THICK CARE:

Patterning Care in Complexity

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2019

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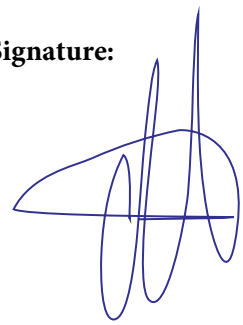

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ABSTRACT

This thesis examines the theoretical orientation of complexity, systems theory and an Ethic of Care. It asserts that these share a common ontology that has utility for developing an improved model for designing care-based services that I refer to as the Thick Care Framework. The framework blends key complex systems theory concepts with a feminist Ethic of Care to respond to the underlying structures affecting system behaviour and people's experiences of this. Examined in the context of service provision in community aged care, Thick Care is effective beyond dyadic interactions between a care giver and receiver. It affords qualitative assessment of service system structure to fine tune an approach to care service delivery spanning the patterns of relationships between system parts. Relationships and pattern being key to complexity. The research is based around two cohorts of older people. Group one is older people in receipt of home care from Local Council service providers. Group two is older people in receipt of home care from not-for-profit service providers. The thesis considers how either context and service type affect the structural conditions of the service, the quality of care it delivers and peoples' experiences of community aged care. The study contributes contextual, conceptual and practical knowledge to designing for service. At a contextual level, it contributes to existing empirical studies and published knowledge about peoples' experiences of community aged care. At a conceptual level, the thesis argues that patterns of relationship, being central to complexity, must be investigated for a fuller understanding of complex service systems. It argues the significance of this by blending systems theory with an Ethic of Care based on their common ontology, to disclose system structural qualities producing patterns of relationship affecting the quality and sufficiency of care delivered by the service. At a practical level, the thesis identifies the potential to designing for service for combining complex systems theory with and Ethic of Care. It gives fresh empirical insight into Australian community aged care from applying a new framework for understanding experience resulting from service system behaviour. The research questions for this thesis are:

> What are older adults' affective- and micro-experiences of Australian community aged care services and what adaptive behaviour emerges?
>
> What is it about the structure of the service system that makes these experiences possible?
>
> How does a complexity informed lens aid designing for service to deliver care under conditions of increasing complexity?

ACKNOWLEDGEMENTS

Firstly, I would like to thank my interview participants who welcomed me into their homes and willingly shared their experiences in honest and compelling ways. This work could not have been if not for you.

Secondly, I would like to thank my Principal Coordinating Supervisor, Associate Professor Kurt Seemann and my Co-Coordinating Supervisor, Associate Professor Carolyn Barnes, for their patience, advice and their complete trust. I am grateful to for the freedom to meld topics close to my heart and in the manner that I have. Completing this work has been an immensely fulfilling, affirming time in my life.

Thank you to Dr Matthew Parnell for generously giving his spare time to indulge me in hours long "systems chat and coffee" sessions. The conversations were inspiring and elucidating.

Thank you also to my fellow students who provided advice, perspective, a place to moan and to laugh: Maren, Mun and Yating, in particular those who became adored friends, Alicen and Esther.

Then, there is Ginger, who distracted me with her mischief, stayed beside me — often for hours — while I thought, wrote and spoke aloud to myself. You were the first at the door to greet me after a long day. You forced me to stop and play: your antics and cuddles always cheered me up.

Great thanks and appreciation to Chris for never once complaining, about anything, despite my absences and distraction. You are gracious, generous, kind.

Finally, thank you to my mother, Clara, who has inspired my work for so many years, for instilling in me a work ethic that has served me well, but mainly, for modelling utter grit.

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INTRODUCTION

> Systems happen all at once. They are connected not just in one direction, but in many directions simultaneously. (Meadows, 2008, p. 5)

Design has turned to the field of complexity theory for help articulating the messy, multivalent nature of the contemporary problems it solves and to systems theory to evolve the processes and tools it employs to do this. Links between design and systems theory have existed since the 1960s. During this time scholars have denoted design as a problem complex best tackled with systems rather than object approaches (Archer, 1965 cited in Cross, 1984), and as a system for managing the complexity of conflicts between logic and imagination during the design process (Jones, 1962 cited in Cross, 1984). Others have portrayed the design process as the practice of planning relationships between entities positioned in multiple systems and sub-systems (Jones, 1970), arguing that design and its outputs can be categorised as a system of levels of increasing complexity and uncertain subject matter (Buchanan, 1992; 2001). Some contend the producers, processes and outputs of design do not exist distinctly, but are a part of "ensuing causal entanglements" that comprise in to a larger whole system (Nelson & Stolterman 2012, p. 57) or that a synthesis between design theory and systems science produces a suite of principles for systemic design practice, able to traverse either design or systems purposes for tackling problem complexes (Jones, 2014b; 2017). This thesis contributes knowledge that adds to existing thinking about the intersection between designing for service[1] and complex systems theory.

In this thesis an original analytical frame is created using systems thinking concepts (See Chapter 4). Its prototype is subsequently employed to analyse research participants experiences of using aged care services, where its value as a tool for service designers and services researchers working within conditions of increasing complexity is investigated.

Kimbell (2011b) argues that "designing for service is seen as an exploratory process that aims to create new kinds of value relation between diverse actors within a socio-material configuration" (2011, p. 41). This suggests complexity within services arises from assorted novel and non-linear relationships — a hallmark of complex systems. Designing for service happens under increasingly complex conditions as in the example of community home care services for older people investigated in this thesis. If service providers are to dig deep into the structures affecting service outcomes for older people, these demand

[1] Throughout this thesis the phrase *designing for service* is used to cover the practices of service design and service research.

careful design considerations informed by knowledge of the behavioural nature of complex socio-material systems and which cut through the service system and its environment, especially in relation to service goals and user experience. As Dekker (2012) notes:

> Complex systems are not closed. They don't act in a vacuum like Newton's planetary system. Socio-technical systems or organizations are open systems. They are in constant interplay with their changing environment buffeted and influenced by what goes on in there and influencing it in turn. (p. 139)

Increasingly, services are described as a type of system by service scholars. They are portrayed as service ecosystems (Gummesson, Mele & Polese, 2011; Tien & Berg, 2003; Vargo & Lusch, 2011) or recognised as 'service systems' comprising many different elements, such as individuals and technology, language, symbols, laws, policies, units of measure, shared knowledge, information and often other systems (Demirkan, Sphorer & Krishna, 2011; Ng, Maull & Smith, 2011; Sphorer, Maglio, Bailey & Gruhl, 2007; Vargo, Maglio & Akaka, 2008;) that require a common language and frameworks (IfM & IBM, 2008). Others consider services as socially complex systems (Meroni & Sangiorgi, 2011h) or as configurations of a mixture of entities (Manzini, 2011). An emerging view of service systems is that they are ecologies (Polaine, Reason & Løvlie, 2013; Sphorer, Demirkan & Krishna, 2011).

Service scholars argue that the degree of complexity in services has increased to the extent that the discipline demands research founded on interdisciplinarity, especially to realise transformation in the services domain (Ostrom et al., 2010) to create service systems that improve the quality of life and wellbeing for individuals and society (Anderson et al., 2013; Ostrom, Parasuraman, Bowen, Patrício & Voss, 2015). This thesis seeks to move designing for service toward these goals. This research asserts aged care services behave as complex adaptive systems. That designing for service must accordingly engage with the inherent complex patterns of relationships and interdependencies that define such services. Further, that to improve the efficacy and so design of such care services, design for service requires an analytical framework capable of interrogating the complexity of care service on its own terms.

Service outcomes

The social services literature discusses outcomes as the effects of a service or policy for the people who receive the service:

> Outcomes-focused services are therefore those that meet the goals, aspirations or priorities of individual service users. They can be contrasted with services whose goals, content or mode of delivery are standardised, regardless of the circumstances of those who use them; or are determined primarily by commissioners or providers rather than users (Glendinning, Clarke, Hare, Maddison & Newbronner, 2008, p. 56).

The work of Qureshi, Patmore, Nicholas and Bamford (1998) is instrumental in articulating the effect service has on people's experience. They identify three categories of outcome that older people desire: change, maintenance and process outcomes. Change outcomes are improvements in mental, emotional or physical effectiveness. Maintenance outcomes delay or prevent losses in physical and mental health and wellbeing or quality of life. Process outcomes concern finding, securing and receiving a social care service. Process outcomes are the "perceived impacts on users of the process of service delivery" (Qureshi et al., 1998, p. 10). Key process outcomes for older people include:

> Feeling valued and respected; being treated as an individual; having a say and control over how and when services are provided; perceived value for money; and compatibility with cultural preferences and informal sources of support. (Glendinning et al., 2008, p. 56)

Process outcomes are what designing for service affects. They are experienced at a subjective level, are critical to service users' satisfaction and wellbeing and have the scope to shift the degree to which a service addresses the desired change and maintenance outcomes for the person using the service (Glendinning et al., 2008). Process outcomes are an imperative when designing services that deliver aged care, understanding older peoples' actual experience of "the process of service delivery" (Qureshi et al., 1998, p. 10) being important to understanding whether the design of any care service aligns with peoples' goals and expectations of a service.

Despite this, literature specific to in-home care services focuses on change and maintenance outcomes for service users, failing to consider either how process outcomes can affect these or the general level of satisfaction people experience from a service. For instance, the efficacy of in-home services based on change and maintenance approaches is well covered. These publications have informed reforms to the Australia aged care service and include studies originating from the United Kingdom (Kent, Payne, Stewart & Unell, 2000), the United States (Tinetti et al., 2002) and Australia (Lewin, Alfonso & Alan, 2013; Lewin et al., 2014; Lewin, Vandermeulen & Coster, 2006; Ryburn, Wells & Foreman, 2009). What drives process outcomes through a complete service sequence comprising finding, securing and receiving a service is under researched internationally in the social care literature. This gap is especially

apparent in respect of the Australian community care context. Further, examining the service process outcomes of finding, securing and receiving a service as a holistic system impacting older people's service experience rather than distinct stages has not been researched in either the social care, services or designing for service literature in either international or Australian contexts.

Significance and research questions

Structural change in Australia's population will see its aged population continue to increase in size and heterogeneity. The recent reform of Australia's aged care system seeks to proactively address this shift at the functional and philosophical level by embedding consumer directed care, wellness and reablement approaches into the planning, financing, administration and delivery of aged care services. Exploring older Australian's experiences of community aged care services using relevant systems theory concepts has the scope to reveal the dynamics driving the interactions of complex service systems, allowing the factors affecting service process outcomes for users as they interact across of a service system to be more fully understood.

This thesis makes three key contributions to knowledge, these being contextual, conceptual and practical. At a contextual level, the thesis adds to existing empirical studies and published knowledge about users' experiences of community aged care, most significantly as affected by the behaviour of the service system through three stages: find, assess and receive. At a conceptual level, it considers the usefulness of key systems theory concepts to service design to evaluate services relative to users' experiences. Despite the recent complexity turn by the fields of design for services and service science, recent relevant scholarship is predominately theoretical. There are no empirical studies available that investigate the phenomenon of complex adaptive service systems on user experience using key systems theory concepts. The most significant conceptual contribution of this thesis is in identifying the potential when systems theory concepts are combined with political scientist Joan Tronto's (1993; 2013) normative ethical theory, an Ethic of Care, to shape new patterns when designing services that deliver care. No similar original studies have been completed internationally. At the practical level, the thesis contributes to designing for service in providing authentic insights and a framework for understanding older adults' experiences as they interact with care-based, complex service systems.

The problem area of this study examines the proposition that designing for services that deliver care is an engagement with complexity, that complexity presupposes patterns and relationships and that approaches and frameworks able to interrogate the patterns inherent in complexity are not among the current toolkit of service designers. It draws on the nature of complexity and complex systems theory to inform a relevant lens for interrogating peoples' service experiences arising from services that deliver

care. The objective of the inquiry is to examine the salience of such a lens for elucidating the patterns associated with peoples' service experiences to evaluate or inform designing for service. This is undertaken in the context of community-aged care in Australia.

The research questions for this study are:

1. What are older adults' affective- and micro-experiences of Australian community aged care services and what adaptive behaviour emerges?
2. What is it about the structure of the service system that makes these experiences possible?
3. How does a complexity informed lens aid designing for service to deliver care under conditions of increasing complexity?

The remainder of this introduction presents foundational concepts that are key for engaging with the theoretic-analytic approach of the methodology in Chapters 4, 5 and 8.

Complexity and Complex Adaptive Systems

Since Rittel and Weber (1973) distinguished between tame and wicked problems, the term *wicked problems* has been used to categorise issues for which definitive, cause-and-effect responses are not possible. People are the major source of system complexity. Social issues were once considered inherently unitary in nature and thus easily understood, with analysis based on simple, cause and effect thinking. Now, social issues are regarded as pluralistic, heterogeneous, subjective and focused on ensuring equity among people. This creates a multi-connected web of causes that are difficult to understand outside their context. Consequently, the origin of issues is now difficult to isolate, leaving them elusive and difficult to resolve.

The categorisation is significant for designing for service. It suggests that despite the collaborative, multi-stakeholder approaches typically used by design to understand an issue, a comprehensive understanding is never possible because the nature of wicked problems is never static. Complexity is by nature open-ended, seeing complexity maintained through virtue of the temporal nature of its processes, perpetual unpredictability, indefinability and partiality, effecting our capacity for understanding, especially for defining any single cause (Norton, 2010; Rittel & Weber, 1973).

The requirement for attention to these challenges is established by Kimbell (2011b) when examining designing for service:

> Designing for service, rather than designing services, points to the impossibility of being able to fully imagine, plan or define any complete design for a service since new kinds of value relation are instantiated by actors engaging within a service context. (p. 45)

Designing for service is undertaken within these constraints where the consequence of not being able to pin down answers to complex issues, is that the claims we make, must from an ethical standpoint, remain modest (Cilliers, 2000a). I do not believe ageing is a wicked problem, but community aged care — with its mix of system scales and socio-material components — is an example of a complex adaptive service system.

Just over twenty years ago, in the *McKinsey Quarterly*, Eric Beinhocker (1997) proposed that the era of economics and management strategies grounded in Newtonian science had run its course in being based on assumptions of infallible knowledge, the law of diminishing returns and predictable, rational human behaviour — each now considered inapplicable given that uncertainty, change and variety are the order of the day. Beinhocker advocated that economies be considered complex adaptive systems because they are dynamic, networked, unpredictable and inexplicable. Beside economics and business strategy, complexity ideas appear in many other domains including photography, Judeo-Christianity, architecture and urban planning, consumer goods, film, literary theory, sociology, anthropology, history and film (Thrift, 1999), yet a single definition of complexity remains elusive.

Wallis (2009) analysed what complexity concepts recurred in published scholarly works and found more difference than similarity among authors, having difficulty synthesising a singular understanding of the theory. Mitchell (2009) states that there is no definitive explanation for complexity. More recently, Page (2011) reports that a 1980s attempt to define complexity yielded more than 40 definitions. Unsurprisingly, he concludes that the essence of complexity may require multiple definitions if a comprehensive definition is to be attained. Paradoxically, seeking to define anything at all is a reductionist endeavour and thus the antithesis of complexity (Cilliers, 2012). In this thesis, I follow the lead of distinguished complexity scholar Paul Cilliers to resist the temptation to provide a definition of complexity throughout this thesis. Although I do present "distinctions which will constrain the meaning of the notion without pinning it down in a final way" (2008:29).

To begin, complexity is only ever a trait of systems (Cilliers, 2012). This is because complexity results from interactions between a system's parts. That complex systems comprise many parts is regularly mentioned when describing the nature of complex systems. However, the number of parts contained in a system has little influence on the complexity of a system. Although there is truth that more parts

contribute to a greater likelihood of complexity, it is the nature of the interactions between the parts in a system that produce system complexity. There are no linear interactions between the parts of a complex system. The qualities of linear interactions lean to unidirectionality, proportionality between cause and effect, predictability, containment and simplicity. Interactions in complex systems are always non-linear and because of the networked structure of a complex system, the effect of interactions spreads to other parts of the system, making the behaviour of a complex system dynamic, unpredictable and disproportionate. The irregularity of complex systems should not be confused with chaotic or random systems. Complex systems exist in a context, have a structure and exhibit repeatable behaviour (Sage, Ring & Sheard, 2010). The behaviour of complex systems is affected by their structure, the pattern of relationships between system parts and the context the system exists in. Modifying the strength of relationships between the parts by altering system structure, shifting the relational patterns between the parts or managing the alignment between the system and its context will influence how the parts effect each other when they interact (Cilliers, 2000a; 2012; Page, 2010; Sage, Ring & Sheard, 2010; Urry, 2005; 2006).

Scholars differentiate between complex systems and complex adaptive systems. In this thesis, the Australian aged care system is deemed a complex adaptive system. At a fundamental level it is a complex adaptive system because it includes people. The ability of people to change their purpose for engaging with the system determines the adaptations of the system, with this increasing complexity. In complex systems, entities follow fixed sets of behaviours — rules. In contrast, in complex adaptive systems, system parts are free to adapt their behaviour to match changes in their environment (Page, 2010). Adaptation occurs in the behaviour of the parts not in the components themselves, which leads to system level changes or emergent behaviour. Only complex adaptive systems can produce emergent phenomena. The implication of the nature of complex adaptive systems for knowing complex adaptive systems is that our knowledge of the system will only ever be partial and that by taking the system apart, we will destroy the essence of the system, which is considered its emergent quality.

Complex adaptive systems have the ability to self-organise and evolve. This requires that they have the ability to learn new behaviour, memorise it and react to changes in their environment (Holland, 1992). According to Heylighen (2008) self-organisation "can be defined as the spontaneous emergence of global structure out of local interactions" (p.6). Self-organisation is a bottom-up process. It is an emergent property of complex adaptive systems and refers to their ability to modify internal structure after the system has interacted with its environment. With self-organisation the complexity in a system

increases as does the system's ability to respond to forthcoming changes, thus increasing its resilience (Cilliers, 1998; Mason, 2001; Meadows, 2008; Page, 2010).

Diversity

Diversity is a key contributor to complexity. When designing for service defines complexity, discussions about *many* should stress diversity not quantity — something not emphasised enough in the design writing about complexity. Although diversity contributes to complexity, counter intuitively it promotes greater stability in a complex adaptive system (Page, 2010). The reason for this is the dispersal of behaviour that comes with greater diversity — when there is more behaviour in a system that is similar than different, extremes happen, and volatility increases. But stability, volatility and complexity are not the same thing. A stable system can display moderate rather than extreme behaviour, but the relationships between diverse behaviour in the system generates complexity. Diversity can be categorised in three ways: diversity of type, diversity within type or diversity of composition (Page, 2010).

Diversity of type

Diversity of type classifies different species or kinds in a system. While my dog Ginger differs in breed from Noodle, the Jack Russel Terrier that lives next door, they are the same species, making Ginger and Noodle the same at the level of kind or type. But both differ from Taxi, the tabby cat a few doors down, the magpies that patrol our garden and Squiggle, the rabbit at number 16.

Diversity within type

Variation within type describes the differences in an attribute or characteristic within a population. For instance, Ginger, despite being a Maltese x Poodle, varies from others of the same breed. Her ears and body are quite long, she is tall, her eyes are remarkably almond shaped and tilted at an unusual angle compared to other Maltese x Poodles.

Diversity of composition

Diversity of composition describes how the same elements when arranged differently create distinct properties. Ginger and Noddle, Taxi, the magpies and Squiggle comprise the same constituent parts — nerves, muscle, bones — but in different quantities and arranged differently so that differences among them emerge. Diversity of composition introduces two critical ideas for our understanding of complexity and complex adaptive systems. First, that complexity is more than a simple aggregation of elements, but that certain arrangements are needed for specific functions and processes. Secondly, that arrangement involves modularity (Page, 2010). Arrangement of elements, not the mere combination of

them is crucial here because it signifies that a relationship between elements exists for the purposes of a system. Arrangement manages how elements interrelate, which suggests that by using arrangement, restrictions can be applied to how system elements interact with each other. Arrangement makes possible the idea of sub-systems because it suggests that smaller, simpler arrangements of parts together make a larger complex system or that simplicity builds to complexity, something I examine in depth in Chapter 4.

Limits to understanding complexity

If nothing else, working with complexity shows us the limitations of the tools, processes and models used in designing for service or otherwise to understand what is happening in a complex adaptive system. Understanding complex adaptive systems must always involve generating knowledge based on interpretations that are framed by context and history. Interpretation always reduces the complexity of a complex adaptive system. There is no way to avoid this, despite what methods are chosen to model the complexity. This is not because "there is something metaphysically unknowable about complex systems, but rather that we can never "know" a system in all its complexity" (Cilliers, 2002, p. 78) at a single temporal point.

Complex adaptive systems are open systems that interact with their environment. This means they are part of larger system complexes that must be considered by virtue of their relationships with other systems and where the relationships are spread throughout the larger system complex. This condition is perpetual and means the only way to accurately model a complex adaptive system is to model the entire set of interactions, including those in the past, which is impossible. Therefore, as we model complexity, we also reduce it because something must be omitted. A simple model of a complex adaptive system is an oxymoron. The only way to manage this is by contextualising the system that is the subject of study, which means any description of a complex adaptive system is only ever "relative to the perspective from which the description was made" (Cilliers, 2012, p. 32; Byrne, 2005). This has its challenges. The openness of complex adaptive systems is challenging for determining what parts are in or out of the system, shaping our knowledge of the system. Imposing boundaries on complex systems contextualises the system, defines what is and is not included in it and limits of the complexity observed (Cilliers, 2000a; 2001; 2002; 2012). Knowledge of complex adaptive systems is only ever limited.

Characteristics of Complex Adaptive Systems

Complex adaptive systems are defined by the *nature* of their interactions. Cilliers (1998) identifies the nature of interactions of complex adaptive systems with ten characteristics. In this thesis, these are used

to define system complexity in the context of designing for services that deliver care because the list substantively distils the most critical, primary traits of complex system interactions; interactions being central to service design.

1) **A large quantity of different elements.** The quantity of elements a system contains determines the ease with which it can be described. Large numbers of elements make it difficult to understand the system (Cilliers, 1998).

2) **Interaction between the elements.** While a large number of elements increase system complexity, quantity alone is insufficient as a precondition of complexity. Interaction between elements is key to system complexity (Cilliers, 1998; Ackoff, 1994).

3) **Rich interactions. Interactions between elements within complex systems are mutually affective.** This means elements are acting as well as reacting — they are affected by and in turn affect other elements. But, the measure of affect is independent of numbers of interactions, since if richly connected, one element can have significant influence throughout the system (Cilliers, 1998).

4) **Non-linear interactions.** Interactions in complex systems are asymmetrical, meaning they can be disproportional to their outcomes: small inputs can lead to significant results and major events can have little or no effect (Dekker, 2012; Human, 2016). Non-linearity is a precondition for complexity (Cilliers, 1998).

5) **Short-range interactions.** Interactions are typical between elements within a similar range. Range as used here denotes similarity of type not just proximity. However, because of rich interactions assorted types and further physical distance can be reached also (Cilliers, 1998).

6) **Loops in interactions.** Any interaction within a complex system can feed back onto itself (Cilliers, 1998). This may happen unexpectedly or produce unintended results; the feedback can be delayed, hidden or perplexing (Dekker, 2012; Urry, 2006). Feedback can be positive (reinforcing) or negative (balancing), meaning it will reinforce or diminish any behaviour and feedback is a force of multiplication rather than addition (Meadows, 2008).

7) **Openness.** All complex systems are open systems, which means elements in the system continuously interact with their environment (Cilliers, 1998:4; Katz & Kahn, 1978) in a process of energy exchange that involves the stages of input, throughput and output (von Bertalanfy, 1950; 1973). System openness

indicates that a border between the system and its environment occurs — it does, and I elaborate more about this, how it is determined and the implications of it in Chapter 4.

8) **Non-equilibrium.** A constant flow of energy between the system and its environment where the system elements affect and are affected by the environment are necessary to sustain the system. (1998:4) On the other hand, a system in equilibrium is said to be entropic, which equals the end — or death — of a system (von Bertalanfy, 1973).

9) **A history.** Complex systems have a history; they are diachronic not synchronic in evolving through time (Cilliers, 1998). The past behaviour of a system produces its current behaviours and these can be considered patterns of the system. Over time, recurrent patterns help reinforce the behaviour of a complex system, influencing the way it develops (Jackson, 2003).

10) **Local interactions.** The interactions within complex systems are always based on local information. This means system elements are unaware of the interactions of other system elements and can only act on the information they have (Cilliers, 1998; Dekker, 2012). It is impossible for any system element to 'know' what is happening to the whole system (Cilliers, 1998), because for this to happen that one element would have to contain all the system complexity within itself (Cilliers, 1998).

This list introduces the critical dynamics of complex adaptive systems with an emphasis on interactions. In Chapter 4, I explain the systems theory concepts best suited for interpreting the behaviour of complex adaptive systems.

System states

Despite the presence of complexity in many challenges designing for services contributes to solving, systems states, other than *complexity* are possible. System states can be permanent, transient or in the case of sub-systems, a system state can exist inside a larger system. For instance, a complex adaptive system may have smaller sub-systems that are not in a complex state. At these times, the system state can be distinguished by the nature of its interactions and best understood with an approach that is relevant for the system state. This may affect designing for services since it suggests that our processes and tools may be poorly matched to a system's state. If, as Kimbell (2011b) contends, the process of designing for service is "a constructivist enquiry in which [designers] sought to understand the experience of stakeholders" (p. 41), it would benefit designers to know how to determine a system state since different system states constrain how we come to know a system and the analytical frameworks best suited to this.

The Cynefin Framework (Kurtz & Snowden, 2003) represents the five potential states a system can be in at any one time and the larger domain each state sits within, these being order or unorder (see Figure 0.1). Each state is defined by a set of characteristics explaining the consequences of the nature of interactions within each and the implication of each for gaining any knowledge of the system. No one state has more value than another, each being a different space that a system can inhabit at any one time. Kurtz and Snowden (2003) elucidate:

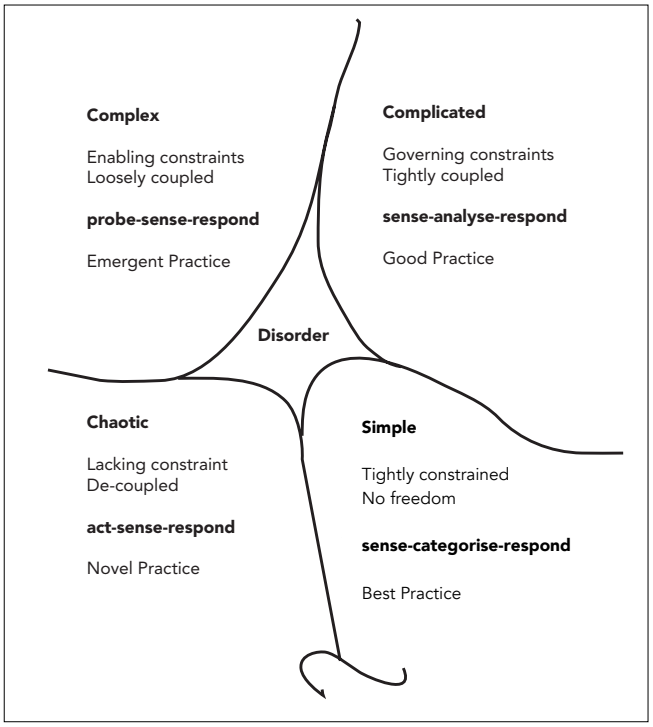

Figure 0.1 The Cynefin Framework (Kurtz & Snowden, 2003)

Simple domain: cause and effect are predictable because all stakeholders understand the cause-effect relationships and how to handle them. The obvious domain is the space of known-knowns, where interactions are linear, relationships are repeatable, perceivable and predictable (Kurtz & Snowden, 2003). Approaches here should sense incoming data, categorise this data and respond with established practice (Kurtz & Snowden, 2003; Snowden & Boone, 2007).

Complicated domain: experts can eventually determine cause and effect if enough resources are available to them, although achieving this will be difficult. The complicated domain is the space of knowable-unknowns where enough time and resources will eventually uncover the cause-

effect relationships. Approaches to decision making here, should sense incoming data, analyse that data and respond accordingly (Kurtz & Snowden, 2003; Snowden & Boone, 2007).

Complex domain: cause and effect are only ever known retrospectively. In hindsight, the cause-effect seems logical, but it is one of many cause-effect outcomes that are possible. There is no way of knowing whether a cause-effect will continue or repeat. The complex domain is the space of unknown-unknowns where cause and effect relationships are only visible with hindsight. Approaches to decision making here, should create probes that reveal the patterns causing effects, sense the discovered patterns subsequently responding to stabilise any patterns deemed desirable and destabilise those that are not suitable (Kurtz & Snowden, 2003; Snowden & Boone, 2007).

Chaotic domain: cause and effect relationships remain unknown. Taking action is difficult because of low levels of certainty. The chaotic domain is the space of unknowables where no clear relationships of cause and effect exist. Approaches to decision making here should aim to reduce turbulence; therefore, quick action is required, followed by sensing to understand the effect of the action and so that an appropriate response can follow (Kurtz & Snowden, 2003; Snowden & Boone, 2007).

Disordered domain: system stakeholders disagree on what action to take and conflict is apparent. Stakeholders interpret the central space based on their preference for what type of action to take. For instance, individuals comfortable with applying expert understanding to issues will seek to embark on research to gather data, those who prefer stability will impose rules, individuals comfortable with politics will gather and expand their network and dictators will seek to take absolute control (Kurtz & Snowden, 2003; Snowden & Boone, 2007).

Complex adaptive systems naturally appear in the complex domain. In this space, a search for what patterns emerge through interactions in the system dominates ways for understanding system behaviour. *Probes* are used to uncover patterns, their effect and inform appropriate action. Pattern and its criticality to complex adaptive systems are discussed in further in Chapter 4; however, if, as the literature suggests, service systems and designing for service occur under conditions that are increasingly complex and if the interactions in complex adaptive systems are a form of patterning occurring in the system, then such patterns must be discovered and reasonably expressed for any change, maintenance or redesign to a service such that service process outcomes improve users' experiences of the service. Lenses supporting awareness of the relationships among system parts leading

to patterns in the system should guide ways of designing for service to interrogate the rich interactions produced by complexity in ways that attend to their distinctive qualities:

> Learning to recognize and appreciate the domain of unorder is liberating, because we can stop applying methods designed for order and instead focus on legitimate methods that work well in un-ordered situations. (Kurtz & Snowden, 2003, p. 466)

This thesis argues for an analytical framework to use when designing for service that supports probing the rich interactions of complex adaptive service systems so that the system structure behind relationships driving system behaviour might be uncovered. Hence, this thesis is situated in the third and fourth orders of design (Buchanan, 1992; 2001; Goldsby-Smith, 1996). Third and fourth orders of design explain part of the hierarchy ordering design where the third area concerns the design of "activities and organized services" (Buchanan, 1992, p. 9) and the fourth includes the design of "complex systems or environments for living, working, playing, and learning" (Buchanan, 1992, p. 10).

Thesis Structure

After this introduction, this thesis has nine chapters and a conclusion. Chapter 1, *The Australian Context of Aged Care*, situates the thesis by establishing the nature of Australia's ageing population, the types of community aged care available in Australia and the service sequence older people experience when securing community aged care services.

Chapter 2, *Service Experiences in Community Aged Care*, presents a thematic analysis of the literature on the process of finding, being assessed for and receiving community aged care. The chapter categorises empirical studies about older peoples' experiences of this sequence into a set of themes and sub-themes, some of which are seen to repeat at different stages of the complete service experience. Chapter 2 establishes that no existing study examines community aged care services as a complex adaptive service system or as a service sequence whole, thus neglecting consideration of the reciprocally affective patterns of relationships between system elements as contributing to experiences at varied stages.

Chapter 3, *Systems and Complexity Concepts in Services*, examines the literature on service science, designing for service, and systemic oriented design. The chapter shows there is abundant theoretical discussion of the systems nature of services, but that a significant gap exists in empirical knowledge of the application of a systems theory when designing for service. Chapter 3 establishes that despite fulsome recognition of services as systems, the complex nature of services remains under examined

because the main approaches to designing for service neglect the inherent structural quality of service systems making them complex. The chapter introduces the argument that systems theory concepts tailored to understand cause arising from system structure have greater efficacy when designing for service.

Chapter 4, *The Structure of Care* addresses the knowledge gaps established in Chapters 2 and 3. It constructs a framework developed from two theoretical positions — the normative ethical theory proposed by political scientist Joan Tronto, an Ethic of Care, and systems theory — which in sharing a concern for relationships can aid designing or appraising complex adaptive systems that deliver care. The chapter presents the argument that complex adaptive systems and care share an ontological premise based on relationships, which is central to producing meaningful service process outcomes for older people. A case is made for establishing a framework to probe complex adaptive systems for patterns of relationships and inter-pattern relationships, these being essential for understanding system behaviour contributing to users' experiences of the service. The framework developed in Chapter 4, *Thick Care,* is used to analyse the empirical data in Chapters 6 and 7.

Chapter 5, *Research Design* presents the theoretical position and methods for data gathering and analysis used in the thesis. The chapter proposes critical realism, which emphasises retroductive analysis, as a suitable alternative for the research questions examined in the thesis, and the application of the Thick Care Framework.

Chapters 6 and 7 answer the first and second parts of the first question of this thesis: *What are older adults' affective- and micro-experiences of Australian community aged care services and what adaptive behaviour emerges?* Chapter 6, *Affective-patterns of the FAR-whole*, presents the findings of a thematic analysis of older peoples' (n=20) narratives to do with their experience of this complex adaptive service system. Four significant affective-patterns experienced by service users when interacting with the FAR-whole are elucidated. The chapter answers the first part of the first research question of the thesis. Chapter 7, *Micro Experience-patterns of the FAR-whole*, answers the second part of the first question of the thesis. The chapter presents six significant experience-patterns and the emergent adaptive responses of people as they progress through the FAR-whole and any links to the affective-patterns in Chapter 6 are presented. Chapters 6 and 7 highlight the multivalent, diverse nature of service systems.

Chapter 8, *Thick Care Analysis of Australian Community Aged Care*, answers the second question of this thesis: *What is it about the structure of the service system that makes these experiences possible?* Using the critical realist approach of retroductive analysis, the chapter applies the Thick Care Framework to

probe peoples' micro experience-patterns from Chapter 7 and constructs a structural picture of the service system as a whole. It highlights the patterns of relationships between system parts contributing to system behaviour that affect the service process outcomes of older people.

Chapter 9, *Thick Care: A Final Synthesis* answers the final question of this thesis: *How does a complexity informed lens aid designing for service to deliver care under conditions of increasing complexity?* It is a case report presenting the saliency of the Thick Care Framework for probing complex adaptive systems determining patterns of relationships and informing improvements to service process outcomes.

The conclusion draws together the individual argumentative threads of the thesis to underscore the original contribution of the research and the implications and recommendations flowing from this. The limitations of this thesis and opportunities for further research are included there.

This structure is diagrammatically presented in the Appendix – *Methodological steps in this thesis.*

CHAPTER 1

AGED CARE: THE AUSTRALIAN CONTEXT

The Australian Aged Care System is a complex adaptive system. This chapter presents and argues this. The delivery of aged care in Australia happens via a collaborative system that functions through the involvement of various levels of federal and state government, assorted service providers from the for-profit and not-for-profit sectors, as well as through informal community and familial care. The aged care system provides a mix of services through two types of community care. Residential aged care is care and support services provided to elderly people living in hostels or nursing homes. Community care are services provided to elderly people either within their own home or in other community arrangements (Australian Institute of Health and Welfare [AIHW], 2007; Productivity Commission, 2011a; Wells & Regan, 2014). The AIHW (2009) reports that the majority of older Australians live at home in privately owned dwellings either alone, as part of a group or members of a family and not in residential aged care and who for the 2010-11 period 719, 300 received some form of in-home or community care service AIHW (2013).

System Scales

The various levels of the Australian aged care system are an example of the concept of system scales in a complex adaptive system and can be termed macro-, meso- and micro-scales of the service system, where each is responsible for different functions in the system. