RELEASING THE CAPACITY WITHIN US

The variables that interact to determine the use of systems thinking in partnership working for wellbeing and health practice

Research[1] carried out by:

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1 The research was carried out as part of the author's studies towards an MSc Systems Thinking in Practice with the Open University, UK.

BIOGRAPHICAL NOTE:

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Abstract

Systems thinking has been identified as important to improving wellbeing and health through partnership working. But no research has directly explored the nature and extent of its current use and the factors that enable or constrain it. Published material and the analysis of recorded conversations of people involved in partnership working for wellbeing and health are used to gain insight into how the interplay of both agency and structure influence the use of systems thinking. A conceptual model is proposed for use by researchers and practitioners seeking to carry out further research or capacity building.

Key words

health; wellbeing; partnership working; systems thinking; structure/agency

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INTRODUCTION

Improving wellbeing and health involves both policy making to develop society as a whole and the provision of public services. Two inter-related perspectives, outlined below, together form a strong case for systems thinking to be used by those involved in, and leading, this work.

Firstly, wellbeing and health concerns, are characterized by interdependencies, complexity, uncertainty and controversy and involve multiple stakeholders with different perspectives. Situations with these characteristics are often referred to using Rittel and Webber's (1973) concept of wicked issue or Ackoff's (1974) concept of a mess. In response to understanding wellbeing and health in this way, authors have highlighted the need for a systems approach to researching disease and public health concerns (Laporte et al. 1996; Leischow et al. 2008); to strengthening health systems (Swanson et al. 2012); and, the need for systems thinking capacity amongst public health leaders (Wright et al. 2000). There are even calls for a whole new paradigm for improving wellbeing and health – one that centres on a systems approach (Hunter 2009).

Secondly, one of the key responses to understanding policy issues through the lens of a

wicked issue is to promote increased working across professional and organisational

boundaries and the formation of various collaborative arrangements (Keast et al. 2004;

Lowndes & Skelcher 1998; Head & Alford 2008). This emphasis has translated into

policy – in England, for example, partnerships have been central to public health and to

health and social care since the 1990s (Perkins et al. 2010; Dickinson & Glasby 2010)

and they are set to continue in the form of statutory Health and Wellbeing Boards

introduced in the Health and Social Care Act 2012. Working in a partnership landscape

requires 'whole-systems thinking' amongst both collaborative public managers and those

in dedicated boundary spanning roles (P. Williams 2013).

In researching collaborative capacity, particular attention is paid to the issue of

leadership (Nowell & Harrison 2010). Leaders 'influence people and events directly by

what they say and what they do and indirectly by implementing or modifying relevant

programmes, systems and structures' (Alban-Metcalfe & Alimo-Metcalfe 2010, p.4).

Whilst there is an ongoing debate about the differences between leadership in a

partnership as compared to a single organisation (Armistead et al. 2007), systems

thinking is identified as an important element of the leadership role (Alban-Metcalfe &

Alimo-Metcalfe 2010; Alexander et al. 2001; Sun & Anderson 2012).

Systems thinking is predominantly discussed in terms of a competence or capacity of an

individual. The exact nature of this capacity is contested. It has been claimed that many

people, even if they do not recognize it themselves, do have the capacity for systems

thinking (Ison 2010b). It is also argued that it is a capability that requires advanced

cognitive development (Salner 1986). The emphasis on individual actors has led to

capacity building focused on personal development particularly the inclusion of systems thinking as a key component of leadership development programmes (Benington & Hartley 2009). The singular use of this intervention has limitations. Firstly, it focuses on what is assumed to be missing thus failing to appreciate any existing systems thinking capacity of targeted participants. Secondly, it assumes that new knowledge will lead directly to changed work practices, without taking contextual factors into consideration (a view dubbed as the received view by Cook & Wagenaar 2012). And finally, on a practical level, it is very hard to scale-up - developing lots of individual actors is simply not possible in an era of austerity.

No research exists on the nature and extent of systems thinking capacity amongst those involved in partnership working for wellbeing and health. Furthermore, published material gives only a few insights into the partnership setting as an enabler of, or constraint to, its use. As a result, those interested in increasing the use of systems thinking as part of capacity building have little research and theory to draw on.

