structure of state institutions shape how academic knowledge is constructed and used, and the academic/NAP networks which facilitate that (Delvaux and Mangez, 2008; Kothari et al 2009; Nutley et al, 2010; 2007). This analysis presented in this chapter adds to this discussion by demonstrating how geography and the institutional structures of the CPC, and the UK state institutions with which the Centre engaged, have had a profound impact on academic/NAP interpersonal relationships which constituted its KE network. Such a structure has resulted in both opportunities and constraints for the Centre.

For the constraints, the analysis shows that there was fragmentation which was created by geographic distance: the Centre was divided between England and Scotland. This was further complicated because of the institutional structure of the CPC. The English component of the CPC is based in a single institution, Soton, which formed its own cohesive subgroup which was internally well-connected. By contrast, the SC had a more diffuse network across its constituent members. The subgroup analysis revealed that internally the SC formed two cohesive subgroups; with Edinburgh University seeming to be in its own group detached even from the SC. This may be because Edinburgh is the only major HEI within the CPC without a co-director or administration team.

The split between the SC and Soton may also be further encouraged by the structures of the non-academic organisations with which the CPC engages, specifically, the devolved Scottish Government and its statistical agency - the NRS.

Both of these factors have consequences for how the CPC’s KE networks are shaped. The SC tended to use Scottish statistical data and Scottish research participants to address Scottish issues, and communicate their research to Scottish non-academic organisations. Soton did likewise for English/UK data and organisations. The SC and Soton formed their own non-academic networks, this was also shown in the CPC’s KE

‘You are warmly invited.’

network which appears to be split. The SC did not engage much with English/UK organisations (such as the ONS). Conversely, Soton did not engage with Scottish ones (such as the Scottish Government/NRS).

With regard to the networks themselves, Soton has a larger number of connections with non-academic organisations, but with fewer academics connected to them. Conversely, the SC had a smaller number of non-academic institutions connected to it, yet they formed more connections with those with which they were connected than Soton did with theirs.

This finding has implications for how research centres’ organisational structures and geographic distribution shape not only how they engage in the research-production process, but how they engage in KE practices, as well as how they create and maintain linkages to non-academic organisations through their memberships’ interpersonal relationships with representatives of non-academic organisations.

The SC’s stronger relationships with Scottish institutions relate to another point raised within the KE literature regarding the ‘small world phenomenon’ (Urry, 2004) and how the population size of countries matters in the formation of academic-NAP networks. Some (Jung et al, 2010; Nutley et al, 2010; 2007; Davies et al, 2000) have hypothesised that countries with smaller populations have more accessible political and policy systems which can lead to smaller (but denser) social networks than larger political and policy systems (also, Kingdon, 1995). Nutley et al (2010) and Jung et al (2010) have suggested that Scotland (among other small countries such as Iceland, Norway, and Ireland) benefits from such a phenomenon in KE practices. The analysis presented in chapter presents evidence which seems to support this theory. The conclusion here is that a small population (in comparison to England) seems to have enabled the SC to develop denser social networks. However, as mentioned, this has come at the cost of having limited links to UK/England-level organisations. There is considerable scope for using SNA in examining the relationship between social networks and geography

‘You are warmly invited.’

(country size and distribution and structure of state institutions) in future research within the KE field.

For the opportunities, a multi-centre site (even if it is fragmented) has allowed the CPC to engage with partners from across the whole UK in a way that individual members/research teams would not have been able to do without the Centre. Evidence presented in this chapter draws the conclusion that a CPC based solely in Soton would be unlikely to have connected with Scottish non-academic organisations without the connections that the SC established through the SDI, the SLS, and the lifespan of the Centre. It is because of the SC that the CPC had access to those Scottish organisations. Conversely, without Soton, the SC would be unlikely to have won a bid on its own merit for the reasons described in chapter 2 and within this Chapter. Thus, Soton allowed the SC to develop (albeit in parallel and somewhat independently from Soton) its demography network in Scotland which was first established through the SDI and SLS. Despite this schism, the CPC offers something more than the sum of its parts. It is able to offer coherence to external stakeholders and draw on the skills and specialisms of key people (particularly administrators) in linking up parts of the internal network and, more importantly, the KE network. They can act as brokers between the Centre and its non-academic organisations. Without the Centre, this would not exist.

The second purpose of this chapter is to illustrate the wider value of SNA as a method for the KE field.

While ‘networks’ and interpersonal relationships have been identified as important within the KE process (Best and Holmes, 2010; Davies et al, 2008; Mitton et al, 2003; Greenhalgh et al, 2004; Percy-Smith et al, 2002) there has been very few empirical studies which have drawn explicitly on network methods for studying those relationships. By using SNA, the analysis sought to reveal the network structure, identify its ‘information silos’ (Leischow et al, 2007), and its brokers (Ward et al, 2009; Lomas, 2007). In doing so, it is possible to see where network gaps and bridges exist

‘You are warmly invited.’

and how the Centre, as a whole, can draw on the connections that it has across its constituent institutions to better develop them in the future. This was only possible via SNA. This chapter has sought to present SNA as a powerful methodological tool for examining interpersonal and organisational relationships. It sought to demonstrate possibilities for how the exploration of network dynamics might look, through the use of SNA. This is an issue which is further developed in the discussion chapter.

7 Making a commitment to knowledge exchange seminars

7.1 Synopsis

This chapter examines the wider social, economic and political environment in which Knowledge Exchange (KE) seminars exist.

Hosting and attending KE seminars represents a conscious commitment by organisers and participants. This commitment is not inconsequential as it requires financial and human resources.

For academics, organising and hosting KE seminars is time away from academic pursuit and takes significant money, time, and effort to prepare.

For Non-Academic Professionals (NAPs), participating in KE seminars also requires a commitment of time and money (which can be considerable if travelling great distances). Their choice to attend or not is shaped by their own personal sentiments towards the value of academic research in informing their professional work, as well as their employer’s organisational commitment and capacity to expend human and monetary resources to allow their staff to engage in knowledge exchange activities (Cherney et al, 2015; Best and Holmes, 2010; Meagher et al, 2008; Mitton et al, 2007; Greenhalgh et al, 2004; Ross et al, 2003; Lavis et al, 2003; Innvær et al, 2002; Bullock et al, 2001). Thus, the decision to attend KE seminars is shaped by the wider economic and political environment in which NAPs are situated. Exploring this environment is the goal of this chapter. In doing so, this chapter addresses the second research question: why do academics and non-academic professionals commit to hosting and attending CPC KE seminars, and what resources are required of them to make such commitments?

This analysis examines the academic and NAP interviews to identify the drivers for participation in KE seminars, and some of their constraints, and situates these within the wider economic, social, and political landscape in which such seminars exist. The analysis is divided into five sections.

Section 5.2 presents the views of academics and the reasons they gave as to why they committed themselves to engaging with NAP audiences through seminars.

Sections 5.3 to 5.6 present the voices of the NAPs who have chosen to attend at least one CPC KE seminar and they give their reasons for doing so. It also identifies some of the constraints they face in engaging with academic research through participation in KE seminars. Section 5.3 examines organisational expectations placed on NAPs in engaging with academic research. Section 5.4 examines the type of resources that NAPs require to attend KE seminars, and how diminishing resources brought about by government budget cuts (particularly to local authorities) have created a considerable barrier to participation in recent years (King, 2015; Tomm-Bonde et al, 2013; Nutley et al, 2010). Section 5.5 examines the wider political environment in which contemporary debates drive an interest in specific areas of academic research at particular points in time (Moore et al, 2011; Korthati et al, 2009; Mitten et al, 2007; Percy-Smith et al 2006; 2002; Court and Young, 2003; Davies et al, 2000; Kingdon, 1995).

The chapter concludes by arguing that the economic, social, and political landscape in which KE seminars exist has significant consequences for how both academics and NAPs come to commit to such activities. Seminars do not exist in a social vacuum, and commitment to attend them is shaped by this external environment. Understanding those environments can add significantly to our understanding of why KE seminar happen at all, and how they shape interactions and the nature of engagement within them.

7.2 Academics’ commitment to knowledge exchange seminars

Chapter 3 detailed what this thesis refers to as the ‘institutionalisation of the knowledge exchange (or ‘impact’) agenda.’ This term refers to a systematic set of policy changes over the last few decades within the ESRC and the REF which is designed to encourage and shape academics’ practices of engagement with wider

society (Khazragui and Hudson, 2015; Tang and Sinclair, 2001; Nutley et al, 2010; 2007; RCUK, 2015; 2007; Warry Report, 2006; ESRC 2009a/b; 2005). This ‘institutionalisation’ attempts to shape academics’ practices of KE, thereby increasing the ‘supply’ of social research available to wider society, and to improve the societal relevance of publicly funded research (Tang and Sinclair, 2001; Davies et al, 2000; Nutley et al, 2010; 2007). It manifests itself in the conditions attached to research funding, and the evaluation of research through systems such as the Research Excellence Framework (REF).

These policy changes are relevant to this chapter because they have had a profound impact on academics’ KE practices, including how they view their obligations to funders specifically, and wider society more generally. Academics interviewed in this research expressed a range of opinions about why they chose to host KE seminars. Many of their reasons can be classified as obligation and aspiration: something you *must* do, and something you *want* to do. This section of the analysis consists of four components. First is the contractual obligation to research funders (5.2.1), the second is a commitment based on professional self-interest (5.2.2), third is the moral obligation to the society which funds their research (5.2.3), and fourth is the personal satisfaction of being able to share findings with others (5.2.4). These attitudes were often expressed concurrently within the interviewees’ narratives, yet each will be treated as a distinct facet within the following analysis. The analytical structure does not suggest that there were four types of academics who responded in each of these four categories, but rather that the majority of academics expressed different views concurrently which are delineated here for analytical purposes.

7.2.1 Contractual commitment to research funders

All but 3 (10/13) of the academic interviewees stated unequivocally that their commitment to KE activities, including organising KE seminars, was ultimately derived from a contractual obligation to the ESRC (and other research funders) as a condition of their funding (Tang and Sinclair, 2001). This is evidenced by the

‘You are warmly invited.’

following quotation. In it, Wayne describes a seminar he organised at the end of a small piece of research he conducted with an extension grant to his CPC-funded research, funded by the ESRC. I asked him why he wanted to hold a KE seminar as a way of disseminating his research to a non-academic audience. He said:

Part of the criteria [for funding] was that you disseminate the research in particular ways. I can’t remember the exact wording of the guidelines but I think that it stated that you will have an event where you bring in non-academics to communicate policy-relevant findings [...]. Saying you’re going to have a knowledge exchange event helps you get the funding, probably. Any funding, ESRC funding, other funding, they all now have this idea of “impact,” and part of that is in grant proposals which have sections where you have to talk about “dissemination and impact.” That’s where knowledge exchange is one of those things where, and I’m guilty of this as well, you do it because it’s a way of getting funding. (Wayne, academic, SC).

Wayne’s response reflects the majority view of the academic interviewees when they were describing why they decided to commit themselves to holding KE seminars. They are ‘part of the criteria’ for funding, and promising to hold such events ‘helps you get the funding’ because it fulfils the ‘impact’ criteria that the ESRC (and other funders) have now developed within the structures of their research-funding processes.

This type of response was particularly apparent in the transcripts of the senior academics. This is understandable given that it is they who are ultimately responsible for proposing and conducting the research. The key message here is that there was an explicit link between holding KE seminars, and the contractual obligation they entered into as part of the funders’ requirement for accessing research money.

‘You are warmly invited.’

A quotation from Patrick further illustrates this link. In it he is describing a successful application for a small sum of money given for a piece of research linked to his CPC-funded research, but which was not awarded by the ESRC. As part of this small grant application, he had to state how he would engage with non-academic audiences. As it was a very small amount of money, he decided that the best way of doing this would be by means of a single seminar event at the end of the research. As before, the decision to host the seminar was derived from the belief that such an activity was something that was expected by the research funders.

I think it started with the bid, with the application of the [redacted] grant. [Half of the grant was paying for the researcher] and the other half was for the reports and to disseminate the results through a knowledge exchange event. I think naturally you expect to have to disseminate research through an event. (Patrick, academic researcher, SC).

In reference to Patrick’s event, Stephanie (the Scottish Government researcher described in the previous chapter) did not view it as something that is merely ‘expected’ by the funders (as understood by Patrick), but actually embedded in the contractual conditions of funding.

It was part of the [redacted] grant [conditions] that you *had* {said with emphasis} to do an event at the end. So it was part-and-parcel [of getting the money]. (Stephanie, Government researcher, Scottish Government).

The narrative developed here is that academics’ commitment to organising and hosting KE seminars was partly shaped by a contractual obligation in the conditions of funding imposed by research funders. The evidence presented here shows the

‘You are warmly invited.’

impact that policy changes from the UK Government, the ESRC, and other funders have had on shaping academics’ practices when engaging with wider society; or at the very least, impacted on their discourses of why they do it. There was no sense among the interviewees that these activities were the most impactful way of engaging NAPs with their research, but merely something that one does to access grant money.

This form of commitment to KE activities mirrors a discussion within the KE literature on the role that contractual (financial) obligations play in creating and shaping seminars and other KE events where academics and NAPS are interacting (Tang and Sinclair, 2001; Castro-Martínez, 2001; 2008; Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011). By imposing conditions on funding, the ESRC and other funders are creating a powerful incentive for academics to engage with wider society through this type of activity.

7.2.2 Commitment from professional self-interest

Along with an obligation to the research funders, many academics expressed a commitment to KE activities as part of their professional self-interest and development. As described earlier, the REF now considers non-academic activities and societal ‘impact’ as part of their judgement on academic performance (REF, 2014; Khazragui and Hudson, 2015). The policies of the REF have altered how universities view their role in society, and what they expect their academics to do with regards to engaging in KE practices (University of Southampton, 2016; University of St. Andrews, 2016). KE seminars are a tangible activity that academics can list on their CVs and report to their Higher Education Institutions (HEIs) and research centres (like the CPC). As such, they can be useful in helping to further academics’ career development. This is illustrated by a quotation from Stuart, a research fellow in the SC on a project-linked (ie, temporary) contract. He was acutely aware of his temporary employment status and was very concerned about

‘You are warmly invited.’

developing a good CV. He saw KE seminars as something that he should do in the interests of furthering his career.

If you want to take a cynical point of view you do it because it's part of the academic game; it's now considered alongside publishing in journals. It's now part of how we're judged. It's something you do not just because you want to spread your academic message, it's something you do for your CV because you want to get a job. Of course, that's just something you've got to be aware of. That's probably why some knowledge exchange happens - because it has to happen, not always because you want it to happen. I enjoy doing it, but I know some people don't enjoy doing it as well. (Stuart, academic researcher, Soton).

This quotation is evidence which links KE activities to CV-building and career development. They are something one does ‘for your CV because you want to get a job.’ Holding KE seminars helps further careers because they are now ‘part of the academic game.’

This notion that KE practices is now part of the ‘academic game’ was highlighted by Jensen et al (2008) who suggested that those who participated in them also performed other academic pursuits better than those who do not. This type of narrative was particularly common amongst contracted academic researchers: ie researchers employed by the CPC to work on a specific research project usually in positions such as ‘Research Fellow’ or ‘Research Associate.’ Stuart is a relatively experienced researcher, but still on a project-linked contract. At several points during the interview, Stuart described the importance of CV-building, which is understandable given the precarious nature of his temporary position. Other CPC academic researchers were in a similar position.

For Stuart and his peers in similar positions, engaging in KE seminars was not driven by contractual obligation to the ESRC (which remains ultimately the

‘You are warmly invited.’

responsibility of the Principal Investigator (PIs)), but more of an activity which can help develop their careers as well-rounded academics.

While this risks sounding negative, there is an important upside to consider in this emerging new system. Historically, academics who engaged in KE activities have been professionally marginalised (Tang and Sinclair, 2001; Nutley et al, 2010; 2007). Nutley et al 2010 claimed that academics’ engagement with wider society is ‘rarely rewarded [...] in terms of attracting promotion or funding’ (p. 139). The evidence presented here suggests that this may be changing, where academics who do engage with wider society are slowly being recognised and rewarded for doing so.

For some academics (especially those on temporary contracts), engaging with wider society was actively viewed as something one must do in order to further your career. This is increasingly the case as research funders (such as the ESRC), research evaluation (such as through the REF), and the HEIs themselves have all established policies which acknowledges academics’ KE efforts, and attempts to rewards such practices in a way that has not traditionally been the case. How successful those policies are is a matter outside the scope of this thesis.

7.2.3 Moral commitment to recompense society

Around one third of the academic interviewees (5/13) explicitly recognised the privileged position that they held in society. About three quarters (9/13) expressed a view in which KE seminars were considered to be a way of giving something back to society generally and to their research participants more specifically.

These views were more altruistic in tone. Academic interviewees who held these views expressed a desire to recompense the society which funds and supports their work, as well as a duty to ensure that the academic voice is heard in the concerns and debates of the day. The following four quotations are presented to illustrate these points. They were chosen because they are drawn from across the CPC’s

‘You are warmly invited.’

academic membership – permanent and contract academic positions, and from Southampton (Soton) and the Scottish Consortium (SC).

We are in a really privileged position. When I was interviewing [REDACTED] migrants for my research they were telling me about the challenges they faced working here, and they have given up time to tell me about that. We are in a position where we can speak to others in society, some of them in influential positions, and it is our duty to share what we have learnt with others. (Isabella, academic researcher, Soton).

Research participants have given up their time, information, and it is them, as taxpayers, who are paying for all this. So I do feel duty-bound to give something back. (Justin, academic, SC).

I always think that if we’re using public funds, we do need to make an effort in making findings useful, and to communicate them in a way that goes beyond the REF. (Stuart, academic researcher, SC).

It’s really important to communicate what we know - it is our duty to engage with the debates of society. In the past there was no incentive. There was no hook to name what you were doing. There was no recognition, and very little money to do anything. (Harriet, academic, Soton).

This selection of quotations demonstrates a personal moral commitment and a responsibility to society which Isabella, Justin and Harriet describe as a ‘duty.’

When examining to whom this ‘duty’ is owed, it is clear from the transcripts of the interviews that it was:

‘You are warmly invited.’

(1) **To the society which funds their research:** Justin and Stuart explicitly referred to the fact that the CPC’s research is ultimately funded by public money (as did 9/13 academic interviewees) and so they should be at least trying to offer something back to that society. ‘Taxpayers... are paying for all this’ (Justin); ‘we’re using public funds, we do need to make an effort’ (Stuart).

(2) **To participants who have given up their time, information, and energy to contribute to the research:** For Isabella, KE seminars are a way of using privileged access to those in positions of power to recompense her research participants. ‘They have given up time to tell me about [their difficulties] [...] it is our duty to share what we have learnt.’ Justin also expressed a view that KE seminars were about a way to ‘give something back’ to research participants who had ‘given up their time [and] information.’

Harriet’s quotation was interesting because it also links back to the earlier point about professional rewards. While there are contractual obligations to engage in KE activities, they also enable academics to participate in activities that historically may not have been possible without such funding and incentives (‘hooks’). Her quotation pointed out that in the past there was ‘little incentive,’ ‘no recognition,’ and ‘very little money’ to facilitate what she viewed as an important duty of academics - to engage in the debates of society.

7.2.4 Commitment from professional and personal satisfaction

While almost all academic interviewees described the initial idea for organising KE seminars as deriving from contractual obligation, these narratives were bound up within a theme of enjoyment and professional satisfaction. Some academics saw KE

‘You are warmly invited.’

seminars as an opportunity to do something different, an opportunity to speak about their research to people ‘in the real world’ (Patrick) outside of academia.

I really enjoy doing these things. It’s great going to conferences and talking to other academics, but you are in a bit of a bubble when you work in research and it’s nice to kind of get out there and think, you know, people were very positive about it, at this policy {knowledge exchange} event. Everyone seemed really interested, which is really reassuring, you know? Because you know that the sort of things that we’re doing are useful, and people are interested in it. It’s not just us sitting in our office typing on our computers thinking: “this is really important” and everyone else thinking: “what are you doing that for?” So, yeah. That is reassuring [...]. It was a very positive experience and I’d be happy to do more things like that. (Sophie, academic research, Soton).

Sophie is a research associate at Soton. This quotation portrays KE seminars as a source of enjoyment based on the fact that the event is interesting to others outside of academia. They are a way ‘to kind of get out there’ and a ‘very positive experience,’ before Sophie concludes that she would be ‘happy to do more.’ Her quotation also asserts that KE seminars are a way to connect with the wider world outside of the academic ‘bubble.’ This view that seminars help connect with the outside world was stated more succinctly by Patrick:

From my perspective [...] it helps remind me that there’s a real world outside - beyond academia. I get more satisfaction going to see people. (Patrick, academic, SC).

‘You are warmly invited.’

Academia is like a ‘bubble’ and KE seminars help academics escape that bubble and remind them that there is a ‘real world outside’ and that those in the ‘real world’ saw the value of their research - this gave them great pleasure.

7.3 *Non-academic professionals’ commitment to knowledge exchange seminars*

The remainder of this chapter turns to the narratives of the NAP interviewees, examining why they chose to engage with demographic research by participating in at least one CPC-organised KE seminar.

It is important to recall from the methods chapter (chapter 5) that the NAPs who were interviewed in this research were those who had decided to participate in a CPC KE seminar event. This has implications for how interviewees may perceive and engage with academic social research in general, and CPC KE events in particular. In other words, had the interviews been conducted with those who were aware of CPC KE seminars but ultimately chose not to attend, those interviews would probably have yielded very different narratives. This research sought to interview NAPs who had freely chosen to attend a CPC KE seminar event without any contractual obligation to do so, and then agreed to be interviewed about it afterwards. This may mean they might have generally positive views on the value of academic research in their professional lives, and how they see their own professional relationship with it. This point was summed up by Joseph when he said:

Once you’ve taken the trouble to go to a meeting with academics you’ve bought into it. Once you’ve defined yourself as someone who would go to that kind of occasion {pause} there’s almost a kind of self-definitional kind of element [...]. There’s a sort of mental leap that you’ve got to go through to sort of say: “I am the kind of person from a

‘You are warmly invited.’

Local Authority who would take the trouble to take half a day and go to one of these meetings because I will think it will enhance our policy.” So that’s a kind of mental re-self-assessment that people will have to go through to come to these things. And that’s quite a big deal for some people. (Joseph, academic, SC).

In this quotation, Joseph recognises the commitment that NAPs make when choosing to participate in KE seminars, and how they define themselves professionally in relation to those events.

At this point it is also important to recall from the methods chapter (chapter 5) that all of the NAP interviewees were employed by the public sector, and all but one were working for the local, Scottish, and UK Governments (the exception being one participant who worked for NHS England). This is important because it means all the NAPs who attended the CPC’s KE seminars were broadly part of an institutional environment which placed importance on ‘evidence’ in their work, which is driven by Evidence-Based Policy-Making (EBPM) agenda (ESRC, 2005; Nutley et al, 2007; Davies et al, 2000; Bullock et al, 2001). This information is relevant here because that agenda has shaped non-academic organisations’ expectations of their employees. This has, in turn, shaped employees’ rhetoric and practices in how they engage with ‘evidence’ from academia and beyond.

7.3.1 Organisational commitment to ‘evidence’

As stated in this chapter’s synopsis, NAP’s involvement with KE seminars is heavily influenced by their employer organisations’ commitment to research (Best and Holmes, 2010). Therefore, it is unsurprising that many NAPs claimed that they participated in KE seminars because it was part of their professional remit to engage with ‘evidence’ (9/14). However, it was also clear from the transcripts that academic research evidence did not occupy a particularly special position within an evidence hierarchy (Nutley et al, 2007; Davies et al, 2000). Only 4 of the 14 NAP interviewees

‘You are warmly invited.’

explicitly mentioned academic research occupying any privileged position, while the rest (10/14) lumped academic research into more generic phrases such as ‘evidence,’ or ‘relevant work.’

In evidencing these claims, this section of the analysis starts with a quotation from Sharad – a civil servant who formerly worked for the Scottish Government but now works for the UK Government. He was reflecting on the EBPM agenda and its impact on NAPs’ professional practices of engaging with evidence. I asked him if there were differences between the UK and Scottish Governments in their organisational commitment from their policymakers and support teams to be up-to-date with relevant research in the areas under their professional remit. He said:

No, I don’t think there’s a policy difference. The English Government, erm, rather, the UK Government, says they’re into evidence-based policymaking. That’s maybe a Tony Blair phrase but the thought still exists in Whitehall undiminished. Although the phrase ‘evidence-based policy’ may be a UK government phrase, the Scottish Government, as far as I can tell, is just as keen on that sort of thing. (Sharad, civil servant, UK Government).

Sharad signals (although not strongly) that evidence in policymaking is something that is expected of them - saying that both the UK and Scottish Governments are ‘keen on that sort of thing.’ However, he does not specifically mention academic research but rather uses the more generic word ‘evidence,’ which presumably includes academic research alongside other forms of evidence. Stephanie, the Scottish Government researcher mentioned earlier, confirmed Sharad’s view that the Scottish Government expects its employees to be aware of ‘relevant work,’ and to share it with their colleagues, where appropriate.

‘You are warmly invited.’

Knowledge exchange is supposed to be one of those things that people do as part of their jobs in government [...]. To an extent everybody who works in research in the Scottish Government is supposed to do that on a general basis. I’m not saying that we do it terribly well, but part of the job is supposed to be {pause} I don’t know what you call it: knowledge brokerage? Whatever you want to call it. People should always be on the lookout for relevant work that’s been done and to pass it on to policy people or to other researchers. (Stephanie, Government researcher, Scottish Government).

As with Sharad, Stephanie did not explicitly mention academic research as a source of ‘relevant work,’ but did demonstrate that there was an organisational commitment to remaining receptive to outside information, and that sharing information across government departments is an intrinsic ‘part of the job’ – something that they are ‘supposed to do.’

Even at local government level there was an expectation that employees should be receptive to evidence. However, at the local level the use of evidence was more geared towards service delivery rather than public policy development:

I sit in a service and I help the planner with the information that planners need. Like, every time you do local planning for anything you need to write a monitoring statement which looks at the population, you look at the industry and employment, the economic situation [...]. We have to make decisions about where to put new schools, how big should they be? We’ve had a high population growth over the last decade, will this continue? What about an ageing population? What will we {the local authority} need to do to provide for them? And that needs us to pull together information from different places. (Hamish, policy analyst, Scottish Local Authority).

As before, academic research is not specifically mentioned by name, merely that ‘information from different places’ is pulled together for assisting decision-making. While ‘evidence’ has become increasingly important in decision- and policy-making (as part of the EBPM agenda), it appears that academic research does not hold a particularly special place in this process – it is just one source of knowledge among others.

This echoes the work of a number of KE scholars who have highlighted the non-privileged position that academic research often has in policy and practice settings. This was outlined in some detail in the literature review. While academic research might be important, it is mixed with multiple, diverse sources of knowledge and expertise. This can include evidence from other branches of government, practice professionals, businesses, lobbies, and other interests (Greenhalgh and Wieringa 2011; Bryne, 2011; Davies et al, 2008; Gabbay and le May, 2004; Greenhalgh et al, 2004; Vivian and Gibson, 2003; Tyndén, 1993). As described in the literature review such diverse sources of knowledge may even be competing against academic research, which itself can produce contradictory or ambiguous evidence, findings, and recommendations. This makes the KE process complex, as knowledge may not be in accord, and there are different and competing priorities and interests. All of this further complicates the status of academic research in the eyes of NAPs. As Elaine remarked:

Could we do more with academic research? Maybe. But it’s a challenge when there’s competing evidence, interests, competing priorities all the time, and we’re in an age of shrinking resources. (Elaine, Policy officer, Scottish Local Authority).

7.3.2 Personal commitment to academic research

Mirroring some of the academic interviewees, some NAPs expressed a personal commitment to engaging with academic research. This point was particularly salient among the civil servants interviewed. Angus, a senior civil servant, claimed:

I’m a big proponent of academic research. I think research can, and should, inform policy development. I held that belief when I was in university as well. Now 30 years on, I still believe that. (Angus, civil servant, Scottish Government).

All of the NAP interviewees were university-educated up to at least Masters level, with 3 holding PhDs. Thus, they all had academic backgrounds which shaped their views on what academic research can offer the public sector.

A similar view was shared by Ashley, the head of an analytical department in the Scottish Government. She expressed the view that she and her team saw value in academic research:

I think from our team there’s an appreciation of {academic} research and we do sort of carry that on into daily work [pause]. One of my colleagues was at a conference just last week, and it was very academic but he found it useful [...] We still have lots of links to academics still, and there are ties-ins with our work, and we still respect it and appreciate it, whereas maybe others would say: “well, that’s the problem, but there’s no academic research that helps in the practical sense.” Whereas I think that’s not true. It can be very useful to have strong links and know what’s happening {in academia}. (Ashley, civil servant, Scottish Government).

‘You are warmly invited.’

Ashley claimed that she and her team were committed to engaging with academic research; that they ‘respected’ and ‘appreciated’ academic research evidence, and attempted to keep their academic connections going. However, she also recognised that others might not share her view. Indeed, several NAP interviewees expressed disdain for too great a commitment to academic research. This is demonstrated by Hamish (an analyst from a rural Scottish local authority), who claimed:

There are people who will [pause] I choose my words carefully [pause]. I can think of a colleague of mine who fortunately doesn’t work that closely to me, so you can’t track them down, has still got a strong interest in academia – who keeps a very keen interest in the academic world, and the overlap with his work. The bottom line is that he’s not doing his job properly. You’ve got so many hours in the day, you’ve got to be focused and you’ve got to be targeted. You can eavesdrop on what’s going on in academia, but you can’t really spend time on things. We can’t read a 20 page committee report let alone a 20 page academic paper. End of story. (Hamish, Policy support, Scottish Local Government).

Hamish’s comments were among the most critical, but there were other occasions within interviews where engagement with academic research was thought to be a waste of time, or where colleagues who were too involved with academic research were described in ways such as ‘not doing [their] job properly.’ It should be noted here that Hamish attended two separate CPC KE seminars, one in Edinburgh and one in Inverness. Earlier in the interview he described his positive experience of them, so he cannot feel that academic research is entirely irrelevant to his own work. While organisations’ rhetoric of commitment to evidence was strong in encouraging NAPs to engage with academic research, that engagement also required a commitment of tangible resources. It is to this issue that this analysis now turns.

7.4 Non-academic participation in knowledge exchange

seminars: professional priorities and resources

The EBPM agenda encourages NAPs working for the public sector to be at least aware of evidence being produced in areas within their professional remit. Yet professionals’ commitment to engaging with academic research is not only reliant on their employer organisation’s rhetoric, it also requires those organisations to commit resources in order to provide the capacity for its employees to engage with academic research (Shaxton et al, 2012; Best and Holmes, 2010; Meagher et al, 2008; Coote, 2007; Mitton et al, 2007).

This section of the analysis examines NAPs’ narratives of the resources that they require in order to engage with academic research through participation in KE seminars (section 7.4.1). Following that, section 7.4.2 highlights the issues of geography, time and travel which can be a significant barriers to participating in KE seminars, particularly for NAPs from rural Local Authorities. Section 7.4.3 examines how government departments’ budget cuts under a political programme of austerity have reduced the organisational capacity (in staff resources and finances) for NAPs to attend KE seminars. Austerity has also impacted on how NAPs prioritise engaging with academic research via KE seminars in their professional lives.

7.4.1 Acknowledging the resource commitment

Academics that organise and host KE seminars should recognise the resource commitment that they are asking from their potential audiences. Even a ‘free’ event requires staff time, energy, and finance. It is time away from the desk to travel somewhere (which might be a considerable distance away, and expensive) to engage with academics’ research through an event which might last only an hour. Such commitment in resources should be acknowledged. The finding presented in this section adds to an existing body of work which describes the availability of sufficient resources as an important factor in facilitating collaborative research

‘You are warmly invited.’

and/or KE projects and activities (Shaxton et al, 2012; Mitton et al, 2007; Denis and Lomas, 2003; Ross et al, 2003; Crewe and Young, 2002; innvæer et al, 2002), and the same is true for KE seminars, even if the commitment required is less intensive.

Seventy-five percent (10/14) of the NAPs interviewed explicitly referred to KE seminars as activities which required a commitment of resources. Furthermore, half of the NAPs (7/14) stated that limited (and shrinking) resources within their employer organisation has impacted on their decision to attend KE seminars. More specifically, it was the resource of time which they most frequently cited as limited - this resource weighed most heavily on their decision to attend CPC KE seminars or not.

I could be doing all these other bits of work that I’ve got lined up so I have to choose carefully. It all depends on what time you’ve got to go to {KE} events. If your time is precious you’ll cherry pick the ones that you know should be good. (Morag, policy support, Scottish local authority).

We don’t have time for that anymore because there’s only three of us now: myself, [REDACTED] and [REDACTED]. We did have another, but he retired, so there’s very few of us so we have to be selective, and there’s a lot of things like these {KE seminars} that we had to just cut out. (Lilly, UK Government agency).

You have to decide if it looked really relevant because it’s half a day, realistically. It’s an hour on the bus to get there, an hour and a half at the seminar, and an hour back to your desk. Logistics are important (Stephanie, Government researcher, Scottish Government).

I’ve not gone to some things {KE seminars} because there’s too much other work on and that has to take priority. Day-

‘You are warmly invited.’

to-day work has to take priority. And while they can often add something to your day-to-day work activities, it would be in exchange for doing your work. But if there're other things on, you can't go [...]. It's just the way things are, everyone's busy. (Elaine, Policy officer, Scottish Local Authority).

These quotations were representative of typical responses given by seminar participants about the commitment they were making when deciding to attend KE seminars or not. The dominant theme here is time, and how limited and ‘precious’ it is.

*‘It all depends on what **time** you’ve got... **time is precious**’* (Morag).

*‘We don’t have **time**’* (Lilly).

*‘It’s **half a day**, realistically’* (Stephanie)

This time pressure existed at the individual level (Morag and Stephanie) or at the team level (Lilly). Stephanie’s quotation was selected because it illustrated another point related to time which many other interviewees also raised: the travel time to and from KE seminars. Even a relatively short event (of 1.5 hours) was, in practice, ‘half the working day’ once travel time was factored into consideration. This issue of travel was particularly salient in interviews conducted with members of rural Scottish Local Authorities which are far from the urban centres where KE seminars are usually held. This is an issue that is returned to in the following section.

A second issue emerging from these quotations, which was also present in many other of the NAPs’ interview transcripts, was how the perceived lack of time changes how KE seminars are prioritised against the demands of daily work routines:

‘You are warmly invited.’

‘I’ve not gone to some things because there’s too much other work on and that has to take priority. Day-to-day work has to take priority’ (Elaine).

‘you’ll cherry pick the ones that should be good’ (Morag).

‘We have to be selective, and there’s a lot of things ... that we had to just cut out’ (Lilly).

KE seminars were often viewed as a supplementary activity to their professional work. In some accounts it was even viewed as an impediment to their core work. Such a view is present in Elaine’s quotation, where participating in KE seminars ‘would be in exchange for doing your work.’ In other words, the seminars are not central to their professional remit and as such can be dropped when other ‘core’ activities need to take priority. This is especially the case during busy periods within their employer organisation:

In terms of whether to go to an event [pause]. It depends on what else is in the diary, what else you have on at the current time. I mean, if something were to come up in the next couple of months I probably won’t be going because we’re going to have a big budget consultation here. We’ve got [pause] it’s going to be a very busy period. So that will dictate whether you will go {to KE seminars} or not. (Elaine, policy officer, Scottish local authority).

7.4.2 Geography, time and travel

As mentioned in Stephanie’s quotation, there is an issue regarding travel to KE seminars. In Bogenschneider et al’s (2000) account of a seminar series, they described how the events were held in a building close to the state capitol so that it was convenient for policymakers and elected representatives to travel to the venue. Yet, this issue is more complex when the target audience is more geographically dispersed.

‘You are warmly invited.’

Geographic distance, shapes NAPs’ ability to attend KE seminars or not. The CPC decided to hold one of their KE seminars in London (in Westminster) to try and encourage attendance, but in doing so had inadvertently excluded those from further afield. In the quotation below Leanne (one of the CPC’s administrators) is discussing a case where a Welsh local councillor could not attend a CPC seminar in London because the duration was too short for her to qualify for travel funding from her council.

A {councillor from a Welsh Local Authority} wanted to come to the ‘[REDACTED] [REDACTED]’ event. We were holding it in London and she was from Wales, and we were holding it in the morning because we thought: “well, people can come for the morning and go back to their work in the afternoon.” [...] We decided on the morning because we thought part-day would be better [...]. She thought she could come but she couldn’t come because it was a half-day event and they {her local authority} wouldn’t give her funding unless it was a full-day event. And obviously it was in London, so it was a little bit further to travel. (Leanne, administrator, CPC).

In this specific case, the councillor mentioned could not receive funding for travel because the event was not long enough to qualify. The evidence here suggests that events which are too short may also create institutional barriers to participation as with those which are too long. In the case cited here, this barrier was a formal restriction created by organisational rules which dictated the conditions under which the councillor was allowed to engage with academic research by attending KE seminars. However, a more common barrier was not formal rules, but the value judgements that NAPs had to make in deciding to use their professional time to travel (sometimes long distances) to attend KE seminars. The relationship between the EBPM agenda, staff-resources, money (travel), and event time is eloquently encapsulated in the following quote:

We do go to seminars and conferences. Bearing in mind that it's a long way from here. It often means the 6.45 train from [REDACTED], and getting back at 8.10, or 9.10 at night. So it's a long, long day [...]. We do have a commitment to the national profile, to the national agenda for keeping up-to-date with research and stuff. But there is a limit to the amount of effort that you can put into flogging down to the central belt. (Hamish, policy support, (rural) Scottish Local Authority).

As with the Welsh councillor, a KE seminar of shorter duration might create as much of a barrier as one that was too long. Yet unlike the councillor, Hamish's response was less about a formal organisational restrictions, and more about how he would justify to himself or his colleagues (represented by the use of the word 'we') the time, money and effort involved in 'flogging down to the central belt' in order to participate in KE seminars.

Such a narrative was particularly salient within the interviews of NAPs who were from Scottish rural Local Authorities because most KE seminars are hosted in urban centres. As such, the commitment required from those who are geographically remote is much greater than NAPs from urban centres. This is evidenced in Hamish's quotation above, and is worth dwelling on a little further as it was an extremely important issue for the NAPs who were affected by this difficulty. Geography can create a significant barrier for NAPs wishing to participate in KE seminars because of the cost and time involved in getting to them. This position is further evidenced by Elaine, the senior policymaker for a rural Scottish Local Authority in the North of Scotland:

Being realistic, if things are going on further afield then there's always high travel expenses associated with that, and we can't always be going. And yeah, that would be a

‘You are warmly invited.’

determining factor as well. If something was happening in London, we probably could never go [...] I mean, the cost implications are certainly something to think about. Even travelling to the central belt [pause], you have to think about how many times you’re going. (Elaine, senior policymaker, (rural) Scottish Local Authority).

Taking this point to the extreme is a quotation from Mhari. As mentioned in the methodology chapter, one interview was conducted over Skype with an employee of a Scottish Island-based Local Authority whose pseudonym is ‘Mhari.’ For her, travelling to the mainland was a huge expense, meaning that any physical attendance at KE seminars represented a massive investment of resources. Mhari participated in a CPC event through teleconferencing (ie she did not attend in person but via video link). She said:

We have to keep in tune with the national agenda, but if you talk to people from [redacted] and the [redacted] Isles, it’s really hard for them {us}. And they {we} would benefit so much from being able to have a higher involvement in the national working groups, not only academia, but it is so difficult in terms of time and budget. You can cut the time by flying, but they {we} can’t afford it. (Mhari, policy support, rural Scottish Local Authority).

The first thing to note here is that Mhari is speaking in the third person about her own employer and her colleagues. This might be a local dialect, a personal idiom, or the fact that she was speaking to me via Skype. Regardless, the ‘they’ that she is referring to is either her employer (the local council) or her colleagues. The point here is to highlight the importance of distance and its implications for the resources required to attend KE events in person.

The conclusion in this section is that geographic distance creates a barrier to participation in ‘free’ KE seminars. This barrier is also unequal, with those from rural local authorities much more affected than those in urban centres.

7.4.3 Recession and public sector cuts

All the NAPs interviewed in this study were employed in the public sector. Since the 2010 General Election of a coalition (Conservative-Liberal Democrat) Government, there has been a systematic reduction across all government departments under a politically-motivated ‘austerity’ programme (Innes and Tetlow, 2015; IFS, 2015). Austerity and its resulting departmental budget cuts have been continued since the 2015 election of a Conservative Government. This has had an impact on KE practices (see King, 2015; Tømm-Bonde et al, 2013; Nutley et al, 2010). Every single NAP interviewee stated that their engagement with academic research has been adversely affected by those departmental cuts. This is important because the interview schedule did not specifically ask about the recession, public sector cuts, or their impact on NAPs’ capacity to engage with academic research through participation in KE activities. The interviews were conducted between September 2011 and December 2012, just as the public sector cuts were taking effect. As they did, departmental budgets and staff reductions eroded organisational capacity. One consequence of this has been that ‘optional’ activities – such as participating in KE seminars – have become an even lower priority. As one interviewee said, as the cuts took effect ‘it is the academic periphery that will go first’ (Ross).

I wonder now if things are now a bit tight. It might be getting harder and harder for local authorities to now fund anything over and above their main services. But I think there’s also an acknowledgement that certain things are important, and it is important to get this sort of information {referring to academic research}. But a lot of people can’t

‘You are warmly invited.’

make it [to events]. I don’t know if that was through lack of resources, or couldn’t get time off work – had too much on [...]. It’s hard to tell, but I would imagine that as things are getting *very* tight, it’s the academic periphery that will go first. (Ross, Policy support, English intergovernmental organisation).

It is a constraint, capacity is an issue. And it always has been, it’s not just to the economic climate. We’re in the business of giving people value-for-money [...]. That’s what we’re all about. So what practical measures can we do? What little things can we do with no money to get the right information and the right policies? Especially now given that our budgets are so severely restricted. (Hamish, Policy Support, Scottish Local Authority).

Most of the time you’re running from one thing to another, particularly in local government just now. Loads of people are taking early retirement and voluntary redundancy. So you’ve got fewer people trying to deliver the same amount of work. And it’s worse now than it would have been even just three years ago, I would say. (Morag, Policy Support, Scottish Local Authority).

These quotations present evidence of diminishing organisational capacity, where resources are ‘getting very tight nowadays’ (Ross) because ‘our budgets are so severely restricted right now’ (Hamish) and ‘loads of people are taking early retirement and voluntary redundancy’ (Morag). There are fewer people doing the same amount of work with less money, and this is worse now than it was ‘even just three years ago.’

This issue was touched on here, but is an area which deserves further research because it is such an important aspect of NAPs’ decisions to participate (or not) in KE seminars. These interviews were conducted as the cuts were starting to take

‘You are warmly invited.’

effect. As time has passed, this problem has been exacerbated as further cuts have taken place since the interviews and have continued to date (2016).

Reductions in resources inevitably lead to pressures and prioritisation. Thus, while the various levels of government might express a rhetoric of commitment to the insights of academic research in policy- and decision-making, the reality is that many NAP interviewees said that a lack of resources made realising such commitments difficult (a finding echoing Coote et al, 2004). As such, other priorities and daily commitments then take priority over participation in KE seminars.

This does not mean that NAPs do not attend KE seminars at all: every person interviewed in this research had attended at least 1 CPC seminar, so they did decide to make such a commitment. Yet these events still entail a commitment of resources, and those resources are increasingly restricted which creates a barrier to participation. The overriding narrative from many of the NAPs interviewed was that KE seminars cost, and they are in the business of delivering value to the taxpayers. Yet, at the same time they have an obligation to keep up-to-date with the latest information and evidence being produced. This tension derives from a political and organisational culture which fosters rhetoric around the desire to have policy and decisions informed by evidence, yet which provides (increasingly) limited opportunities for their employees to invest time in activities which would fulfil this goal. This tension is eloquently summed up by another quotation from Roxanne:

I guess it's like other places: on the one hand, you have less time and money and everything, but on the other hand, there's also an acknowledgement that you can't put things to waste, you cannot waste opportunities: we need to utilise the resources that we do have. We want to go, and we should be going, but sometimes we can't. It's a balancing act. It's a two-way thing. It costs money to go to these events, but you want

‘You are warmly invited.’

to make sure that you’re not wasting opportunities to access information. (Roxanne, Policy Support, intergovernmental organisation).

Despite the barriers faced by NAPs in engaging with academics through participation in KE seminars; they do engage. Yet it is within a scenario of balancing competing interests.

7.5 Exploiting the ‘windows of opportunity’

Unlike other ‘indirect’ dissemination activities (eg online videos, briefing or working papers), KE events (eg seminars, exhibitions, or debates) are both geographically and temporally situated. In other words, they not only occur within a particular venue at a particular place, they also occur at a particular point in time. The timing of KE seminars in relation to the wider political context in which KE seminars are situated is very important.

KE seminars exist within a wider political and policy environment. This political environment is important because it drives ‘demand’ for academic social science research by policymakers (Nutley et al, 2010). This political environment is a tremendously important factor in driving NAPs to want to engage with and use academic research (Moore et al, 2011; Korthari et al, 2009; Court and Young, 2003; Davies et al, 2000; Nutley et al, 2007; Sabatier et al, 2007; 2014).

The interests of this political environment is not fixed. At different times, different issues come to dominate the political agenda. This creates a dynamic environment in which some substantive research areas are of more interest than others at certain times. It is at these points of heightened interest that the CPC’s academics must identify and target in order to capitalise on a political environment which may be receptive to their work. In this section, ‘relevance,’ ‘hot topics,’ and ‘strategic interests’ are explored in order to better understand what ‘windows of opportunity’ can look like.

7.5.1 The importance of seminar ‘relevance’

When NAP interviewees were asked what made them decide to go to the CPC seminar(s) that they attended, all but 2 (12/14) used the same word: ‘relevance.’ This is a word repeatedly used in Korthati et al’s (2009) research on healthcare policymakers’ engagement with research. It is critical to drawing an interest in seminars. This word appeared 63 times across the 14 NAP interviews, with one participant (Stephanie) using it 17 times. By contrast, this word appears in only 9/13 of the academic interview transcripts, and appears only 27 times; with 13 of those instances occurring between the two CPC administrators:

I think it’s just relevance. I think that’s so crucial [...]. We felt that there was real relevance in this event to us. That seemed to be a reason why a lot of [REDACTED] {local authority} people went. (Roxanne, Policy Support, intergovernmental organisation, Scotland).

When pressed to describe what ‘relevance’ looks like, a number of NAPs described it as like a ‘concentric circle.’ In this model, the more specific a KE seminar topic is, the more likely the seminar will attract a highly interested, but numerically small group of people. Conversely, KE seminars which are broader in scope might see a greater number of people attend, but with a reduced intensity of interest. To illustrate this point is evidence from two NAPs, Stephanie and Sharad.

It’s a balance. A small {narrow} focus will have a small number of people who will be interested. And sometimes all you want is a small, very interested, very specific meeting or event or whatever. [Other times it might be] of very general relevance and selling it to people saying: “This is going to inform lots of areas of your work and help you deliver on lots of aspects of your work,” and you might, hopefully, get

‘You are warmly invited.’

lots of people coming. Then you go right down to: “no, you *really* need to know this” where you will only get a few people. So I suppose it’s about pitching it right. It’s relevance, and I think that’s probably the key thing. (Stephanie, Government researcher, Scottish Government).

A lot of these things are mostly useful background knowledge for people. It’s not going to answer the day-to-day questions that they’re involved with. Although sometimes they {KE events} can be on quite specific topics that might be answering very specific questions. (Sharad, civil servant, UK Government).

In these quotations, both Stephanie and Sharad make a distinction between KE seminars which cover general ‘mostly useful background knowledge’ (Sharad), and those which are focused on ‘very specific questions.’ Stephanie’s quotation was more comprehensive in making this distinction; where seminars of a general nature will attract broader (but less interested) audiences, and others which are extremely targeted will attract a smaller (but more interested) number of participants. The implication of such statements is interesting because KE seminars with a small number of participants might be highly effective in disseminating research and engaging with non-academic audiences than larger ones, so long as the topic is targeted to the interests of that small group. A KE seminar attended by many people may not be more successful in creating societal impact than one attended by a smaller, but more focused, group. Academics must reflect on how their event is ‘pitched’ to the audience they seek to attract in terms of its relevance to that audience (Feldman et al, 2001).

Such a view mirrors that of Nutley et al (2007) and Weiss’ (1995, 1979) discussion regarding how research might be used in different ways by different audiences. Some research may target very specific policies for change, while others may only provide general background information on a particular substantive area. If the

‘You are warmly invited.’

seminar topic is too generalised, potential seminar participants may no longer see the event as valuable to them. Conversely, if a KE seminar topic is too specific it will be of interest to such a small number of people that seminars might not be the best method of dissemination and engagement at all.

7.5.2 What makes seminars ‘relevant?’

The discussion on ‘relevance’ inevitably leads to the question: what specifically makes a KE seminar topic ‘relevant?’ The analysis of the NAP interview data revealed a distinction between two types of political circumstances in which KE seminars might be ‘relevant’ to NAPs: political ‘hot topics’ and ‘strategic interests.’

Targeting ‘hot topics’

‘Hot topics’ was a phrase used by four NAP interviewees. Hot topics are particular issues which suddenly appear on the political agenda. NAPs described the election of new councillors or MPs or MSPs who have their own specific interests as one example of how hot topics may emerge onto the political agenda. Other examples are the publication of new data or some external event which the media have picked up and politicised as an issue within the public domain. Each of these is an example taken from the NAPs’ interviews.

Hot topics are windows of intense political interest in a particular area. When issues are ‘hot,’ they create opportunities for academics to target their seminars and influence decision-makers who are part of a (temporarily) very receptive political environment.

This wider political system is important. While elected representatives rarely attended CPC KE seminars, the NAPs who do attend are part of that system. In other words, policymakers and their support teams may be the ones attending the

‘You are warmly invited.’

CPC’s KE seminars, but they do so as part of a political environment which is largely shaped by elected representatives.

People forget, but actually it’s politicians who make decisions not civil servants [...]. If you want to change policy it always comes from politicians. That’s true at the local and the national level [...]. Politicians have to be good at dealing with the here-and-now, and will ask questions {of policymakers and their support teams} about what’s happening *now*, and we {within the civil service} have [to be aware of research being produced] to inform that current debate, not the past debate. (Sharad, policy analyst, UK Government).

One of the big issues that was worrying the Scottish Government was the decline in fertility in Scotland, and really I think they just wanted some work on that. [At the time, it was] a topic that really interested them. Now in 2012, because fertility has risen in the past few years [...] that [interest] has kind of gone away. Politicians and policymakers really do pay attention to the moment, you know? (Cynthia, academic, SC).

NAP interviewees from across all levels of government (local, Scottish and UK) emphasised the important role of elected representatives (and the government as a whole) in driving a political agenda which impacts on policymakers’ and their support teams’ (ie the NAPs interviewed in this research) interest in specific topics. NAPs who attend CPC KE seminars are employees of organisations who are directly answerable to elected political institutions (except one who works for the NHS), and those institutions have interests in specific topics, yet they are not fixed; they are also changing and evolving interests which are shaped by internal and external stimuli. Governments’ interest in particular academic topics can intensify and wane which impacts on NAPs’ interest in certain research areas.

‘You are warmly invited.’

Sharad’s quotation above is interesting because it points out that change comes from politicians, and those politicians deal with immediate concerns. The job of the civil service is to inform those immediate concerns (the ‘current debate’) by dealing with the shifting nature of political attention, rather than engaging with ‘the past debate.’ In making this comment, Sharad is making a criticism also made by a number of NAPs (8/14). The ‘past debate’ is a reference to academic debates. There are often differences in the speed at which policymakers and politicians need information and the speed at which academics produce and then disseminate findings which meet the contemporary and ongoing demand for information (Bogenschneider et al, 2000; Molas-Gallart and Tang, 2007; Mitton et al. 2007; Nutley et al, 2007; Stewart et al, 2005; Innvær, 2002). When thinking about ongoing ‘current debate,’ one surprising and unexpected comment made by a number of NAPs (5/14) was the speed at which ‘hot topics’ come onto the political agenda (particularly through questions in Parliament), and just how briefly the windows of opportunity remain open in which to target seminars to those hot topics, before they close and are replaced as the political agenda shifts.

Some things just suddenly come up. If a question was asked in FMQs¹² it creates a buzz and people start to become very interested in the topic. For example, in 2003 the population seemed to be falling below 5 million. The population was in crisis, in popular terms, because it was plummeting and there were lots of questions being asked [...] People really were asking questions that we didn’t know the answers to, and we kept being asked to provide more information {to the Scottish Government}. Our inability to do so was a big thing for the government, [...] but the pressure does go away because they’ve got new pressures. (Angus, civil servant, Scottish Government).

¹² FMQ’s refers to ‘First Minister’s Questions’ which constitutionally happens every Thursday at noon when the Scottish Parliament is in session. Members of the Scottish Parliament (MSPs) present either written or oral questions for the First Minister to respond to.

If you get a few PQs [Parliamentary Questions] then that takes a lot of ministerial correspondence [and] it becomes a hot topic, especially if there’s stuff in the press [...]. So for a while that’ll be the hot topic. And then something new comes onto the agenda. But there’s only so many things that can be at the top of the agenda. The issue probably hasn’t really gone away, but it’s just not at the top anymore [...]. And if that pressure goes away, or a new pressure, a bigger pressure, comes in, then it’s not as if the interest in the issue has gone away, it’s just that there’s only so much attention that people can give to an issue [...]. Policy people [...] have an immediate need to get information. And if the issue just recedes a bit, it’s no longer at the forefront of people’s minds, [because] they’re not being asked about it. (Stephanie, Government researcher, Scottish Government).

These quotations provides interesting and relevant insights regarding the emergence and dissipation of ‘hot topics’ which drives civil servants’ interest in particular issues at some times and not others. These are windows of opportunity where academics can target and address political interests to a receptive political environment through KE seminars. Hot topics are the politicisation of a particular issue which drives the government to ask civil servants (and their support teams) for information. NAPs (who work for various levels of government) are at KE seminars because there is an interest in the research topic which is driven by the interests of the wider political system from which they come. Seminars attempting to capitalise on this interests must be situated within the ‘hot’ period which may only last for a short period. Once the heat in an issue has dissipated, interest in a topic often declines as ‘there’s only so many things that can be at the top of the agenda’ (Stephanie). Yet, even if the heat has dissipated as ‘something new comes onto the agenda,’ it does not mean that intense interest has completely gone, particularly for issues which are likely to reoccur.

Targeting ‘strategic interests’

Not all NAPs’ participation in KE seminars is driven by a desire to seek information on immediate and pressing issues. Many seminars are ‘relevant’ to NAPs because they fill a long-term, comparatively stable, strategic interest.

It was a strategic interest in demography in Scotland which led to the Scottish Government and the ESRC funding the Scottish Demography Initiative (SDI), investigating Scotland’s population dynamics, and the eventual support of the CPC. Long-term interests also encouraged NAPs’ participation in the CPC’s KE seminars. NAPs from the local, Scottish, and UK Governments all described, in different ways, how academics can best identify what their organisation’s strategic interests are - this can be of value in tailoring their dissemination strategies, including the seminar programme, to better target potential audiences. Below is one example relating to the Scottish Government:

If you want to know what we’re interested in we’re quite transparent at the moment. We’ve got these different government publications: programme for government, programme for economic strategy, whatever. And they will tell you what we are trying to do. And actually, if you started looking at these and then can say: “we could help with that. We’ve got research that would support that” [then that would be ideal]. These are the real things that people have to deliver on [...]; their priority is to deliver on purpose targets [...]. It’s about getting the words that people recognise and relate, and linking it back to their jobs. (Stephanie, Government researcher, Scottish Government).

In this quotation, Stephanie is describing not the ebbs and flows of political ‘hot topics,’ but strategic interests. The example given here relates to the Scottish

‘You are warmly invited.’

Government’s strategic interests which are represented by their ‘purpose targets’ (Scottish Government, 2007). In total, there are 11 targets, with each one encompassing a number of specific objectives. Stephanie stated that if academics are able to shape their seminars around those purpose targets, then they will have a better chance of both finding the right audience (because each objective within the purpose targets is under the remit of dedicated teams) and also tailoring the right message to them (using the words and language of the targets). If an academic is able to do this, then their potential audience will see the relevance of the seminar to their professional work, and thus, attend.

The example presented here relates to the Scottish Government, but the same narrative was found in local authority participants (described as ‘outcome agreements’) and UK Government participants (which were described as ‘strategic objectives’ or ‘steering objectives’).

7.6 Conclusions

This chapter addressed the question of why academics and non-academic professionals commit to hosting and attending CPC KE seminars, and what resources are required of them to make such commitments. In doing so, it examines the wider social, economic, and political environment in which KE seminars are located.

This chapter first examined the academics’ interview evidence as to why they chose to host KE seminars. This thesis posits that they committed to them:

1. As part of a contractual obligation to research funders;
2. From professional self-interest;
3. As moral recompense to the society which funds their work, and to their research participants;
4. Professional satisfaction that their work is useful to others.

While the analysis presented each of these four reasons as distinct, it did so only for analytical purposes as the academic interviewees often expressed several reasons concurrently.

Reasons 1 and 2 in the list above relate to the KE agenda with regard to how academic research is funded and evaluated, and to the professional rewards bestowed on academics who engage in KE practices (Korthari et al, 2009; REF, 2014; Khazragui and Hudson, 2015; Nutley et al, 2010; 2007; RCUK, 2015; Warry Report, 2006; ESRC 2009a/b; 2005; Tang and Sinclair, 2001). The conclusion drawn from the analysis is that the institutionalisation of the KE agenda has impacted on academics’ KE practices, or at the very least their discourses on it. KE seminars are a tangible and concrete way of demonstrating ‘non-academic engagement’ which helps fulfil funding criteria, as well as help develop academics’ CVs and careers.

While academics are bound by the conditions of funding which ultimately determined why they organised KE seminars, some also expressed views which indicated they participated in KE activities from a sense of duty. Some academics felt duty-bound to engage with the debates of society, and some harboured a sense of obligation to their research participants. For them, KE seminars were a way of ‘giving something back’ to both society and their research participants.

The second part of the analysis examined NAPs’ reasons why they chose to participate in KE seminars.

Similar to academics, many NAPs engaged with research because it is now a part of their job in meeting their employers’ commitment to EBPM. The EBPM agenda mirrors the KE agenda and represents a commitment to have policy and decisions based on ‘evidence’ (Davies et al, 2000; Nutley et al, 2007; Bullock, 2001; ESRC, 2005; Kitson et al, 1996). The EBPM commitment helps explain, in part, why NAPs attended KE seminars: NAPs are part of an organisational and political culture which expects them to engage with relevant information in areas within their

professional remit. NAP’s willingness to seek academic research is determined by their employers’ milieu which values and seeks academic research, and sees it as important (Cherney et al, 2015).

Along with organisational commitment, some NAP interviewees expressed a personal commitment to the value of academic research. All the NAPs interviewed had experience in academia and thus many (but not all) saw the potential that academic research could offer their professional work. Personal commitment is particularly important from the higher ranking NAP interviewees. Their leadership helps shape their teams’ view of, and engagement with, academic work. Advocacy for academic research in a non-academic setting by its leadership creates a supportive institutional culture within departments; a finding which is recursive throughout the KE literature (Best and Holmes, 2010; Kothari et al, 2009; Mitton et al, 2007; Nutley et al, 2007; Greenhalgh et al, 2004; Antil et al, 2003; Vivian and Gibson, 2003).

While an organisation and its leadership may see value in its employees engaging with academic research, it is important to recognise and appreciate the resource commitment that NAPs (and their employer organisations) are making when they choose to participate in academics’ KE seminars.

Sufficient resourcing is vital to successful KE, and is a prevalent theme across the KE literature (Olmos-Peñuela et al, 2014b; Mitton et al, 2007; Greenhalgh et al, 2004; Goering et al, 2003; Lavis et al, 2003; Ross et al, 2003; Percy-Smith et al, 2002; Innvær et al, 2002; JFR, 2000), particularly human resources and time. What this thesis adds to that discussion is a geographic dimension to resource commitment. KE activities in which academics and NAPs meet face-to-face are temporally and geographically situated. As such, participants need to travel to attend them, and thus distance can be a barrier. This was particularly salient in the interviews with Scottish NAPs. Scotland’s small population may help facilitate interpersonal networks between academics and NAPs (see previous chapter and Nutley et al, 2010), but this must also be considered alongside their geographic distribution, particularly those

‘You are warmly invited.’

working for rural Scottish Local Authorities, which makes participation in KE activities difficult. Rural NAPs must expend considerably more resources in attending KE seminars than those from urban settings where such meetings are held. Academics and KE professionals organising such events should be mindful that while an urban location is beneficial for some non-academic audiences, it penalises others.

Governments of all levels have expressed a commitment to basing policies and decisions on ‘evidence.’ However, austerity measures imposed on the public sector have led to reduced staff numbers and budgets - this situation has eroded organisational capacity for the public sector’s employees to engage with academic research. Over the last few years, a small amount of research has emerged in the KE literature on the detrimental impact of austerity on KE programmes in the UK (King, 2015; Nutley et al, 2010). The interviews were conducted just as the public sector cuts were beginning to take effect and have impacted on NAPs’ ability to engage with academics and academic research. No matter how ‘relevant’ academic research is to NAPs, a lack of organisational capacity will be a barrier to participation as NAPs focus more on their ‘core’ work at the expense of the ‘peripheral’ extras that KE seminars were perceived to be.

It should also be noted that these cuts have deepened since the data collection period. A lack of resource commitment (in staff time, money) may be one of the greatest challenges for KE now and in the immediate future. This is problematic because while the rhetoric from public institutions may espouse a commitment to academic research insights, in practice this is not matched by the dedicated human resources and financial structures that are needed to support it (see also Coote et al, 2004).

The final issue addressed in this conclusion is the wider political environment in which KE seminars exist. The political environment makes some substantive research areas of more interest to NAPs at some points in time, but not others. It also shapes how academics can target the right audiences and tailor their seminars

‘You are warmly invited.’

in order to address current political interests (Moore et al, 2011; Korthari et al, 2009; Guldbrandsson and Fossum, 2009; Nutley et al, 2007; Percy-Smith et al, 2006; 2002; Court and Young, 2003; Feldman et al, 2001; Bogenschinder et al, 2000; Weiss, 1979). This was framed within the analysis by a discussion on ‘relevance’ - which had two dimensions.

The first dimension was how academics can frame their seminars in different ways to attract different audiences - this is conceptualised as a concentric circles model as shown in figure 19. Circle 1 represents a seminar which is very specifically tailored and targeted to attract a very small, but focused, NAP audience. Circles 2 and 3 are seminars which are less focused in scope, but which will attract a larger, but potentially less intensely interested, audience. This finding has consequences for how academics pitch their seminars and who they aim to attract. A seminar which is narrowly focused will attract fewer participants. But this is not to suggest that it will necessarily have less ‘impact’ than those with larger audiences.

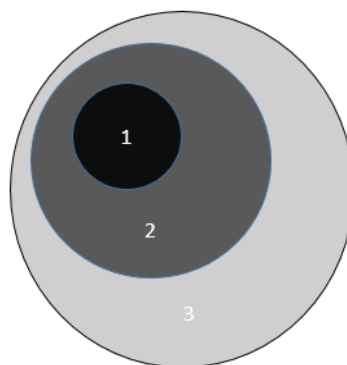


Figure 19 Concentric circles model of relevance of KE seminars

The second dimension of ‘relevance’ relates to ongoing political interests. The political environment shapes what knowledge NAPs working for public institutions seek, and the speed and urgency with which they do so. Some research is demanded quickly and may be used immediately, while other research may be used only to inform a background understanding of the issues involved (Nutley et al, 2007). This

‘You are warmly invited.’

was framed within the analysis as ‘strategic interests’ and ‘hot topics.’ The model that is proposed in this dimension is akin to the surface of the sun, as presented in figure 20.

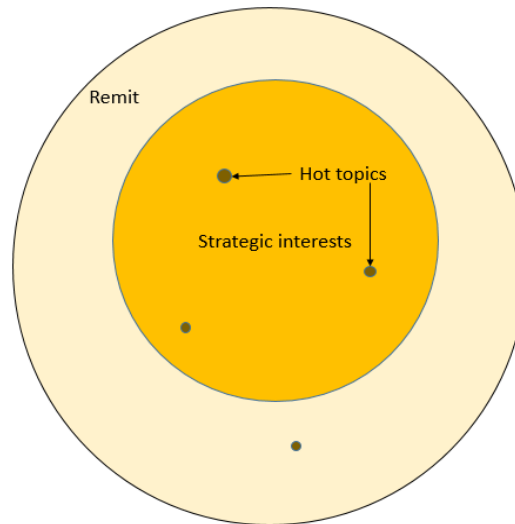


Figure 20 ‘Hot topics’ and ‘strategic interests’ within government interests

In figure 20, the largest circle represents everything that falls within the government’s remit (which varies considerably depending on the level of government – local, Scottish, UK, EU). The smaller circle represents the governments’ ‘strategic interests.’ These are the specific targets and goals that they wish to achieve, and to which they generally dedicate resources. These are areas where academics could speak to an engaged audience which has vested interests in those areas. The darkest spots on figure 20 are ‘hot topics’ which emerge from time to time, before cooling off again. These are intense periods in which governments and their supporting institutions are extremely focused on a particular issue. Yet to do so requires them to be sensitive and fleet-footed and act quickly when these issues emerge onto the political agenda, and to look for ways to shape their research in ways that may contribute to those debates.

8 Dimensions of ‘productive interactions’

8.1 *Synopsis*

This chapter examines the functions that Knowledge Exchange (KE) seminars serve which makes them worth the investment of resources. Those functions are framed in this chapter as the ‘dimensions of productive interactions.’

The CPC’s KE seminars are ‘interventions’ which are ostensibly about disseminating academic (demographic) research to a targeted non-academic audience (Percy-Smith et al, 2006; Graham et al, 2006; Bogenschneider et al 2000; Nutley et al, 2003a/b; Walter et al, 2003). Yet, if ‘learning about research findings’ was the sole reason why Non-Academic Professionals’ (NAPs’) participate in KE seminars, then the task could have been achieved more quickly and cheaply by reading briefing, working, or policy papers. Such documents are now part of normal academic practice, free available online, and are possibly one of the most prevalent strategies for communicating academic research to a non-academic audience (Nutley et al 2007: 133). Many NAPs do read such documents, thus making them an important route for NAPs to access academic research findings (ibid; Richinson, 2005). Therefore, there must be other functions beyond simply communicating academic research findings that participants perceive KE seminars fulfilling that justify their participation in them.

This chapter argues that KE seminars are forums for academics and NAPs to engage with each other in a much more meaningful way than is possible via ‘indirect’ (text-based) or non-face-to-face ‘direct’ interactions (Spaapen and van Drooge, 2011).

What makes face-to-face interactions, in the context of KE seminars, ‘productive’ in the view of the academic and NAP participants is the third research question which this chapter addresses.

The analysis presented in this chapter makes a case that indeed face-to-face direct interactions do embody important functions within the KE process, as the literature

suggests. This chapter goes on to identify four functions that KE seminars fulfil which would be difficult to simultaneously replicate through ‘indirect’ and non-face-to-face interactions. Together, these are what this chapter terms ‘dimensions of productive interactions.’ By presenting these four dimensions, the analysis presented in this chapter seeks to further develop Spaapen and van Drooge’s (2011) ‘productive interactions’ conceptual rubric.

Section 8.2 presents evidence that KE seminars are sites of mutual learning, where both academics and NAPs engage in a two-way process of sharing tangible and concrete knowledge in much the same vein as Huberman’s (1994) two-way interaction model.

Section 8.3 moves beyond two-way interaction models, and presents evidence of KE seminars as interpretive forums involving multiple actors with diverse sources of knowledge who make diverse contributions. The interactions within that forum integrate and blend participants’ respective knowledge bases to co-construct new and distinct knowledges which have value for NAPs and academics alike (Greenhalgh and Wieringa, 2011; Davies et al, 2008; Best and Holmes, 2010; Best et al, 2008; Nutley et al, 2007; Tyndén, 1993. See figures 4 and 5 in the literature review). Such a ‘transformatory’ process (Desforges, 2000) is difficult with text-based ‘indirect’ interactions.

Section 8.4 argues that KE seminars are not only sites of interaction, but are spaces away from the ‘distractions’ of work which gives NAPs time to think and reflect on a single topic for a dedicated period of time (Hislop et al, 2014; Rushmer and Davies; Larsen et al, 2006).

Section 8.5 argues that KE seminars are sites for networking among academics and NAPs who share a professional interest. Such networking is important for establishing new informal contacts and reinforcing existing ones, particularly among colleagues who do not meet often.

Section 8.6 offers some conclusions. At its core is the case that proponents of the ‘productive interactions’ framework (Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011; de Jong et al, 2014) should make a distinction between ‘direct’ and ‘indirect’ interactions. Once such a distinction has been made, it is possible to further examine what makes interactions within them ‘productive.’ This chapter argues that there are four dimensions to productive interactions within KE seminars. Interactions are ‘productive’ if they enable: knowledge exchange between academics and NAPs; the creation of new knowledge resulting from dialogical interactions among participants; opportunities for thinking and reflecting; and social networking.

8.2 *Seminars as sites of mutual learning*

KE events are principally about disseminating academic research findings to a non-academic audience. This can sometimes be viewed as a teacher-student dynamic, with the transferring of ‘objective’ knowledge from a knowledgeable academic to an uninformed, passive audience. But it is not; seminars enable reciprocal exchanges – depending on the format.

Seminars permit a mutual exchange where NAPs attend to learn about academics’ research findings which will be useful to their work, and where academics attend to learn about the non-academic implications and practical limits of their research from the perspective of the NAPs who might use it. This view of KE seminars is more ‘engaged’ than passive linear transfer models. It is underpinned by two-way interactionist models of KE (Huberman, 1994; Best and Holmes, 2010; Hanley et al, 2003; Landry 2001). This view of the KE process is shared by the research funders (as detailed in the introduction to this thesis).

Although discussion within the KE field has moved onto more complex, social-constructivist models of KE (Best and Holmes, 2010), particularly in relation to the social sciences, it is important to recognise that this two-way interactionist model

‘You are warmly invited.’

seems to fit the views of those who participated in KE seminars. For many NAPs, seminars are an exercise in sharing specific concrete and ‘objective’ knowledge with one another. This two-way interactionist model of sharing objective knowledge was detailed in section 4.5.1 and demonstrated in figures 2 and 3 of the literature view). It has two components; one where academics are sharing knowledge with NAPs, and the other, the reverse. This analysis examines each of these in turn.

8.2.1 Non-academic professionals learning about academic social research findings

The majority (11/14) of NAPs articulated a position where they chose to attend KE seminars because they wanted to learn about academic social research and its implications for their professional work. This was often framed as a very matter-of-fact transfer of academic research knowledge.

We just want to know [what the research is about and] what the point is. What is it that you’re trying to get across, and why it’s important to us [...]. We just want to know dum, dum, dum {makes gesture of bullet points with index finger}. We’re very problem-focused; our job is to resolve problems. We want people {academics} to say: “These are the issues. These are what we think you should be looking at.” (Sharad, civil servant, UK Government).

Sharad’s quotation puts academics in a knowledgeable, teacher-like, position from which they instruct receptive, almost passive, students. Sharad asks the academics to ‘tell’ NAPs what their research findings are, and its implications for them. Such a view of the process implies knowledge as a concrete entity that can be transferred to NAPs.

A small number of academics (2/13) also articulated even more clearly that interactions within KE seminars are an exchange between a knowledgeable teacher

‘You are warmly invited.’

and receptive student. In such an understanding of the interaction process, it is almost inevitable that academic knowledge is viewed as superior to the knowledge of the NAPs. An illustration of this comes from Joseph:

There must be a lot of people who value knowing things that the people of the CPC know, but we don't know exactly what it is they would really {pause}. I mean, even they might not be aware what it is. Even so far as they might be aware of what they would like to know, we don't know what they'd like to know [...]. These events are an opportunity for them to tell us what they would like to know, and for us to tell them what we think they should know. (Joseph, academic, SC).

Joseph's quotation does entail a two-way flow of information, where the communication of needs is fed back to academics (Huberman, 1994; Philip et al, 2003). Yet it still develops a narrative where academics are cast in the role of teachers who pass knowledge to naïve recipients who would 'value knowing the things that people of the CPC know.' The seminar is thus situated as a type of classroom where NAPs ask knowledgeable academics 'what they'd like to know,' while simultaneously saying that NAPs are not always in a position where they know what it is that they should know. It presents academics' knowledge (and academic knowledge) as superior to the knowledge of the NAPs. He then goes on to say that seminars are also opportunities for academics to 'tell them what we think they should know.' This is also reflected in the words of Angus. He saw a lack of understanding of demography within the civil service as a problem which the CPC's seminars could remedy:

This is an important area that the Centre can contribute to society in term of being, if you like, as the research councils would describe it: "achieving impact," because you've got a

‘You are warmly invited.’

whole set of public servants that desperately need a better understanding of demography. (Angus, civil servant, Scottish Government).

Like Joseph (and to a lesser extent, Sharad), Angus presents NAPs as unknowledgeable students who are receptive to and, indeed, in need of, academic tutoring.

8.2.2 The type of learning: instrumental to conceptual

If KE seminars are classrooms in which to learn about research findings, it is important to consider the purpose of such learning. The KE field has a major concern with how research might be used by NAPs in their professional work (Weiss, 1979; Nutley et al, 2007). This section now examines what use NAPs think the academic knowledge they access by participating in KE seminars has for their professional work. It does so by drawing on Nutley et al’s (2007) ‘spectrum of research use’ (from instrumental to conceptual, p. 51).

A minority of respondents (4/14) claimed that academic research offers a neutral/objective source of information which can be used ‘instrumentally’ (Nutley et al, 2007) in their work. This view was most clearly expressed by interviewees from the National Records for Scotland (NRS) and the Office of National Statistics (ONS). As mentioned earlier in this thesis, the ONS is working with CPC academics in Soton on projects relating to improving population forecasting. This would represent a clear example of how the CPC’s research can be used instrumentally. Two other respondents (not connected with the ONS forecasting project) also commented that the CPC’s academic research could be instrumentally useful to their work as it can feed into an evidence base for policymaking or used for justifying grants. One of these is Elaine (Policy Support, Scottish local authority). When asked if the research presented at the CPC KE seminar she attended was useful in a tangible way, she said:

We are able to use that evidence in our work, yes. We can use it. I don't know about other councils, but we certainly are able to make sure that this type of work {academic research} is used. I think it adds weight when you're able to show this type of research has been done in our area [...] especially if we're doing consultations. We can feed that into reports if we're building evidence for a case, and that can eventually shape policy. We can use that as evidence to back us up when we're asking for funding for things. (Elaine, Policy Support, Scottish Local Authority).

Implicit in this quotation is the idea that academic research is a source of neutral ‘evidence’ that ‘adds weight’ in supporting policymaking or when applying for funding. As such, KE seminars provide an opportunity to access evidence which is instrumentally useful in professional life (Weiss, 1979; Nutley et al, 2007).

While some participants viewed the CPC's KE seminars as sites to access demographic knowledge which was instrumentally useful to their work, this was very much a minority view. Much more prevalent was the view that knowledge derived from KE seminars would inform the participants' background understanding of the broader demographic situation across the UK/Scotland, and its implication for policy.

Why did I go? Well I suppose it's to do with the wider context of demography and what's happening [demographically] [...]. It's an opportunity to hear presentations about what's going on, what sort of things we should be looking out for. And listening to that can spark ideas and interest. And there is a lot of research going on that is of interest to us. And it's about just keeping an eye on what's happening. (Ashely, civil servant, Scottish Government).

I suppose it’s just background knowledge [...]. It’s not going to answer the day-to-day questions that we’re involved with. (Sharad, civil servant, UK Government).

In these quotations, the knowledge gained from participating in KE seminars was less instrumental and more conceptual (Nutley et al, 2007). Participation in seminars is about informing a broader ‘background knowledge’ (Sharad) of ‘the wider context of demography’ (Ashley) while providing ‘an opportunity to hear... what’s going on [and] keeping an eye on what’s happening.’ This is consistent with Weiss’ (1979) ‘enlightenment model’ or Nutley et al’s (2007) ‘conceptual use of research’ (p. 51).

There is a risk of perceiving conceptual use of research knowledge as inferior to instrumental. Yet conceptual research use can be beneficial for non-academic organisations. For example, Angus claimed that the CPC’s KE seminars changed how his department understands demographic issues. He credits the CPC’s seminars for allowing his staff to ‘focus on [the drivers of] demography,’ so that they are more conceptually ‘aware of the type of research being done’ in the area.

Before the CPC was around there wasn’t the same focus on research, I think – at least in terms of demography. The [redacted] {department} does a lot of work in getting the *figures* out there [...] but didn’t really look at the *reasons* behind some of them [...]. There was some work going on, but not a lot. Having the CPC do these seminars makes people even just aware of the types of research that’s being done in the area. (Angus, civil servant, Scottish Government; emphasis in speech).

8.2.3 Managing expectations of non-academic professionals at knowledge exchange seminars

Reflecting on the issue of how research knowledge accessed via KE seminars might be used by NAPs in their professional work inevitably leads to a discussion around expectations.

There was an issue within the interviews regarding how NAPs perceived the value of KE seminars in relation to how ‘useful’ the research presented within them would be. In particular, it appeared that for some NAPs (or their colleagues), only research knowledge which can be used instrumentally was considered useful. This leads to the issue of managing expectations regarding what NAPs (or their colleagues) would actually gain from participating in KE seminars.

While the NAP interviewees saw value in engaging with demographic research through participating in CPC KE seminars (sufficient to motivate them to attend one), two interviewees expressed a critical view of seminars, and others (4/14) reflected on what they perceived to be the views of some of their colleagues who were less than positive. There is a caveat here as the interviews were conducted with those who attended CPC KE seminars, and not their colleagues who may not have chosen to attend because they did not see enough value in it. Thus, the majority of the views expressed in the following quotations (except for Morag) are reflections of the perceived views of colleagues, rather than an articulation of those colleagues’ actual views.

Morag saw value in attending KE seminars (and praised the CPC’s KE event), but she compared her CPC seminar experience with others she had previously participated in. When she was making such a comparison, she was more critical, saying that in other seminars:

You go along and think: “okay, I’m really going to learn something from this,” and you come away disappointed because [...] a lot of times we want more information.

‘You are warmly invited.’

There’s been a few [seminars] that are really good, and yours {the CPC} have been good, but sometimes you do sit there thinking: “you’ve not told me anything new. I knew all this. You’re just stating the obvious again.” [...]. Teaching your grandmother to suck eggs. So some of these people talk to you like you’re stupid, and it’s like: “we do this every day; you’re just thinking about this now because it’s your project.” It can get really quite frustrating. (Morag, policy support, Scottish Local Authority).

This quote illustrates two sources of frustration that seminars have created for Morag. The first is the expectation that KE seminars should be providing ‘more information,’ whereas she felt that some only reiterated information that she already knew. The second is a sense that they (local authorities) were sometimes treated as ignorant and passive entities that do not have experience in the areas in which they are working ‘every day.’ Some other NAP interviewees recognised this criticism of the failure of KE seminars to meet colleagues’ expectations, and attempted to rebut it:

I think other people expect too much. You have to be realistic in what you’re going to hear about and what we will be told [...]. There’s always little health warnings everywhere because it is about managing expectations. People expect numbers then answers, and as soon as you put numbers in, or facts, and draw some conclusions people will always think: “is that *it!*?” This event isn’t going to change policy like that. (Suanne, policy officer, Scottish Local Authority).

And I think that’s a criticism that’s often made: “so what’s the point in working with academics because you’re not going to get solutions,” but I think that’s maybe the work of {pause} you know, it’s more of a lack of understanding about

what academia’s about, and what it does. But it’s a criticism that I’ve heard before: “yeah, that’s great, but what’s the solution?” But equally, yeah, if somebody did say: “this is the solution, there, that’s it,” well, you’d get the reply: “but it’s not that easy.” (Roxanne, Research and Policy Support, intergovernmental organisation, Scotland).

Suanne felt that there was an issue around people who ‘expect too much’ about ‘what you’re going to hear’ at KE seminars. Roxanne works for an intergovernmental agency and holds a PhD. She was more familiar with ‘what academia’s about’ and attempted to point out that, even if seminars could offer ‘solutions,’ it might not be possible to implement them because of the political or economic context which makes academic conclusions unfeasible in the real world (Bullock et al, 2006; Nutley et al, 2007; Davies et al, 2000).

Within this analysis, unmet expectations from KE seminars derive from the assumption that academic research can give clear and unambiguous answers to policy questions (Nutley et al, 2007; Clarence, 2002), and KE seminars are the classrooms where those answers are provided. This is particularly problematic when tackling complex social problems where research presented at KE seminars may either provide answers which are unfeasible, or only address one dimension of a complex problem. If KE seminars are presented as classrooms where solutions to problems are transferred to the NAPs, then there will always remain an issue of unmet expectations, which academics and NAPs must be aware of.

8.2.4 Academics’ learning from non-academics’ professional perspectives

So far this analysis has examined NAPs as the recipients of knowledge moving from academic ‘teachers’ to NAP ‘students.’ It has also examined some of the dimensions of this knowledge movement, including how research may be used, and meeting expectations. This section of the analysis examines the flow of knowledge from

NAPs to academics, as presented in the two-way interaction model outlined by Huberman (1994; 1993). KE seminars are sites where NAPs can communicate their needs and experiential knowledge to academics (ibid). This is what makes interaction within KE seminars an ‘exchange.’ Such reciprocity is important for academics to learn and appreciate the political and policy context of policymaking in order to better understand current problems, questions, and constraints which policymakers might be facing in their professional work (Huberman, 1994; 1993; Philip et al, 2003; Vivian and Gibson, 2003; Clarke and Kelly, 2005; Nutley et al, 2010; Best and Holmes, 2010; Kitson et al, 1996). In other words, this exchange implies a movement of knowledge from the NAP to the academic; casting the former in the role of teacher, and the latter in the role of student.

Nearly half of the NAPs (6/14) stated in their interviews that they felt KE seminars were opportunities to tell academics the type of things that they already know, would like to know from academic research (Iain), and to communicate to academics the policy and political constraints they faced (Susanne).

Sometimes you can establish with researchers what we’re interested in. So I suppose it’s an opportunity to tell them what kinds of things that we already know, and what we want to know: that kind of thing. (Iain, NHS, England).

Lots of researchers aren’t very good at knowing about the political or policy side of things but there’re lots of things to consider [...] [and these seminars] can be useful to tell them what the limits are for us. We’re obviously apolitical, but once things have gone to our elected members, we are a politically-driven organisation. So we have to support elected members, and we have to be mindful of that and researchers aren’t very good at recognising the types of [political] constraints that we have [...] But it can be a bit anxiety-ridden for the researchers. (Susanne, policy officer, Scottish Local Authority).

Iain’s quotation succinctly encapsulated the point that KE seminars are opportunities for NAPs to tell academics about what they ‘already know’ and what they ‘want to know.’ Susanne’s quotation is more complex. She described KE seminars as opportunities for teaching academics about the political dimensions that their research engages with. She, like many others, felt that academics were less skilled at understanding how their research implications will be picked up by the political environment (specifically elected representatives, others mentions the media). This was particularly problematic with issues that were political ‘hot topics.’ As such, seminars are an opportunity to tell academics ‘what the limits are.’

While some NAPs explicitly stated that academics should be free to disseminate their research in any way they like, they also described some academics’ attempts to reach out to them as politically naïve. This was particularly true when academics were attempting to engage with the different political and policy systems (and its associated audiences) across the UK. To illustrate this point is a quotation from Sharad. Sharad is a civil servant working for the UK Government, but who until relatively recently worked for the Scottish Government.

All I’m saying is that at the moment there is a politick in Scotland and a politick in England which means that if you start talking about difficult things, like migration, you will be confronted with different reactions¹³. So if you’re {academics} speaking to one set of people, they are going to respond in one way, and if you speak to a different group, they will respond differently. If you’re speaking to people who deal with this area, they’re all going to be sitting there thinking: “how will people like me take this? How are

¹³ At the time of writing, the UK Government is seeking to limit migration to the UK from within the EU and beyond. Conversely, the Scottish Government is seeking to attract and retain migrants to Scotland from within the UK, the EU, and beyond; and have implemented a number of schemes and programmes to fulfil this ambition as far as it can under the current constitutional settlement.

‘You are warmly invited.’

elected representatives going to take this?” This is important to think about as these {seminar} events are a way to talk about what may and may not be acceptable to different groups. (Sharad, civil servant, UK Government).

This view frames KE seminars as creating opportunities for NAPs to share their (insider) knowledge with academics. They are sharing their expertise and experiences in the political and policy environment in which academics’ research exists, and do so in a relatively informal and confidential social environment. Such a view was also to be found in several of the academics’ interviews:

It {the seminar} gives us the opportunity to learn things from people and maybe gain a different perspective: how people work, what they are interested in, what policymakers are thinking about, what politicians are thinking about. (Emma, academic, Soton).

Mainly it’s about information going both ways. So we get to hear [...] the sorts of things that they’re interested in. In the other direction, we’re communicating the sorts of things that we’re working on, and the sorts of things that we might be working on next, and trying to have conversations about whether we could contribute something to their interests – to make our work a little more useful to the types of things that they want to find out. So these types of events are an informal way of just putting the feelers out there to see what type of things there’re interested in. (Harriet, academic, Soton).

These quotations illustrate that for some CPC academics, KE seminars are an opportunity to listen to NAPs, to ‘learn’ (Emma), and to ‘have conversations’ in an informal setting. Harriet described seminars as a two-way exchange (‘information

going both ways’) which echoes two-way interactionist models of KE (Hubberman, 1994; 1993; Best and Holmes, 2010).

Like the NAPs, the academics’ quotations do not suggest that these two-way flows of knowledge will be useful in an instrumental way, but as a way of ‘putting the feelers out’ (Harriet) to develop a better, more grounded understanding of the type of things NAPs are interested in, and to see if any future work can contribute to those interests.

While some academics saw themselves as learners within the seminar encounter, the analysis revealed a discrepancy between the views of NAPs and academics on this matter. Most NAPs (11/14) talked about the importance of KE seminars as an opportunity for them to share their perspectives and knowledge with academics. By contrast, less than a half (7/13) of academics explicitly saw themselves in the role of learner or explicitly recognised that seminars were an opportunity for them to learn from the NAPs.

The overarching theme in this section of the analysis has focused on the movement of discrete, concrete, existing knowledge between participants that can be shared with others, and moved around as if it were a physical entity. This section has drawn on the two-way interaction model to position both academics and NAPs as teachers and learners who are both giving and receiving knowledge within KE seminars. Yet while it is clear that two-way communication of knowledge between academics and NAPs is an important reason why people attend KE seminars (and an important function that KE seminars can fulfil), it was clear from the data that this is only the beginning of a more complex story. KE seminars might be an opportunity for sharing *preexisting* knowledge with others, but they are also sites of creating *new* knowledge which is created from interactions between participants: knowledge which is distinct from each of the contributors’ original understanding of the topic in which they are engaging. It is to this matter that the analysis now turns.

8.3 *Seminars as sites of the co-construction of new knowledge*

This section moves away from two-way interactionist models of the KE process within KE seminars towards a dynamic and multi-directional process underpinned by social-constructivist perspectives. Such a view undermines the perception that each ‘side’ (academics and NAPs) has knowledge that can simply be shared by talking to each other. Instead, new knowledge is not only exchanged, but created by a process of debate, dialogue, and discussion. The co-constructivist view also holds that all knowledge is shaped and filtered through pre-existing tacit and explicit knowledge among actors with diverse knowledge and expertise (Greenhalgh and Wieringa, 2011; Davies et al, 2008; see also sections 4.5.2 and 4.5.3). Knowledge exchange is thus a socially mediated reiterative, and dynamic process where academic knowledge is blended with other forms of knowledge, and integrated to create new ways of understanding social phenomena (Nutley et al, 2007: 119; Davies et al, 2008; Davies and Powell, 2012).

KE seminars are physical sites in which these complex and multi-directional exchanges occur.

Section 6.3.1 examines the importance of dialogue between academics and NAPs who hold equal status as knowledgeable participants within the exchange process. Section 6.3.2 presents evidence on the value that NAPs placed on engaging with other NAP participants, rather than academics. This is important because the KE field tends to focus on interactions between academics and NAPs, while the analysis of the interview data revealed that many NAPs placed greater value on KE seminars as forums in which to speak with other NAPs than with the academic researchers.

8.3.1 Co-construction of knowledge from interactions between academics and non-academic professionals

In the following quotations, note how the description of the interaction encounter within KE seminars moves beyond a simple communication of knowledge in a two-

way fashion, towards one in which *new* knowledge is ‘adapted, blended with other forms of knowledge, and integrated with the contexts of its use’ (Nutley et al, 2007: 119).

People {NAPs} have a substantial amount of knowledge overall in what they know. We don’t all know everything, we don’t need to know exactly the same things, but there is a fair amount of overlap in what we know. And so having opportunities to have these conversations {at KE seminars} can generate extremely interesting and stimulating ideas. And it’s really fascinating to listen to. If you have a few really skilled practitioners {NAPs}, they can really tease out things from the researcher and vice versa. (Harriet, academic, Soton).

It’s really refreshing to be able to finish giving a presentation and then have people ask questions and for us to talk to each other about things that they actually care about. At [academic] conferences people might just ask a question for the sake of asking a question, but I really don’t see that happening so much at these types of events. It tends to be questions related to their work [...]. So it’s direct questions about a particular issue that matters to them. And from that you can get into a good conversation. It’s really good because I think that people are genuinely engaged and it’s here that interesting things can come out. (Patrick, academic, SC).

There are two interesting features of these quotations which are relevant to this discussion.

The first is to recognise that NAPs are themselves ‘experts’ within their respective fields, and yet there has been a historic tendency within the KE literature to position academics in a position of power and cast them in the role of ‘expert’ at the expense

‘You are warmly invited.’

of the NAPs’ knowledge (Vivian and Gibson, 2003; Greenhalgh et al, 2004). In these quotations, there is an explicit recognition that NAPs are active and knowledgeable contributors who have something valuable to offer the interaction process (Davies et al, 2008). They are more than a passive audience receiving academic wisdom; they themselves also embody ‘a substantial amount of knowledge’ (Harriet). Yet while NAPs do have expert and specialised knowledge, it is also partial, flawed, and even incorrect (Hislop et al, 2014; Rushmer and Davies, 2004), much like knowledge of the academics themselves. This is indicated by Harriet’s comment that ‘we don’t all know everything, we don’t need to know exactly the same things.’

The second feature of these quotations is that both Harriet and Patrick are describing seminars as offering something beyond just a site for disseminating *existing* knowledge: they are sites for the creation of *new* knowledge. Seminars are sites which enable ‘conversations’ with ‘really skilled practitioners’ which ‘can generate extremely interesting and stimulating ideas’ (Harriet). This thesis posits that this is evidence of a co-construction of knowledge which emerges from the dialogical exchanges within KE seminars. Such productive interactions ‘can really tease out things’ (Harriet); it is here that the ‘interesting things can come out’ (Patrick). Patrick and Harriet both seemed to enjoy this process, describing it using the words: ‘interesting,’ ‘stimulating,’ ‘fascinating,’ and ‘refreshing.’ This co-construction of knowledge is a dynamic and social process in which dialogue integrates pre-existing knowledge and expertise (Davies et al, 2008) which can be beneficial to all participants:

The selling point was that there was a two-way dialogue [...]. So they weren’t immediately going to get anything back on either side, but it was about creating an opportunity to feed into the other side and potentially invest something for the future. (Stephanie, Government researcher, Scottish Government).

‘You are warmly invited.’

Stephanie’s quotation viewed KE seminars as opportunities for dialogue to ‘feed into the other side.’ Such ‘interesting conversations’ were not going to lead to any change immediately, but they did enable both NAPs and academics to build something for the future that might be beneficial to all participants. Toby, an academic, makes this point clearer when he argues that KE seminars are sites of dialogue which can lead to new knowledge, to new ways of thinking, new ways of working, and new practices for producing research. Such productive interactions can help academics to influence how demographic data is collected by the state, and in return academics can help answer questions that governments are asking. Toby has a vision of academics in constant dialogue in order to build:

an intimate relationship, a close relationship, with the producers of demographic information; then it becomes possible for academics to engage with things in a very different way. It means that the dissemination and the writing up process is done in a new way; stimulated not just by academic questions, but by the questions asked by government, and I think that is a very healthy thing. We are in the business of looking at new ways of doing things, new ways of looking at things, new ways of approaching topics that are pressing for society. (Toby, academic, SC).

For Toby, interactions within KE seminars can lead to the development of a more intimate relationship between academics and NAPs which encourages new and ‘very different’ ways of approaching, working with, writing, and disseminating demographic research. KE seminars are therefore important sites for not just disseminating academic research (or communicating needs back to academics), but rather a deeper and more meaningful engagement which can create new ways of thinking as well as potentially enabling changes in academics’ and NAPs’ professional practices.

‘You are warmly invited.’

As a caveat to this, Toby immediately qualified his position by saying that the power dynamics should not be shifted too far in favour of the state: that academics should always be careful not to become servants of the state and of those in positions of power:

We have to be critically reflective about whether that intimacy can also lead to our position as academics being abused - by providing knowledge that we should be more sensitive to: specifically, those in positions of power. (Toby, academic, SC).

Notwithstanding this caveat, Toby saw that strategic engagement with representatives of state institutions through KE seminars as a channel for positively shaping the agenda in both directions.

This makes clear that KE seminars are an example of the physical sites in which the co-construction of knowledge actually occurs. They create opportunities for dialogue between academics and NAPs which can lead to the emergence of new ways of understanding and approaching research findings and their implications.

8.3.2 Co-construction of knowledge from interactions between non-academic professionals

While interactions between academics and NAPs within KE seminars can be conducive to the creation of new knowledge, this thesis now diverges from Spaapen and van Drooge’s (2011) conceptualisation where they imply (on page 212) that the process of productive interactions is mediated exclusively through exchanges between academics and NAPs. The interview data produced a very strong narrative in which NAPs clearly stated that one of the most important functions of KE seminars was not to engage with academics in discussion, but to engage with each other. Such a finding echoes that work of Philip et al (2003).

‘You are warmly invited.’

Almost all NAP interviewees (11/13) stated in their interviews that KE seminars were an important forum for NAPs to interact with other NAPs - their colleagues and peers - in a research topic of mutual interest.

Well one of the key attractions was that we made it clear that it wasn't going to be just [redacted] [Patrick] talking about his research findings [...] you were also getting a discussion with your fellow people [to] share experiences and interpretations. So I think they're {seminars} quite important. I mean they can serve a lot of different functions: hear what the academic is saying, which is ostensibly why people are going to events, but you're also having the opportunity to speak to other people in the audience who've come along. Even if what you've come to hear about turns out not quite what you've thought, you might still get something out of it. (Stephanie, government researcher, Scottish Government).

KE seminars fulfill a number of functions; they are spaces to hear about academic research findings, of course, but they are also spaces to have a 'discussion with your fellow people [to] share experiences and interpretations.' Stephanie very clearly stated that even if the content of the seminar failed to meet expectations, NAPs can 'still get something out of it' through engagement with their peers.

Therefore, KE seminars are not just sites of disseminating knowledge, or even the creation of new knowledge through exchanges between academics and NAPs, they are also 'joint interpretive forums' (Mohrman et al, 2001: 360; Golden-Biddle et al, 2003; Rynes et al, 2001; Boland et al, 2001). Such forums increase the opportunity for perspective-taking and enabling the drawing out of new understandings of the research being presented among all the participants in ways which indirect interactions (Spaapen and van Drooge (2011) (such as via textual artifacts) or direct interactions between academics and NAPs alone cannot achieve. This fundamentally changes how one might understand the dimensions of productive

interactions within the context of KE seminars; from a two-way interaction process between academics and NAPs, to a multi-directional, social constructivist process involving multiple actors with diverse sources of knowledge and expertise (see figure 5; Greenhalgh and Wieringa, 2011; Davies et al, 2008). This co-construction of knowledge is created and mediated through interactions among NAP participants. This is what Davies et al (2008) refer to as ‘knowledge integration’ and what Tyndén (1993) refers to as ‘knowledge interplay.’ KE seminars create social spaces in which that interplay, integration, and creation of knowledge can occur.

Within such interaction dynamics, the academic (and their knowledge) move away from the central position within the interaction encounter to a more peripheral one. Indeed, productive interactions among NAPs within KE seminars may not even include the academic at all (Davies et al, 2008; Gabby and le May, 2004; Haas, 1992). On this latter point, there is evidence from the academics’ interview transcripts which indicates that they felt that the points where they stepped back from the focus of the exchange were the points where the most productive interactions occurred:

The discussion part was possible because we were there for longer. I talked a little bit, but there was much more of a discussion afterwards. By the end I was not saying very much - I was more like a chair. Not moderating the discussion because there wasn’t much disagreement necessarily, but directing questions and comments between people who were interacting with each other much more – and different people from different organisations have different perspectives and that is really good [...]. I wanted to have a forum; I wanted them to talk to each other. I think that’s probably where a lot of interesting stuff comes out, where the debates come out, where the interesting findings and the relevance of the work comes out. (Patrick, academic, SC).

‘You are warmly invited.’

The idea is that, basically, you want to try and create a roundtable discussion so that lots of people feel relaxed about contributing because it’s supposed to be for everyone. I try to act more like a facilitator on these occasions. [...] These events do two separate things: the presentation tends to be a more formal thing, and the discussion and interaction is something else. And what you really want is that more exploratory conversation [of the second function]. So you want to keep that formal part as short as possible: we want people to contribute to a discussion, to those kind of exploratory conversations, and feel comfortable about doing so. (Joseph, academic, SC).

Patrick and Joseph both recognised the importance of KE seminars as social occasions where NAPs can physically come together to communicate with each other. They claimed they deliberately sought to create such a ‘forum [for] them to talk to each other’ (Patrick). In order to create such a joint interpretive forum required them to step back from the interaction and act like a ‘chair’ (Patrick) or ‘facilitator’ (Joseph). In doing so, they felt they were enabling ‘exploratory conversation[s]’ (Joseph) between the NAPs themselves, which is ‘where a lot of interesting stuff comes out’ (Patrick).

Patrick’s quotation also mentioned debates – and this is an issue worth picking up in this analysis because the KE literature is clear that an important component of the KE process is to highlight the diversity in participants’ perspectives, highlight opposing views, and engage with those differences (Greenhalgh and Wieringa, 2011; Davies et al, 2008; van de Ven and Johnson, 2006; Vivian and Gibson, 2003; Tyndén, 1993). Most of the seminar participants (both academics and NAPs) viewed KE seminars as an opportunity to introduce diversity in perspectives because they were open to participants employed by different non-academic organisations. Many NAPs (7/14) expressed a desire to hear alternative views from people from other non-academic organisations from their own. This is demonstrated in the words of Susanne:

There is something useful there about gauging what other people {NAPs} think about the research and working out what other people have and haven’t managed to pick up on [...]. So if you’re at an event, you find that people are coming from a completely different place. We want to hear that, and to think why, and that’s interesting for us. So it’s interesting to hear their points of view. There was someone from the CAB {Citizens’ Advice Bureau} who was there and she had a lot of interesting input. And I would say that this is probably the biggest benefit from it, really, was hearing other people’s perspectives on the research. (Susanne, Policy Officer, Scottish Local Authority).

It should be briefly noted here that the person from the CAB was forthright in holding an opinion that was substantially different from the majority view in the seminar in which Susanne and the CAB representative were participating.

For Susanne, and many other NAPs interviewed, it was ‘hearing other people’s perspectives’ that was the ‘the biggest benefit’ to be gained from participation in KE seminars; particularly those who were coming from ‘a completely different place’ – ie those from different organisations who held very different views from their own.

Many academics also shared this view where the most productive interactions within KE seminars occurred between NAP participants who were from different organisations exactly because it led to a greater diversity of views and opinions emerging.

There can be a problem if you have all people from the [redacted] [same organisation] there because they’re all singing from the same hymn sheet. You want different people from different organisations who have different perspectives to come [to the seminar]. (Patrick, academic, SC)

‘You are warmly invited.’

Well, they’re lots of local authorities that came, and lots of people with lots of different experiences and ideas. But sometimes the problem in these discussions can be that they will all sit there and just agree with each other: “Yes, I agree, I also agree” because they’re all from the same place {non-academic organisations}. (Harriet, CPC, Soton).

In these quotations, both Patrick and Harriet saw a lack of organisational diversity among non-academic participants as a barrier to productive interactions as they tend to be uniform and unanimous in their perspectives – with Patrick describing this as ‘singing from the same hymn sheet.’

The evidence presented in this section attempts to expand our understanding of productive interactions to include not only interactions between academics and NAPs, but include interactions between NAPs themselves, which, for many, was an important dimension of the interaction experience that KE seminars can provide. Seminars offer spaces to integrate diverse knowledge among the participants but it requires the academic hosts to consciously step back in order to create a space which allows that multi-directional interaction which facilitates the interplay and integration of knowledge.

8.4 Seminars as sites dedicated to thinking and reflecting

A third identified function of KE seminars was their value in offering spaces for thinking and reflection (Buysse et al, 2003; Hislop et al, 2014; Rushmer and Davies, 2004). They are spaces and times away from routine professional life which are dedicated to thinking and reflecting on a single issue. By this, I am referring to KE seminars as providing an opportunity for NAPs to physically remove themselves from their desks and dedicate a period of time within a ‘different setting to think.’ This is summed up succinctly in Lisa’s quotation:

‘You are warmly invited.’

And there has to be some benefit in just having time for people [non-academic professionals] just having time in a different setting to think about an issue slightly differently. (Leanne, academic support, CPC).

The idea of having a dedicated period of time to think links back to the previous chapter which described the impact that reduced staff and budgets has had on the organisational capacity for NAPs to engage in KE practices. All of the NAP interviewees mentioned the challenge of diminishing public resources. This has led to fewer professionals working on a larger number of policy areas, which has imposed a greater demand on their time. As such, many NAPs (9/14) described KE seminars as an opportunity to create time to focus on a single issue - this was important as they were all working in a number of different policy areas simultaneously:

When it comes to filling in evaluation forms for these kind of things, I’m always writing: “having time to think about that one thing.” It is the most valuable part. That and the networking. Just taking time out and thinking about that one topic area [...]. We have busy lives, and I’m covering a wide range of policy areas, so that means they {KE seminars} are quite useful to focus my mind on a particular topic for a while. (Morag, Policy Support, Scottish Local Authority).

Most of the time you’re running from one thing to another [and] you don’t get an awful lot of time for thinking. There is an awful lot to be said about actually having a dedicated time to look at only one thing and I would imagine for most people these days, and certainly in my role, you’re jumping a lot from issue to issue in different pieces of work that you’re working on. (Elaine, Policy Support, Scottish Local Authority).

‘You are warmly invited.’

Both Morag and Elaine said that their professional remit covered a number of different policy areas and that they were ‘running from one thing to another’ (or ‘jumping a lot from issue to issue,’ Elaine). Both saw KE seminars as an opportunity to ‘focus [the] mind’ by ‘dedicating time’ to a single topic.

Along with creating a separate *time* for thinking about a single issue, KE seminars are a dedicated *space* away from the busyness and distractions of the office environment which can encroach on a NAP’s ability to demarcate time to specific activities:

It’s good if you get a day away from the office. It’s a separate space to think about something. (Lilly, UK Government agency).

It’s great to be away because a lot of the time you’re in the office and there are phone calls, and there are emails, people coming in and out. Especially for what we do, we jump between different topics constantly. Just to have that time away from the office to think is really important. When I’m listening, I’m scribbling away, writing wee notes to myself: “should we look at this? Should I do that? Have we discovered anything about that?” And it really helps, and there’s a great value in that. (Morag, Policy Support, Scottish Local Authority).

8.5 Seminars as sites of networking

The fourth and final function of KE seminars is to provide an opportunity to network and make new contacts. Productive interactions are not only those which lead to learning; they can also be ‘productive’ if they enable participants to network and establish or reinforce their relationships with each other.

The sociological literature highlights that face-to-face conversations are crucial to the development of trustful professional relationships (Urry, 2002; 2003; Larsen et al, 2006; Boden and Molotch, 1994). It has also been very well documented within the KE literature that face-to-face contact between academics and NAPs helps foster interpersonal relationships between them (Wilkinson et al, 2012). Such interpersonal relationships are critical to the KE process. They may be contractually obligated, or informal, or a combination of both, or move from one to the other and vice versa (Morton et al, 2015; 2014; Olmos-Peñuela et al, 2014a/b; Grimshaw et al, 2012a; Shaxton et al, 2012; Moore et al, 2011; Molas-Gallart and Tang, 2011; Castro-Martínez et al, 2011; 2008; Best and Holmes, 2010; Mitton et al, 2007; CIHR, 2006; Gabby and le May, 2004; Greenhalgh et al, 2004; Jacobson et al, 2003; Kramer and Wells, 2005; Court and Young, 2003; Innvær et al, 2002; Feldman et al, 2001; Molas-Gallart et al, 2000).

While relationships have been identified as important within the KE process, there is very little understanding of their establishment and dynamics. This is particularly true for informal networks (ie those not contractually regulated such as via collaborative research projects or commissioned research contracts) which are considered by some to be very important to the process, particularly within the social sciences (de Jong et al, 2014; Olmos-Peñuela et al, 2014b). Further work is needed in understanding informal interpersonal relationships, and this section contributes to this discussion in some small way. It argues that KE seminars create a social environment in which informal relationships can be established and maintained. NAPs and academics may have expansive informal networks with each other, but they do not often get to meet their those contacts in person (particularly those who are geographically distant) and so KE seminars are spaces for academics and NAPs to meet up in person (face-to-face) and ‘touch base’ with one another. Furthermore, not only do KE seminars help maintain and reaffirm *existing relationships*, they create opportunities for participants to establish *new relationships*.

‘You are warmly invited.’

To make this case, the following analysis is divided into two sections. Section 6.5.1 addresses KE seminars as sites for *academics and NAPs* to meet and build relationships with one another. Section 6.5.2 presents evidence of KE seminars as sites where *NAPs can meet other NAPs* to reaffirm existing relationships and meet new, previously unknown, acquaintances who share the same professional interests as them.

8.5.1 Networking between academics and non-academic professionals

KE seminars are social spaces for academics and NAPs to network with each other. This view of KE seminars was expressed by both academics and NAPs. The following section presents the views of academics and NAPs.

Academics’ view of networking with non-academic professionals

The following quotations are from two CPC academics, one from Soton and another from the SC. Harriet makes the point that KE seminars are opportunities for academics to reconnect ‘in a relatively informal setting’ with NAP contacts who are **previously known** to them, but who perhaps do not meet regularly:

It’s a chance to meet people informally in a relatively informal setting, and that helps with our networks because if the researchers are putting something on like this, you will send out emails to people in your contact list; people who might be interested in your work but whom you might not meet that often. (Harriet, academic, Soton)

Harriet went on to make a further point that KE seminars also provide opportunities to make new contacts who were **previously unknown** to academics:

The researchers get a chance to contact some of those people in key places that they might not have gotten to speak to, or that they might not even have otherwise known about, or some charity that they previously didn’t know about, or some other organisation. And it’s good to make those new contacts which can be useful in the future [...]. That doesn’t happen unless you have these informal chats at events like these. (Harriot, academic, Soton)

In response to this quotation, one interpretation of it might be to argue that KE seminars are not closed meetings, they are what Oldenburg (1991) might call an institutionalised ‘third place,’ or what Goffman (1963) called ‘open regions:’ a ‘neutral’, semi-public forum where strangers or acquaintances can gather and socialise and have a ‘right to initiate’ conversation (Goffman 1963: 132). In such spaces, people make themselves mutually accessible to interacting with others with whom they may or may not already be acquainted (Shaviro, 2003: 129).

Such ‘open regions’ help to draw academics out from what several interviewees referred to as the ‘academic bubble,’ and encourage them into a more open forum which:

...reminds me that there’s a real world outside, beyond academia. These activities {KE seminars} help me build networks and contacts [...]. Those contacts at [REDACTED] and the [REDACTED] [REDACTED] {name of non-academic organisations} were quite useful. It’s not something that needs to be nurtured on a weekly basis kind-of-thing. But if they need information, they {NAPs} know who you are now, they could contact you, or if I needed, I could contact them in the future. It certainly helps instead of coming out of the blue and saying: “I’m a researcher, blah blah blah.” (Patrick, academic, SC)

Patrick’s quotations reflect the findings of Olmos-Peñuela et al (2014b), Molas-Gallart and Tang (2011), Court and Young (2003), and Percy-Smith et al (2002), and others, when they suggest beneficial relationships between academics and NAPs are often informal and ad hoc, developed only after serendipitous encounters; they are ‘not something that needs to be nurtured’ regularly or frequently, but those informal relationships are important for providing access opportunities and resources in the future. It is here, in the social gatherings of KE seminars, that those informal contacts are made and reinforced.

Non-academics’ views on networking with academics

The NAPs’ interviews shared a similar metanarrative to that of academics by highlighting that KE seminars are social (and physical) spaces which create opportunities for NAPs to network with academics. The following quotations were chosen here to reflect views from both the Scottish and English respondents.

We go [to seminars] because we’re trying to build up links with academics to make sure that we’re getting public value out of research that’s going on: we’re all interested in developing links and building links. (Stephanie, government researcher, Scottish Government).

I think we do tend to know who the key academics are who are interested in the areas that we’re interested in. Some of these events are good for flagging up people and projects that you might not know about who are also doing work in areas that we’re interested in. (Lilly, UK Government agency).

‘You are warmly invited.’

Stephanie says that her employer organisation (the Scottish Government) is trying to build up links with academics, and linked that networking activity explicitly to KE seminars. Lilly’s quotation was more explicit in pointing out that KE seminars are good opportunities for ‘flagging up’ new academics that they might not have known about, but with whom they share a common interest in a specific topic. Again, seminars are ‘open regions’ (Goffman, 1963) where previously unknown (but professionally useful) contacts can be made.

8.5.2 Networking between non-academic professionals

Reflecting a wider meta-theme of this thesis is the idea that interactions and relationships between academics and NAPs are only part of the story; it is the interactions and relationships between NAPs themselves within the context of KE seminars which are of importance in understanding KE seminars and NAPs’ experience of them. While the KE literature has discussed the importance of the relationship between academics and NAPs to a great extent (as cited earlier) it is only recently starting to engage with the idea that the relationships between NAPs themselves (not always including the academics) are important for KE (Best and Holmes, 2010; Davies et al, 2008; Gabby and le May, 2004).

Almost all of the NAPs interviewed (12/14) described KE seminars as opportunities to meet existing or develop new NAP contacts (as opposed to academic contacts).

Networking with existing contacts

Many NAPs suggested that they already knew many of the attendees at the CPC KE seminars which they attended, and saw these events as opportunities to reconnect with those contacts. This theme was particularly prevalent amongst Scottish NAP participants who may benefit from the small world effect and thus be in a better position to know one another (Nutley et al 2010; 2007).

There’s no doubt that we all know each other. [redacted] and [redacted] {two colleagues} know most people in Scotland who are involved in that field of their work. We are very good at sharing information across different partnerships. We work closely with lots of people – particularly other rural councils [...]. It’s not an ongoing thing, but we do meet with others in our partnerships, and other councils. Not very often, but when we go to events like this [the CPC KE seminar], we can meet up with them. (Susanne, Policy Officer, Scottish Local Authority).

It’s interesting and I think many people have talked about it; it’s not only the event itself that people are interested in, but it’s the networking that’s important [...]. It’s a good opportunity for people that are there to feel like they’re touching base with their colleagues. (Ross, Policy Support, English intergovernmental organisation).

Susanne is from a rural Scottish Local Authority and as previously discussed, was concerned about the huge distances travelling to the ‘central belt’ when participating in KE seminars (an issue covered in the previous chapter); she often organised what she later called ‘pre-meetings’ with other colleagues from other (rural) councils either before or after the event itself. Of course, this leads to the question: how do NAPs know that the contacts with whom they want to meet up will actually be there? I posed this question to a number of NAPs:

Hamish: We do need to sometimes get together to talk about things, and so I think a big part of going [to the seminar] is the networking with the other local authorities who’ll be there.

ST: But how would you know if they’ll be there? Like. How could you be sure that your ‘counterparts’ will actually be going?

‘You are warmly invited.’

Hamish: Well, you’ll just know. We’re on several mailing lists like [REDACTED], [REDACTED], and [REDACTED]. They all have mailing lists so you’ll get information about events from them – often the same email’s circulated around [on] several lists. So you’ll have a fair idea of the other people who’ll be going. And if not, you can just email them: “Are you going, Tom? Should we should make time to talk about the [REDACTED] meeting?”

Both Hamish and Susanne strongly implied in their quotations that the NAPs who attended the CPC’s KE seminars are part of a network of contacts who at least occasionally needed to meet up with one another, and KE seminars offered an excellent opportunity for them to do so. KE seminars allowed NAPs to organise time within (or before or after) the seminar event to discuss other professional matters face-to-face. Such a finding mirrors Larsen et al’s (2006) discussion of why people come together for business meetings when the content could be transmitted virtually. They argued that it was the social functions that such meetings provided which made them indispensable. Furthermore, they claimed that professional meetings in the future would increasingly be about the social opportunities they provided, rather than (exclusively) learning ones. In a digital age, physically travelling to meetings is no longer for the sole purpose of sharing information between participants. Rather, the meetings have a social, rather than informational, function. This thesis agrees with this view in the context of KE seminars. Of particular relevance to this analysis was Larsen et al’s (2006) discussion on the informal ‘huddles’ either before the meeting commenced or the ‘social drink’ afterwards. So too at KE seminars there is evidence that the seminar event itself offers a focal point for NAPs to meet and interact with each other around the context of the event. It makes the travelling to attend those seminars worth the investment when they also encompass those productive meetups before or after the seminar itself.

Networking with new contacts

Along with using KE seminars as opportunities for NAPs to reconnect with existing NAP contacts, they can also be sites for meeting new contacts. Ross says that KE seminars are:

an opportunity to talk to people in government and the other people who are working on similar area as you who you might not have been aware of. (Ross, Policy Support, English intergovernmental organisation).

It's actually quite hard to build up a network that cuts across professional boundaries. So it's relatively easy for me to contact people in other local authorities, but it's much, much harder for me to have links to the government. It's hard for us to meet with people from the NHS, third sector. You just don't know who everyone else is. Sometimes you go to things like this [the CPC seminar] and you become aware that there's a lot of interest in this topic, and it's good if there's some sort of structure where people on both sides of the government¹⁴ are able to come together and meet with each other. (Elaine, policy support, Scottish Local Authority).

Elaine's quotation offers insights into the difficulties of building networks which 'cut across professional boundaries,' claiming it is 'relatively easy' for her to build contacts with other local authorities, and harder to do so with professionals from other non-academic organisations. She then explicitly states that she feels that KE seminars play a positive role in bringing people together from across different non-academic organisations, who have a shared interest in the topic being discussed.

¹⁴ It is not clear what the interviewee meant here by 'both sides of the government.' It is possible this is a reference to the central and local governments, or between government and non-government organisations.

‘You are warmly invited.’

Again, this makes KE seminars ‘open regions’ where participants have the right, and often the expectation, to initiate conversation and network with new acquaintances who were previously unknown to them (Goffman, 1963; Shaviro, 2003).

As a final point about KE seminars as spaces for networking, Stephanie made an astute observation regarding the burden of responsibility for creating such ‘open regions’ which facilitate networking opportunities:

And if you {academics} organise events it means that policy people, the practitioner, aren’t having to take the initiative [...]. The academic is making it {pause} putting the effort into creating the event and all audience has to do is sign up and turn up. Whereas if you did not have these formal networking events, it would rely on individuals working to maintain those contacts that they have. Whereas these events {seminars} can allow people to make contacts which may turn into something else. (Stephanie, government researcher, Scottish Government).

Stephanie’s quotation was chosen because it was articulate in expressing the view that KE seminars create opportunities for NAPS to meet with other ‘contacts,’ but without them expending any effort, just ‘sign up and turn up.’ Stephanie makes it clear that creating such networking opportunities is a burden, and academics who organise them shift the burden away from NAPs. Such a view leads to the conclusion that an important function of KE seminars isn’t necessarily knowledge exchange, but rather a networking opportunity which may or may not even include networking with academics at all.

8.6 Conclusion

This chapter has sought to examine what functions KE seminars serve which makes them worth the investment of resources it requires to enable people to physically come together, face-to-face. It takes the view that KE seminars are a forum for academics and NAPs to engage in a range activities (which including knowledge exchange, but also includes other social processes, which this thesis collectively refers to as ‘productive interactions’

It started from Spaapen and van Drooge’s (2011) conceptualisation of productive interactions. For them, interactions are ‘productive’ when they lead NAPs to think about, use, or apply academic research to their professional work. This chapter sought to explore how one might further expand on this conceptual rubric by examining what makes interactions at KE seminars ‘productive’ from the perspective of those who participate in them. The analysis presented in this chapter claims that there are four ‘dimensions to productive interactions.’ It finds that interactions are ‘productive’ when:

1. They enable knowledge sharing (learning)

To start, one of the most obvious reasons why academics chose to organise and host KE seminars is to disseminate their research findings to a non-academic audience. However, unlike ‘indirect’ forms of communicating research (Spaapen and van Drooge, 2011), KE seminars enable a reciprocal element where knowledgeable NAPs can communicate to academics their needs, perspectives, and understandings of the implications of the academics’ research findings. As such, KE seminars allows academics and NAPs to engage in dialogical exchanges with each other; a mutual engagement in which each side is providing insights to the other in a mutually beneficial way. However, while many NAPs described the importance of KE seminars as an opportunity for them to share their insights with academics, only a

small minority of academics explicitly stated that they saw themselves in the role of learning within the seminar.

Such a finding is underpinned by two-way models of knowledge exchange such as that proposed within the ‘first generation’ understandings of KE (Best and Holmes, 2010; Huberman, 1994).

2. They enable the co-construction of new knowledge

Interactions can also be productive if they create a ‘joint interpretive forum’ (Mohrman et al, 2001: 360; Golden-Biddle et al, 2003; Rynes et al, 2001; Boland et al, 2001) to enable the co-construction of knowledge. This is a process by which rather than academics and NAPs swapping knowledge as if it was a physical entity, the interaction process creates a new way of thinking or talking about an issue. It is a ‘transformatory’ (Desforges, 2000) and complex process where knowledge is shaped and filtered through pre-existing knowledge, and blended with other forms of knowledge. It works through multiple actors with diverse knowledge who are contributing to the interaction engagement process (Nutley et al; 2007: 119; Davies and Powell, 2012; Greenhalgh and Wieringa, 2011; Best and Holmes, 2010; Davies et al, 2008; van de Ven and Johnson, 2006). Such a view of KE is underpinned by co-constructivist models of KE.

One particular dimension to note is that for many NAPs, the most productive interactions in KE seminars were with their peers - not with the academics. It is a multi-directional form of interaction which is mediated around a research project or programme, but in which the academic may or may not directly be involved in its interpretation (Davies et al, 2008; Haas, 1992; Gabby and le May, 2004). Many academics recognised this and sought to encourage such interactions by stepping back and letting the NAPs talk to each other, rather than with them. Such interactions were particularly productive if they were carried out among NAPs who were from different non-academic organisations as it encouraged plurality in

perspectives and knowledge (Philip et al, 2003). This finding has important implications because it makes KE seminars more than simply a vehicle to transfer research findings from academics to NAPs; they become important sites of complex multi-directional interactions which can create new interpretations and ways of understanding academic research. This would be difficult to replicate outside the ‘joint interpretative forum’ (Mohrman et al, 2001; Golden-Biddle et al, 2003) that seminars can be.

3. They allow for reflection and thinking (reflection)

KE seminars provide NAPs with a dedicated space and time for thinking and reflecting on a single issue. Many NAPs are busy, and increasingly so. NAPs also generally have responsibilities over several policy areas and, like many other professionals, have the usual distractions of the office environment. KE seminars demarcate a space away from those office-based distractions, and be a dedicated time for NAPs to think about a single issue. Creating times and spaces for reflecting is important for connecting new knowledge with what we already know (Buysse et al, 2003; Hislop et al, 2014; Rushmer and Davies, 2004). This is an issue that has received very little attention within the KE literature, and is an area worth further examination in future research.

4. They allow people to network (networking)

This thesis argues that interactions can be ‘productive’ if they enable participants to maintain existing, or create new, contacts – thereby building social networks.

The KE literature has increasingly focused on the importance of networking, and the development and sustaining of interpersonal professional relationships for effective KE. Indeed, some have argued that networking, personal contact, and effective relationship-building might be **the** single greatest factor influencing the ‘uptake,’ ‘use,’ and impact of research (For example, see Olmos-Peñuela et al, 2014b;

Wilkinson et al, 2012; Byrne, 2011; Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011; Best and Holmes, 2010; Ward et al, 2009; Nutley et al, 2007; Lomas, 2007; 2000 (linkage and exchange); Kramer and Wells, 2005; Kramer and Cole, 2003; Greenhalgh et al, 2004; Mitton et al, 2004; Innvær et al, 2002; Crewe and Young, 2002).

While the KE literature recognises the importance of (informal) interpersonal relationships and networking between academics and NAPs, there is very little recognition of the times and spaces within which such networks are created in the first place, or how informal networks are created and sustained through personal contact. This thesis argues that it is in social occasions such as KE seminars that informal relationships are established, maintained or developed into larger networks (Philip et al, 2003) which may or may not develop into more contractual relationships in the future (Olmos-Peñuela et al, 2014b; Molas-Gallart and Tang, 2011).

Final comments about productive interactions

While each of these four functions has been identified as one of the reasons why academics and NAPs attend KE seminars, not all participants attached equal importance to each – with some not citing any at all. Yet both academics and NAPs described the importance of seminars as sites of learning, engagement in dialogue with others, reflecting, and networking – albeit with different emphasis and ultimate goals for doing so. Interactions which facilitate one or more of these are considered to be ‘productive.’

Together, these are what this thesis claims are four ‘dimensions of productive interactions’ within the context of KE seminars. Facilitating all these aspects of productive interactions would be difficult to replicate without participants coming together face-to-face.

This thesis describes ‘productive interactions’ in a way that is more focused yet more expansive than that proposed by Spaapen and van Drooge (2011). They suggested that productive interactions are merely exchanges between academics and NAP in which knowledge is produced that is both scientifically robust and socially relevant (see section 4.3.2). This thesis expands on this specific term to not only examine the wider context of ‘productive interactions’ as Spaapen and van Drooge do, but focus on what outcomes interactions between academics and NAPs would constitute them to be ‘productive’ in the words of those who engage in such exchanges.

A key difference in how the term productive interactions is understood within this thesis as compared to Spaapen and van Drooge (2011) hinges on the fact that this research is not describing the wider research-production process. Instead, it focuses only on a small part of the conceptual rubric - ‘direct’ face-to-face interactions - and only within the context of a single, very specific and particular social environment – that of KE seminars. To elaborate, Spaapen and van Drooge (2011) are explicit that their concern rested with exchanges between academics and NAPs. They argued that for research to have societal impact, there needed to be personal contact and engagement between academics and NAPs. However, the evidence presented here suggests that it is not only interactions between NAPs and academics that the former found productive, but interactions between NAPs themselves – their peers and colleagues. Such a multi-faceted and multi-directional engagement would be difficult outside a social environment in which people, both known and unknown to one another, can come together to discuss research with academics and other NAPs.

9 Facilitating productive interactions through corporeal co-presence

9.1 Synopsis

This final analysis chapter examines the proposition stated in the literature that face-to-face interactions are qualitatively distinct from mediated interactions, and if so describe the significance of being face-to-face for facilitating the four dimensions of productive interactions. In doing so, it addresses the fourth and final research question: why do KE seminar participants choose to physically meet face-to-face in order to engage with academic research findings and their implications?

Theoretically this analysis engages with the concept of corporeal co-presence (Zhao, 2003; Goffman, 1966; Urry, 2002; 2003; Larsen et al, 2006) as a lens for exploring face-to-face dialogical interactions among academics and NAPs in the context of Knowledge Exchange (KE) seminars. Corporeal co-presence is a social situation where two or more people are co-located in each other’s presence, and are engaging with each other (see section 4.6 for more detail).

The following analysis examines how the presence of the body and the sensory experience of being with others (intercorporeality) shape the nature and outcomes of productive interactions between KE seminar participants.

Section 8.2 discusses academics’ embodiment of physical attributes which shape how NAPs engage with them (or rather how academics perceive NAPs to engage with them).

Section 8.3 presents data on what academics and NAPs said about the importance of physically meeting with others to engage with academic research and the sustaining of professional relationships. This section addresses how the body and mutual sensory experience facilitate interactions between participants. It examines how corporeal co-presence allows for ‘small talk,’ ‘loose talk,’ and the ‘meeting of the minds’ (Urry, 2002; Larsen et al, 2006) which facilitate productive interactions.

The analysis of the interviews revealed a number of different ways in which the context in which corporeal co-presence occurs facilitates productive interactions. The most important were: the hosting venue, the format for the event, the physical layout of the event space, the use of technology, and food. This chapter cannot incorporate all of these aspects, and so only two will be discussed: food and videoconferencing technology.

Food can be used to attract potential seminar audiences, and signals seminar participants as honoured guests. Furthermore, and more importantly, food creates an informal social environment which facilitates ‘loose talk’ and networking which would be harder to replicate without it.

Technology is increasingly important in KE activities, including the use of videoconferencing technologies (VCTs) (Conklin et al, 2013; Ali et al, 2012; Sapsed et al, 2005). This chapter explores the views and experiences of those who have used VCT to ‘dial into’ KE seminars by proxy. It explores their narratives through a lens informed by Goffman (1966), Urry (2002; 2003), and Zhao (2003; Zhao and Elesh, 2008).

These two examples (food and VCTs) were selected for presentation in this thesis because:

1. The importance of food and eating is underexplored both empirically and theoretically within the KE literature, yet represents a significant component of KE seminars in terms of budgets and the time dedicated to eating. Up to 50% of the event time was dedicated to coffee and lunch breaks in the events observed in this PhD research.
2. Technology is playing an increasingly important role in KE, yet there has been very little empirical examination and theoretical discussion as to why technology might be useful, because of its opportunities, and despite its limitations.

9.2 Academics’ embodiment and its influence on interactions

Corporeal co-presence places the body and embodiment at the core of interaction. By embodiment, this thesis refers to how the physical body, and its presentation, are projected and perceived by others, through the senses, which can aid or interfere with how participants engage in the academic research being disseminated and discussed.

The embodied aspect of being with one another means that interactions are dependent on the sensory experiences of touch, speech, hearing, and sight. This sensory experience is mediated through embodied attributes such as accent, body language, and inscribed attributes such as race, age, sex, etc. These embodied characteristics impact on how people view and experience each other which, in turn, shape how people engage with and judge the research via their perceptions of, and assumptions about, those who are communicating it.

The age of the body is one such example.

When I interviewed Elaine (policymaker, Scottish Local Authority (LA)), she commented on how young I was – 23 years old. I pointed out that I was only a few years younger than Patrick who hosted the KE seminar that she attended and she said:

It’s strange because I was surprised about how young he was when I first saw him there. But to me, it just makes it quite refreshing that there’s new people coming in and taking an interest in the things that we are also interested in. We want to be supportive of his work and encourage his interest in these things. (Elaine, Policy Officer, Scottish Local Authority).

Elaine expressed surprise at how young Patrick was when she arrived at the event, and described ‘new’ people interested in this area of research (focusing on local

‘You are warmly invited.’

authority level data) as ‘refreshing.’ She described a view that in light of his research interests and his age, those from Local Authorities should be ‘supportive’ of his work to ‘encourage his interest.’ This implies that NAPs at the seminars may communicate with Patrick in a different manner than they might otherwise have done had he been older. Thus, Patrick’s age may have shaped the nature of interactions between him and some of the NAPs. This is speculative, but offers an avenue for further research.

Along with age, accent was another important embodied attribute which emerged from the interviews. 4 of the 13 academic interviewees described incidents within their KE seminars where they felt that their spoken accent influenced the nature of their engagement with NAPs. The first comes from Toby (Scottish Consortium (SC)) and his description of his seminar with senior civil servants and politicians at an event in London. He was arguing that Scotland’s demographic need for migration is not currently being met under current UK immigration policies. He claimed that his Scottish accent meant that he was perceived by the NAPs in a particular way, which in turn shaped how they viewed his research and its political implications:

[I was talking about the] economics of migration, and of course the experience was different [from being in Scotland]. And the reason it was different [...] was because they perceived me as Scottish; I am from Scotland, at a Scottish university, I speak with a Scottish accent, and therefore they were very sensitive and cautious to any comment I made that could be constructed as arguing for [Scottish independence]. The biggest challenge is to confront the stereotypes that people have of who they think you are [...]. They saw me as a Scottish academic with potentially an independence agenda [...]. So how people see you undoubtedly affects how they interpret what you say, and how they engage with what you say. (Toby, academic, SC).

‘You are warmly invited.’

In this quote, Toby makes a direct link between his accent (and other characteristics of Scottishness) and how NAPs perceived him and his research. His accent inscribed him as ‘Scottish’ and thus led to potential assumptions about his political views. This, in turn, led to the NAPs being ‘sensitive and cautious’ to what he was saying and how they received his work.

The relationship between academics’ accents/origin and how NAPs engage with them within KE seminars is also evidenced by a quotation from Isabella (Southampton (Soton)). She is an academic research associate who comes from elsewhere in Europe. Her accent is difficult to place, but she conducted research through the medium of her native language with migrants from her country of origin who are living in the UK. She described how her accent associated her with her research participants in the eyes of some of the NAPs. She was, as she put it, seen as ‘one of them’ and felt that this might change NAPs’ perception of her research, and how they engaged with her during the seminar.

When I’m talking to an international audience they usually think I’m British because, for them, I have a British accent. But if I’m talking to a British audience, they recognise that I have a foreign accent, so they know that I’m not English because they can hear it. I have come across situations where people didn’t understand that it was me interviewing the [REDACTED] migrants in [REDACTED] {their native language} because they couldn’t see that I actually know [REDACTED] {the language}. I think this might change their perception because when I say that I’m [REDACTED], or speak [REDACTED], or whatever, they think that I’m one of them, whereas if somebody thinks that I’m British, then I think they disentangle me from the subject, from my research subjects, to put it that way. (Isabella, academic researcher, Soton).

Isabella’s quotation makes more explicit the connection between her accent (and nationality) and how seminar participants reacted and respond to her research. This

‘You are warmly invited.’

quotation was selected because of its particular interest as the ambiguity around her accent meant that different audiences responded to her (and her relationship with her research participants) in different ways, depending on where they perceived she was from (this was based on her accent). The implication here is that her accent may have affected how her NAP audience viewed her research: specifically subjective and politically driven (much like Toby) if they associated her too closely with her research participants. Conversely, Isabella claimed that if British audiences perceived her accent as British, then they ‘disentangle me from the subject, from my research subjects.’ The implication here is that a British accent means that NAPs view Isabella’s research as more objective and disinterested.

This section is illustrative of how academics’ embodied characteristics (such as age and accent) can impact on how NAPs perceive and interact with them and their research. This is an important area to develop empirically within the KE literature because if academics and NAPs are going to be together physically when they engage with each other, then KE scholars are going to have to understand how embodied characteristics help facilitate, or create barriers to, productive interactions. This is an area of future sociological study that would best be addressed by observational and interview methods.

9.3 Corporeal co-presence in facilitating productive interactions

This section addresses the issue of corporal co-presence. It is here that the thesis pushes the claim that face-to-face interactions are important and makes the connection between the necessities of physically coming together for engaging with one another to facilitate productive interactions from the perspective of those who participate in such forms of engagement.

The literature review (section 4.6) detailed Goffman’s ideas on daily social interaction which placed emphasis on the importance of co-presence (1966). Corporeal co-presence is the social situation where two or more people are

‘You are warmly invited.’

physically co-located *and* engaged with each other: where participants are ‘accessible, available, and subject to one another’ (Goffman, 1966: 22: see also Boden and Molotch, 1994; Urry, 2002; 2003; Larsen et al, 2006).

Corporeal co-presence is always reciprocal (two-way; dialogical), embodied, and instantaneous; where people can experience each other through unmediated ‘naked’ senses (Goffman, 1966: 17). It is an intercorporeal form of engagement which occurs through both verbal and non-verbal communication. For Urry, co-presence is a social environment in which interactions are based: ‘not just on words, but indexical expressions, facial gestures, body language, status, voice intonation, pregnant silences, past histories, anticipated conversations’ (Urry, 2002: 259). The body is the anchor to communication and engagement which is used to channel normative performances and social rituals which regulate and facilitate social interaction.

While non-verbal communication is important, for Goffman, it is talk which is the basic medium of the encounter, yet even this is not disembodied (as described in the previous section). It is the embodied experience of being with others that makes travelling to meet others not only desirable, but often necessary (Larsen et al, 2006).

9.3.1 Bodily attendance as an act of commitment

NAPs are under time and other constraints (as described in chapter 7). Therefore, travelling somewhere to attend a KE seminar represents an act of commitment to the endeavour of that event. A small number of NAP interviewees (4/14) stated that their physical (bodily) attendance at the KE seminar was a sign of commitment to the research being presented and discussed, and the CPC itself. This was also acknowledged by a small number (3/13) of the academics.

I have been really impressed at the willingness and eagerness of people within the [redacted] [redacted] [redacted] {name of non-academic organisation} to attend those {CPC} seminars [...]. I like that, and I think that’s a

‘You are warmly invited.’

great support to the CPC that on the other side of the fence people are happy to do that. I think that is a very good thing. (Toby, academic, SC).

In this quotation Toby said that he was ‘impressed at the willingness and eagerness’ of NAPs from one particular government organisation to ‘engage in ideas.’ He refers to their physical attendance at the seminars as a ‘great support to the CPC.’ This view suggests that NAPs’ physical presence within the seminar signals a commitment to the research being presented, and the CPC itself. Such a view was echoed by others; however, in the interests of brevity this issue is put to the side in order to focus on other findings.

9.3.2 A ‘real’ sensory experience of being together

Corporeal co-presence facilitates dialogue through the intercorporeal and sensory experience of being together. Academics and NAPs both described the importance of meeting in person for facilitating knowledge exchange, and its implication for policy and practice, via dialogical exchanges which are rooted in the sensory experience of being with others. It is argued here that it is this sensory experience of being together which forms the foundation of productive interactions within KE seminars. This is evidenced in the following five quotations from 3 academics and 2 NAPs. The words in **bold** highlight references to the corporeal (body and sensory) aspects of the quotations.

Non-academic professionals:

You’re going to **listen to**; and **to hear** different people’s take on the problem, in addition to the information that’s been given. And sharing that information **face-to-face** is, of course, a big part of that because you can’t have those sorts of conversations with people otherwise. (Elaine, Policy Support, Scottish Local Authority).

Well – briefing papers are very, very useful, but I think **hearing it being spoken** and having the main points emphasised is really good. (Iain, NHS, England).

Academics:

I think there’s **no substitute for face-to-face meetings** [...]. I think people also generally have some notion that **talking to people directly** is much more effective and useful than producing a findings document. (Joseph, academic, SC).

I get more satisfaction going to **see people**, and **chatting face-to-face**. In terms of briefing papers, I don’t really know what they do. You write them, they go off to someone, and probably go on the website. Not saying they’re a bad thing, but I don’t know what the policy outcomes from that are. Whereas at least here {at these seminars} **you can see with your eyes that people are there**. (Patrick, academic, SC).

I think you can gauge quite a lot just from **talking** to someone: nothing **compares to being face-to-face**. But I think things like **the way people speak to you, their tone** {pause} you can kind of gauge what it is that they’re interested in; what they want you to say and what they think about what you’re saying. (Sophie, academic researcher, Soton).

These five quotations represent voices from academics and NAPs in Scotland and England illustrating the importance of the corporeal aspects of facilitating interactions between seminar participants. What is particularly salient in these quotations is the descriptions of the sensory experience of being with others. All three of the academics’ quotations described the importance of ‘talking’ (or

‘You are warmly invited.’

‘chatting’) face-to-face. Sophie’s quotation was particularly insightful because it described in detail why the embodied nature of interactions within KE seminars aided communication. She claimed it allowed her to hear ‘the way people speak to you’ and ‘their tone’ which gave her indications (‘gauge’) of the types of things that NAPs are thinking about and interested in. This comment creates a link between the sensory presence and the nature of interactions amongst seminar participants. Sophie and I discussed this a little more, and she went on to describe how the words and intonation of NAPs in Q&A and discussion sessions indicated how they felt about what she was saying:

Even how people are sitting you can tell what they think, especially if they disagree with you. You can tell [by their body language] when people are asking questions that they disagree with you. Not in a bad way, not vicious, but maybe just {drifts off}. (Sophie, academic researcher, Soton).

This quotation illustrates what Boden and Molotch (1994) and Urry (2002) argue is the core of corporeally co-present interaction: communication exists not just with words, but is delivered with body language, voice intonation, and anticipated conversation, etc. As Goffman (1966) points out, we often know if someone agrees or disagrees with us, even if they have not told us, because of these embodied non-verbal communications: ‘you can tell.’

Along with talking (and tone), the physical presence of the body also adds a visual dimension to the interaction. It is a social environment in which people can ‘see with [their] eyes that people are there,’ and Patrick claimed to have derived pleasure from the visual sensory experience of seeing others: ‘I get more satisfaction going to see people.’

Both Patrick and Joseph were explicitly critical of ‘indirect’ (non-face-to-face) forms of engagement, viewing them very much as a ‘substitute’ (Joseph). This was a view

‘You are warmly invited.’

shared by the majority of academic interviewees (11/13) who collectively saw limited value in publishing such documents alone. There is an important caveat to this. A number of interviewees stated that texts such as briefing papers can be very useful in conjunction with KE seminars where they act as a primer sent out before the seminar, or as a recap after it. This was also the view of Bogenschneider et al (2000) and Norman (2004). Furthermore, a number of participants, including Patrick, recognised the role that documents can have post-event, by acting as a link between the event and the NAP attendees’ colleagues who did not (or could not) attend. In other words, such texts might have a role in disseminating at least the key ideas and findings of the research beyond those who attended the event itself.

On addressing why being corporeally co-present with others is important, it was clear that a number of NAPs (6/14) felt that being physical together with others made the engagement experience more ‘real:’

There’s something about **looking** at research, flicking through data, research, you know, it makes it **more real if you’re actually there**. You can focus on that and nothing else. And having somebody **talking** you through the key points – it’s useful. So you know, there are a lot of little things that you only pick up when you’re **actually there**. (Susanne, Policy Officer, Scottish Local Authority).

I think the **hands-on** stuff, or things that are a bit different, people will remember it. **They might not remember the details, but they will remember being there**. (Stephanie, government researcher, Scottish Government)

The key theme here is that the embodied and sensory experience of being together with others makes the experience of engaging with academic research (through interactions with other people) ‘more real if you’re actually there.’

Goffman describes how all social interaction is mediated around the sensory perception of others. The embodied nature of corporeally co-present engagement means that communication and information flows between participants are richer, more meaningful, and enable participants to sense people directly: to ‘read’ each other, to observe, to see, and to be seen, and to hear first-hand what those with whom they are engaging say for themselves (Boden and Molotch, 1994; Urry, 2003; 2002). This thesis argues that it is corporeal co-presence, the act of being both co-located and engaging with one another through unmediated senses, which facilitates productive interactions because it makes the nature of engaging with academic research knowledge, through interactions with one another, more ‘real’ by virtue of the shared embodied and sensory experience which KE seminars can offer, and which ‘indirect interactions’ cannot.

9.3.3 Informal chats and the ‘meeting of the minds’

For Urry (2002; Larsen et al, 2006) one important reason for travelling to professional meetings is not the formal components of the meeting itself, but the ‘loose talk’ that exists before and after the formal, structured components. ‘Loose talk’ is unstructured conversations (chats) which create a ‘meeting of the minds’ (Goffman, 1956; 1983). That is to say, KE seminars produce opportunities to create social spaces which allow participants to talk through problems, clarify meaning, correct misunderstandings, and affirm private commitment (or opposition) to particular ideas or points raised in the formal components meeting itself (Larsen et al, 2006). These informal social spaces include tea and lunch breaks, or the pre- or post-meeting chats. Urry (2002; Larsen et al, 2006) argue that corporeal co-presence is necessary for this ‘loose talk’ to occur. One cannot have such serendipitous, informal, unplanned chats via Skype conference calls or via email exchanges – especially if they are among people who do not yet know each other.

‘You are warmly invited.’

What’s important are the exploratory conversations. I think those type of exploratory conversations do happen, but not on a formal basis; not in the formal bits of the seminar. I don’t think it’s formalised anywhere. Official documents and briefings might be influenced by those conversations, but they aren’t documented anywhere.

[...] What’s important is when we meet others one-on-one. When we meet, who is the {pause} does this person seem to be on the same wavelength as me? Are we talking about the same kind of things? Are we asking the same kind of questions? Do we see this kind of thing, or do they seem to be in a separate bit? [...] When you talk to people one-on-one you build a sense of common purpose with them. So it’s important to have meetings where we can all get together at these seminars and just have those chats. (Joseph, academic, SC).

What Urry refers to as ‘loose talk’ Joseph calls ‘exploratory conversations.’ They are private, unstructured, informal chats which occur around the formal components of the event: ‘when we meet others one-on-one.’ They are what Cornwall et al (2008a/b) call ‘bottom-up’ interactions where there is often purpose to such interactions, but they are less immediately agenda-orientated, and less regulated and controlled by those organising the seminar as compared to the formal, planned, ‘discussion’ elements.

Such small (even ‘one-on-one’) ‘exploratory conversations’ can be very productive and beneficial, and Joseph states that such conversations outside of the formal (structured) components of the seminar can influence ‘official documents’ and policy briefings. This also suggests that an element of discretion might create a more preferable environment in which to have such ‘exploratory conversations’ rather than the open forum of a group discussion.

The second part of Joseph’s quotation was included because he was the most articulate of all the interviewees in expressing a view that Goffman (1959; 1983)

‘You are warmly invited.’

would term a ‘meeting of the minds’ – a form of consensus-building, or at least a drawing out of a mutual awareness of contradictions and divergences in opinion. These informal elements of KE seminars give an opportunity for participants to talk through things to see if they are ‘on the same wavelength.’ Such informal chats ‘one-on-one [helps] you build a sense of common purpose with them.’ The idea that KE seminars are important opportunities to have those unstructured, informal, yet productive, chats with others outside the formal, scheduled, and structured components of the events itself was shared by just over half (15/27) of all the interviewees

There are multiple opportunities within the context of a KE seminar where such informal chats can occur, but especially important are mealtimes. This is an issue which will be returned to later in this chapter.

9.3.4 Corporeal co-presence in facilitating relationship-building

The previous analysis chapter described in detail how KE seminars were sites to build and strengthen informal relationships. This section of the analysis examines why being corporeally co-present is so critical to that process.

A number of business studies scholars (Weber and Chon, 2002; Davidson and Cope, 2003; Collis, 2000) and social theorists (Urry, 2002; Larsen et al, 2006; Boden and Molotch 1994) have pointed out that because technology now allows information to travel around the world in seconds, the necessity of travelling to conferences and meetings in order to share information is obsolete. Instead, professional meetings are critical for their *social* dimensions, rather than informational ones. As Weber and Chon (2002) claims in their research on international conferences: ‘since more information can be exchange via technology, there is a greater need to build relationships when getting together for face-to-face meetings’ (p. 206).

The evidence presented in the following quotations demonstrates how being corporeally co-present with others in the context of KE seminars is important for

informal relationship-building. In particular, the point of physically meeting contacts is important for developing trust and commitment as part of a wider social network, without which, such networks would eventually deteriorate and disappear (Urry, 2003; 2002; Larsen et al, 2006). A huge majority of both academics (11/13) and NAPs (11/14) stated the importance of corporeal co-presence for creating and reaffirming their professional relationships with one another. Many of the interviewees made comparisons between corporeal and non-corporeal forms of meeting in the process of relationship-building (ie face-to-face versus internet-based), with the latter judged less favourably than the former. Angus’s quotation below supports this point well. In it, he placed particular emphasis on the importance of physically meeting, particularly at the nascent stages of forming relationships, which would be difficult to replicate via internet-based (non-corporeal) forms of interacting.

[We keep in contact by] email, and Skype as well, but mainly by email. With [redacted] and [redacted] {two CPC academics} it’s just a case of picking up the phone and having a chat. That happens a lot, and that works. And physical meetings as well but they’re expensive so we do limit those to a certain extent because of the cost, but it does happen. It happens because they’re important. There’s some things that you just can’t ‘get’ unless you’re face-to-face with somebody. You can’t {pause} there’s some things that are missed at times if you don’t see people face-to-face. And when you’re building relationships, particularly at the beginning, it’s important that you have face-to-face meetings. But it is hard to do this too regularly so you’d try and combine it with other things, like having them on the same day as the seminars here at [redacted] [redacted], or other things that might be happening at the same time. (Angus, civil servant, Scottish Government).

‘You are warmly invited.’

Angus’s quotation describes the importance of physically coming together in order to build relationships ‘particularly at the beginning.’ Without this corporeality ‘some things are missed,’ and this thesis argues that those ‘things’ are the sensory experience of physically being together and engaged in the intercorporeal experience of one another.

Angus’s quotation is also interesting because it points out that these networking opportunities are combined with other activities. In other words, KE seminars are multi-functional events which extend well beyond the core purpose of merely communicating research findings, or even engaging a non-academic audience. This mirrors the work of Urry (2002; Larsen et al, 2006) when they argue that meetings are a catalyst for other activities which occur around the core meeting, particularly social networking ones, which cannot be replicated online or via other ‘indirect’ forms of interaction (see also Weber and Chon, 2003).

One final point on Angus’s quotation is the distinction he makes between communicating face-to-face and through technological media (such as email, Skype, and telephone). This distinction was common across many of the interviews, and made by both academics and NAPs. The argument put forward by most of the interviewees (and this is an important finding of this research) is that internet technologies cannot replicate the same quality of professional relationship development as those built around face-to-face meetings. This claim is evidenced by the following quotation from Joseph:

I think one of the important things about networking at these events, and this remains as true today as ever, even with social media, Facebook – it’s still the case. If you’ve actually met someone, there’s a different nature of your relationship to if you’ve only interacted with them via the internet [...]. There’s no substitute for it. I think that when you personally know someone they enter into a different category. If you’ve met someone at an event, at a seminar or something, you’ve heard them speak, present their research, you’ve talked to

‘You are warmly invited.’

them, you have created a relationship that is a fundamentally different kind than if you’ve just exchanged information over the internet. Of course, if you’re having conversations over the internet, if you’re Skyping, having Skype conversations or something, it’s as close to physically meeting you can get, [but it’s a substitute]. So I really do think that there is no substitute for face-to-face meetings. (Joseph, academic, CPC).

By meeting a person ‘in person,’ it changes the ‘nature of your relationship’ compared to those in which one has only interacted online, such as via Skype. When we meet someone face-to-face, they ‘enter into a different category’ and it creates ‘a relationship that is a fundamentally different kind.’ While Joseph considered Skyping ‘as close to physically meeting as you can get’ (without physically meeting), it is an inferior substitute when compared to meeting face-to-face. It changes because the sensory engagement with the other person has changed once ‘you’ve **met** someone [...], **heard** them **speak** [and] **talked** to them.’

Given the KE literature’s increasing focus on the importance of strong, well-developed, informal relationships within the KE process (Olmos-Peñuela et al, 2014b; de Jong et al, 2014; Best and Holmes, 2010; Ward et al, 2009; Mitton et al, 2007; Nutley et al, 2007; Lomas, 2007; 2000; CHSRF, 2000; Molas-Gallart et al, 2000), it seems prudent to explicitly recognise that such relationships are developed and sustained through at least occasional face-to-face meetings where groups of people, both already known and previously unknown, are corporeally co-present (Moore et al, 2011). Even if most communication between academics and NAPs is via routine ‘emails of a rather simple kind,’ KE seminars remain important opportunities to meet for contacts who have never met, and to reinforce existing relationships with those with whom one has an existing relationship but with whom one does not often meet.

‘You are warmly invited.’

The overarching argument here is that meeting contacts face-to-face is fundamental in creating informal interpersonal relationships, and KE seminars are the actual physical spaces where those relationships are established and reinforced. This face-to-face element to the meeting is important because, as Urry (2002) argued, telephones and emails do not create strong relationships, they only help start tentative ones, or help maintain existing ones. Eventually, he argues, professionals are going to have to meet their contacts in order to develop rapport, trust, and to signal commitment to one another (2002; 2003; Larsen et al, 2006). This thesis agrees with that view, arguing that in the context of academics and NAPs networking with one another, KE seminars are one such place to do this.

This claim inevitably raises the question: why does having physically met someone (in the context of KE seminars, or elsewhere) change the nature of academics’ and NAPs’ relationships with one another?

The research found that once academics and NAPs have met, it leads to tangible benefits for both that may not have been available without such physical meetings. For example, a number of KE seminars by the CPC were organised with the help of NAPs from different organisations. It was only possible to draw on the resources that the NAPs could offer once the academics had met them. The academics’ interview transcripts paint a picture of informal relationships which are sustained over time (Kramer and Cole, 2003; Lomas, 2000; Cousin and Simon, 1993) and reaffirmed by occasional face-to-face meetings, is important in enabling the academic to draw on their NAP contacts’ resources. Such resources offer material, tangible benefits to the academics which can be of help in organising KE seminars, disseminating their research, and accessing potentially interested audience members.

It’s easier to contact people once you’ve done the groundwork and met them a few times, built up a bit of a rapport with someone because once you’ve got a rapport

‘You are warmly invited.’

with someone it’s harder [for them] to say “no” to you, hahaha. It’s harder for you to say “no” to them of course, aye. So I think that works to have those types of contacts. Going back to my previous research on [REDACTED] [...] I’ve got contacts there that eventually I could go back to which is easier now. So yeah, having developed these relationships is definitely helpful. (Patrick, academic, SC)

If you email someone out of the blue, cold-contact, a cold-contact email, then you’re likely to not get a response. If you’ve met them they’re often more willing to be helpful in the future if you contact them. They will be more likely to help you to organise things, to give advice on proposals, or if you want one of their team to participate in a project, that sort of thing. They will feel that it is part of building your relationship, and it’s easier to feel like you’ve got a relationship with someone if you’ve actually met. Even if it’s only a few times a year they will feel more obliged because they will feel they have a duty, more so than if you’ve never met them [face-to-face]. (Harriet, academic, Soton).

Both Patrick’s and Harriet’s quotations illustrate the point that once the ‘groundwork’ has been established by meeting a person a few times face-to-face, ‘even if it’s only a few times a year,’ the nature of the relationship changes. Such a finding is reminiscent of Wilkinson et al (2012) where they described a situation where once face-to-face contact has been made, NAPs tended to respond to the academics’ emails quicker, and with fuller content (p.316); which is suggestive of some qualitative change in their relationship with one another. Patrick and Harriet describe why having met someone changes the nature of the informal relationship, and what potential resources that relationship can provide in the future. Taking each of these points in turn:

‘You are warmly invited.’

1. The relationship changes because having physically met someone (at a KE seminar or elsewhere) creates a rapport which, in turn, creates a sense of reciprocal obligation: ‘it’s harder [for them] to say “no” to you. It’s hard for you to say “no” to them of course’ (Patrick); ‘they will feel more obliged because they will feel they have a duty’ (Harriet).
2. Such relationships give access to privileges and resources. Patrick said that he had developed contacts that he can ‘go back to.’ Harriet was more specific, citing concrete ways in which such contacts might help: ‘organise things,’ ‘give advice on proposals,’ and potentially collaborate on projects in the future.

The relationships which Patrick and Harriet described are not formalised contractually, but there is still a sense of duty or obligation that exists between the academics and NAPs that would not exist had the physical meeting(s) not taken place. As Patrick said earlier in a previous chapter, ‘it’s not something that needs to be nurtured on a weekly basis, kind of thing,’ but the relationships exist and entail a sense of obligation which can produce tangible benefits. This makes KE seminars more than just sites of ‘knowledge exchange,’ they offer a social resource which facilitates networking opportunities between academics (and NAPs). These face-to-face meetings of known (yet often unmet) contacts are the very nascent stages of what may eventually become a more developed and contractual relationship in future endeavours (Olmos-Peñuela et al, 2014b; Spaapen and van Drooge, 2011; Molas-Gallart et al, 2011).

Along with strengthening existing professional relationships among contacts/acquaintances, KE seminars are also sites of ‘chance encounters’ (Larsen et al, 2006; Boden and Molotch, 1994) between academics and NAPs. KE seminars are places of ‘inadvertent meetings that happen because like-minded people from similar social networks are informally encountered’ (Urry, 2002: 260).

‘You are warmly invited.’

Understanding the role that KE seminars can have in establishing new relationships among people who are totally unknown to one another is important because much of the KE literature has focused on contractual or innovative approaches to collaboration where academics and NAPs work together to develop the research project and funding proposals, the research agenda, the production, and dissemination of the findings (see the special issue of the *Journal of Health Services Research and Policy*; Golden-Biddle et al, 2003; Ross et al, 2003; Goering et al, 2003; Dennis and Lomas, 2003; Court and Young, 2002 for examples of innovative collaborations). However, that body of research offers only limited recognition of the fact that by the time such collaborative linkages have been developed, the relationship between academics and NAPs must already be very well established. Thus, what is highlighted here are the first stages of those professional relationships, and the role that KE seminars can have in creating opportunities to meet people and establish those contacts which may, eventually, develop into a more contractual relationship, or not (Olmos-Peñuela et al, 2014b). KE seminars are a way to bring people together because they are what Goffman (1966; 1971) would call in his dramaturgy, ‘open regions’.

Open regions are social spaces where unacquainted persons have the right to initiate engagement (Goffman, 1966: 132); they are sites of ‘social accessibility’ (p. 136) which provide opportunities to have that ‘chance encounter’ with people whom one has never met. This is because KE seminars are not only sites where ‘known’ or ‘expected’ people will be, but they also attract ‘new’ and ‘unexpected’ people.

The events help build networks and contacts. Everyone who’s interested in your work is in one place. Well, not *everyone*, but the people who are interested are there. When you’ve got lots of people coming [then] you meet new people. [Of course], it’s also more difficult to talk to them all individually because you don’t have the time so you don’t

‘You are warmly invited.’

get that same intensity of interactions with people. But it’s enough for people who come to know that they can meet new people who have a degree of shared interest. (Justin, academic, SC).

You generally know most of the people who’ll be there. It seems to be enough for people to feel that they are, you know, touching base. And you’ll often get new people from some third sector organisations, or new people taking on new roles or portfolios, who all share interests. There is an element of opportunity to meet new people unexpectedly, and, I hope, room for creating more of a sense of common purpose. (Emma, Soton).

This thesis frames Justin’s and Emma’s descriptions using Goffman’s concept of ‘open regions’ (1966; 1971). These are semi-public spaces where ‘new’ people can come onto the ‘scene.’ They are about creating a forum in which to attract a concentration of professionals who, more or less, share a degree of common interest in the topic being discussed. This makes KE seminars a potentially important source of making new contacts and building professional networks. It is why businesspeople and academics travel across the world to attend conferences (Weber and Chon, 2003). They do so not to listen to presentations, but to build and sustain their professional networks. The same process is occurring here in KE seminars.

This being said, Justin’s quotation illustrated an interesting point about the number of participants. He described a situation where, if there are too many people, it becomes difficult to speak to all the participants, or have the same intensity of interactions with them. This leads to the question of what might be an optimal group size for such KE activities. This is unfortunately a question that the interview data cannot shed light on, and so it is left to one side.

9.4 The role of food in facilitating productive interactions

Mealtimes¹⁵ play a significant role in KE seminars which has been underappreciated within the KE literature. Mealtimes during KE seminars are not just for bodily sustenance; they encourage participation, extend hospitality, and provide a catalyst for ‘loose talk’ and networking (Golden-Biddle et al, 2003).

Interviews with CPC administrative staff revealed that providing food is one of the most expensive components of hosting KE seminars. Of the 12 seminars observed, 8 provided food for participants. It was also clear that mealtimes represented a significant proportion of the event time – up to 50% but normally 33%. The format of the event itself was organised around mealtimes – often broken into sections demarcated by mealtimes (such as formal presentations, then lunch, then formal group discussions). Every time that food was offered, it was done to create an informal social space for participants to chat to each other and to network; these, as discussed in chapter 8, are some of the key reasons why NAPs go to KE seminars. Tea or coffee breaks and buffet lunches are an effective catalyst for facilitating productive interactions at KE events. Thus, mealtimes are more than just physical comfort breaks; they fulfil social and knowledge exchange functions which warrant further study.

This section of the analysis argues that mealtimes can help attract participants to KE seminars; they create social spaces which act as ice-breakers for forging new relationships, and help reaffirm existing professional relationships, particularly between participants who may meet only infrequently. Mealtimes help facilitate KE by demarcating a space and time for informally sharing knowledge, implications, ideas, expertise, and perspectives of the research which participants listened to in the formal presentations.

¹⁵ The term ‘mealtimes’ is used to refer to a number of different eating activities such as tea & coffee breaks, lunches, and wine receptions.

9.4.1 Food as an attraction, and a gesture of hospitality

Although not part of the original interview schedule, when the significance of food became obviously important to KE seminars, I asked one of the CPC administrators about the role of food in encouraging participation in the CPC’s KE events. She said:

Food is very much something that we think about when organising these things, especially when working with people from outside university [NAPs]. I forgot to mention it earlier because you don’t inherently think of it [...]. They’ll [NAPs] not come unless there’s free food hahaha. I’ve picked up on a theme when a few researchers have said to me: “if you want people to come to your event, you just need to order food. The day needs to be organised around food. Food first, then event; or event then food. But food is the centerpiece.” (Lisa, academic support, Soton).

Such a view was shared by 7 of the 13 academic interviewees. Three of these are presented below. They collectively present a view of food as a type of advertisement to try and draw potential audiences to the CPC’s KE seminars:

I usually find that if there’s a lunch that’s a good way of getting people to come. So having the event around lunchtime provides the possibility to wrap the seminar around lunch. So maybe you’ll have your presentation and then people will have their lunch. Or people turn up, have lunch and you do your talk afterwards. The lunch becomes a kind of focal point. (Stuart, academic researcher, Soton)

I think if we, as an organisation, put food on, more people are inclined to come, locally [...]. Even at smaller meetings, if you don’t put anything on, no tea and coffee, then we know from experience that people can be a bit like: “what do you

‘You are warmly invited.’

mean there’s no tea?!” They can become a bit upset. So it’s good even at small events to have tea, coffee and those corporate biscuits. Even small things like that can help make people feel valued. (Wayne, academic, SC).

I think another thing is that if people are coming from a distance, asking someone to come from Glasgow to Edinburgh, or from Dundee to Edinburgh, for a one-hour seminar, it’s stretching it. But if you say: “come for a seminar, even if you can’t make the morning session come for lunch. Come for lunch, chat to people over lunch, and then come to the afternoon seminar session.” Which some people do [...]. It’s an experience, really. (Joseph, academic, SC).

These three quotations illustrate two points. The first is that mealtimes are presented as something which will encourage participants to come to the CPC’s KE seminars. The second is that they add an element of hospitality; the seminar becomes ‘an experience.’ Small gestures like offering tea, coffee or ‘those corporate biscuits’ can ‘help make people feel valued’ (Wayne).

The comments by Joseph link back to the discussion in analysis chapter 7 which recognised the substantial commitment made by NAPs in choosing to attend KE seminars. Here, Joseph is acknowledging that participants from outwith Edinburgh (which was the host city for the KE seminar he is describing) need to travel, and food (and the social opportunities it creates) is one way of making that journey worthwhile. It adds another element to the seminar which help makes it seem more worthwhile to attend.

These three quotations are representative of half of the academic interviewees (7/13), but only 2 (of 14) of the NAPs interviewees (Morag and Ross), a significant discrepancy. While generally unacknowledged by many, Morag and Ross did recognise, and were grateful for, the offering of food.

I appreciate when there is food there. Providing lunch, teas, cakes makes people feel welcome and important. Especially the cakes, it’s hard to resist those, hahaha. It shows that we’re not just there so some academic can tick a box. (Morag, Policy Support, Scottish LA).

Food not only encourages participation in the seminar, it also bestows honour on the participants. The sight and abundance of food have, in many social gatherings, been used to show appreciation of guests, allowing them to feel honoured, respected, and welcome to the occasion to which they have been invited.

9.4.2 Mealtimes as ‘open regions’ for facilitating productive interactions

The social (and physical) spaces dedicated to eating are important. They demarcate time away from scheduled routines and interactions, and allow people to come together and socialise (Warde and Martens, 2000). Earlier in this chapter, KE seminars were described as ‘open regions;’ spaces where unacquainted persons have the right to initiate engagement and which create opportunities to have ‘chance encounters’ (Goffman, 1966; 1971). Yet the whole seminar is not uniformly an ‘open region,’ it is the mealtimes which create those opportunities for informal, opportunistic chats. Mealtimes are a paradigmatic instance of enabling social interaction, and this is well discussed within the sociological literature (Ochs and Shohet, 2006; Mintz and du Bois, 2002; Symons, 1994) but less so in the KE literature, and so the analysis presented here argues that mealtimes are an important facet of KE which deserves more attention than it has hitherto been given. By doing so, this work aims to bring to the fore the issue of the role that mealtimes play within the interaction (and wider KE) process.

Mealtimes as a way of creating social spaces for informal interaction

Mealtimes create space and time to share knowledge, exchange ideas, and work through problems (Och and Shohet, 2006). Within business and academic meetings and conferences, it is the tea break, the lunch, the dinner, and the wine reception which are the times in which problems are talked through, commitments made, and deals agreed (Collis, 2000; Nandhakumar, 1999). KE seminars are not different; it is the mealtimes which create opportunities for productive interactions.

So it was close to the [Westminster] Parliament. And at one stage we were wanting, hoping, Parliamentarians would drop in to listen to the debate, and stay and have a glass of wine as it would give us an opportunity to speak with each other. (Emma, academic, Soton).

Although not explicitly stated in this quotation, Emma is describing the wine reception after the ‘formal’ component of the KE seminar (focused around a debate) as a way to get CPC academics and NAPs (Parliamentarians) to speak to each other more privately, informally, and one-on-one. The wine reception is a route through which CPC academics could engage with those Parliamentarians. Such personal contact may potentially be influential in trying to bring up or reaffirm points raised within in the formal elements (debate), but in a more private and discrete sphere.

It was also clear from the transcripts that many NAPs (9/14) felt it was mealtimes which provided them with the best opportunities to engage in productive dialogue with the other seminar participants. The importance of KE seminars as places where NAPs can speak to each other was discussed in chapter 8, and this thesis asserts that it is specifically during mealtimes that those informal, chatty, conversations are occurring.

‘You are warmly invited.’

I certainly think that at these conferences {seminars} the most useful bit is the breaks, where you actually talk to people face-to-face; you just get so much more of a dialogue going, exchange ideas. You can’t do that in the formal presentations. (Ross, Policy Support, English LA).

If you have a panel discussion where people say their names, and people are sort of talking more broadly, then it gives people an opportunity at lunch to go and talk to them and ask each other questions [...]. You can go up to that person from that charity and say: “well actually, I’m really interested in this area too, are you doing anything about this?” (Iain, management, NHS England).

Ross, like many other NAP interviewees, described the tea and coffee or lunch breaks as ‘the most useful bit’ because they offer the opportunity to ‘get a dialogue going, exchange ideas,’ mirroring Collis’ (2000) analysis regarding the significance of ‘loose talk’ that occurs during mealtimes. Such interactions are less structured and more exploratory in terms of their content and nature. They are ‘bottom-up’ (Cornwall et al, 2008) in the sense that these interactions occurring within the context of mealtimes are less regulated by the constraints placed by the seminar organisers in the same way they do within in the formal elements of the meeting (such as Q&A sessions, roundtable discussions, etc; see also Escobar, 2011; Cousin and Simon, 1996).

Iain’s quotation was interesting because he describes the relationship between the formal and informal components of the event which can be beneficial in different ways. In his view, the formal group discussion is a good way of getting to know people’s names and organisations, as well as discovering where the other NAP participants’ broad interests are. These can then be picked up and discussed further during lunch.

Mealtimes as a way to facilitate networking

Along with the opportunity for loose talk, most academics (10/13) and NAPs (8/14) described mealtimes as opportunities to create new, and reaffirm existing, professional relationships. Reaffirming existing relationships with acquaintances is particularly important for informal contacts who do not get to meet often (Urry, 2003; Larsen et al, 2006, Nandhakumar, 1999).

It’s because other people go there that we do, it’s the networking opportunities that exist there. That would be the key thing why we go to specific events. The research is interesting, and definitely relevant to what we do, but the networking part of it is the most important part. We are with them the whole time: breakfast, dinner, and lunch. (Carol, civil servant, Scottish Government agency).

Networking is an important reason why NAPs decide to attend KE seminars, or not, and it is the mealtimes where that networking to occurs.

And it {lunch breaks} gives people a chance to talk and network, and to make connections, hopefully. I suppose if you just invited people and they’re just sat down, even though it might be a panel discussion, it doesn’t actually mean they have the chance to talk to each other [...]. So lunch is a chance to meet their counterparts in other areas that they might not get to meet often, but also a chance to meet the researchers informally, and that actually helps with their networks. It’s a chance to meet, and that happens over lunch. It also means that some of the researchers get to contact some of those people in key places that they might not have gotten to speak to. And in doing that, there’s more of a link there; they now know each other’s name, they know each other’s faces, they can speak to each other on an informal level and that’s more likely to make things go

‘You are warmly invited.’

forward in terms of contacting them in the future in terms of possible collaboration. And that doesn’t happen unless you have those informal, chatty platforms which are always associated with food. (Lisa, Academic Support, Soton).

Although lengthy, Lisa’s quotation offers a fascinating insight into the role that mealtimes in KE seminars can have for creating networking opportunities. Lisa describes lunches as a chance to ‘make [new] connections’ as well as reinforce existing ones, particularly those she might meet only infrequently: ‘meet their counterparts in other areas that they might not get to meet often.’ It is often easier to approach someone with a plate of food and strike up a conversation than it is to do this outside the context of mealtimes. Food can be a good icebreaker between people previously unacquainted with each other (Larsen et al, 2006; Collis, 2000). Along with meeting other NAPs, Lisa’s quotation also describes mealtimes as opportunities for participants to meet with the academics in an informal environment. Lisa said that physically meeting people in the context of mealtimes can be advantageous in making things ‘go forward’ in terms of future contact and possible future collaboration. She concludes with one of the most articulate sentences from the all the interview transcripts on the matter: that none of this happens ‘unless you have those informal, chatty platforms which are always associated with food.’

For many of these participants, this recognition only came after probing. But once probed, participants started to talk about it in great detail. This probing was important because food at seminars (or other professional meetings) can be taken for granted and thus easily overlooked – as it so often has been within the KE literature.

9.5 The role of videoconferencing technology in knowledge exchange seminars

The final issue that this thesis examines is the use of VideoConferencing Technologies (VCTs) to facilitate productive interactions within KE seminars. More specifically, it examines the use of VCTs to link one or more non-co-located academics and/or NAPs to the seminar when they could not attend in person.

Technology, particularly VCTs, is becoming ubiquitous in our professional lives (Fletcher and Major, 2006; Cairns et al, 2004; Jones et al, 2004; Liscoppe, 2004), and KE activities are no exception to this.

The following analysis explores the experiences of those who used VCTs to participate in KE seminars, and is theoretically informed by the works of Goffman (1966), Urry (2002; 2003; Larsen et al, 2006), and Zhao (2003; Zhao and Elesh, 2008). Collectively, these scholars are interested in the role of the body in shaping social interaction. In this chapter, the discussion moves from corporeally co-present interactions, to corporeal telecopresent interactions.

The analysis presented here differs from others in the KE field because what little work there is in the field has tended to focus on ‘webinars’ (Ali et al, 2012; Conklin et al, 2013). Webinars are what Zhao (2003) refer to as ‘virtual telecopresence’ because in such communications there is no physical meeting place; every participant is ‘present’ only online. Instead, what is being described here with the use of VCTs is what Zhao (2003) terms ‘corporeal telecopresence’ (corporeal presence by proxy). This is where most seminar participants are co-located in the same physical space, but in which one or more non-co-located participants are ‘present’ by emulating corporeality through technological projection (Zhao, 2003; Zhao and Elesh, 2008). They are ‘embodied’ in the room (they can be seen, see, hear, and be heard) through the use of microphones, speakers, cameras and projection screens. Thus, there is an embodied sensory connection (co-presence, which is important), but it is not ‘unmediated.’

The analysis is divided into two sections. The first section explores the reasons why some academics and NAPs chose to participate in KE seminars via VCTs. The second section explores participants’ experiences of using VCTs to participate in KE seminars. In this exploration, there is a conceptual focus on the lack of bodily presence and how technology can assist, or not, in facilitating interactions through the use of VCTs.

9.5.1 Rationale for using videoconferencing technologies to participate in knowledge exchange seminars

As discussed in chapter 7, travelling to KE seminars is expensive and time-consuming. Larsen et al (2006) and Ali et al (2012) argued that technology can play an important role in bringing together geographically dispersed professionals; particularly those with travel budget or time constraints.

Some of the participants in this study came from rural local authorities, some of which (particularly those in Scotland) are based a considerable distance from the urban centres where KE seminars are typically hosted.

4 of the 12 KE seminars observed used VCTs to link academics and/or NAPs to the event site. There was 1 academic and 3 NAP interviewees who participated in at least one CPC KE seminar via VCT. Within their interviews at some points the participants viewed VCTs as an effective substitute for physically attending, while at other times they felt it was an inferior substitute, a compromise if personal attendance was impossible.

Starting with the positive, Mhari (a policy support officer from a rural Scottish island Local Authority (LA)) described how participation in KE seminars can be a challenge because of her remote location. She also described how, over the last few years, technological improvements have meant that it is possible to participate in KE seminars, which was difficult, or impossible, even just a few years ago.

‘You are warmly invited.’

If you talk about the [REDACTED] Isles, it’s really, really hard for them to get to these events. And they would benefit so much from being able to have a higher involvement in things, but it’s so difficult in terms of time and budget. Videoconferencing is a great way to link in, and people have better facilities now to do so compared with even a few years ago [...]. But an awful lot of people, say, the “rural network” organisation, are in the same boat as they are all from rural local authorities. So it’s always going to be a challenge at times. It’s not a barrier, but it can be an obstacle and there are ways to get around that. (Mhari, Policy Support, rural Scottish Local Authority).

As will be recalled, Mhari is the respondent who speaks in the third person about her own organisation and colleagues. As such, when she is referring to the difficulty for ‘them to get to these events,’ she is referring to those from her own organisation. It should also be noted that this interview was one of two which were conducted via Skype.

In this quote, Mhari is suggesting that teleconferencing is a good way to participate in KE events which would otherwise be difficult. Mhari also points out that improvements in technology over the last few years (and access to that technology) have made VCTs a ‘great way to link in’ to events. Indeed, the development of increasingly sophisticated technologies, and their availability, means that VCTs will increasingly become embedded within professional life in the future, and shape how those interactions unfold (Fletcher and Major, 2006). As it does so, social interactions mediated through new technologies will ‘crystallise as these technologies become widespread and as each additional communication resource [...] coexists with previous ways of managing relationships’ (Licoppe, 2004: 135). In other words, participating in KE seminars via VCTs will become normalised as they are further embedded in professional KE practices.

‘You are warmly invited.’

We have these videoconferencing suites now in the offices which were installed in 2011 [...]. It makes it so much easier now to dial into these things, and that’s been a great benefit to us. Everything’s all set up and it means that we don’t have to travel all the way down to the central belt to do things. It’s been really important for us, as it is for all rural local authorities [...]. In the future there’s no doubt that we’ll be doing more of this. (Susanne, policymaker, rural Scottish LA).

Susanne’s quotation suggests that such technologies are going to become ever more embedded in their professional practices, including participation in KE seminars; this is indicated by the increasing investment in specialist videoconferencing suites and an expectation of greater use in the future: ‘in the future there’s no doubt that we’ll be doing more of this.’ Susanne, like Mhari, feels that the use of VCT’s has ‘been a great benefit’ to her organisation.

VCTs are a viable solution to the challenge of engaging with geographically dispersed colleagues and business partners (Ali et al, 2012; Fletcher and Major, 2006; Sapsed et al, 2005; Townsend et al, 1998). Thus, one of the most positive aspects of VCTs in KE seminars is their ability to overcome geographic distance and bring together professionals from different organisations who are spatially dispersed or far from urban centres and/or who have serious budget restrictions and who therefore might not otherwise be able to meet face-to-face. This was also the finding of both Ali et al (2012) and Conklin et al (2013) in their work on healthcare professionals’ use of webinar technology for sharing knowledge across a virtual network of practitioners, policymakers, and academics. The use of VCTs creates a new way of working ‘unrestrained by geography, time, and organizational boundaries’ (Townsend et al, 1998: 17).

9.5.2 Videoconferencing technology as a substitute to physical attendance

While VCTs can play an important role in KE, a number of participants expressed the view that participating in KE seminars via VCTs were framed as a compromise or substitute for corporeal attendance. This is a view which is shared by Urry (2002; 2003; Larsen et al, 2006) and Boden and Molotch (1994) when they argue that technologically mediated interactions are an ancillary for physically meeting face-to-face: they are a pragmatic substitute when physical attendance is difficult or impossible.

And it is a balance between events – what do you physically go to or not? Maybe we can get away with teleconferencing in to save money. It is that balance between the relevance and interest, and time, and money to travel to it. (Elaine, Policy Support, Scottish Local Authority).

I would imagine that myself and [redacted] {Hamish} got a lot more out of it than [redacted] {Mhari} who was sitting on the end of the screen in [redacted] {a Scottish Island}. We can be involved with the elements of sharing research and information, and practical experiences. But attending most of these events are a problem for us. Most of them are neighbours and they can visit each other and attend these things and so they have good strong relationships with each other, and it takes only an hour to get across – whereas we have to travel for 4 hours to reach the central belt where most of these things are held. So I can see why people want to use videos rather than physically go, but you do miss out on a lot of the other things that go on in these events when you’re not there. (Susanne, Policy Support, rural Scottish LA).

‘You are warmly invited.’

When choosing how to participate in KE seminars, Hamish describes a balance of competing interests which require consideration: a ‘balance between relevance and interest, and time and money.’ As some form of compromise, Hamish says: ‘maybe we can **get away with** teleconferencing’ suggesting it is a half-way commitment between participating and not participating. It suggests that this is an inferior substitute for physical attendance. This sentiment can also be found in Susanne’s quotation when she says that attending KE seminars is ‘a problem for us’ because, unlike some other local authorities who are geographically closer to each other, it takes a long time for her and her colleague (Hamish) to travel to attend them, leading her to conclude ‘I can see why people want to use video rather than physically go.’ However, Susanne’s quotation also beautifully illustrates the point that there are adverse consequences in choosing to participate in KE seminars via VCTs. She recognises that seminars are about networking as well as opportunities for knowledge exchange. By participating via VCTs, ‘you do miss out on a lot of the other things that go on in these events.’ She compares her and her colleague Hamish’s experience of participating in the CPC’s KE event with that of Mhari (who participated via VCT), and she felt that by not attending, Mhari, ‘who was sitting on the end of the screen’ got less from the event than she and Hamish did. The things that Mhari would miss, according to Susanne, were the ‘elements of sharing research and information, and practical experience.’ Teleconferencing technologies are a way for some NAPs to participate in events which they otherwise might not have been able to do.

Such a view presented here is shared by several examples of empirical research, such as Ali et al (2012), Orlikowski (2002), and Sapsed et al (2005), who find that while VCTs might be useful for sharing *information*, they are more limited in supporting the exchange and creation of ideas and knowledge, and make it very difficult to create new relationships via opportunistic meetings (such as those enabled by mealtimes) when you are not physically there. VCT was only used at certain times within the seminar, during the formal presentations and discussion.

As such technological and practical constraints limit such spontaneous chats (Sole et al, 2002; Sapsed et al, 2005).

9.5.3 Situating the body in corporeal telecopresent interactions

While VCTs are able to emulate corporeality, the body remains physically absent. As such, those who use VCTs remain outside the ‘naked sensory range’ (Goffman, 1966). As Urry described it: ‘virtual travel does seem to produce a strange and uncanny life on the screen that is near and far, present and absent’ (2002: 255).

The use of screens, microphones, and speakers can emulate an embodied presence, but they are technologically mediated, and remain a substitute for the real thing (Urry, 2002). That physical absence from KE seminars prevents the many benefits derived from being with others. It is this relationship between the body, technology, and productive interactions, in the context in KE seminars, which is the final focus of this chapter.

As stated earlier two CPC academics participated in CPC KE seminars via VCT. In both of these cases the academics in question viewed the practice as a compromise on occasions when their physical participation was impossible. In both of the following quotations the importance of physical corporeality is emphasised, as is the difficulty in engaging in productive interactions when that corporeality is mediated through technology.

The argument presented in the last section of this final analysis chapter is that the body is an integral part of the engagement process. While technology can play a role in facilitating some of the ‘dimensions of productive interactions,’ it does not enable all of them. It is a substitute, an ancillary, in circumstances where physical participation is not possible. This intersection between knowledge exchange, co-presence, and technology is explored through a lengthy monologue from Isabella. In this quotation she is describing her participation in a CPC KE seminar through VCTs. In this quotation particular attention should be paid to how a lack of physical

presence at the event made her feel not truly part of it. This had consequences for how she engaged with the audience, and the ensuing dialogue with them.

For me it was really terrible. I’ve done teleconferencing before but it was done in a different way where I was actually in a room with other people, and then we were also linked to another campus with other people so I can see some real people in front of me [...]. Somehow if I see people face-to-face I feel more confident because I can see that they’re interested in what I’m saying; you can see their faces, you can see they’re writing notes. But the thing we did at the [REDACTED] event was different. I had no awareness that people could actually see me. I wasn’t even aware that I was standing and you couldn’t see my head. Until we had this situation where we were then cut off [disconnected] and when we finally managed to actually hear and see each other. But that’s terrible because I was really getting {pause} I felt I was much less clear than I usually am because I was feeling just so uncomfortable just looking at a wall and seeing my own slides, not seeing any audience and not being totally sure if I’m making sense or not because when you look at people you can see by their reactions that you’re making sense or not, and you can adjust what you’re saying or clarify something based on that feeling that you get from the audience during the presentation. So for me it was terrible. I was disembodied, very much disembodied, and I couldn’t see anyone. It was silence [...]. So when I realised that you could actually see me, it was better, but before I realised that, it was really terrible for me. Talking to my own slides. Not being aware of somebody seeing me [...]. I could only see both once I switched off the slides and I could see the screen. Afterwards at the questions, when I switched off the slides and I could see you I realised. But when I was actually talking I couldn’t, and for me it was terrible. If there was anybody else present in the room when I was talking it would have made things easier for me [...]. But if I can’t see people’s reactions, I get very nervous which doesn’t usually

‘You are warmly invited.’

happen to me. So I found that in the first part, until I started being aware that you could actually see me, it was terrible [because] I thought: “this is just a voice getting lost in the words that they can hear.” So I think that if it was done differently, as I say, if I could see people while I was talking, I wouldn’t have a big problem with that, but it was just a wall [in front of me] and that was terrible for me. (Isabella, academic researcher, Soton).

This quotation illustrates the relationship between knowledge exchange, corporeality, and technology. In this quote, Isabella is describing her experience with participating in a KE seminar via VCTs. She felt detached and isolated. This feeling came from the fact that she could not see others, nor did she realise that she could be seen by others. So while VCT did provide the opportunity for her to talk about her research to a non-academic audience, the nature of the interaction was less than ideal. Isabella used the term ‘terrible’ 6 times in this quotation to describe her experience, and the source of this ‘terribleness’ was the fact that the VCT was set up in such a way that it disembodied her and separated her from the audience by depriving her of the sensory perception of others.

First, there is the issue of sight. Being able to see your audience and to be aware of being seen is important to effective social interaction – which, as argued through this thesis, is central to engaging in facilitating productive interactions. Isabella’s quotation demonstrates a strong connection between *seeing* the audience, reading body language, and deducing their level of interest and engagement: ‘when you look at people, you can see by their reactions that you’re making sense or not.’ The fact that she could neither see her audience, nor perceive them seeing her (although in fact, they could) led to Isabella feeling detached and disengaged. She felt ‘alone’ and was not sure if her disembodied ‘voice [was] getting lost in the words.’ She makes a distinction between her ‘words’ and her ‘voice,’ the latter being the physical embodiment of the words.

‘You are warmly invited.’

Second, there is the issue of body language. Body language is important to social interaction. Urry claims that corporeal co-presence is an intercorporeal form of engagement in which interactions are based not only on words, but expressions, facial gestures, body language, status, and voice (2002). As pointed out earlier in this thesis, the body is not simply an appendage for communication, it is the anchor of it (Goffman, 1966; 1971). The lack of visual contact affected the visual feedback of the audience’s body language, which then affected Isabella’s confidence in what she was saying, since she was unable to ‘read’ the room by using the audience’s visual cues to assess if she was ‘making sense or not’. These visual cues would have allowed her to ‘adjust what you’re saying or clarify something based on that feeling you get from the audience during the presentation.’

Isabella’s experience was one in which technology failed to fully bring together seminar participants because of its failure to replicate the corporeal aspects of the engagement which are so fundamental to engaging with others who are co-located. Isabella explicitly stated that the presence of another person would have helped because it would better replicate a more natural form of interacting with others, and ease the sense of disconnectedness with, and the anonymity of, an invisible audience.

Part of this problem is the limitations of the technology’s capabilities. Isabella was at several points cut off, which can be salient in emphasising the physical and social distance of the non-co-located person (Boden and Molotch, 1994). So while VCT allows for simultaneous and instantaneous two-way audio and visual communication across huge distances, it is also dependent upon the stability of the technology. Disruptions compromise the intercorporeal nature of the engagement which can compromise the flow and structure of the interactions by causing interruptions; these then compromise the ‘interaction order’ (Goffman, 1966; 1971) which mediates all social interaction.

While technology can overcome some barriers in professional life (Collis 2000; Jones et al, 2002; Ali et al, 2012), it is not a panacea for many of the challenges and barriers

‘You are warmly invited.’

(including overcoming limited travel budgets, time, and bringing together dispersed communities) to creating an environment in which productive interactions, in the context of KE seminars, can flourish. VCTs cannot replace physically meeting with others, which will continue to make KE seminars an important interface between academia and wider society.

Urry argued that communication technologies create a social situation where people are both ‘present and absent; here and there, near and distant, home and away, proximate and distant’ (2003: 35) and this certainly seems to be the case here where VCTs bring people together, but also reinforce remoteness from other participants who are co-located. It is this disjuncture that was described by Isabella where VCTs give an illusion of corporeal co-presence, but can also emphasise the lack of bodily and sensory presence. Larsen et al (2006) described this contradiction of teleconferencing as a: ‘thinner version of physical meeting in terms of bodily idiom and sociality. One cannot sense much of the client’s office space, shake their hand, have sustained eye contact, and observe all bodily expressions’ (2006: 38) which makes being together in KE seminars so critically important in facilitating all the dimensions and richness of productive interactions which cannot be fully replicated via VCTs.

9.6 Conclusion

The main proponents of the concept of ‘productive interactions’ (Spaapen and van Drooge, 2011; Molas-Gallart and Tang, 2011) argued that ‘direct’ ‘productive interactions’ must be personal, but not necessarily face-to-face. The KE literature contains evidence that personal, regular (sustained) contact is important in facilitating KE (Moore et al, 2011; Mitton et al, 2007; Ross et al, 2004; Innvær et al, 2002; Molas-Gallart et al, 2000; Lomas, 2000; Cousin and Simon, 1996). Yet this chapter has attempted to move beyond this by exploring the importance of that

contact being supported by at least occasional face-to-face meetings, even if they are irregular and infrequent.

In doing so, this chapter explores in much greater detail the nature of ‘direct’ productive interactions. Spaapen and van Drooge (2011) give seemingly equal weight to the importance of ‘direct’ and ‘indirect’ contact for facilitating productive interactions - the latter being where academics and NAPs are not communicating directly with one another, but via textual artefacts or knowledge brokers. By contrast, this thesis examines why there are differences between direct and indirect interactions (from the perspective of those who engage in those practices), and argues the benefits for face-to-face ‘direct’ interactions among people that cannot be replicated through other types of engagement. This thesis asserts that only when academics and NAPs are physically co-located and co-present can they engage in all the dimensions of productive interactions which were identified and outlined in chapter 8.

This conclusion adds to the growing body of research within the KE field which finds that interactions between academics and NAPs (and among NAPs themselves) are most effective not only when they are person-to-person, but also face-to-face (Wilkinson et al, 2012; Mitton et al, 2007; Nutley et al, 2007; CIHR, 2006; Golden-Biddle et al, 2003; Lomas, 2000). This corporeality is especially essential for *interpreting* academic research and co-constructing knowledge, rather than just *disseminating* it. Furthermore, face-to-face meetings are important for making contacts and network-building (Urry, 2003; 2002; Best and Holmes, 2010; Walter et al, 2007; Lomas, 2007; Greenhalgh et al, 2004; Gabby and le May, 2004).

While it is possible to establish and maintain contacts via online exchanges or through intermediaries (brokers), it is clear from the interviewees that at some point, academics and NAP acquaintances who are in contact with one another (either through email or via an intermediary) are going to have to eventually physically meet to build on their relationships into something more substantial (even if they remain informal and ad hoc). KE seminars are an excellent opportunity

for doing this. Being physically present means that KE seminar participants can change their relationships by develop rapport and trust which are emerging properties of personal, proximate, intercorporeal contact (Urry, 2003; 2002; Larsen et al, 2006; Wilkinson et al, 2012; Jacobson et al, 2003). Creating such relationships would be difficult, if not impossible, through ‘indirect’ interactions. It is for these reasons that it is important for academics and NAPs to have the opportunity to be both co-located and co-present in order to engage in all the dimensions of productive interactions. Yet the KE literature has largely ignored the fact that such corporeally personal contact occurs in physical spaces – such as KE seminars. There has been very little discussion as to *why* co-location (being face-to-face) is so important in facilitating KE and relationship-building processes.

The analysis presented in this chapter addressed this lacuna by dwelling on the importance of face-to-face interactions. It situates this discussion within the concept of corporeal co-presence and its relationship to social interaction (Goffman, 1966; Urry 2003; 2002; Larsen et al, 2006; Zhao, 2003).

This chapter constructed an argument where being corporeally co-present with one another at KE seminars creates a richer and more ‘real’ encounter which cannot be replicated by other ‘indirect’ or non-corporeal forms of engagement. By ‘real,’ this thesis refers to the embodied and sensory experience of participants being together and engaging with one another through their embodied selves (Boden and Molotch, 1994). This argument was constructed by presenting evidence as to why this embodied and sensory presence actually shapes and facilitates productive interactions. This chapter did so by first examining how academics’ embodiment (and embodied attributes such as age or accent) shaped how NAPs interpret and receive the academic research being presented. It also describes how an embodied presence at KE seminars signals commitment to the research being presented, and to the CPC more broadly (Larsen et al, 2006).

Corporeal co-presence permits a meeting of minds by creating informal social spaces around the formal elements of the event for participants to engage in

informal chats with one another, to meet with their colleagues, and to meet new contacts through ‘chance encounters’ (ibid). For many of the NAP interviewees, it was not the structured (formal, planned) discussions which often justified their attendance at KE seminars, but the ‘catch up’ with their colleagues, and the opportunity for chance encounters with new people at some point within the meeting space and time. This is possible within KE seminars as they can create ‘open regions’ (Goffman, 1966; 1971). One of the most important ‘open regions’ are those formulated around mealtimes. Food plays an important role in KE seminars (Golden-Biddle et al, 2003). It has an impact on the prestige of the hosts (Warde and Martens, 2000) and bestows honour to the guests. Eating is not only sustenance for the body, but marks out time and space for people to come together, to exchange information, interact, and create or strengthen relationships (Symons, 1994; Mintz and du Bois, 2002; Ochs and Shohet, 2006). Mealtimes create a shared experience which helps form bonds between professionals, and helps create a focal point for ‘loose talk’ and networking to occur. It helps to break the ice between previously unacquainted people (Larsen et al, 2006; Collis, 2000), and to reaffirm commitment among familiar people (Nandhakumar, 1999).

The analysis also examined non-corporeal forms of co-presence within the seminar – specifically the use of VCTs. As before, the discussion of VCTs was framed through a theoretical lens informed by Goffman (1966; 1971), Urry (2002; 2003), and Zhao (2003; Zhao and Elesh, 2008). The sparse literature which does describe technology in KE has tended to focus on ‘webinars’ (Conklin et al, 2013; Ali et al, 2012) which Zhao (2002) would refer to as a form of virtual telecopresence. What was described in this chapter is videoconferencing – a form of corporeal telecopresence. The conclusions to be drawn from the analysis on the use of VCTs within KE seminars are more complex.

On the one hand, VCTs are useful in (virtually) bringing together academics and NAPs when it otherwise may not be possible due to geographic, budget, or time-restraints. It is a viable solution to a problem of communicating with dispersed

‘You are warmly invited.’

colleagues. VCTs allow people to participate in KE seminars in a way unconstrained by geography, time, and organisational boundaries (Townsend et al, 1998: 17).

On the other hand, VCTs do not fully replicate the experience of being with others because they fail to allow a form of unmediated intercorporeal engagement. In agreement with Boden and Molotch (1994) and Urry (2003; 2002; Larsen et al, 2006), this chapter concludes that technologically mediated interactions are an ancillary which does not fully replicate the experience of corporeal co-presence: it is a substitute for physical attendance because it does not fully emulate the experience of being with others. The disembodied presence leads to a different (more hindered, unnatural, and potentially emotionally uncomfortable) form of interaction. By removing the body from social interactions, it makes it more difficult to communicate and build rapport between participants; which as been identified as an important component of effective KE. Thus, there is a compromise of interests where new technologies can both bring people together yet emphasise distance, which can impede effective engagement in productive interactions among seminar participants. The relationship between embodiment and co-presence within the process of knowledge exchange is an area which requires further research.

10 Discussion and conclusion

10.1 Interaction and relationships at the core of knowledge exchange seminars

The Knowledge Exchange (KE) literature has been consistent in arguing that academic social science research does have non-academic societal impact (Olmos-Peñuela et al, 2014a; European Commission, 2005), but has been less clear on the process by which such impact is achieved, and how best to facilitate it (Morton et al, 2012; Bornmann, 2013; Nutley et al, 2007; Molas-Gallart et al, 2000). Yet two important findings have emerged from the KE literature.

The first is that interaction between academics and Non-Academic Professionals (NAPs) are important. This has been demonstrated to be the case across a number of social science research terrains where academic social research knowledge must interact with other forms of knowledge (such as experiential, tacit, and expert-practitioner) for academic research findings to be made socially relevant and useful (Greenhalgh and Wieringa, 2011; Davies et al, 2008; Walter et al, 2005).

The second is that interactions are mediated through interpersonal relationships and social networks (Wilkinson et al, 2012; Byrne, 2011; Nutley et al, 2007; Mitton et al, 2007; Greenhalgh et al, 2004, and others). There is also excellent work regarding how those relationships are mediated either contractually or informally (Olmos-Peñuela et al, 2014; Castro-Martínez et al, 2011; 2008), and situated within organisational structures (Best and Holmes, 2010).

Interactions are important, complex, and facilitated by interpersonal relationships. Yet there has been a paucity of work examining them, and as such there is a need for more qualitative work and model-building to better understand them, and the mechanisms which facilitate it. It is on this point that Spaapan and van Drooge (2011), Molas-Gallart and Tang (2011), and de Jong et al (2014) developed their concept of ‘productive interactions.’ This concept attempts to shift analytical focus

from the **outcomes** of KE activities, to the **process** which is mediated by interpersonal engagement, networks, and organisational structures.

This thesis has taken the concept of productive interactions to examine a single site where interactions occur – KE seminars. KE seminars are not the exciting or innovative collaborations or avant-garde approaches to disseminating academic research and engaging with NAPs that the KE literature is often concerned with. Instead, they are mundane social occasions which are interesting because they are an increasingly common, almost canonical, part of academic/non-academic dissemination and engagement practices. They are probably the most common form of KE.

By using the productive interactions framework, this thesis sought to explore KE seminars by examining what functions they serve its participants, and why physically coming together face-to-face was so important in fulfilling these functions. This was framed within the research question:

What functions do academics and non-academic professionals feel knowledge exchange seminars serve, and why coming together face-to-face is necessary for facilitating those functions?

This chapter is structured to answer this question by drawing together some of the overarching themes which emerged from across all the analysis chapters, and bringing them together in cohesive whole. Section 10.2 positions KE seminars within the wider social and political context in which they exist. Section 10.3 attempts to expand the on the concept of productive interactions by focusing on what constitutes direct, face-to-face interactions to be ‘productive.’ It also outlines why corporeal co-presence is desirable, and often necessary, in facilitating them. Section 10.4 offers some final reflections, including the limits of the research, recommendations for KE professionals and academics organising KE seminars, and avenues for further research.

10.2 The wider social and political context of knowledge exchange seminars

There is a tendency for some within the KE field to be dismissive of the value that ‘single interventions,’ such as KE seminars, have in the KE process (Walter et al, 2003a). Yet what is often overlooked is that KE seminars are not isolated events. They are situated within a wider social, political, and economic environment which has an impact on the interactions which occur within them.

What is at the core of this thesis is the idea that interactions between academics and NAPs do not happen in a social vacuum. They occur within specific interaction encounters, be it email exchanges, Skype calls, team meetings, or, as in this case, seminars. None of these exchanges occur in isolation from the wider social environment in which they are occurring. They are mediated through interpersonal social networks, the economic and political climate, and contractual/financial obligations that academics and NAP may (or may not) have to one another.

Spaapen and van Drooge (2011) and Molas-Gallart and Tang’s (2011) productive interactions framework includes focusing on the economic, social, and political environment in which productive interactions occur. However, given the specific context of their case studies (for example the latter focused on a business research Centre called BRASS), both these papers tended to focus on the commercial aspects and dynamics between commercialisation and research. This thesis focused on the political ones.

10.2.1 The social environment

De Jong et al (2014) argued that the network configuration of researchers, intermediaries, and other stakeholders can all influence who comes to interact with research, and the nature of those research-orientated interactions between actors (see also Molas-Gallart and Tang, 2011 and Molas-Gallart et al, 2000).

‘You are warmly invited.’

While the CPC’s KE seminars may be one-off and informal (ie, neither part of an ongoing series nor contractually obligated), they are not a group of people who are totally unknown to one another coming together for a few hours and then departing never to communicate again. Seminars are moments of togetherness: fixed points in time and space for a group of people who are all connected in some way to come together to discuss and engage with research topic through interacting with other people who share a mutual interest. Some of these professionals are well known to each other, and some will be new acquaintances. Molas-Gallart and Tang (2011) described the importance of making ‘serendipitous’ contacts which may or may not later develop into formal, contractual relationships. This thesis asserts that KE seminars are one such place for those ‘serendipitous’ new contacts to be made. They both create and sustain networks, and utilising those networks is how academics (and KE professionals) reach potential audiences. Who is in a social network determines who finds out about the seminars, and, by extension, who comes to them. They enable academics and KE professions to find those who are interested in engaging them and using their research. They enable academics to meet with new contacts informally and allow NAPs to network with each other. KE seminars’ success was embedded within, and dependent on, social networks.

This thesis examined these social networks by drawing on Social Network Analysis (SNA) and interview data to paint a picture of the CPC’s network structure, and how that structure relates to KE seminars. It concludes that social networks are shaped by geography and institutional boundaries which impacted on the nature of CPC members’ informal non-academic relationships.

To detail this point further, this thesis asserted that there is a relationship between the CPC’s social networks, the institutional structures of the Centre and those with whom the CPC’s membership engages, specifically the various levels of government within the UK. This thesis presented evidence demonstrating how Scottish Consortium (SC) CPC members were less closely connected to each other compared with Southampton (Soton), and had fewer but stronger connections to NAPs from

Scottish non-academic organisations. By comparison, Soton, had a greater number of connections to English/UK-level organisations, but with fewer contacts to them. This geography and organisational boundaries were both important in shaping who the CPC’s academics could reach within their social networks which, in turn, had consequences for who attended their KE seminars. The thesis demonstrated the relationship between the individual and the organisational levels which Best and Holmes (2010) argue was ripe for further examination within the KE field. This thesis demonstrated this link between the individual and the organisational level.

10.2.2 The political environment

Not only are KE seminars embedded in a social environment, they are also embedded within a political one. This thesis examined that environment from two perspectives.

The first was the broader structural issue of the KE and Evidence-Based Policy-Making (EBPM) agendas (Maybin, 2013; ESRC, 2009a/b; RCUK, 2007; Davies et al, 2000; Giddens, 1994). Those agendas have developed professional expectations and rewards for academics to disseminate their research to non-academic audiences, and for NAPs to engage with research as part of their professional decision- and policy-making practices. This wider political culture permeated through the interviewees’ narratives regarding why they decided to engage with one another through hosting and attending KE seminars.

NAP’s willingness to seek academic research is determined by their employers’ milieu which values and seeks academic research, and sees it as important (Cherney et al, 2015). Yet while the political rhetoric was strong in supporting the use of ‘evidence’ in informing the basis on which decisions were made, it is in practice not being matched with adequate levels of investment. The impact of budget and staff cuts in the public sector was salient across the NAP interview transcripts; many described the pressure on dedicated resources which adversely affected the organisational capacity that allowed them to personally engage in KE activities. A

lack of resources and organisational capacity is a barrier to participating in KE activities. Such a conclusion has been well established within the KE literature (Mitton et al, 2007; Greenhalgh et al, 2004; Ross et al, 2003; Innvær et al, 2002; JFR, 2000), and this thesis echoes this point. Yet this thesis has gone further and drawn specific attention to how politically-driven austerity measures in recent years have reduced staff numbers, shifted priorities, and restricted funding for those in the public sector to do ‘additional’ and ‘periphery’ things, such as participate in KE seminars. This was particularly dominant in the narratives of NAP interviewees who worked for Local Authorities. As such, KE practitioners and academics need to reflect on how to maintain and develop their contacts and KE engagements in times of austerity.

The second perspective of the political environment in which KE seminars are situated was more dynamic. The timing and timely availability of research which addresses the current interests of NAPs is one of the most important factors stimulating interest and participation in KE seminars. This mirrors findings by Mitton et al (2007) and Bogenschneider et al (2000). KE seminars and other temporally situated interventions need to be able to contribute to the ongoing debates of wider society, not just the ongoing debates of academia. Therefore, academics and KE professionals cannot rely on the ‘sleeping effect’ (Whitehead et al, 2004) where research findings and their policy implications remain dormant until they are needed. Instead, academics and KE professionals must remain alert and recognise when issues come to the fore in the public/political consciousness (at different levels of government and in different places), and act quickly on the ones which their research can address.

Many things are of interest to government (and other non-academic organisations), but the intensity of that interest varies over time as issues move from being long-term ‘strategic interests’ to ‘hot topics’ for a while, before receding back to ‘strategic interests’ once interest has waned.

10.3 The knowledge exchange seminar

Moving down in scale from the wider social and political environments in which KE seminars are situated, this section discusses KE seminars themselves.

Given that there are significant budget and time pressures on both academics and NAPs, to travel somewhere to meet with others and commit themselves to the meeting sends a signal that the seminar is worth the resources and effort to attend (Larson et al, 2006).

This thesis examined *why* participants chose to make such a commitment. It is clear that KE seminars serve multiple functions which would be difficult to replicate through ‘indirect’ or incorporeal engagement.

10.3.1 What are productive interactions?

KE seminars are sites where academics and NAPs assemble together, making them an interface between academia and wider society. This thesis also argues that they are an interface between different levels of government and other organisations as KE seminars attract NAPs from different places.

This thesis explores this interface by using the concept of ‘productive interactions.’ This thesis approaches this concept from a different perspective than Spaapen and van Drooge (2011) proposes. They use this concept at a wider scale; focusing on the interrelationship between different types of interactions (direct, indirect, and financial), and the factors which shaped them. By contrast, this thesis explores the concept by focusing on direct interactions which are conducted face-to-face, and within only a single social context, that of KE seminars. As such, this thesis has approached the concept very much focusing on the actual exchanges – drawing attention to what participants felt constituted ‘productive’ interactions within the interaction encounters which occur within KE seminars.

Therefore, while this thesis approaches the concept of ‘productive interactions’ from a different perspective from that proposed by Spaapen and van Drooge (and

focusing only on one specific component of it), it is hoped that this thesis has expanded our understanding of what constitutes interactions to be ‘productive,’ and the wider social, political, and economic environment which shapes them.

Spaapen and van Drooge (2011) described interaction between academics and NAPs as ‘productive’ when it ‘leads to efforts by stakeholders to use or apply research results or practice information or experiences’ (p. 212). Molas-Gallart and Tang (2011) and de Jong et al’s (2014) definition varied slightly from this. The former said that when contact between academics and NAPs led to an ‘effort by the stakeholder to engage with research’ (p. 219), that made interactions ‘productive,’ while the latter said that they were ‘encounters between researchers and stakeholders in which both academically sound and socially valuable knowledge is developed and used’ (p. 4).

This thesis has sought to build on this concept and added further dimensions to this definition. The empirical evidence presented in this thesis leads to the conclusion that not all useful research (or interaction) will lead to change, use, or even immediate, tangible outcomes (a finding which reflects Molas-Gallart and Tang, 2011). However, Molas-Gallart and Tang’s definition seems to place too much emphasis on what NAP’s gain from the interaction, and places the academic research knowledge too centrally within the exchange. Academics can also learn and draw value from their interactions with NAPs. Furthermore, this thesis produced evidence that NAPs found the most productive interactions were with other NAPs, quite separate from the academics, although still centered on the research being presented and discussed.

This then expands the concept of productive interactions. In light of the research findings, this thesis proposes that interactions at KE seminars can be considered ‘productive’ if they (1) lead to mutual learning, (2) enable the co-construction of knowledge through multi-directional exchanges, (3) create opportunities for reflection and (4) support networking.

1. **Mutual learning** refers to a two-way exchange where academics are sharing their research findings with a non-academic audience, and that audience is sharing their experiences and knowledge with the academics (Huberman, 1994). Academics and NAPs are simultaneously learners and teachers.
2. **Co-construction of knowledge** refers to a more complex type of exchange which occurs between academics and NAPs, and among NAPs themselves. Such conceptualisations are underpinned by co-construction and integrationist models of KE (Davies and Powell, 2012; Greenhalgh and Wieringa, 2011; Davies et al, 2008; Tyndén 1993). KE seminars are not only classrooms (sites of disseminating research findings), they are also ‘joint interpretative forums’ (Mohrman et al, 2001; Rynes et al, 2001; Boland et al, 2001; Golden-Biddle et al, 2003). Furthermore, the evidence presented in this thesis suggests that the most productive interactions within KE seminars are often the points where academics took a step back and let NAPs communicate with each other without them (ESRC, 2012; Gabby and le May, 2004; Bogenschneider et al, 2000). For many NAPs, it was the contributions of other NAP participants which provided the most insightful exchanges, particularly those NAPs from organisations different from their own since those NAPs had very different perspectives, leading to plurality in views. This all suggests that productive interactions are not just a two-way process, but multi-directional engagement involving multiple actors with diverse sources of knowledge and expertise (Davies et al, 2008; Best and Holmes, 2010; Tyndén, 1993). One conclusion to draw from this is that to facilitate such productive interactions requires NAPs from diverse backgrounds and the creation of an open social space which allows such multi-directional interactions to occur.

In relation to the above two points, it is important to note that two-way forms of engagement (between academics and NAPs) can be as ‘productive’ as co-constructionist ones. Best et al (2008; 2009) were clear in stating that

‘You are warmly invited.’

even as models of the KE process became more complex and sophisticated, it did not mean that earlier conceptualisations were obsolete. Both points 1 and 2 are grounded in social learning theory which views knowledge exchange as a socially constructed process in which meaning and value develop through social interaction. KE seminars contain a mix of KE mechanisms; they engender a ‘package of activities’ (Walter et al, 2003a: 3; also Nutley et al, 2009; 2003a/b) such as **dissemination** through conveying academic research findings to a wider audience via a tailored message, and the **interpretation** of those results through a process of dialogue, debate, and discussion among participating actors. Such communication can be facilitated by formal presentations and discussions (Q&A sessions, group discussions), or informal dialogue (‘loose talk’ chats around food, or just before/after the seminar).

3. **Reflection** refers to interactions which create space and time for thinking. Seminar participants listening to others talking will also be thinking about how what is being said is relevant to their professional work. Some interviewees mentioned writing notes to themselves during PowerPoint presentations and group discussions on things they wanted to follow up once they were back at their office. Others described ‘thinking aloud’ with their colleagues with whom they attended the seminars. KE is a recursive process of reflecting and talking (Rushmer and Davies, 2004), and so KE seminars can be a dedicated time and space (away from the daily distractions of the office) for reflection on a single issue (Buysse et al, 2003; Bogenschneider et al, 2000) which is important, especially so when NAPs have many portfolio areas under their professional remit.
4. **Networks** are critical to KE. Networks of interpersonal relationships are vital to the KE process (Olmos-Peñuela et al, 2014b; Mitten et al, 2007; Percy-Smith, 2006; Greenhalgh et al, 2004; Innvær et al, 2002; Molas-Gallart et al, 2000, and others). Relationships enable academics and NAPs to access

‘You are warmly invited.’

information, sources of funding, material or intellectual opportunities for the future, *inter alia*. Therefore, interactions can be productive if they help maintain existing informal relationships, and establish new ones. KE seminars can create social spaces where seminar participants can interact with each other, to ‘touch base’ with their existing informal contacts, and establish new ones as an ‘investment’ into future KE endeavours. Such a finding reflects Urry’s view that professional meetings are increasingly less about sharing information via presentations (using PowerPoint, flipcharts, etc), and increasingly about the social opportunities that these meetings can provide (2002; also Weber and Chon, 2003; Larsen et al, 2007).

10.3.2 Where do productive interactions occur within seminars?

As mentioned, KE seminars contain a number of different opportunities to interact within the schedule, depending on the format. This thesis has conceptualised the format into two groups: formal and informal, and most KE seminars have a mix of both. They typically involve **disseminating** research in lecture style ‘sit-and-listen’ presentations, as well as **interpretation and integration** of knowledge through group discussion sessions and buffet lunches for participants to talk and network. This thesis takes the position that both formal and informal interactions are important, yet for many interviewees it was the latter which were of particular value to them.

Formal interactions are the planned and structured interactions within the event, such as PowerPoint presentations, Q&A sessions, and break-away groups. They are ‘top-down’ in the sense that academics (and KE professionals hosting the event) have considerable power in shaping the parameters of the interaction (Escobar, 2011; Cornwall et al, 2008a/b; Cousin and Simon, 1996) but they are an informal and relatively politically neutral environment (Bogenschneider et al 2000; van Egmond et al, 2011; ESRC, 2012).

Informal interactions are those which are peripheral to the formal aspects of the event (Larsen et al, 2006). They are ‘bottom-up’ because participants can choose to interact with anyone they wish, and the interactions are not shaped or controlled by the seminar hosts. This thesis drew on Goffman’s concept of ‘open regions’ to describe such spaces of informal interactions.

Informal interactions within KE seminars are important. It is not simply enough to physically bring people together for them to engage with one another if they are only sitting listening to an academic talk about their work. There is co-location but no co-presence. Open regions are spaces where participants are available to be approached without prior acquaintance for the purpose of interaction (Goffman, 1966; 1971).

This thesis describes the importance of mealtimes not just for bodily sustenance and comfort, but for creating open regions which facilitate informal (productive) interactions. By mealtimes, this thesis refers to any social context involving food or drink, such as tea and coffee breaks, buffet lunches, wine receptions, etc. The provision of catering cost the CPC money, and took up to 50% of the event time in the 12 KE seminars observed. Despite the financial and time investment in food in KE seminars, remarkably little has been said within the KE literature regarding its importance in facilitating interactions among participants. Many interviewees found that the social spaces created around mealtimes were among the most beneficial for engaging in productive interactions. The provision of food:

1. Signals to the seminar participants that they are important to the seminar organisers, making them feel welcome and respected.
2. Creates a forum for informal interaction among participants to engage in unstructured yet productive exchanges - ‘loose talk.’

3. Creates a forum for networking among participants. They are a space to reaffirm existing relationships, particularly among those who may not meet often, or to act as an ice-breaker in the creating of new ones.

10.3.3 Why does being face-to-face matter?

This thesis explores this assumption that face-to-face interactions are important and asks why that is the case. It does so by examining one type of site of face-to-face social encounters, one of the most intimate and canonical interfaces between academia and wider society: Knowledge Exchange (KE) seminars.

In their conceptualisation of productive interactions, Spaapen and van Drooge (2011) & Molas-Gallart and Tang (2011) make a distinction between ‘direct’ and ‘indirect’ interactions. For them, indirect interactions are those which are mediated through carriers such as textual artifacts and knowledge brokers, and direct interactions are those conducted person-to-person. For them, direct interactions can be either face-to-face or technologically mediated through telephone, email, or videoconferencing.

This thesis built a case for making a distinction within the term ‘direct interactions’ between those which are face-to-face, and those which are mediated through technology. While both enable two-way exchanges, some KE scholars have suggested that exchanges between academics and NAPs should not only be person-to-person (direct), but also face-to-face (Wilkinson et al, 2012; Mitton et al, 2007; Nutley et al, 2007; CIHR, 2006; Golden-Biddle et al, 2003; Lomas, 2000). This is particularly important within the social sciences where academic research knowledge must interact with other forms of knowledge for it to be made socially relevant and useful.

This distinction between face-to-face and technologically mediated direct interaction derives from the empirical data which clearly indicated that for many interviewees, there was a difference between the two, with a preference for the former in which

they saw the greater value in physically being together with others, as opposed participating through VideoConferencing Technologies (VCTs) (while recognising the self-selectivity of the interviewee population as those who have chosen to participate in face-to-face interactions in the context of KE seminars). This is not to suggest that technologically mediated interactions have no place in the KE process, and this thesis described their benefits – particularly in bringing together geographically-dispersed groups who would otherwise not be able to engage with one another. Urry (2003; 2002) argued that telephone and email exchanges do not create strong relationships, but only start tentative ones, or help maintain existing ones. This thesis agrees with Urry. This thesis explores the claim that face-to-face interactions play a particularly important role within the KE process. It goes further and explores *why* this is the case. In doing so, this thesis makes a connection between the concepts of productive interactions and corporeal copresence, positing that while some elements of productive interactions can be facilitated via VCTs (particularly (1) mutual learning and (2) elements of co-construction of knowledge), it would be difficult to replicate all the dimensions of productive interactions without corporeal copresence (ie via technology). In particular, it would be difficult to replicate the relationship-building and ‘serendipitous’ meetings with like-minded professionals. Seminars in particular are important because they enable relationship-building not just between academics and NAPs, but between NAPs themselves, as well as opportunities to establish relationships with previously unknown people outside their own existing immediate network.

Physically meeting contacts changes the nature of the relationship. This was an area that was explored in the analysis chapters in which one interviewee described how the nature of the relationship with their professional contacts had changed once they had physically meet them face-to-face – they entered into an almost informal-contractual relationship where it became harder for academics and NAPs ‘to say no’ to each other once they had developed a rapport with one another (see also Wilkinson et al, 2012).

10.3.4 Theorising ‘direct’ face-to-face interactions

This thesis goes beyond simply making a distinction within the term ‘direct’ interactions. It attempted to theorise those differences, and their effect on the nature of productive interactions.

Drawing on the ideas of Goffman (1966; Urry, 2003; 2003) and Zhao (2003), face-to-face interactions were described as corporeally co-present ones, and technologically-mediated interactions were described as corporeal telecopresence (in the case of VCTs) or virtual telecopresence (in the case of webinars).

Corporeal co-presence is critical in the patterning of professional social life (Urry, 2003: 155), and this includes practices of KE. The final analysis chapter examined the importance of co-presence, and the nature of ‘human togetherness’ beyond verbal exchange into an embodied, sensory experience of being and engaging with others through the medium of their own bodies. Co-presence allows non-verbal communications such as facial expressions, intonation, gestures, posture, and other forms of body language which can be important for facilitating effective and productive interactions among seminar participants. This thesis asserts that there is a clear connection between productive interactions and corporeal co-presence.

Despite significant advances in technology, and technology’s increasingly central role in professional life, VCTs and webinars remain a substitute for physical meetings, and one which does not fully replicate the embodied corporeal experience of being with others. This thesis concludes that there is a role for VCTs within KE seminars (and the wider KE process), but argues that it is an inferior substitute for occasions when physically coming together is impossible or impractical. Even if academics and NAPs are in constant and regular email/Skype contact (or even collaborating on a joint research project (co-producing research)), that contact must be buttressed with at least occasional face-to-face meetings. More research is needed on the possibilities for telecopresent meetings, and how they can replicate physical meetings in as normal and effective a way as possible within KE.

10.4 Final reflections

This section offers some final reflections, including the limits of the research, recommendations for KE professionals and academics, and areas for further research.

10.4.1 Limitations of the research

There are a number of limitations of the research. Some of these were addressed in the methods chapter; here are offered a few reflections on the overall process.

First, this thesis interviewed participants who chose to attend at least one CPC KE seminar. Thus, the views of those participants were generally favourable to the role and function that such events can play in their professional lives, which impacted on how this thesis is written. Had the interviews been conducted with people who were aware of the CPC’s KE seminars but chosen never to attend, the narratives and the resulting thesis might have produced very different views.

Second, the data collected for this thesis came from questionnaires, observation, and an online questionnaire. These produced a vast quantity of valuable data, and it was decided not to include evidence from the observation in this thesis (although there scope write journal papers from that data in the future). So while the observation was helpful in shaping the interview schedule and accessing participants, in hindsight I should have dedicated more of the limited resources that a PhD affords to interviewing more participants rather than observing seminars.

Third, there was the conceptual challenge of marrying up the views of the interviewees with the theory which is presented in this thesis. As with all thematic analyses, the words of the participants are taken out of context and embedded within an analysis and a theoretical framework which they themselves did not articulate. As a result I was very cautious about how I represented and described the views of the participants in this thesis. This was an issue discussed in some

detail in the epistemology section (5.2.1). This thesis drew together contributions from the participants and combined them with both sociological and KE literatures. It used the concept of ‘productive interactions’ as a heuristic device to conceptualise and frame the interview narratives which hopefully accurately reflected the interview participants’ views, while at the same time providing insights for KE scholars and academics interested in organising KE seminars.

Notwithstanding the limitations noted here, the research process produced a valuable source of data. While the participants’ accounts and the CPC’s case study cannot be empirically generalisable to other centres’ KE practices, this thesis has nevertheless hopefully provided insights into KE seminars, and a deeper understanding of the context and nature of productive interactions within them.

The remainder of this chapter details the implications for further research and advice to KE professionals and academics.

10.4.2 Implications for future research

Firstly, this research sought to explore and understand KE seminars by framing it within the conceptual framework of productive interactions as espoused by Spaapen and van Drooge (2011; and others). How that framework was used within this thesis is structured differently from how Spaapen and van Drooge initially described it, and focused on only specific elements of their conceptual framework. The concept of productive interactions is a valuable conceptual rubric, but it remains underconceptualised, and with only limited empirical work used to test, expand, and refine the concept. Therefore, while it is hoped this thesis adds some further dimensions to consider within that framework, further empirical work need to build on it.

Secondly, while the KE literature describes the importance of interpersonal relationships in the KE process, there has been little examination of work investigating those webs of relationships using social network methodologies. This

thesis aimed to demonstrate SNA as a method for revealing the complex ties which bind academics and NAPs together. Yet there is great scope for further examination. Social network analysis is a methodologically fruitful terrain that has yet to be fully cultivated within the KE field. One area suggested within this thesis was mapping participants at KE seminars. Another could be the mapping of informal and contractual relationships, and the effect that those different types of relationships have on the KE process, even if the former is methodologically difficult (Olmsted-Peñuela et al, 2014b). Such analyses would help further our understanding of the relationship between interpersonal relationships and the KE process which has been identified as so critical to KE.

A third area of future research could come from ethnographic research of KE seminars. This thesis has highlighted a number of areas of interest, including how food, event format, technology, and venues can all shape the nature of productive interactions within the seminar. Thus, observations of those events could produce valuable insights. In particular, the event format has a critical role in facilitating or hindering productive interactions. Such research would likely draw upon the KE and pedagogy literatures.

One particular area of interest to me is just how carefully KE seminar organisers choose their event locations. KE seminars are rarely in university buildings. Instead they were hosted in hotels, government and public buildings such as community centres and libraries. This was done with deliberate intention. It is an area that was developed in earlier drafts of this thesis but was not included due to word length constraints, but is something I hope to write about in future journal articles.

Finally, there is also much more scope for examining the timing and nature of ‘hot topics,’ their emergence and how academics can capitalise on the interest of wider society by targeting their research at its ongoing debates.

10.4.3 Implications for seminar organisers

This thesis has produced a number of practical insights which would be of benefit to academics and KE professionals who are organising seminars.

1. Be alert to emerging hot topic issues from wider society. Academics who wish to contribute to the debates of society must be alert to them. Use NAP contacts to keep abreast of the types of concerns and conversations which different sectors and potential research users are engaged. Hot topics can emerge very quickly and be short-lived, and so it is important to be fleet-footed in organising interventions (such as KE seminars) to disseminate research and engage with the right people at the right time.
2. Recognise that NAPs often have limited resources to devote to attending KE seminars, and these seminars are often perceived as ancillary to their core work.
3. KE seminars should have a mixture of formal and informal components. However, the latter seem more important than the former, and so seminar organisers must ensure that there is sufficient scope for ‘open regions’ so that participants can interact and network with academics and, more importantly, with each other.
4. Food is a very important element in KE seminars. While expensive, it demonstrates to seminar participants that they are welcome and valued. It is also an excellent way of creating those informal ‘open regions’ for seminar participants to interact with each other.
5. Location is important. While urban centres will be accessible to many NAPs, they can also create a barrier to the participation of those in rural locations.
6. While there is a place for VCTs in KE seminars, one must be careful when using them as a substitute for physical face-to-face meetings because they are

‘You are warmly invited.’

an inferior ancillary. Without face-to-face meetings, it is difficult to engage in all four dimensions of productive interactions.

10.5 Finally

This thesis has offered insights to KE seminars and the necessity for an embodied engagement between professionals who share a mutual interest.

The word seminar derives from the Latin ‘seminarium,’ which literally means ‘seed/source room.’ KE seminars are sites which indeed could be described in such terms. They are a physical space where ideas and knowledge is germinated, developed, and nurtured. As mentioned elsewhere, there is sometimes a sentiment within the KE literature that seminars are somehow detached from the wider social world in which they are situated. Far from it. KE seminars are part of a wider social environment in which relationships can be fostered and reaffirmed and where ideas exchanged and developed which may later lead to other projects and activities.

The thesis examined the wider social and political environment in which KE seminars are situated, why academics and NAPs organise and attend KE seminars, some of the barriers to doing so, and what academics and NAPs find useful about them. In doing so, this thesis elaborated and expanded on what ‘productive interactions’ means in light of the views of the interview participants. It makes a distinction between face-to-face interactions and those which are mediated through technology, and argues that while expensive, there are elements of such physical meetings which make investment in attending them worthwhile: there is never going to be a substitute for face-to-face meetings. No text document, no Skype call, no email conversation is going to replace the effectiveness of sitting down with others in a room. Such meetings enable far more than just a site for the dissemination of academic research knowledge to a non-academic audience. And so studying sites of corporeally co-present meetings, at any scale, is a very important and worthwhile endeavour.

References

- Aberbach, J. and Rockman, B. (2002) Conducting and coding elite interviews. *Political science & politics* 35 (4): 673-676.
- Allen, J. (2009) Event planning: the ultimate guide to successful meetings, corporate events, fundraising galas, conferences, conventions, incentives and other special events. *John Wiley & Sons*: London.
- Allen, P., Peckham, S., Anderson, S. and Goodwin, N. (2007) Commissioning research that is used: the experience of the NHS service delivery and organisation research and development programme. *Evidence & Policy: a journal of research, practice and debate* 3 (1): 119-134.
- Alvesson, M. and Sköldbberg, K. (2000) Reflexive methodologies: new vistas for qualitative research. *SAGE*: London.
- Antil, T., Desrochers, M., Joubert, P., and Bouchard, C. (2003) Implementation of an innovative grant programme to build partnerships between researchers, decision-makers and practitioners: the experience of the Quebec Social Research Council. *Journal of Health Services Research & Policy* 8 (2): 35-43.
- Amara, N., Landry, R., and Halilem, N. (2013) Faculty consulting in natural science and engineering: between formal and informal knowledge transfer. *Higher Education* 65: 359-384.
- Arcury, T. and Quandt, S. (1999) Participant recruitment for qualitative research: a site-based approach to community research in complex societies. *Human Organization* 58 (2): 128-133.
- Armstrong, F. and Alsop, A. (2010) Debate: co-production can contribute to research impact in the social sciences. *Public Money & Management* 30 (4): 208-210.
- Aspers, P. (2004) Empirical phenomenology: an approach for qualitative research. In London School of Economics and Political Sciences (ed.) *Social Research Methods Qualitative Series* 9. Available:

<http://www.lse.ac.uk/methodology/pdf/qualpapers/aspers-patrik-phenomenology04.pdf> (accessed, December, 2013).

Aspers, P. (2009) Empirical phenomenology: a qualitative research approach (The Cologne Seminars). *Indo-Pacific Journal of Phenomenology* 9 (2).

Best, A., Terpstra, J., Moor, G., Riley, B., Norman, C., Glasgow, R. (2009) Building knowledge integration systems for evidence-informed decisions. *Journal of Health Organisation and Management* 23 (6): 627-641.

Best, A., Hiatt, R., Norman, C. (2008). Knowledge integration: conceptualizing communications in cancer control systems. *Patient Education and Counseling* 71: 319–327

Best, A. and Holmes, B. (2010) Systems thinking, knowledge and actions: towards better models and methods. *Evidence and Policy* 6 (2): 145-159.

Best, A., Terpstra, J., Moor, G., Riley, B., Norman, C., and Glasgow, R. (2009) Building knowledge integration systems for evidence-informed decisions. *Journal of Health Organization and Management* 23 (6): 627-641.

Bessant, J., Raphael, K., and Mike M. (2003) Developing capability through learning networks. *International Journal of Technology Management & Sustainable Development* 2 (1): 19-38.

Blunkett, D. (2000) Influence or irrelevance: can social science improve government? Speech at ESRC Annual Conference. Reprinted *Research Intelligence* 71: 12-21.

Boden, D. and Molotch, H. (1994) The compulsion to proximity. In Friedland, R. and Boden, D. (eds). *Nowhere: space, Time and Modernity*. University of California Press: Berkeley.

Bonacich, P. (1987) Power and centrality: a family of measures. *American Journal of Sociology* 92 (5): 1170-1118.

Bogensneider, K., Olson, J., Linney, K. and Mills, J. (2000) Connecting research and policymaking: implications for theory and practice from the family impact seminars. *Family Relations* 49 (3): 327-339.

Boland, R., Singh, J., Salipante, P., Aram, J., Fay, S. and Kanawattanachai, P. (2000) Knowledge representations and knowledge transfer. *Academy of Management Journal* 44 (2): 393-417.

Borgatti, S. and Cross, R. (2009) A relational view of information seeking and learning in social networks. *Management Science* 49 (4): 432-445.

Borgatti, S. and Everett, M. (1999) Models of core-periphery structures. *Social Networks* 21: 375-395.

Borgatti, S., Mehra, A., Brass, D. and Labianca, G. (2009) Network analysis in the social sciences. *Science* 323: 892-985.

Bornmann, L. (2013) What is societal impact of research and how can it be assessed? A literature survey. *Journal of the American Society for Information Science and Technology* 64 (2): 217-233.

Bryman, A. and Cassell, C. (2006) The research interview: a reflexive perspective. *Qualitative Research in Organizations and Management: an international journal* 1 (1): 41-55.

Bryman, A. (2012) Social research methods. *Oxford University Press*: Oxford.

Bullock, R., Mountford, J. and Stanley, R. (2001) Better policy making. *Cabinet Office*, London.

Burnham, P., Grillard, K., Grant, W., and Layton-Henry, Z. (2004) Research methods in politics. *Palgrave Macmillan*: Basingstoke.

Buraway, M. (1998) The extended case method*. *Sociological Theory* 16 (1): 4-33.

Butts, C. (2009) Revisiting the foundations of network analysis. *Science* 325: 414-416.

Buysee, V., Sparkman, K. and Westley, P. (2003) Communities of practice: connecting what we know with what we do. *Exceptional Children* 69 (3): 267-277.

Byrne, D. (2011) Applying social science: the role of social research in politics, policy and practice. *The Policy Press*: Bristol.

Cabinet Office (1999) Modernising government. *Cabinet Office*, available: <https://www.wbginvestmentclimate.org/uploads/modgov.pdf>

Cairney, P. (2012) Complexity theory in political science and public policy. *Political Studies Review* 10: 346-358.

Cairns, S., Sloman, L., Newson, C., Anable, J., Kirkbride, A., and Goodwin, P. (2008) Smarter choices: assessing the potential to achieve traffic reduction using ‘soft measures’ *Transport Reviews* 28 (5): 593-618.

Canadian Health Services Research Foundation (CHSRF) (2000) Health services research and evidence-based decision-making. Available: http://www.cfhi-fcass.ca/migrated/pdf/mythbusters/EBDM_e.pdf

Canadian Institutes of Health Research (CIHR) (2006) Evidence in action, acting on evidence. A casebook of health services and policy research knowledge translation stories. Available: <http://www.cihr-irsc.gc.ca/e/30660.html>

Caplan, N. (1979) The two communities theory and knowledge utilization. *American Behavioural Scientist* 22 (3): 459-470.

Carspecken, P. (1996) Critical ethnography in educational research: a theoretical and practical guide. *Routledge*: New York.

Castro-Martínez, E., Molas-Gallart, J. and de Lucio, I. F. (2008) Knowledge transfer in the human and social sciences: the importance of informal relationships and its organizational consequences. *Paper presented in the Prime-Latin America Conference at*

Mexico City, September 24-26 2008. Available:

http://digital.csic.es/bitstream/10261/10106/1/AC213_1_ElenaCastroPRIME.pdf

Castro-Martínez, E., Molas-Gallart, J., and Olmos-Peñuela, J. (2010) Knowledge transfer in the social sciences and the humanities: informal links in a public research organization. INGENIO working papers, available:

[http://www.ingenio.upv.es/sites/default/files/working-paper/knowledge transfer in the social sciences and the humanities informal links in a public research organization.pdf](http://www.ingenio.upv.es/sites/default/files/working-paper/knowledge%20transfer%20in%20the%20social%20sciences%20and%20the%20humanities%20informal%20links%20in%20a%20public%20research%20organization.pdf)

Centre for Population Change (2007) Case for support (Je-S).

Centre for Population Change (2012) ESRC Centre for Population Change annual report 1st April 2011 to 31st March 2012. Available: <http://www.esrc.ac.uk/my-esrc/grants/RES-625-28-0001/outputs/Read/0ae0416d-3d95-445d-b115-927934c194f>.

Centre for Population Change (2013) Centre for Population Change wins second phase funding from UK Economic and Social Research Council. Available: http://www.cpc.ac.uk/latest_news/?action=story&id=261

Centre for Population Change (2015) People – Jane Falkingham. Available: <http://www.cpc.ac.uk/people/directors/>. Accessed March, 2014.

Cherney, A., Head, B., Povey, J., Ferguson, M., Boreham, P. (2015) Use of academic social research by public officials: exploring preferences and constraints that impact on research use. *Evidence & Policy* 11 (2): 169-188.

Chew-Graham, C., May, C. and Perry, M. (2002) Qualitative research and the problem of judgement: lessons from interviewing fellow professionals. *Family Practice* 19 (3): 285-289.

Weber, K. and Chon, K. S. (2002) Convention tourism: international research and industry perspective. *Haworth Press*: Binghamton.

Clarence, E. (2002) Technocracy reinvented: the new evidence based policy movement (editorial). *Public policy and administration* 17 (3): 1-11.

Clark, G. and Kelly, L. (2005) New directions for knowledge transfer and knowledge brokerage in Scotland. *Knowledge Transfer Team Briefing Paper*. Edinburgh: The Scottish Executive.

Coar, L. and Sim, J. (2006) Interviewing one’s peers: methodological issues in a study of health professionals. *Scandinavian Journal of Primary Health Care* 24 (4): 251-256.

Collis, R. (2000) The survivor’s guide to business travel. *Kogan Page*: London.

Commission on the Social Sciences (2003) Great expectations: the social sciences in Great Britain. *Transaction Publishers*: New Jersey.

Conklin, J., Lusk, E., Harris, M. and Stolee, P. (2013) Knowledge brokers in a knowledge network: the case of senior health research transfer network knowledge brokers. *Implementation Science* 8 (7).

Cooksey, D. (2006) A review of UK health funding. *HM Treasury*, Norwich.
Available:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228984/0118404881.pdf

Coote, A., Allen, J., and Woodhead, D. (2002) Finding out what works: building knowledge about complex, community-based initiatives. *Kings Fund*: London.

Court, J. and Young, J. (2003) Bridging research and policy: insights from 50 case studies. *Overseas Development Institute Working Paper* 213. Available: http://ewc-popcomm.org/pdf/2_Selected_Readings/Bridging_research_policy_ODI.pdf

Cousin, J. B. and Simon, M. (1996) The nature and impact of policy-induced partnerships between research and practice communities. *Educational Evaluation and Policy Analysis* 18 (3): 199-218.

Cornwall, A. (2008a) *Democratising engagement. What the UK can learn from international experience*. London: DEMOS.

Cornwall, A. (2009b) Unpacking ‘participation’: models, meanings and practices. *Community Development Journal* 43 (3): 269-283.

Cozzens, S. and Snoek, M. (2010) Knowledge to policy: contributing to the measurement of social, health, and environmental benefits. White paper prepared for the ‘Workshop on the Science of Science Measurement’. Available: <http://www.nsf.gov/sbe/sosp/social/cozzens.pdf>

Crewe, E. and Young, J. (2002) Bridging Research and Policy: Context, Evidence and Links. *Overseas Development Institute*. Working Paper 173. Available: <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/184.pdf>

Crossley, N. (2008) Pretty connected: the social network of the early UK punk movement. *Theory, Culture & Society* 25 (6): 89-116.

Crossley, N. (2010) The social world of the network: combining qualitative and quantitative elements in social network analysis. *Sociologia* 1/2010.

Csordas, T. (2008) Intersubjectivity and intercorporeality. *Subjectivity* 22: 110-121.

Davidson, R. and Cope, B. (2003) Business travel. Conferences, inventive travel, exhibitions, corporate hospitality and corporate travel. *Prentice Hall*: Harlow.

Davies, H.T.O., Nutley, S., and Smith, P. (2000) What works? Evidence-based policy and practice in public services (eds). *The Policy Press*, Bristol.

Davies, H.T.O., Nutley, S., and Walter, I. (2008) Why ‘knowledge transfer’ is misconceived for applied social research. *Journal of Health Services Research & Policy* 13 (3): 188-190.

Davies, H.T.O. and Powell, A. (2012) Communicating social research findings more effectively: what can we learn from other fields? *Evidence & Policy: a journal of research, debate, and practice* 8 (2): 213-233.

Davis, D. (1998) Does CME work? An analysis of the effect of educational activities on physician performance or health care outcomes. *International Journal of Psychiatry in Medicine* 28 (1): 21-39.

De Jong, S., Barker, K., Cox, D., Sveinsdottir, T., Van den Besselaar, P. (2014) Understanding societal impact through productive interactions: ICT research as a case. *Research Evaluation* 2014: 1-14 (advanced access).

De Jong, S., van Arensbergen, P. and Daemen, F. (2011) Evaluation of research in context: an approach and two cases. *Research Evaluation* 20 (1): 61-72.

Delvaux, B. and Mangez, E. (2008) Towards a sociology of the knowledge-policy relation. Available: http://knowandpol.eu/IMG/pdf/literature_sythesis_final_version_english.pdf

Denis, J. and Lomas, J. (2003) Convergent evolution: the academic and policy roots of collaborative research. *Journal of Health Services Research and Policy* 8 (2).

Desforges, C. (2000) Familiar challenges and new approaches: necessary advances in theory and methods in research on teaching and learning. *The Desmond Nuttall/Carfax Memorial Lecture* given at the British Educational Research Association Annual Conference, Cardiff, 9th September, 2000.

Desmond, M. (2004) Methodological challenges posed in studying an elite in the field. *Area* 36 (3): 262-269.

Economic and Social Research Council (ESRC) (2005) SSRC/ESRC: The first forty years. *ESRC*, available: http://www.esrc.ac.uk/images/ESRC-40-years_tcm8-6369.pdf

Economic and Social Research Council (ESRC) (2009a) ESRC research funding guide. Available: <http://www.esrc.ac.uk/funding-and-guidance/applicants/research-funding-guide.aspx>

Economic and Social Research Council (ESRC) (2009b) Completing the narrative impact report in Research: Available: http://www.esrc.ac.uk/images/Narrative-Impact-guidance_tcm8-31978.pdf

Economic and Social Research Council (ESRC) (2010) Society Now. Summer 2010, page 14. Available: <http://www.esrc.ac.uk/files/news-events-and-publications/publications/magazines-and-newsletters/society-now/society-now-issue-7/>

Economic and Social Research Council (ESRC) (2012) Evaluation of the Festival of Social Sciences. Available: http://www.esrc.ac.uk/_images/Festival%20of%20social%20science%20Evaluation%202012_tcm8-27942.pdf

Economic and Social Research Council (ESRC) (2013/14) Economic and Social Research Council annual report and accounts 2013/14. Available: <https://www.esrc.ac.uk/files/publications/corporate-publications/annual-report-and-accounts-2013-14-fully-accessible-version/>

Economic and Social Research Council (ESRC) (2014) Annual reports and accounts 2013/14. Available: http://www.esrc.ac.uk/_images/ESRC-Annual-Report-2013-14-large_tcm8-31177.pdf

Economic and Social Research Council (ESRC) (2014b). ESRC Research funding guide. Available: www.esrc.ac.uk/_images/Research-Funding-Guide_tcm8-2323.pdf

Economic and Social Research Council website (ESRC) (2015a) Knowledge exchange. Available: <http://www.esrc.ac.uk/funding-and-guidance/impact-toolkit/what-how-and-why/knowledge-exchange/>

Economic and Social Research Council (ESRC) (2015b) Centre for Population Change grant reference. Available: <http://www.esrc.ac.uk/my-esrc/grants/RES-625-28-0001/read>, accessed Feb, 2015.

Economic and Social Research Council (2015c) About the ESRC festival of social science. Available: <http://www.esrc.ac.uk/news-and-events/events/festival/about.aspx>

European Centre for Strategic Management of Universities (ESMU) (2011) Towards a strategic management agenda for university knowledge exchange. Available: <https://www.efmd.org/projects-test?download=12>

Escobar, O. (2011) Public dialogue and deliberation: a communication perspective for public engagement practitioners. *Edinburgh Baltane*. Available: <http://www.qmu.ac.uk/mcpa/CDial/PublicDialogueAndDeliberationOliverEscobar2011.pdf>

Etherington, K. (2007) Ethical research in reflexive relationships. *Qualitative Inquiry* 13 (5).

European Commission (2005) Assessing the social and environmental impact of European research. Report to the European Commission, available: https://ec.europa.eu/research/evaluations/pdf/archive/fp6-evidence-base/evaluation_studies_and_reports/evaluation_studies_and_reports_2005/assessing_the_social_and_environmental_impacts_of_european_research_report_2005.pdf

Feldman, P. H., Nadesh, P. and Gursen, M. (2001) Improving communicating between researchers and policymaker in long-term case; or, researchers are from Mars; policy makers are from Venus. *The Gerontologist* 41 (3): 312-321.

Finlay, L. and Gough, B. (2008) *Reflexivity: a practical guide for researchers in health and social sciences*. London: John Wiley & Sons.

Fletcher, T. and Major, D. (2006) The effects of communication modality on performance and self-ratings of teamwork components. *Journal of Computer-Mediated Communication* 11: 557-576.

Freemantle, M., Harvey, E., Wolf, F., Grimshaw, J., Grilli, R., and Bero, L. (2004) Printed educational materials: effects on professional practice and health care outcomes. *The Cochrane Reviews* 3.

Gabby, J. and le May, A. (2004) Evidence based guidelines or collectively constructed “mindlines?” Ethnographic study of knowledge management in primary care. *British Medical Journal* 329: 1013.

Gayer, R. and Cairney, P. (2015) Handbook on complexity and public policy. *Edward Elgar*: Cheltenham.

Goering, P., Butterill, D., Jacobson, N. and Sturtevant, D. (2003) Linkage and exchange at the organizational level: a model of collaboration between research and policy. *Health Services Research and Policy* 8 (4): 14-19.

Gerring, J. (2006) Case study research: principles and practices. *Cambridge University Press*: Cambridge.

Giddens, A. (1995) Beyond left and right: the future of radical politics. *Polity Press*: Cambridge.

Goffman, E. (1956) *Behaviour in public places*. New York: Free Press.

Goffman, E. (1966) *Behaviour in public places: Notes on the social organisation of gatherings*. New York: Free Press.

Goffman, E. (1971) ‘The Territories of the Self’ in Goffman, E. *Relations in public: microstudies of the public order*. London: Allen Lane Penguin Press.

Goffman, E. (1983) The interaction order: American sociological association Presidential address. *American Sociological Review* 48 (1): 1-17.

Golden-Biddle, K., Reay, T., Petz, S., Witt, C., Casebeer, A., Pablo, A. and Hinings, C. (2003) Toward a communicative perspective of collaborating in research: the case of the researcher–decision-maker partnership. *Health Policy and Services* 22 (2): 20-25.

Graham, I., Logan, J., Harrison, M., Straus, S., Tetroe, J., Caswell, W. and Robinson, N. (2006) Lost in knowledge translation: time for a map? *Journal of Continuing Education in the Health Professions* 26 (1): 13-24.

Grant, M. and Booth, A. (2009) A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal* 26 (2): 91-108.

Greenhalgh, T., Robert, G., MacFarlane, F., Bate, P. and Kyriakidou, O. (2004) Diffusion of innovations in science organisations: systematic review and recommendations. *The Milbank Quarterly* 82 (4): 581-629.

Greenhalgh, T., Glenn, R., Bate, P., Macfarlane, F., and Kyriakidou, O. (2008). Diffusion of innovations in health service organisations. A systematic literature review. *Blackwell Publishing*: Oxford.

Greenhalgh, T. and Wieringa, S. (2011) Is it time to drop the ‘knowledge translation’ metaphor? A critical literature review. *Journal of the Royal Society of Medicine* 104: 501-509.

Grimshaw, J., Eccles, M., Lavis, J., Hill, S., and Squires, J. (2012a) Knowledge translation of research findings. *Implementation Science* 50 (7).

Grimshaw, J., Thomas, R., MacLennan, G., Fraser, C., Ramsay, C., Vale, L., Whitty, P., Eccles, M., Matowe, L., Shirran, L., Wensing, M., Dijkstras, R. and Donaldson, C. (2012b) Effectiveness and efficiency of guideline dissemination and implementation strategies. *Health Technology Assessment* 8 (6).

Grol, R. and Grimshaw, J. (1999) Evidence-based implementation of evidence-based medicine. *The Joint Commission Journal of Quality Improvement* 25 (10): 503-513.

Guldbbrandsson, K. and Fossum, B. (2009) An exploration of the theoretical concepts policy windows and policy entrepreneurs at the Swedish public health arena. *Health Promotion International* 24 (4): 434-444.

Hampton, K. and Gupta, N. (2008) City: wi-fi in public and semi-public spaces. *New Media & Society* 10 (6): 831-850.

Hanneman, R. and Riddle, M. (2005) Introduction to social network methods. Online book. Available: https://www.researchgate.net/profile/Robert_Hanneman/publication/235737492_Introduction_to_Social_Network_Methods_Vol._13/links/0deec52261e1577e6c000000.pdf

Hanney, S., Gonzalez-Block, M., Buxton, M., and Kogan, M. (2003) The utilisation of health research in policy-making: concepts, examples and methods of assessment. *Health and Systems* 1 (2).

Harvey, W. (2010) Methodological approaches for interviewing elites. *Geography Compass* 4 (3): 193-205.

Haas, P. (1992) Introduction: epistemic communities and international policy coordination. *International Organization* 46 (1): 1-35.

Heath, S., Fuller, A., Johnston, B. (2009) Chasing shadows: defining network boundaries in qualitative social network analysis. *Qualitative Research* 9 (5): 645-661.

Hislop, D., Bosley, S., Coombs, C. and Holland, J. (2014) The process of individual unlearning: a neglected topic in an under-research field. *Management Learning* 45 (5): 540-560.

Huberman, M. (1993) Linking the practitioner and research communities for school improvement. *School Effectiveness and School Improvement* 4 (1): 1-16.

Hubberman, M. (1994) Research utilization: the state of the art. *Knowledge and Policy: The International Journal of Knowledge Transfer and Utilization* 7 (4): 12-33.

Innes, D. and Tetlow, G. (2015) Central cuts, local decision-making: changes in local government spending and revenues in England, 2009-2010 to 2014-15. *IFS Briefing Note BN166*. Available: <http://www.ifs.org.uk/uploads/publications/bns/BN166.pdf>

Innvær, S., Vist, G., Trommald, M. and Oxman, A. (2002) Health policy-makers' perceptions of their use of evidence: a systematic review. *Journal of Health Services Research & Policy* 7(4): 2002: 239-244.

Institute of Fiscal Studies (IFS) (2015) This government has delivered substantial spending cuts; big differences in parties' plans for next parliament. Available: <http://election2015.ifs.org.uk/public-spending>

- Jacobson, N., Butterill, D., Goering, P. (2003) Development of a framework for knowledge translation: understanding user context. *Journal of Health Services Research & Policy* 8 (2): 94-99.
- Jensen, P., Rouquier, J. B., Kreimer, P. and Croissant, Y. (2009) Scientists who engage with society perform better academically. *Science and public policy* 35 (7): 527-541.
- Jones, B. and Baumgartner, F. (2005) The politics of attention: how government prioritizes problems. *University of Chicago Press*: London.
- Jones, R., Oyung, R., Pace, L. (2002) Meeting virtually – face-to-face meetings may not be a requirement for virtual teams. *IT Journal*. Second quarter (article 6b).
- Joseph Rowntree Foundation (JRF) (2000) Linking research and practice. Available: <https://www.jrf.org.uk/report/linking-research-and-practice>.
- Jung, T., Nutley, S., Morton, S., and Millar, A. (2010) Linking research and policy in Scotland. *Evidence & Policy* 6 (2): 213-235.
- Khazraguil, H. and Hudson, J. (2015) Measuring the benefits of university research: impact and the REF in the UK. *Research Evaluation* 24 (1): 51-52.
- King, A. (2015) Prepare for impact? Reflecting on knowledge exchange work to improve services for older LGBT people in times of austerity. *Social Policy and Society* 14 (1): 15-27.
- Kingdon, J. W. (1995) Agendas, alternatives, and public policies. *Harper Collins*: New York.
- Kitson, A., Ahmed, L.B., Harvey, G., Seers, K. and Thompson, D. (1996) From research to practice: one organizational model for promoting research-based practice. *Journal of Advanced Nursing* 23: 430-440.
- Kothari, A., Birch, S., and Charles, C. (2005) “Interaction” and research utilisation in health policies and programs: does it work? *Health Policy* 71: 117-125.

Kothari, A., McLean, L., Edwards, N. (2009) Increasing capacity for knowledge translation: understanding how some research engage policy-makers. Available: <http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1008&context=healthstudiespub>

Kramer, D. and Cole, D. (2003) Sustained, intensive engagement to promote health and safety knowledge transfer to and utilization by workplaces. *Science Communication* 25 (1): 56-82.

Kramer, D. and Wells, R. (2005) Achieving buy-in: building networks to facilitate knowledge transfer. *Science Communication* 26 (4): 428-444.

Krüchen, G. Meier, F. and Müller, A. (2009) Linkages to the civil society as ‘leisure time activities’? Experiences of a German university. *Society and Public Policy* 36 (2): 139-144.

Landry, R., Nabil A. and Moktar L. (2001) Utilization of social science research knowledge in Canada. *Research policy* 30 (2): 333-349.

Landry, R., Saïhi, M., Amara, N., Ouimet, M. (2010) Evidence on how academics manage their portfolio of knowledge transfer activities. *Research policy* 39: 1387-1403.

Larson, J. Urry, J. and Axhausen, K. (2006) Mobilities, networks, geographies. *Ashgate: Farnham*.

Lavis, J., Robertson, D., Woodside, J., McLeod, C., and Ableson, J. (2003) How can research organizations more effectively transfer research knowledge to decision makers? *Milbank Quarterly* 81 (2): 221-248.

Leischow, S., Best, A., Trochim, W., and Clark, P. (2008) Systems thinking to improve the public’s health. *American Journal of Preventative Medicine* 35(2, 0): 196-203.

Liscoppe, C. (2004) “Connected presence”: the emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D* 22: 135-156.

Lightowler, C. and Knight, C. (2013) Sustaining knowledge exchange and research impact in the social sciences and humanities: investing in knowledge broker roles in UK universities. *Evidence & Policy* 9 (3): 317-334.

Lindblom, C. (1959) The science of ‘muddling through’. *Public Administration Review* 19: 79-88.

Lindblom, C. (1968) The policy-making process. *Prentice-Hall*: Englewood Cliffs.

Vivian, L. and Gibson, B. (2003) Evidence-based health policy. Problems & possibilities *Oxford University Press*: Oxford.

Lomas, J. (1991) Words without action? The production, dissemination, and impact of consensus recommendations. *Annual Review of Public Health* 12: 41-65.

Lomas, J. (1993) Diffusion, dissemination, and implementation: who should do what? *Annals of the New York Academy of Sciences* 703 (1): 226-237. (2000) Connecting research and policy. *ISUMA: Canadian Journal of Policy Research* 1 (1): 140-144.

Lomas, J. (2000a) Connecting research and policy. *Canadian Journal of Policy Research* 1 (1): 140-144.

Lomas, J. (2000b) Using ‘linkage and exchange’ to move research into policy at a Canadian foundation. *Health Affairs* 19 (3): 236-240.

Lomas, J. (2007) The in-between world of knowledge brokering. *British Medical Journal* 334: 129-132.

Madge, C. (2007) Developing a geographers’ agenda for online research ethics. *Progress in Human Geography* 31 (5): 654-674.

Mason, J. (2000) *Qualitative Researching* (2nd Edition). SAGE: London.

Mauthner, N. and Doucet, A. (2003) Reflexive accounts and accounts of reflexivity in qualitative data analysis. *Sociology* 37 (3): 413-431.

Maybin, J. (2013) Knowledge and knowing in policy work: a case study of civil servants in England’s department of health. PhD Thesis, University of Edinburgh.

McEvoy, P. (2002) Interviewing colleagues: addressing the issues of perspective, inquiry and representation. *Nurse Researcher* 9 (2): 49-59.

Meagher, L., Lyall, C. and Nutley, S. (2008) Flows of knowledge, expertise and influence: a method for assessing policy and practice impacts from social science research. *Research Evaluation* 17 (3): 163-173.

Meyer, M. (2010) The rise of the knowledge broker. *Science Communication* 32 (1): 118-127.

Mikecz, R. (2012) Interviewing elites: addressing methodological issues. *Qualitative Inquiry* 18 (6): 482-493.

Mintz, S. and Du Bois, C. (2002) The anthropology of food and eating. *Annual Review of Anthropology* 31: 99-119.

Mitton, C., Adair, C., McKenzie E., Patten, S. and Wayne Perry, B. (2007) Knowledge transfer and exchange: review and synthesis of the literature. *The Milbank Quarterly* 85 (4): 729-768.

Mohrman, S, Gibson, C. and Mohrman, A. (2001) Doing research that is useful to practice a model and empirical exploration. *Academy of Management Journal* 44 (2): 357-375.

Molas-Gallart, J and Tang, P. (2007) Policy and practice impacts of ESRC funded research: case study of the ESRC. Report prepared for the Communications and Information Directorate Economic and Social Research Council. Available: http://www.esrc.ac.uk/images/Case_Study_of_CBR_tcm8-4557.pdf

Molas-Gallart, J. and Tang, P. (2011) Tracing ‘productive interactions’ to identify social impacts: an example from the social sciences. *Research Evaluation* 20 (3): 219-226.

Molas-Gallart, J., Tang, P. and Morrow, S. (2000) Assessing the non-academic impact of grant-funded socio-economic research: results from a pilot study. *Research Evaluation* 9 (3): 171-182.

Moore, G., Redman, S., Haines, M., and Todd, A. (2011) What works to increase the use of research in population health policy and programmes: a review. *Evidence & Policy* 7 (3): 277-305.

Morris, Z. (2009) The truth about interviewing elites. *Politics* 29 (3): 209-217.

Morris, Z., Bullock, A., and Atwell, C. (2013) Developing engagement, linkage and exchange between health services managers and researchers: experience from the UK. *Journal of Health Services Research and Policy* 18 (1): 23-29.

Morton, S. (2012) Exploring and assessing social research impact: A case study of a research partnership's impacts on policy and practice. PhD thesis. *University of Edinburgh*.

Morton, S. (2014) Creating research impact: the roles of research users in interactive research mobilisation. *Evidence and Policy*. Advanced online:
<http://dx.doi.org/10.1332/174426514X13976529631798>

Morton, S. (2015) Progressing research impact assessment: a ‘contributions’ approach. *Research Evaluation* 24: 405-419.

Morton, S. and Flemming, J. (2013) Assessing research impact: a case study of participatory research. *CRFR Briefing paper* 66. Available:
<https://www.era.lib.ed.ac.uk/bitstream/handle/1842/6562/Briefing%2066.pdf;jsessionid=3B07E2877138B981BB1F5075E0859723?sequence=1>

Munro, A., Holly, L., Rainbird, H., and Leisten, R. (2004) Power at work: reflection on the research process. *International Journal of Social Research Methodology* 7 (4): 289-304.

Nairn, K., Munro, J., and Smith, A. (2005) A counter-narrative of a ‘failed’ interview. *Qualitative Research* 5 (2): 221-244.

Nandhakumar, J. (1999) Virtual teams and lost proximity: consequences on trust relationships. In Jackson, P. (ed) *Virtual working: social organisational dynamics*. Routledge: London.

Neilson, S. (2001) IDRC-supported research and its influence on public policy. knowledge utilization and public policy process: A literature review. Available: <https://idl-bnc.idrc.ca/dspace/bitstream/10625/31356/1/117145.pdf>

Norman, L. (2004) Research-policy interaction: a study of a series of DfES convened seminars. *NERF working paper 8.1*.

Nutley, S. (2003a) Bridging the policy/research divide: reflections and lessons from the UK. Edited version of a keynote address to the National Institute for Governance. Conference (2003: Canberra). *Canberra Bulletin of Public Administration* 108: 19-39.

Nutley, S., Walter, I. and Davies, H.T.O. (2003b) From knowing to doing: a framework for understanding the evidence-into-practice agenda. *Evaluation* 9 (2): 125-148.

Nutley, S., Walter, I., and Davies, H.T.O. (2007) Using evidence: how research can inform public services. *Policy Press*: Bristol.

Nutley, S., Walter, I., Davis H.T.O. (2009) Promoting evidence-based practice. Models and mechanisms from cross-sector review. *Research on Social Work and Practice* 19 (5): 552-559.

Nutley, S., Morton, S., Jung, T., and Boaz, A. (2010) Evidence and policy in six European countries: diverse approaches and common challenges. *Evidence & Policy* 6 (2): 131-144.

Ochs, E. and Shohet, M. (2006) The cultural structuring of mealtime socialization. *New Directions for Child and Adolescent Development* 111: 35-49.

O’Conaill, B. and Whittaker, S. (1993) Conversations over video conferences: an evaluation of the spoken aspects of video-mediated communication. *Human-Computer Interaction* 8: 389-428.

Oldenburg, R. (1991) The great good place. *Marlowe & Company*: New York.

Oliver, D., Serovich, J. and Mason, T. (2005) Constraints and opportunities with interview transcription: towards reflection in qualitative research. *Social Forces* 84 (2): 1273-1289.

Olmos-Peñuela, J., Benneworth, P. and Castro-Martínez, E. (2014a) Are ‘STEM from Mars and SSH from Venus’?: Challenging disciplinary stereotypes of research’s social value. *Science and Public Policy* 41: 384-400.

Olmos-Peñuela, J., Molas-Gallart, J. and Castro-Martínez, E. (2014b) Informal collaborations between social sciences and humanities researchers and non-academic partners. *Science and Public Policy* 41: 493-506.

Opdenakker, R. (2006) Advantages and disadvantages of four interview techniques in qualitative research. *Forum: Qualitative Research* 7 (4): Art. 11.

Percy-Smith, J., Burden, T., Darlow, A., Dowson, L., Hawtin, M., and Ladi, S. (2002) Promoting change through research: the impact of research in local government. *JRF and York Publishing*: York.

Percy-Smith, J., Speller, V. and Nutley, S. (2006) Evidence-informed policy and practice: a review of approaches used in health improvement in Scotland. *NHS Scotland*. Available: <http://www.healthscotland.com/uploads/documents/3264-RE005Final-06Feb.pdf>.

Pfeffer, J. and Sutton, R. (2000) The knowing doing gap. Available: http://www.wenell.se/wp-content/uploads/2014/01/thinking_knowing.pdf.

Philip, K. L., Backett-Milburn, K., Cunningham-Burley, S., and Davis, J. B. (2003) Practising what we preach? A practical approach to bringing research, policy and practice together in relation to children and health inequalities. *Health Education Research* 18 (5): 568-579.

Platt, J. (1981) Interviewing one’s peers. *The British Journal of Sociology* 32 (1): 75-91.

Punch, M. (1994) Politics and ethics in qualitative research in Denzin, N.K. and Lincoln, Y.S. (eds) *Handbook of qualitative research*. Thousand Oaks, CA: SAGE.

Research Councils UK (RCUK) (2007a) Increasing the economic impact of the research councils. Available: <http://www.rcuk.ac.uk/Publications/archive/Increasingei/>.

Research Councils UK (2007b) Embedding public engagement in research. Concordat agreement. Available: <http://www.rcuk.ac.uk/pe/embedding/>

Research Councils UK (RCUK) (2015) Mission and statement of expectation: economic and social impact. Available: <http://www.rcuk.ac.uk/RCUK-prod/assets/documents/innovation/missionsei.pdf>

Research Excellence Framework (2014) Panel criteria and working methods. Available: http://www.ref.ac.uk/media/ref/content/pub/panelcriteriaandworkingmethods/01_12.pdf

Rice, G. (2010) Reflections on interviewing elites. *Area* 42 (1): 70-75.

Rich, L. (2004) Think tanks, public policy, and the politics of expertise. *Cambridge University Press*: Cambridge.

Rickinson, M (2005) Practitioners’ use of research: a research review for the National Evidence for Education Portal (NEEP) development group. NERF working paper 7.5. Available: www.eep.ac.uk/nerf/word/WP7.5-PracuseofRe42d.doc?version=1.

Ritchie, J. (2003) ‘The application of qualitative methods to social research’ in Ritchie, J. and Lewis, J. (eds) *Qualitative research practice: a guide for social science students and researchers*. London: SAGE.

Robson, C. (2011) *Real World Research* (3rd Ed.) Wiley: West Sussex.

Ritchie, J., Lewis, J. and Elam (2003) ‘Designing and selecting samples’ in Ritchie, J. and Lewis, J. (eds) *Qualitative Research Practice*. SAGE: London.

Robins, G. (2015) *Doing social network research*. SAGE: London.

Ross, S., Lavis, J., Rodriguez, C., Woodside, J., and Denis, J. L. (2003) Partnership experiences: involving decision-makers in the research process. *Journal of Health Services Research & Policy* 8 (2): 26-32.

Ross, J. (2010) Was that infinity or affinity? Applying insights from translation studies to qualitative research transcription. *Forum: Qualitative Social Research* 11 (2): Art. 2.

Rushmer, R. K. and Davies, H. T. O. (2004) ‘Unlearning in health care’, *Quality and Safety in Health Care* 13 (2): 10-15.

Ryan, G. and Bernard, H. R. (2003) Techniques to identify themes. *Field Methods* 15 (1): 85-109.

Rynes, S., Bartunek, J. and Daft, R. (2001) Across the great divide: knowledge creation and transfer between practitioners and academics. *Academy of Management Journal* 44 (2): 340-355.

Sabatier, P. (2007) *Theories of the policy process*. Westview Press: Colorado.

Sabatier, P. and Weible, C. (2014) *Theories of the policy process*. Westwood Press: Colorado.

Sapsed, J., Gann, D., Marsall, N. and Salter, A. (2005) From here to eternity?: The practice of knowledge transfer in dispersed and co-located project organizations. *European Planning Studies* 13 (6): 831-851.

Scott, J. (2007) *Social network analysis: a handbook* (2nd edition). SAGE: Thousand Oaks, CA.

Scottish Government (2007) Purpose targets. Available:
<http://www.gov.scot/topics/archive/About-Archive/scotlandperforms/purposes>

Scottish Government (2008) Background for the SDI. Available:
<http://www.gov.scot/Topics/Research/by-topic/public-services-and-gvt/Demography-Research-Prog>

Shanley, C., Lodge, M., and Mattick, R. (1996) Dissemination of research findings to alcohol and other drug practitioners. *Drug and Alcohol Review* 15 (1): 89-84.

Shaviro, S. (2003) Connected: or what it means to live in a network society. *University of Minnesota Press*: Minneapolis.

Shaxton, L., Ahmed, I., Klerkx, L., Middleton, A., et al. (2012) Expanding our understanding of K* (Kt, KE, KMb, KB, KM, etc). A concept paper emerging from the K* conference held in Hamilton, Ontario, Canada. Available:
http://inweh.unu.edu/wp/content/uploads/2013/05/KStar_ConceptPaper_FINAL_Oct29_WEB.pdf

Smith, K. (2006) Prolematising power relations in ‘elite’ interviews. *Geoforum* 37: 643-653.

Sobell, L. (1996) Briding the gap between scientists and practitioners: the challenge before us. *Behaviour therapy* 27: 297-320.

Sole, D. and Edmondson, A. (2002) Situated knowledge and learning in dispersed teams. *British Journal of Management* 13: s17-s34.

Spaapen J. and van Drooge, L. (2011) Introducing ‘productive interactions’ in social impact assessment. *Research Evaluation* 20 (3): 211-218.

Stewart, R., Wiggins, M., Thomas, J., Oliver, S., Brunton, G., and Ellison, G. (2005) Exploring the evidence-practice gap: mixed and participatory training for HIV prevention in Southern Africa.

Stone, D. (2001) Bridging research and policy: An international workshop funded by the UK Department for International Development. Warwick University. Available: <http://www2.warwick.ac.uk/fac/soc/pais/research/researchcentres/csgr/research/keytopic/other/bridging.pdf>

Stone, D. (2002) Using knowledge: the dilemmas of ‘bring research and policy’ Warwick University. Available: http://wrap.warwick.ac.uk/1799/1/WRAP_Stone_Compare.pdf

Symons, M. (1994) Simmel’s gastronomic sociology: an overlooked essay. *Food and Foodways* 5 (4): 333-351.

Synder, L. (2002) Confidentiality and anonymity: promises and practices. In van den Hoonaard, W. (ed) *Walking the tightrope. Ethical issues for qualitative researchers. University of Toronto Press: London.*

Tang, P. and Sinclair, T. (2001) Exploitation practice in social science research. *Science and Public Policy* 28 (2): 131-137.

Tashakkori, A. and Teddlie, C. (1998) *Mixed Methodology: combining qualitative and quantitative approaches.* SAGE: London.

Teijlingen, E. and Hundley, V. (2001) The importance of pilot studies. *Social Research Update* 35.

Thompson, G., Estabrooks, C. and Degner, L. (2006) Clarifying the concepts in knowledge transfer: a literature review. *Journal of Advanced Nursing* 53 (6): 691-701.

Tindal, S., McCollum, D., and Bell, D. (2014) Immigration policy and constitutional change: the perspectives of Scottish employers and industry representatives. *CPC Working Paper* 44. Available: http://www.cpc.ac.uk/publications/cpc_briefing_papers/pdf/BP15_Immigration_Policy_and_Constitutional_Change.pdf

Tomm-Bonde, L., Schreiber, R., Allan, D., MacDonald, M., Pauly, B. and Hancock, T. (2013) Fading vision: knowledge translation in the implementation of public health policy intervention. *Implementation Science* 59 (8).

Townsend, A., DeMarie, S. and Hendrickson, A. (1998) Virtual teams: technology and the workplace of the future. *Academy of Management Executive* 12 (3): 17-29.

Tydén, T. (1993) Knowledge interplay: user-oriented research dissemination through synthesis pedagogics. *Cornet Books*: Uppsala.

United Nations (UN) (2005) Bridging the “know-do” gap. Meeting on knowledge translation in global health. Available:
http://www.who.int/kms/WHO_EIP_KMS_2006_2.pdf

University of Southampton (2016) Research impact statement:
<http://www.southampton.ac.uk/engineering/research/impact.page>

University of St. Andrews (2016) Research impact statement: <https://www.st-andrews.ac.uk/ktc/>

Urry, J. (2002). Mobility and proximity. *Sociology* 26 (2): 255-274.

Urry, J. (2003). Social networks, travel and talk. *British Journal of Sociology* 54 (2): 155-175.

Urry, J. (2004) Small worlds and the new ‘social physics.’ *Global Networks* 4 (2): 109-130.

Van de Egmond, S., Bekker, M., Bal, R., and van der Grinten, T. (2011) Connecting evidence and policy: bringing researchers and policy makers together for effective evidence-based health policy in the Netherlands: a case study. *Evidence & Policy* 7 (1): 25-29.

Van de Ven, A. and Johnson, P. (2006) Knowledge for theory and practice. *Academy of Management Review* 31 (4): 802-821.

Van Duijn, M. and Vermunt, J. (2006) What is special about social network analysis? *Methodology* 2 (1): 2-6.

Van Selm, M. and Jankowski, N. (2006) Conducting online surveys. *Quality and Quantity* 40: 435-456.

Walshe K. and Rundall, T. (2001) Evidence-based management: from theory to practice. *The Milbank Quarterly* 79 (3): 429-257.

Walter, A., Helgenberger, S., Wiek, A., and Scholz, R. (2007) Measuring societal effects of transdisciplinary research projects: design and application of an evaluation method. *Evaluation and Planning* 30: 325-338.

Walter, I., Nutley S., and Davies H.T.O. (2003) Developing a taxonomy of interventions used to increase the impact of research. *RURU Working Paper*. Available: <http://www.st-andrews.ac.uk/~ruruweb/pdf/Taxonomy%20development%20paper%20070103.pdf>

Walter, I., Davies, H., and Nutley, S. (2003b) Increasing research impact through partnerships: evidence from outside health care. *Health Services Research Policy* 8 (2): 58-61.

Walter, I., Nutley, S. and Davies, H.T.O. (2005) What works to promote evidence-based practice? A cross-sector review. *Evidence & Policy* 1 (3): 335-363.

Ward, V., House, A. and Hamer, S. (2009) Knowledge brokering: the missing link in the evidence to action chain? *Evidence & Policy* 5 (3): 267-279.

Ward, V., Smith, S., House, A., and Hamer, S. (2012) Exploring knowledge exchange: a useful framework for practice and policy. *Social Science and Medicine* 74: 297-304.

Warde, A. and Martens, L. (2000) Eating out: social differentiation, consumption and pleasure. *Cambridge University Press*: Cambridge.

Warry, P (2006) Increasing the economic impact of the social research councils. Available: <http://www.rcuk.ac.uk/RCUK-prod/assets/documents/publications/ktactionplan.pdf>

Wasserman, S. and Faust, K. (1995) Social network analysis: methods and applications (structural analysis in the social sciences). *Cambridge University Press*: Cambridge.

Webber, D. (1991) Distribution and use of policy knowledge in the policy process. *Knowledge and Policy* 4 (4): 6-35.

Weiss, C. (1979). The many meanings of research utilization. *Public Administration Review* 39 (5): 426-431.

Weiss, C. (1995) The Haphazard connection: social science and public policy. *International Journal of Educational Research* 23 (2): 137-150.

Weyts, A., Morpeth, L. and Bullock, R. (2000) Department of health research overviews - past, present, and future: an evaluation of the dissemination of blue book, child protection: messages from research. *Child and Family Social Work* 5: 215-223.

Whitehead, M., Petticrew, M., Graham, H., Macintyre, S., Bambra, C. and Egan, M. (2004) Evidence for public health policy on inequalities: 2: Assembling the evidence jigsaw. *Journal of Epidemiological Community Health* 58: 817-821.

Wiles, R., Crow, G., Charles, V., and Heath, S. (2006) Informed consent and the research process: following rules or striking balances? *Sociological Research Online* 12 (2).

Wilkinson, H., Gallagher, M. and Smith, M. (2012). A collaborative approach to defining the usefulness of impact: lessons from a knowledge exchange project involving academics and social work practitioners. *Evidence and Policy* 8 (3): 311-327.

Willinsky, J. (2003) Policymakers' online use of academic research. *Education Policy Analysis Archives* 11 (2).

Wilson, T. and Rees, P. (2008) Why Scotland needs more than just a new migration policy. *Scottish Geographical Journal* 119 (3): 191-208.

Wright, K. (2005) Researching internet-based populations: advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication* 10 (3).

Yin, R. (2009) ‘How to do better case studies’ in Bickman, L. and Rog, D. (eds) *The SAGE handbook of applied social research methods*. SAGE: Thousand Oaks, CA.


Yin, R. (2013) *Case study research: design and methods*. SAGE: Thousand Oaks, CA.

Zhao, S. (2003). Towards a taxonomy of co-presence. *Presence* 12 (5): 445-455.

Zhao, S. and Elesh, D. (2009) Copresence as ‘being with.’ *Information, Communication & Society* 11 (4): 565-5

Appendices

Appendix I: Participant information sheets



CPC
centre for population change

ESRC
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

PARTICIPANT INFORMATION SHEET FOR RESEARCHERS



TITLE:
Exploring the processes and outcomes of research user engagement at the ESRC Centre for Population Change (CPC).

PURPOSE OF THE RESEARCH:
This project is about the *processes* of knowledge exchange. The objective is to explore and document how researchers approach, organise and co-ordinate knowledge exchange publications and events, and any outcomes resulting from these activities. The study also wishes to examine the experiences and opportunities of (and barriers to) knowledge exchange from the perspectives of researchers and non-academic professionals.

RESEARCHERS:

Scott Tindal (PhD Student) CRFR, 23 Buccleuch Place Edinburgh EH8 9LN s.r.tindal-2@sms.ed.ac.uk	Prof Lynn Jamieson L.jamieson@ed.ac.uk Dr. Sarah Morton S.morton@ed.ac.uk
--	--

METHODS AND DEMANDS ON PARTICIPANTS
If you agree to take part in this study, you will be asked to participate in an interview lasting no more than 1 hour. The interview will be audio-recorded and transcribed to identify some of the main themes that were discussed. Questions in this study relate to your professional occupation as a researcher. Topics in the interview cover aspects of knowledge exchange such as how to create literature or presentations for non-academics, how to engage interest for events from non-academic professionals, and how to communicate research through events, presentations, exhibitions, workshops, seminars, and so on. The interview will take place at a time and location that suits you.



‘You are warmly invited.’



RISKS AND CONFIDENTIALITY:

There are no known physical or psychological risks. This research is concerned with your professional experiences in knowledge exchange and no personal or sensitive questions will be asked about you or your employer. Involvement in this study is voluntary, and you may withdraw at any time and without reason. Many participants will be anonymous and unidentifiable, but some senior researchers or key CPC staff *may* be identified or identifiable. If this is the case, all selected quotes taken from the interview will be screened and authorised by you for approval. You may then approve, amend or refuse to have quotes attributed to you.

BENEFITS:

This study is funded by the ESRC through the CPC. This research helps support the ESRC’s promotion of ‘stakeholder engagement’. This study offers the opportunity to voice some of the problems and opportunities presented to researchers when trying to engage with non-academics that might not be fully appreciated in the literature, or within research funders’ frameworks for research impact. The study also allows the CPC to showcase knowledge exchange work that individually may not seem much, but collectively has amounted to a significant number of events and materials being produced.

ETHICS, COMPLAINTS OR COMMENTS:

This study has been approved at level ethics 1 by the University of Edinburgh.

If you have any concerns or comments regarding this research, you can contact:

Prof. Lynn Jamieson
5.04 Chrystal Macmillan Building
15a George Square Edinburgh UK
L.Jamieson@ed.ac.uk

Thank you for your interest in this study.

Scott Tindal.



‘You are warmly invited.’



PARTICIPANT INFORMATION SHEET FOR NON-ACADEMIC PROFESSIONALS

TITLE:

Exploring the processes and outcomes of research user engagement at the ESRC Centre for Population Change (CPC).

PURPOSE OF THE RESEARCH:

This project is about the processes of knowledge exchange. The objective is to explore and document non-academic professionals' expectations and experiences of engaging with academic researchers through the course of their professional work. The study also wishes to examine the experiences and opportunities of (and barriers to) knowledge exchange from the perspectives of researchers and non-academic professionals.

RESEARCHERS:

Scott Tindal (PhD Student)
CRFR, 23 Buccleuch Place
Edinburgh
EH8 9LN
s.r.tindal-2@sms.ed.ac.uk

Prof Lynn Jamieson
L.jamieson@ed.ac.uk

Dr. Sarah Morton
S.morton@ed.ac.uk

METHODS AND DEMANDS ON PARTICIPANTS

If you agree to take part in this study, you will be asked to participate in an interviewing lasting no more than 1 hour. The interview will be audio-recorded and transcribed to identify some of the main themes that were discussed. Questions in the study relate to your professional experiences of knowledge exchange events (events which were presented by an academic researcher). Topics in the interview cover aspects such as: expectations and experiences of knowledge exchange events, opportunities for finding out about current research, and ways in which academic research can be used to support professional work. The interview will take place at a time and location that suits you.



‘You are warmly invited.’



RISKS AND CONFIDENTIALITY:

There are no known physical or psychological risks. This research is concerned with your professional experiences in knowledge exchange and no personal or sensitive questions will be asked about you or your employer. Involvement in this study is voluntary, and you may withdraw at any time and without reason. Many participants will be anonymous and unidentifiable, but some senior researchers or key CPC staff *may* be identified or identifiable. If this is the case, all selected quotes taken from the interview will be screened and authorised by you for approval. You may then approve, amend or refuse to have quotes attributed to you.

BENEFITS:

This study is funded by the ESRC through the CPC. This research helps support the ESRC's promotion of 'stakeholder engagement'. This study offers the opportunity to voice some of the problems and opportunities presented to researchers when trying to engage with non-academics that might not be fully appreciated in the literature, or within research funders' frameworks for research impact. The study also allows the CPC to showcase knowledge exchange work that individually may not seem much, but collectively has amounted to a significant number of events and materials being produced.

ETHICS, COMPLAINTS OR COMMENTS:

This study has been approved at level ethics 1 by the University of Edinburgh.

If you have any concerns or comments regarding this research, you can contact:

Prof. Lynn Jamieson
5.04 Chrystal Macmillan Building
15a George Square Edinburgh UK
L.Jamieson@ed.ac.uk

Thank you for your interest in this study.

Scott Tindal.



Appendix II: Consent form



Consent Form

Exploring the processes and outcomes of research user engagement
at the ESRC Centre for Population Change (CPC).

- | | |
|--|---|
| 1. I confirm that I have read and understood the information sheet for the above study, and have had the opportunity to ask questions. | Initial boxes
<input type="checkbox"/> |
| 2. I understand that my participation is voluntary and that I am free with withdraw at any time, and without reason. | <input type="checkbox"/> |
| 3. I agree to take part in the above named study. | <input type="checkbox"/> |
| 4. I agree for the interview to be audio recorded and transcribed. | <input type="checkbox"/> |
| | |
| 5. (a) I agree to the use of anonymised quotes in publications in which I may be identifiable. | Tick
<input type="checkbox"/> |
| OR | OR |
| 5. (b) I agree to the use of anonymised quotes in publications only if I am unidentifiable. | <input type="checkbox"/> |
| | |
| 6. (a) I agree to the use of anonymised data in publications in which my employer may be identifiable. | <input type="checkbox"/> |
| OR | OR |
| 6. (b) I agree to the use of anonymised data in publications only if my employer is unidentifiable. | <input type="checkbox"/> |

Name of participant

Signature of participant

Date

Name of researcher

Signature of researcher

Date

Scott Tindal.

s.tindal@esrc.ac.uk

Appendix III: Ethics approval form

University of Edinburgh,
School of Social and Political Studies
RESEARCH AND RESEARCH ETHICS COMMITTEE



Self-Audit Checklist for Level 1 Ethical Review

The audit is to be conducted by the **Principal Investigator**, except in the following cases:

- **Postdoctoral research fellowships** – the applicant in collaboration with the proposed mentor.
- **Postgraduate research** (PhD and Masters by Research) – the student together with the supervisor. *Note: All research postgraduates should conduct ethical self-audit of their proposed research as part of the proposal process. The audit should be integrated with the student's Review Board.*
- **Taught Masters dissertation work and Undergraduate dissertation/project work** – in many cases this would not require ethical audit, but if it does (for example, if it involves original fieldwork), the student conducts the audit together with the dissertation/project supervisor, who keeps it on file.

Potential risks to participants and researchers

- | | | |
|---|---|----|
| 1 | Is it likely that the research will induce any psychological stress or discomfort? | NO |
| 2 | Does the research require any physically invasive or potentially physically harmful procedures? | NO |
| 3 | Does the research involve sensitive topics, such as participants' sexual behaviour or illegal activities, their abuse or exploitation, or their mental health? | NO |
| 4 | Is it likely that this research will lead to the disclosure of information about child abuse or neglect, or other information that would require the researchers to breach confidentiality conditions agreed with participants? | NO |
| 5 | Is it likely that participation in this research could adversely affect participants? | NO |
| 6 | Is it likely that the research findings could be used in a way that would adversely affect participants or particular groups of people? | NO |
| 7 | Will the true purpose of the research be concealed from the participants? | NO |
| 8 | Is the research likely to involve any psychological or physical risks to the researcher, and/or research assistants, including those recruited locally? | NO |

Participants

- | | | |
|---|---|----|
| 9 | Are any of the participants likely to: | |
| | be under 18 years of age? | NO |
| | be physically or mentally ill? | NO |
| | have a disability? | NO |
| | be members of a vulnerable or stigmatized minority? | NO |
| | be in a dependent relationship with the researchers? | NO |
| | have difficulty in reading and/or comprehending any printed material distributed as part of the research process? | NO |

be vulnerable in other ways?

NO

- 10 Will it be difficult to ascertain whether participants are vulnerable in any of the ways listed above (e.g. where participants are recruited via the internet)? NO
- 11 Will participants receive any financial or other material benefits because of participation, beyond standard practice for research in your field? NO

Before completing the next sections, please refer to the University Data Protection Policy to ensure that the relevant conditions relating to the processing of personal data under Schedule 2 and 3 are satisfied. Details are Available at: www.recordsmanagement.ed.ac.uk

Confidentiality and handling of data

- 12 Will the research require the collection of personal information about individuals (including via other organisations such as schools or employers) without their direct consent? NO
- 13 Will individual responses be attributed or will participants be identifiable, without the direct consent of participants? NO
- 14 Will datafiles/audio/video tapes, etc. be retained after the completion of the study (or beyond a reasonable time period for publication of the results of the study)? NO
- 15 Will the data be made available for secondary use, without obtaining the consent of participants? NO

Informed consent

- 16 Will it be difficult to obtain direct consent from participants? NO

Conflict of interest

The University has a 'Policy on the Conflict of Interest', which states that a conflict of interest would arise in cases where an employee of the University might be "compromising research objectivity or independence in return for financial or non-financial benefit for him/herself or for a relative or friend." See: http://www.docs.csg.ed.ac.uk/HumanResources/Policy/Conflict_of_Interest.pdf

Conflict of interest may also include cases where the source of funding raises ethical issues, either because of concerns about the moral standing or activities of the funder, or concerns about the funder's motivation for commissioning the research and the uses to which the research might be put.

The University policy also states that the responsibility for avoiding a conflict of interest, in the first instance, lies with the individual, but that potential conflicts of interest should always be disclosed, normally to the line manager or Head of Department. Failure to disclose a conflict of interest or to cease involvement until the conflict has been resolved may result in disciplinary action and in serious cases could result in dismissal.

- 17 Does your research involve a conflict of interest as outlined above? NO

"I confirm that I have carried out the School Ethics self-audit in relation to my proposed research project 'Exploring the processes and outcomes of research user engagement' funded by the ESRC's Centre for Population Change, and that no reasonably foreseeable ethical risks have been identified."



Scott Tindal

Appendix IV: Academic interview schedule



Interview Schedule 1.1 *Researches*

Theme 1: Context

1. Can you give me a short history of your non-academic engagement? Tell me about some of the seminars, workshops, briefing papers, and public lectures, etc. that you have done in relation to your CPC-funded projects?

Seminars –

Consultancy –

Public Lectures –

Briefing papers (who reads?) –

Seminars –

Workshops/training –

KE-based committees –

How to write.

- website write

Medic

compers breakfast

Can you tell me a bit about some of the KE activities you have done (in the CPC), or are currently doing? Who are you inviting? And who is coming?

1st year FSS -

Leah JRF.

-Impersonal (S&SN) (e.g. Newspapers)

-Indirect (M&SN) (e.g. Briefing papers)

-Informal (S&M) (Chats)

Productive interactions (ALL).

Are there are groups that are particularly difficult to reach?

1.1 Have you used any unusual ways to try and contact difficult-to-reach groups?

- How much do you know about your audiences before participation? Level of interaction.

- What do your audiences make of you (Scottish ???).

Theme 2: Networks

2. How important are **informal** contacts and networks in disseminating non-academic knowledge?

6.1 Do you know anyone outside of work, worked with previously, met by chance/accident which has lead you to contact them in relation to your research? People you know well enough to meet ad-hoc?

*6.2 How do informal networks **within** the CPC help disseminate knowledge? (e.g what can the CPC offer to your other informal networks?)*

3. How important to dissemination research are **formal** networks, such as those created by research contracts, commissioned research, or through advising roles?

*7.1 How do formal networks **within** the CPC help disseminate knowledge? (e.g. what can the CPC offer through formal networks and links?)*

3. Do you try to use exiting networks to reach non-academics, (ie peple you knew before), or do you try to develop your own as you are trying to engage with people? Do you try and infiltrate existing networks and use those to carry your work out to a wider audience?

3.1 Whose interests are being served by engaging with non-academics? Who benefits the most?

3.2 Who do you think is benefiting by being engaged, is anyone missing out?

4. **EMBODIMENT** when you are talking to groups – more than just a single project or piece of research!

5. **PROXIMITY** – The importance of face-to-face and physical contact. What does this add? And why?

Theme 3: Strategy

1. Did you have a strategy or plan for KE for this project?

1.1 What sort of things did you think you wanted to do? And why?

1. How do you prefer to engage with non-academics?

Face-to-face (seminars) –

By distance (briefing papers, radio/TV interviews?) –

1.1 What are the benefits/disadvantages to be physically present?

1.2 What are the benefits/disadvantages to doing it by proxy (writing)?

2. Overall, in your view, what method is most effective for getting non-academics to give attention to reach?

2.1 What makes them want to respond to your events/documents?

2.1 What parts are most interesting to non-academics?

2.2 What disinterests them?

3. Have you heard back from anyone, or been in contact with anyone as a result of KE? Anything came out of it? (funding, opportunities, changed in practice?)

Theme 4: Materials and Artefacts

1. What type of things have you written for non-academic audiences: including briefing papers, PowerPoint, fact-sheets, etc

4. How do you adjust the research message (in papers, power points, etc) for your different non-academic audiences?

4.1 How do you pitch what you write/say at the right level?

4.2 What do you say? What do you leave out??

3.3 And what do you not include?

3.4 What type of language do you use?

3.5 How do you format it? (prompts: pictures, big text, limited number of words?)

Theme 5: Spaces

1. How do you plan and organise what you do during a knowledge exchange event? (e.g. A time for talking, a time for discussion, etc... stamina of the audience to listen, or take part in different types of discussion...)

5. What factors do you consider when arranging a suitable time (date) and space for the event?

5.1 Good and bad times to hold events, length of time needed to organise events and to give people notice?

5.2 Spaces of meetings that may affect you or your participants; whose space is it?

5.3 Are these venues familiar to you or your participants?

5.4 What about the facilities, layout, etc? Why chose them

(Prompts: practical, cheap, looks-good, has required facilities etc.).

‘You are warmly invited.’

6. How do you stimulate discussion and debate?

6.1 *How do you get people to talk about their own experiences with that of your research findings?*

6.2 Any conflicts or debates either between participants, or between you and participants?
What about? How do you resolve it?

7. What limits attendance, or prevents or hinders the organisation and execution of these events?

Conclusions

Any more comments on what hinders or assists knowledge exchange at the CPC?

Aware of the CPC’s wider activities and impact?

Appendix V: Non-academic professional interview schedule



Interview Schedule (non-researchers)

Theme 1: Context

1. Can you tell me a bit about your history and experiences in academia, and your previous research experiences?
 - a. What was your degree in?
 - b. How has that shaped your experience or expectations from research knowledge in your current professional work?

2. Can you tell me a bit about your role here in ^{LGA}~~ESRC~~, and what type of activities that you do, and what your work entails?

3. Can you give me a short history of your interest in research within your organisations? For example, some conferences, workshops, seminars that you have been to that supports your work?

- Maybe the new knowledge & thing you are starting with the ESRC

- Hopes for a CCL in the future -

⑨

4. How important are contacts to finding events/seminars, papers, reports, etc? i.e. how do you find information about events and publications that might be of interest to you?
 - a. Who are these contacts, where are they from?

5. Have you/are you currently engaged with any groups or organisations from academia over time? (i.e. not just a one point in time [for example, collaborative research])?
- What were the circumstances which lead you to become involved?*
 - How did you solicit interest from them?*
 - Who do you contact to circulate information?*
 - What types of organisations are these? (i.e. what do they do?)*
 - How important is it to have personal links to academics or research institutions?
 - Do you have any opportunities to influence or shape or contribute to academic research? Shape agendas either formally (through institutions) or informally (through personal contacts?)

EVENTS

6. Why is it important that you (and your colleagues) are attending such events?
7. What makes you decide on what events to go to?
- (Follow up: what type of research-based activities or events do you prefer to attend?)
- (Themes: clarity of an issue, relevance to your work, keeping up with research progress?)

8. Why did you choose to go to [knowledge exchange event] David’s COSLA event? Did you know [academic] before?

9. In what ways is research [and specifically the CPC research] useful in your professional work?
- How do you decide what to do with research after the event?*
 - What do you get from attending the events?*
 - Have you, or anyone else that you know done nothing new or different as a result of attending CPC (or other) seminars/workshops?*
 - Have you had any experiences where you have disagreed [professionally] with the research or other attendees’ statements, experiences or comments?*

EVENTS

10. Does your organisation have a policy of attending knowledge exchange events, and to use research knowledge within the organisations? What are the advantages and disadvantages of this policy?

- a. *Is there capacity in your professional work to use research in your work? What are the opportunities and barriers to going to non-academic events?*
- b. *What makes a good event?*

11. Did you know about the CPC's work before [knowledge exchange event]? Do you know more about the specific projects that the CPC do now after the event?

- a. *What's your opinions of the CPC's work now; is some of their research useful to your organisation?*
- b. *What other things would you like to see being researched that would support your work?*

12. Have you made now contacts at the CPC? Access new knowledge?

(follow up; how do you think you can use these contacts to help further your professional work?)

13. What factors do you consider when deciding to go to an event hosted by academics?

- a. *Good and bad times to go, length of time needed to travel and attend events and to give employers notice?*
- b. *Spaces of meetings that may affect you; whose space is it? Does that influence if you would go or not?*
- c. *Are these venues familiar to you?*
- d. *What about the facilities, layout, etc?*

(Prompts: practical, cheap, looks-good, has required facilities etc.).

672
6795

44
554

Do you feel there is an ‘us versus them’ mentality in your organisation and within academia?

How important is the researcher’s reputation, level of experience or familiarity to your organisation matter?

Charismatic researchers?

How important is the researcher’s personality to actually getting excited or engaged with what you are reading, watching or attending? Have you had good or bad experiences?

Do spaces and venue choices affect your perceptions of research? Would you attend or not attend events because they were held at particular location in particular venues? Has the venue prevented you from attending events in the past?

Appendix VI: Interview participant list

Pseudonym	Occupation	Organisation	Location
Emma	Academic	The Centre for Population Change	Southampton (England)
Harriot	Academic		
Isabella	Academic researcher		
Sopie	Academic researcher		
Lisa	Administrator		
Leanne	Administrator		
Cynthia	Academic		The Scottish Consortium (Scotland)
Joseph	Academic		
Justin	Academic		
Patrick	Academic		
Toby	Academic		
Stuart	Academic researcher		
Wayne	Academic		
Angus	Civil servant	Scottish Government agency	Scotland
Ashley	Civil servant		
Carol	Civil servant		
Elaine	Policy officer	Scottish Local Authority	
Hamish	Policy support		
Mhari	Policy support		
Morag	Policy support		
Susanne	Policy support		
Roxanne	Policy support	Intergovernment organisation	
Stephanie	Government researcher	Scottish Government	
Iain	Support	NHS	England
Lilly	Support	UK Government agency	
Ross	Support	Intergovernment organisation	
Sharad	Civil servant	UK Government	

Appendix VII: Transcription protocol

1. Process

The transcription of the interviews was a three-stage process.

First, in order to retain the participants’ ‘voice’ within the evidence the interviews were audio-recorded and transcribed verbatim.

Second, the transcriptions were then read alongside a final listening to ensure that the words were accurately recorded.

Finally, the transcripts were read a final time, this time for readability. The transcripts underwent a process of edited at this stage to ensure that the participants’ meaning was clear and that the narrative flowed, unhindered by superfluous words, false sentence starts, idioms, or anything else which would obscure meaning. Particularly, when that text will be presented outside of its context as evidence within this thesis, unaccompanied by the original spoken word.

2. Orthography and spelling

2.1 Spelling

The transcriptions will use standard orthography in the British-English style. This means using ‘-sation’ rather than ‘-zation’ (as in standardisation or globalisation) and ‘-our’ rather than ‘or’ (as in colour or humour).

2.2 Contraction

Contractions will be used if spoken by the interview participant. Furthermore, if the interview participants use non-standard forms of contraction such as ‘wanna’ ‘gotta’ ‘woulda’, etc, then these will also be used.

2.3 Hyphenated and compound words

To avoid confusion and to clarify meaning, hyphenated words will be used rather than separate or compound words, for example: anti-migration, not anti migration or antimigration.

2.4 *Abbreviations, acronyms and spoken letters.*

Abbreviations will not be used when transcribing the interviews, unless the interview participant spoke it in this way. For example, if the participant uses the phrase ‘improv.’ rather than ‘improvisation’, the former will be used in the transcription. However, any abbreviation will be use a (.) at the end of the word, or (‘) if the missing letters are in the middle of the word.

Acronyms that are spoken as a single word or a series of letters will be both capitalised and have no spaces in between each letter. For example: ‘I came to Scotland on the GNER train’.

2.5 *Numbers*

All numbers that are spoken will be typed out in in digit format. For example, the ‘number two-hundred and twenty two’ will be transcribed as 222.

2.6 *Punctuation*

The transcriptions will use standard punctuation. It must be recognised that the conversion of spoken to written word can lose meaning once the text is no longer accompanied by the verbal recording. As such, the transcriptions will attempt to standardise syntax, grammar and style across the transcripts to ensure that the transcripts are as readable as possible.

Exclamations marks will be used to emphasise emphatic speech.

[Square brackets represents missing words].

{Baces} are used to clarify meaning, particularly after censored words.

“Quotation marks” are used to indicate direct speech and thoughts within a narrative. For example: ‘and then he said: “But what about me?” I just laughed and moved on’.

3. Disfluent speech and accents

3.1 *Introduction*

Disfluent speech and regional accents are difficult to transcribe. Speakers may repeat themselves, utter partial words, utter false sentence starts, and use a number of non-lexemes, but vocal, noises. Furthermore, some regional accents and dialects can be

difficult to understand once transcribed. When transcribing there is a balance between readability of the transcript, and letting the interview participant’s experiences and opinions come out in their own words. Because this research is not focused on a narrative research, or deeply reflexive on the emotional aspects of the interview, it was felt that many of the aspects such as tone, emphasis and delivery was not required to be retained in the transcript. Rather, the focus is for the content to be as clear as possible while retaining the voice of the interview participant.

3.2 *Filled pauses and hesitations*

Pauses and hesitations are used in language to delay the spoken word while maintaining conversation. These will not be transcribed.

3.3 *Partial words and restarts*

Often a speaker might break off in the middle of the word. These are done for a number of reasons: to make themselves clearer, to change the point, or the wording of the point they were making. In all cases, partial words will not be transcribed unless deemed to be significant in some way. In which case, the incomplete word will finish with a single dash ‘-’. For example: absolut-. Sentences with restarts (or a false start) will only be transcribed if there are more than 3 words uttered. Sentences with false starts are indicated with a double dash ‘--’. For example: Well, the thing is--.

3.4 *Idioms*

Every person speaks with their own idioms. For example, some interviewees started most of their sentences with “and” or “so.” Other interviewees finished many of their sentences with “I think.” These are sometimes transcribed, and sometimes not. Where they were not it transcribed it was done in the interest of making sure the meaning of the quote was as clear as possible.

3.5 *Non-lexemes noises*

All languages use non-lexemes noises that, despite not being words, or non-standard words, indicate meaning. Some of these are recorded in the transcript, such as laughing. However, the standard practice will be to not include non-lexeme noises.

3.6 *Accents*

Accents and dialects are an interesting part of the speaker’s method of communication. As many Scottish phrases such as ‘Aye’, ‘Nae’ and others will be retained so long as it does not breach any of the rules set out above.

4. **Backchat and Interjections**

Part of the interview process involves the researcher engaging in ‘backchat’. This is when the researcher makes noises such as ‘uh-huh’ as the respondents is speaking, or has just finished speaking. The goal of this is to add encouragement for the respondent to keep talking and reassure him or her that the researcher is still listening and interested in what the respondent has to say. These will not be transcribed.

Scott Tindal

June, 2013

Approach to transcription based on the guidelines found here:

http://www.ling.upenn.edu/~wlabov/L560/Transcription_guidelines_FAAV.pdf

Appendix VIII: Online questionnaire

Understanding social networks within the ESRC Centre for Population

Welcome!

Welcome!

This survey is part of a PhD study funded by the ESRC Centre for Population Change (<http://www.cpc.ac.uk/people/students.php>) which aims to explore the processes of non-academic engagement within the CPC.

The research aims to demonstrate links between academics and non-academic groups, exploring the processes of knowledge exchange. This survey is the first stage of a 2-part analysis. Using social network analysis approaches, data generated by this survey will create visual representations of all the researchers associated with the CPC, and some of the links and connections between CPC staff and non-academic groups who are engaged in the various projects running throughout the research centre.

This survey collects basic information regarding the professional interactions between people who are linked to the CPC. It asks questions relating to the frequency and importance of interaction between professionals, and who you would turn to when discussing research findings or ideas.

It is necessary during the data collection phase to use real names, but only the researchers involved in this study will see this information. No names will be used in any publications or outputs resulting from this work. All questions in this survey relate to your professional everyday interactions; no personal or private questions are asked.

The survey can be saved part way through, and takes around 15 minutes to complete. Once you have clicked on the 'CONTINUE' button at the bottom of each page, you can return to review or amend that page. Participants are able to abandon the survey at any time. Ethical approval has been granted to conduct this survey by the University of Edinburgh.

If you have any concerns or questions regarding this survey, or the wider project, please do not hesitate to email me at:

s.r.tindal-2@sms.ed.ac.uk

For more information on the study, see:

<http://www.crfr.ac.uk/crfrphdstudents.html#st>

http://www.sociology.ed.ac.uk/research_students/scott_tindal

Thank you for your time.

‘You are warmly invited.’

Understanding social networks within the ESRC Centre for Population

***1. Your name:**

2. Professional role:

3. Primary institution and department you are associated with:

4. Please list other organisations you have worked for in the last 12 months (other than the CPC). (Optional)

Understanding social networks within the ESRC Centre for Population

Frequency of Interaction

The following sections of the questionnaire focus on different relationships and interactions within your team and wider professional works within the CPC. Each question requires you to estimate the amount of a particular type of interaction that has occurred with each team member.

For each team question, tick the most applicable answer for each person listed. It is not expected that each person in the CPC will interact with everyone else, so many of the responses in the first question will fall into the 'Never directly communicate/don't know this person' category. Once this category has been selected, these respondents will not carry onto the following questions. For the purpose of this survey, you must rank yourself in the 'most days/daily' category.

Understanding social networks within the ESRC Centre for Population

*5. How frequently do you directly communicate with each person listed below?

	Never directly communicate/ don't know this person	Rarely (less than once a month)	Once or twice per month	Once or twice per week	Most days/ daily
Names are listed down here.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Understanding social networks within the ESRC Centre for Population

Names
are
listed
down
here.

[illegible]

Understanding social networks within the ESRC Centre for Population				
Names are listed down here.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Understanding social networks within the ESRC Centre for Population

Importance of Interaction

There is a clear distinction here between frequent contact, and important contact. Some people only communicate once a month, but the importance of this communication is vital to research or administration. Others may be engaged in daily contact, yet the importance of maintaining this contact may only be slightly important. This section looks at the importance of contact. Like the previous question, you must rank yourself in the 'very important' category.

Understanding social networks within the ESRC Centre for Population				
*6. What is the average importance of maintaining contact and communication to the people listed below?				
	Not at all important	Of some importance	Important	Very important
Names are listed down here.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

‘You are warmly invited.’

[illegible]

Understanding social networks within the ESRC Centre for Population				
Names are listed down here.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Understanding social networks within the ESRC Centre for Population

Discussing Ideas and Research

Producing and using research is part of a complex system of interactions with many individuals. If you come across innovative ideas, interesting or relevant research associated to the interests of the CPC, who are the primary people you would discuss these ideas or research findings with? These may be research assistants, colleagues at your own department, students, and non-academic audiences.

For example, a PhD would probably rate their supervisor highly on this scale. A research assistant will also probably rate their principle investigator highly on this list. Principle investigators may turn to colleagues or the centre management or other groups they may be working with.

Understanding social networks within the ESRC Centre for Population

7. Who do you turn to in order to discuss ideas or research findings? Tick all that apply.

Names
are
listed
down
here.

[illegible]

‘You are warmly invited.’

[illegible]

Understanding social networks within the ESRC Centre for Population					
Names are listed down here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Understanding social networks within the ESRC Centre for Population

8. Please list all non-academic groups you are involved with in relation to you CPC work.

(Peoples names are not required, just the names of organisations/institutions, e.g. The Scottish Government, Oxfam, Friends of the Earth, Poverty Alliance, Scottish local authorities).

--

‘You are warmly invited.’

Understanding social networks within the ESRC Centre for Population

Thank you!

Thank you for your time. All responses are kept confidential and no names will be used in any outputs resulting from this PhD research.

If you have any queries, please feel free to contact
s.r.tindal-2@sms.ed.ac.uk

‘You are warmly invited.’

Appendix IX: Core-periphery analysis results

Figure 1 is a 61x61 matrix showing the number of members of the 61 German political parties in the 19th century, categorized by political orientation (Left, Center, Right) and membership type (Scholar, Current, Member). The matrix is divided into three main sections: Left (Liberal, Conservative, Socialist), Center (Liberal, Conservative, Socialist), and Right (Liberal, Conservative, Socialist). The rows and columns are labeled with party names and their corresponding numbers. The matrix shows the number of members for each party in each category, with a color scale from 0 to 61.

The matrix is organized as follows:

- Rows (Party Names):** 1. Liberal, 2. Conservative, 3. Socialist, 4. Liberal, 5. Conservative, 6. Socialist, 7. Liberal, 8. Conservative, 9. Socialist, 10. Liberal, 11. Conservative, 12. Socialist, 13. Liberal, 14. Conservative, 15. Socialist, 16. Liberal, 17. Conservative, 18. Socialist, 19. Liberal, 20. Conservative, 21. Socialist, 22. Liberal, 23. Conservative, 24. Socialist, 25. Liberal, 26. Conservative, 27. Socialist, 28. Liberal, 29. Conservative, 30. Socialist, 31. Liberal, 32. Conservative, 33. Socialist, 34. Liberal, 35. Conservative, 36. Socialist, 37. Liberal, 38. Conservative, 39. Socialist, 40. Liberal, 41. Conservative, 42. Socialist, 43. Liberal, 44. Conservative, 45. Socialist, 46. Liberal, 47. Conservative, 48. Socialist, 49. Liberal, 50. Conservative, 51. Socialist, 52. Liberal, 53. Conservative, 54. Socialist, 55. Liberal, 56. Conservative, 57. Socialist, 58. Liberal, 59. Conservative, 60. Socialist, 61. Liberal.
- Columns (Party Names):** 1. Liberal, 2. Conservative, 3. Socialist, 4. Liberal, 5. Conservative, 6. Socialist, 7. Liberal, 8. Conservative, 9. Socialist, 10. Liberal, 11. Conservative, 12. Socialist, 13. Liberal, 14. Conservative, 15. Socialist, 16. Liberal, 17. Conservative, 18. Socialist, 19. Liberal, 20. Conservative, 21. Socialist, 22. Liberal, 23. Conservative, 24. Socialist, 25. Liberal, 26. Conservative, 27. Socialist, 28. Liberal, 29. Conservative, 30. Socialist, 31. Liberal, 32. Conservative, 33. Socialist, 34. Liberal, 35. Conservative, 36. Socialist, 37. Liberal, 38. Conservative, 39. Socialist, 40. Liberal, 41. Conservative, 42. Socialist, 43. Liberal, 44. Conservative, 45. Socialist, 46. Liberal, 47. Conservative, 48. Socialist, 49. Liberal, 50. Conservative, 51. Socialist, 52. Liberal, 53. Conservative, 54. Socialist, 55. Liberal, 56. Conservative, 57. Socialist, 58. Liberal, 59. Conservative, 60. Socialist, 61. Liberal.
- Membership Type:** The matrix is divided into three main sections: Left (Liberal, Conservative, Socialist), Center (Liberal, Conservative, Socialist), and Right (Liberal, Conservative, Socialist). The rows and columns are labeled with party names and their corresponding numbers. The matrix shows the number of members for each party in each category, with a color scale from 0 to 61.

Appendix X: Faction analysis results

Factions	Goodness-of-fit
2	1636.00
3	1138.00
4	830.00
5	678.00
6	586.00
7	528.00
8	486.00
9	458.00
10	450.00

1	52	42164223515311526363	43	14622232562	544363	1444	1	14556166633515
2	1241504684890657389337599	8889366567705526135614	2127713449890023412072					
3	FETMBDPHGLSSWMHCVJKSNDOMB	PABCFNTRSSPHMTBMSKMGDA	FFFNBFGBGLPMCEOTWNRJS					
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								

Appendix XI: Girvan-Newman analysis

Partition information:
Partition w/ 2 clusters: Q = 0.078
Partition w/ 3 clusters: Q = 0.277
Partition w/ 5 clusters: Q = 0.275
Partition w/ 6 clusters: Q = 0.273
Partition w/ 7 clusters: Q = 0.271
Partition w/ 8 clusters: Q = 0.270
Partition w/ 9 clusters: Q = 0.266
Partition w/ 10 clusters: Q = 0.264

Names of the CPC members here -

```

      5 3    2    4 2 2 1 4 1 1 5 1 1 5 2 2 2 4 2 3 2 6 3 3 6 5 5 6 3 5 3 6 6 2 2 1    4 6 4 3 4 4 5 1 5 5    1 6 3 6 1 6 4 5 6 1 3 3 4 4
Level 1 2 4 8 5 6 4 8 9 4 8 9 3 8 5 6 1 8 9 3 1 2 3 0 5 4 7 9 3 0 5 6 7 7 5 5 9 8 1 0 6 2 3 7 5 2 7 2 1 2 0 1 2 8 4 4 6 1 3 7 0 9 9 4 0 6 7 3 6
-----
C10  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX . . . XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX . . .
C9   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX . . . XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX . . .
C7   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX . . .
C6   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX . . .
C5   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX . . .
```