This research addresses that gap. An empirical study investigated the nature and extent of systems thinking capacity and the appreciation of factors that enable systems thinking by analysing recorded conversations of people who have a leadership role in partnership working for wellbeing and health in an English city. The insights from the study and existing published material are used to propose a conceptual model which is intended to inform both researchers and practitioners who would like to better understand systems thinking in partnership working for wellbeing and health as part of their capacity building endeavours. Whilst carried out in the English context, the research is of interest

internationally as countries and cities respond to the World Health Organisation's emphasis on whole-of-government approaches and the importance of skills based on systems thinking (Kickbusch & Gleicher 2012).

As the term systems thinking is often used without explanation or in a context where it is conflated with the use of a particular method, the next section describes some of the characteristics of systems thinking from the literature with a focus on the perspective that underpins this research. This is followed by a section that uses published materials to provide initial insights into variables that constrain or enable the use of systems thinking. Subsequently, the outcomes of the empirical study are presented.

THE CHARACTERISTICS OF SYSTEMS THINKING

At its most basic, systems thinking is characterized as both:

- holistic (emphasising wholes, connectivity and relationships) rather than reductionist (solely emphasising parts), including recognising that effect or outcomes arise as a result of multiple variables interacting dynamically over time rather than solely emphasising deterministic or probabilistic linear cause-effect relationships.
- appreciating multiple partial perspectives rather than solely regarding a single dominant perspective as 'truth'.

(Armson 2011; The Open University 2002b)

Developing this further, a systems thinker has been described as someone who purposefully connects to the **lineages** and **traditions** of systems thinking (Ison 2010b).

As an academic discipline, systems has **lineages** that include general systems theory, operations research, complexity sciences, cybernetics, soft systems, critical systems and learning systems (Ison 2010b; Ramage & Shipp 2009) and is associated with a range of scholars including Ashby, G. Bateson, M.C. Bateson, Beer, Checkland, Kauffman, Lewin, Maturana, Mead, Meadows, Schön, Senge, Ulrich and Vickers (Ramage & Shipp 2009). As with all fields of endeavour, there is an associated set of concepts – everyday words used in specific ways to convey abstract ideas (Figure 1).

Figure 1: A word cloud of systems concepts likely to be experienced when encountering a system practitioner (adapted from Ison 2010b, p.21)

These lineages have given rise to the development of a number of different system approaches that help people, working individually or in groups, to make sense of messy situations so that they are better placed to work coherently and purposefully to improve them. Different systems approaches are useful for understanding inter-relationships; surfacing different perspectives; and, reconciling power and boundary issues (Reynolds & Holwell 2010a). They include systems dynamics (Morecroft 2010), viable system model (Hoverstadt 2008), soft system methodology (Checkland & Poulter 2006), critical systems heuristics (Ulrich & Reynolds 2010), systemic inquiry (Ison 2010b), and systemic intervention (Midgley 2006). In addition, there are a range of more everyday techniques or heuristics that systems practitioners use, such as various forms of diagramming (Lane 2012; The Open University 2002a).

Two broad **traditions** of systems thinking can be distinguished: the hard or systematic tradition and the soft or systemic tradition (Checkland 1985).

The systematic tradition emphasizes goal seeking, problems, solutions and use of analysis. In this tradition, systems are perceived to be entities that exist in the real world (ontologies) that can be designed or engineered. The systematic tradition is evident in conventional views of change management where systems are analysed using powerful techniques, objectives for change are determined and subsequently delivered.

The systemic tradition has a greater emphasis on the human content of the situation and on learning. In this tradition, a system is an epistemological construct used as a tool to make sense of and explore the world. The orientation toward learning creates a concern

for the processes that lead to an individual or a group developing 'new capacity for behaviour' (Schön 2010, p.6) or 'effective action in a particular domain' (Ison 2010b, p.102). This concern has led scholars to draw from, and contribute to the development of, social learning theory and practice (Blackmore 2010), where learning by both individuals and groups is understood to emerge from social interaction. In this perspective, learning, which brings about new ways of understanding, doing and being, is both the means to and the outcome of change. Managing change entails making purposeful actions that are anticipated to influence an inherently dynamic situation in a direction judged to be positive, whilst remaining aware of possibilities for unintended consequences.

These two broad traditions (systematic and systemic) are best regarded as a duality (a whole with two elements) rather than being considered in opposition to each other. However, systemic thinking is considered to be a more open, broader orientation and therefore more appropriate when initially facing a messy situation (Checkland 1985; Ison 2010b).

In order to draw effectively from these two broad traditions and the multiple lineages of systems, the ideal systems practitioner has a concern for praxis (theory informed practice) involving reflective practice (Schön 1991), epistemological awareness (Ison 2010b) and methodological pluralism (Midgley 2006; Woodhill 2010). He or she engages with the world with an emotion of inquiry or 'small-r research' (Ison 2010b, p.189) and also acts ethically with a concern for the potential positive or negative consequences of their judgements and actions on others (Ulrich 2000).

Having described the perspective of systems thinking that underpins this research, the next section draws on existing published materials to gain initial insights into how the partnership setting currently constrains its use.

SYSTEMS THINKING AND THE PARTNERSHIP SETTING

In partnership settings, the notion of a duality of agency and structure has been used to demonstrate that an individual's potential agency can be enabled or constrained by structural factors (P. Williams & Sullivan 2009; Rigg & O'Mahony 2012).

If individuals are to be able to use, and develop, their systems thinking capacity, then the context needs to enable, rather than constrain, it. It is particularly important that the setting is conducive to systemic thinking and action because of its value when initially working with messy situations. Furthermore, as partnership working is 'very much about learning from and with partners, and of sharing and generating knowledge and insights to resolve interdependent societal problems' (P. Williams & Sullivan 2011, p.14) the partnership setting needs to be one where social learning can flourish.

The opportunity to use systemic thinking can be constrained by ways of working that reduce our ability to deal with ambiguity and uncertainty; create an over-reliance on systematic thinking; and reduce possibilities to think and learn with others (Ison 2010a; 2010b). No existing research specifically focuses on the current partnership setting in

terms of how it enables or constrains systems thinking. However, some insights could be found in published material seeking to understand, and make recommendations to improve, the existing constraints to effective wellbeing and health improvement through partnership working.

One way of working that creates a constraint on systems practice is target setting, because it 'undermines our collective ability to engage with uncertainty' (Ison 2010b, p.218). This was demonstrated in a study of the NHS performance regime under New Labour which, in England, was shown to influence not only the decisions and actions of those with a role in improving health inequalities but also the way in which they framed the issue in their discourse. There was a tendency for it to lead to a focus on early detection and secondary prevention focussed at individuals, rather than broader level policy changes where there is less certainty and predictability in terms of outcomes (Blackman et al. 2010; 2012).

National expectations can also influence practice in more subtle ways. Practitioners at a local level are often required through government guidance or legislation to establish and participate in partnerships that have been conceived at a national level and to implement national priorities. Being told what to do and how, can distract from those involved being motivated by their own purpose (Ison 2010b); from a 'continually reflexive and self-examining approach' (Hunter et al. 2010, p.119); and, reduce possibilities for adaptive systems thinking (Blackman et al. 2010).

Although partnerships are generally established on the principle of horizontal

accountability, the rules and institutions of hierarchy still impact on the way work is done (Termeer 2009). As a result, partnerships are often conceptualized as a hierarchical structure made up of groups each accountable to the one above them in the hierarchy. The groups are made up of people representing the interests of organisations or stakeholder groups and convene in regular, scheduled meetings.

This conceptualisation of partnerships constrains the collective ability to deal with uncertain situations, to react and adapt as social learning takes place and the situation changes. There are already suggestions that we need to re-conceptualize the way we do partnerships to make the way of working more appropriate to working with uncertain, contested, complex situations, like wellbeing and health. For example, Hunter and Perkins (2012) draw on the concept of complex adaptive system to recommend 'a different approach to partnership working, and one that is looser, more flexible and responsive to rapidly changing contexts, and, above all, less over-engineered' (p.50).

Parker et al (2010) also emphasize the need to shift away from the notion of partnerships as over-engineered structures – this time to a more process view enabling relationship building and dialogue. Dialogue is a style of communication that intends to help people 'reach new understanding and, in doing so, to form a totally new basis from which to think and act' (Isaacs 1999, p.19). It is therefore a key enabler of social learning. A range of factors can restrict dialogue in groups including participants coming as representatives, participants defending or attacking statements made, and people feeling they are 'being participated' (Kersten & Ison 1998). These factors are often evident in the way in which traditional partnership meetings are established and run with

the result of restricting dialogue and reducing possibilities for social learning.

Partnerships have a role in the policy making process which leads to actions understood (or declared) to be for public good. Traditionally, policy has been conceived as a process of evidence based instrumental rationality (Sanderson 2009) that favours an expert view over multiple diverse perspectives and assumes a predictable future. In recognition of the need to work in a complex, uncertain world there are calls to move to intelligent policy making, once again emphasising dialogue and learning (Sanderson 2009). This emphasis needs to run through the entire policy process, including the initial assessment phase that needs to shift from a technical exercise done by experts to one of 'dialogue, deliberation and discussion' building on ideas of social learning (Rydin et al. 2012, p.2080).

Table 1 summarizes the variables outlined above and highlights those that are associated with constraining or enabling systems thinking. It demonstrates a high degree of overlap between practices that are advocated as a better way of improving wellbeing and health through partnership working and practices that would enable systems thinking capacity to flourish.

Table 1: A summary of the variables identified from published materials as limiting current effectiveness in improving wellbeing and health through partnership working and accompanying suggestions for change

Limiting current effectiveness	Suggestions for change
• over-engineered structural partnerships • managerial 'command and control'* • those at local level required to establish and participate in ways of working that conceived at a national level* • national performance regime and target mentality affects framing of the issue* • policy making emphasising instrumental rationality*	• enable relationship building and dialogue* • flexible framework structures that can be adapted quickly in light of learning and review* • practitioners being motivated by their own purpose* • continually reflexive and self-examining approach* • policy making emphasising dialogue and learning*
* variable is also associated with those that constrain/enable systems thinking.	

Published materials have provided some initial insights into how the interplay of agency and structure influences the degree to which systems thinking is used in partnership working for wellbeing and health practice. The empirical study presented here analysed samples of the talk of some individuals involved in partnership working for wellbeing and health with a view to further understand the nature and extent of systems thinking capacity and the factors that enable or constrain its use.

RESEARCH APPROACH AND DESIGN

Systems thinking arises as part of a social dynamic in that someone's experience of what you say or do can lead them to claim that you are thinking systemically (Ison 2010b). The design of this study focussed on what people say and what it demonstrated to another person (the investigator) about the participants' systems thinking capacity and appreciation of practices that are consistent with those that enable rather than constrain the use of systems thinking.

The research took place in an English city in early 2012 coinciding with the time when English local authorities were establishing shadow statutory Health and Wellbeing Boards in preparation for the April 2013 enactment of the Health and Social Care Act 2012. It should be noted that the selected city is the investigator's place of work. Whilst this had the benefit of easing access, there was the risk that the investigator's prior knowledge of, and relationships with, the participants affected the study. This also led to ethical considerations in seeking support to publish this work and presenting it in a way that minimises the likelihood that individuals can be identified.

The study required a way of generating recorded talk samples that could be transcribed verbatim in preparation for analysis. Feasibility considerations led to a decision not to use entirely naturalistic conversations, such as the recording of meetings. Fortunately, the study coincided with the instigation of a piece of work using the action research approach called Appreciative Inquiry (Ludema et al. 2006). The first phase of

Appreciative Inquiry is referred to as 'Discovery' involving participants appreciating the best of what is. Semi-structured discovery conversations took place between a person with senior leadership responsibilities (the participant) and a member of the facilitating team (the facilitator). The topic of focus in the conversation was the participant's best experiences of partnership working for wellbeing and health and the assets that they, others and their organisations bring to partnership working. The opportunity was taken to record these conversations as samples of the participants' talk.

In order to align with those who are often targeted by leadership development programmes, potential participants were identified as the members of the participating city's shadow Health and Wellbeing Board and other senior people whose responsibilities are such that they influence the way that partnership working for wellbeing and health is carried out. From this pool, participants were selected from different organisational backgrounds taking into consideration willingness to participate and availability within a limited time-frame. A total of eleven participants participated in a conversation facilitated by one of eight different members of the facilitating team. In order to protect anonymity of the low number of participants, a breakdown of their characteristics cannot be given.

The recorded conversations were transcribed verbatim and uploaded into Dedoose (an on-line application that enables the process of excerpting text and coding it).

In this way, eleven samples of talk were generated that could be analysed in detail to see what they revealed about the nature and extent of the participants' systems thinking

capacity and their appreciation of factors that enable systems thinking.

FINDINGS

The approach to analysis involved drawing on the outlined characteristics of systems thinking, and published material about practices that constrain/enable systems thinking to form sensitising concepts to provide direction to look at the data, an approach referred to as 'quasi-deductive' (Patton 2002, p.454). In addition, deviant instances (talk where a feature clearly did not occur) were actively looked for. It is important to note that the absence of a particular characteristic in the sample of talk cannot be taken as proof of a lack of capacity or appreciation on behalf of the speaker – only that it was not revealed in the particular sample of their talk used in the study.

A set of codes, derived from the sensitising concepts, were created in Dedoose and used to tag excerpts of text. The coding structure developed iteratively, starting with codes for the sensitising concepts, with further sub-codes added if the number or variety of excerpts meant that more fine grained analysis could not be done by eye alone.

The findings are presented in three parts. The first part presents some initial impressions that inform subsequent discussions. The second and third parts present the findings following from the two different lines of analysis – the nature and extent of systems thinking capacity and the appreciation of practices that enable, rather than constrain, systems thinking.

Initial impressions

The study involved participants describing their best experience of partnership working within the broad field of improving wellbeing and health. In doing so, they drew on examples with different characteristics such as service system re-design, operational coordination, establishing new services, supporting community-led initiatives and, crisis management. They also referred to partnership working at different levels (strategic to the front-line) and acknowledged different levels of tangibility of what needs to be done (social change at one extreme and more tactical problems at the other).

The nature and extent of systems thinking capacity

In order to explore the nature and extent of systems thinking capacity, the sensitising concepts were derived from the characteristics of systems thinking discussed earlier.

Holistic (emphasising wholes, connectivity and relationships) rather than reductionist (solely emphasising parts)

All samples included at least one reference to the importance of relationships between people. There were also references to the quality of those relationships, including terms like 'trust' and 'mutual respect'.

An aspect of holistic thinking is recognising that multiple, interacting variables contribute

to an issue of concern - or as one participant said are 'quite complex, multi-factorial problems if that's not too jargonized way of describing it'. Six samples included reference to multiple, interacting factors that determine wellbeing and health.

Given that the recorded conversations involved participants identifying the forces and factors that contributed to their best experience of partnership working, all samples included reference to a number of contributing factors, rather than a single cause. This appreciation of multiple, rather than single, factors contributing to organisational or partnership performance was also referred to specifically in eight samples.

Holistic thinking also involves recognising the emergent properties of interacting variables. This was mentioned in five samples, for example 'the sum of the parts is greater, it has got to be that collective'.

Another aspect of holistic thinking is going up a level of abstraction to help re-frame a problem. Eight samples included reference to the relevance of context on the performance or behaviour of individuals, organisations or partnerships. One sample mentioned this specifically - 'there's always, always a bigger picture. So always looking for what is the bigger frame of reference because the bigger frame of reference will often help you to see how you might solve things that appear to be intractable'.

No deviant instances were identified - talk where holistic thinking clearly did not occur.

Appreciating multiple partial perspectives rather than solely regarding a single dominant perspective as truth.

Given that the conversation that generated the talk samples were about partnership working, it is not surprising that all samples included at least one reference to the importance of diverse inputs, either by individuals or by organisations. However, this difference was not always specifically expressed in terms of perspectives per se. Terms used were experience, skills, styles, roles, interests, knowledge, expertise, backgrounds, traditions and histories.

There were two specific references to the existence of multiple perspectives and one, slightly indirect, acknowledgement of the partial nature of a particular perspective.

No samples included talk experienced as dogmatic – insisting on a single perspective (the deviant instance).

The systematic/systemic duality

Nine samples included talk considered to be consistent with systematic thinking and action because it was oriented to goal seeking, problems, solutions, use of analysis or referred to a system that could be engineered or designed.

Five samples included talk considered to be consistent with systemic thinking and action

in that it was more oriented to learning or to the human content of the situation.

As it was difficult making judgements to apply these codes, the decision was made to separately distinguish the excerpts that were ambiguous. A number of excerpts (eleven excerpts across six samples) mixed the language of systematic and systemic. Sometimes, the hesitations and style of the talk gave the impression that the participant was trying to convey ideas that they did not have the language for.

> But it's the sort of shared understanding of what the challenge or the issue or the area that you are looking at is, you can call that a needs analysis, or whatever you want to call it, it doesn't really matter, but it's that shared understanding of what the issue is and where it has come from and all the rest of it.

Connections to the academic lineages of systems

With respect to uses of systems concepts, the samples were searched for occurrences of the words listed by Ison (2010b, p.21) as likely to be experienced when encountering a systems practitioner (Figure 1). A total of 111 occurrences of the relevant search terms were found. The vast majority of these occurrences were excluded because they were judged as being used in an everyday sense. Only a few instances were considered to be consistent with the explanation provided by Ison. These were:

- four instances of the use of the concept 'perspective'

- three instances of the concept 'purpose'

- two instances of the use of the concept 'tradition'.

There were two references to the academic discipline of systems prompted by the participant's awareness of the subject matter of the research. The same participant was the only person to mention a Systems scholar (G. Bateson) and also referred to Wittgenstein whose work has been built on by systems scholars (Ison 2010b, pp.32 & 103).

No samples included reference to a systems approach or to a tool or technique associated with systems thinking, such as diagramming.

The appreciation of practices that are consistent with those that enable rather than constrain systems thinking capabilities

The second line of analysis involved looking for evidence of an appreciation of practices that are consistent with those that enable rather than constrain systems thinking capabilities, drawing sensitising concepts from the variables summarized in Table 1.

The following were looked for:

- positive opinion of enabling practice

- negative opinion of enabling practice (deviant instance)

- negative opinion of constraining practice

- positive opinion of constraining practice (deviant instance)

The following observations were made:

- occasionally enabling practices were referred to positively through direct

comparison with constraining practices, resulting in an overlap of code use

- it is difficult to distinguish views on practices that enable/constrain systems thinking from those about practices that enable/limit effectiveness in partnership working, consistent with the degree of overlap noted in the review of existing published material.

A number of different levels of practice became apparent during analysis.

At a personal level, all samples referred to the importance of a disposition oriented to learning, relationship building, and/or motivation to engage. In addition, there were three negative references to constraining practices (across two samples). There were no deviant instances.

At an organisational level, four samples referred to the importance of an enabling organisational culture. In addition, six samples included reference to the constraint caused by a controlling management style. As a deviant instance, one sample referred to the benefit of a controlling style when senior staff members advocate partnership working.

At a partnership level, ten samples included positive references to meetings, processes and working arrangements that promoted engagement, dialogue and shared understandings, whilst nine samples included negative references to structural partnerships. There were no deviant instances.

National policy practices were seen as impacting on those at a local level. Performance regimes were mentioned in just three samples, in both negative and positive ways highlighting potential deviant instances. However, a closer look indicated that views were positive where the performance regime was perceived as creating a driver or incentive to partnership working and, negative when the performance regime was perceived as leading to working in silos. Target setting was not specifically mentioned. One sample included a reference to the constraint caused by having to implement what has been conceived at a national level.

CONCLUDING DISCUSSION

The study design was underpinned by an approach consistent with lineages of systems thinking. There was no intent to establish linear cause-effect relationships, make predictions about actions to improve the situation or create an account claimed to be true. Instead, the intent was to draw attention to aspects of the situation which have to date been overlooked thus opening up possibilities for future actions, whilst accepting that the research account however rigorously generated is simply another partial perspective (S. Taylor 2001) and any theory generated can only be considered a model of the situation it represents (Toulmin 2001; cited in Sanderson 2006).

The variety of problems-in-focus mentioned by participants draws attention to the range of tasks that those involved in this domain of practice must engage with. It is a key reminder of the need for methodological pluralism (Woodhill 2010; Midgley 2006) and for

practitioners to be able to appropriately draw on a diverse range of systems concepts and approaches contextualized to the problem-in-focus (Ison 2010b). Two existing frameworks use the notion of a continuum between tame and wicked problems to highlight the need for a variety of partnership leadership styles (Alban-Metcalfe & Alimo-Metcalfe 2010) and a variety of ways of working in partnership (Gordon et al. 2010). This finding suggests that a variety of systems ideas and methods can be added to this mix, which has implications for the way personal development programmes are designed and systems approaches are introduced.

The first part of the data analysis was undertaken to better understand the nature and extent of systems thinking capacity amongst the participants. The use of different characteristics of systems thinking has demonstrated that much depends on what the observer accepts as systems thinking. The interpretation offered here is that latent systems thinking capacity is evidenced in the use of holistic thinking and the appreciation of multiple perspectives. However, the talk which described systems ideas but in everyday terms points towards the conclusion that one constraint to the use of this capacity is a lack of familiarity with systems concepts, language and approaches (henceforth referred to as systems literacy). This interpretation is consistent with the view that those who think systemically can better understand the nature of their systems thinking if they 'develop a language, including conceptual and methodological insights' (Ison 2010b, p.18).

The second part of the data analysis concerned the extent to which participants appreciate practices that enable systems thinking. There were fewer relevant excerpts

across the samples than for the first part of the research question suggesting the need for more data before drawing firm conclusions. Nevertheless, there is a strong sense that whilst there is an appreciation of practices that enable systems thinking, it is primarily due to a concern for effective partnership working, rather than in the name of systems thinking.

It is notable that existing published research and the findings of this study indicate that practices advocated as beneficial for improving wellbeing and health through partnership working are almost synonymous with those that enable systems thinking, and conversely those that may lead to ineffective partnership working for wellbeing and health are almost synonymous with those that constrain systems thinking. This suggests that achieving ways of working that enable effective partnership working will also provide a context that is conducive to systems thinking and vice versa. It is also possible that the purposeful use of systems concepts and approaches can contribute to enabling more effective partnership working, particularly by providing new ways in which people can work together to make sense of, and then act purposefully to improve, messy situations.

Issues of feasibility limited this study to a single sample of talk from a small number of participants within a single participating city. These considerations mean it would be inappropriate to generalize the specific findings to other people (participants or investigators), places or times. The study design could be strengthened by using multiple anonymized talk samples and by triangulating the judgements of more than one investigator. A larger scale study would also allow comparisons to be made between

actors from different backgrounds and potentially deepen understanding of the actual and potential ways in which systems thinking and effective partnership working influence each other.

However taken as a whole, the existing published research and the empirical study presented here provide support for considering both agency and structure in seeking to understand systems thinking in partnership working for wellbeing and health practice. A range of variables can be perceived as interacting to determine the extent to which systems thinking is drawn on in partnership working for wellbeing and health practice. These include:

- the disposition, engagement and systems literacy of individual actors

- organisational practices – structures, leadership attitude, culture, ways of planning

- partnership practices – ways of planning, meeting style, accountability structures

- national policy practices – governance of partners, guidance and advice, frameworks, performance regimes

- intellectual fields – use of systems concepts and approaches in the discourse of fields relevant to the domain of practice

These variables can be represented in a conceptual model of the determinants of systems thinking in partnership working in wellbeing and health (Figure 2).

The following labels appear in the figure:

INTELLECTUAL FIELDS
NATIONAL POLICY PRACTICES
PARTNERSHIP PRACTICES
ORGANISATIONAL PRACTICES
SYSTEMS LITERACY
PERSONAL PRACTICES
PRACTITIONER
with systems thinking capabilities

Governance — Organisation studies
Management — Public health
Partnership/collaboration studies
Governance of partners — Frameworks
Ways of planning — Meeting style
Structure — Ways of planning — Leadership attitude
Approaches — Language — Concepts — Accountability structures
Disposition — Engagement — Tools — Culture
Leadership — Institutional development
Policy theory — Performance regimes

For problematic situations with different characteristics

At all levels from operational to strategic

The determinants of systems thinking in partnership working for wellbeing and health
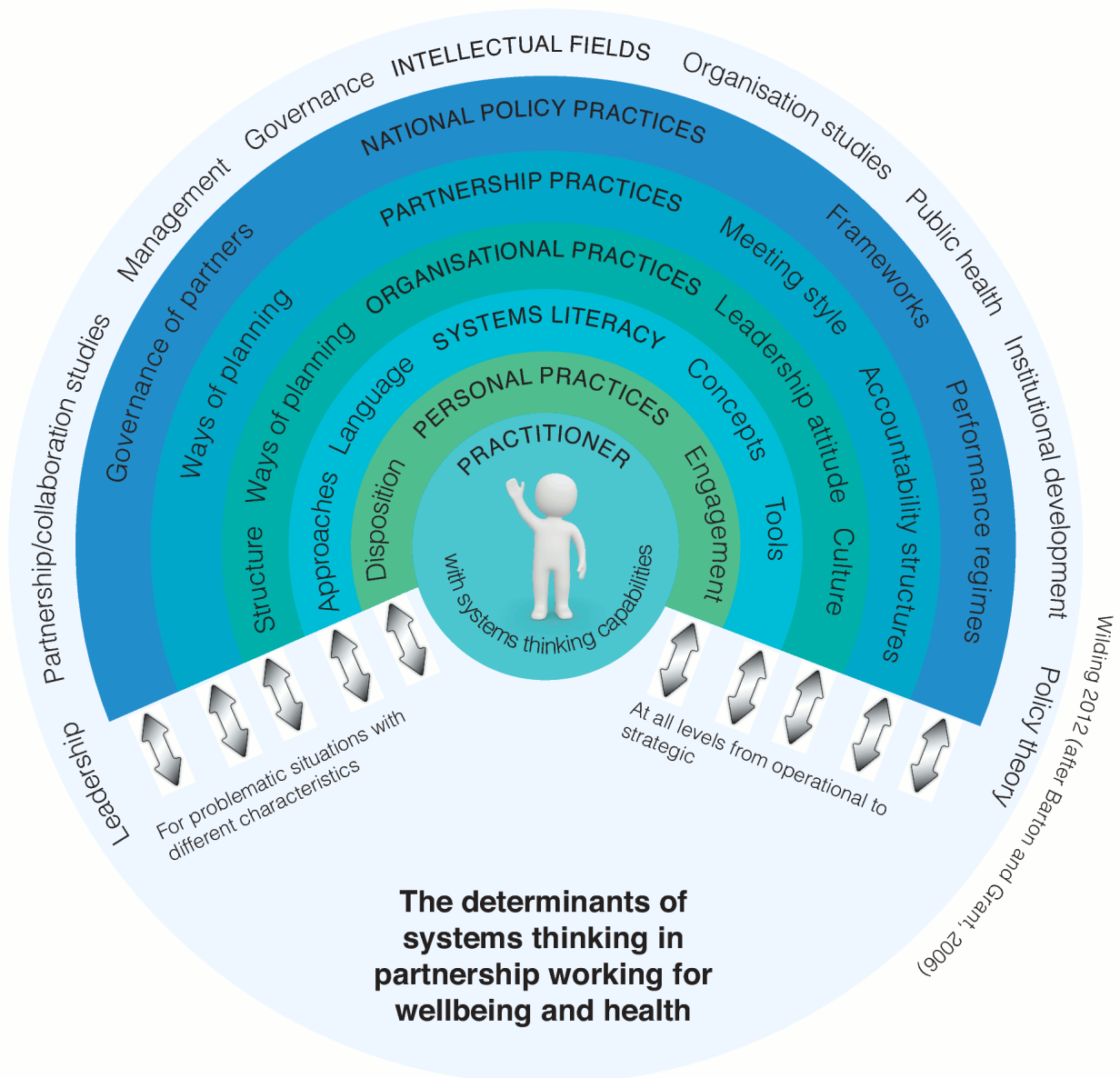
Wilding 2012 (after Barton and Grant, 2006)

Figure 2: The determinants of systems thinking in partnership working for wellbeing and health (after Barton and Grant's (2006) representation of the determinants of health and wellbeing in our cities)

The conceptual model's value lies in supporting those wanting to enhance systems thinking in partnership working for wellbeing and health practice to embrace a wider

range of possibilities than the existing personal development focus emphasising individual actors. It draws attention to the need to simultaneously have a structural focus and to create a setting which increases the likelihood of people utilising their systems thinking capacity, even without having had formal systems education. It also provides a reminder that the setting is influenced by national practices in that the possibilities open to leaders at the local level are directly and indirectly influenced by structures and ways of working established nationally.

The conceptual model could be used as a heuristic during structured explorations of systems thinking in partnership working for wellbeing and health practice, either as a part of further research or in a practice setting. Taking each layer in turn can help consider what currently works well and what could be improved. From a practitioner perspective, the actions taken as a result of such structured explorations will depend on what is culturally feasible in the particular local context.

Further research is needed to test out the utility of the conceptual model in practice situations and to refine its potential. This would be best undertaken using action research involving participants directly in reflecting on the nature of their work setting as well as co-creating new knowledge. Such an approach would allow the purposeful introduction of systems concepts and approaches thus contributing to capacity building as well as theoretical development.

This article started by summarising the case that has been made for systems thinking in partnership working for wellbeing and health practice. Valuing and using systems

thinking holds the potential for people to be able to work purposefully together in a world of dynamic change with all its uncertainty and unpredictability. The use of the agency-structure duality has drawn attention to different variables that interact to determine the degree to which systems thinking is used in partnership working for wellbeing and health practice. Perhaps the greatest challenge now is using our agency to re-create structures so that systems thinking capacity can flourish and develop – a task that itself invites us to approach it systemically.

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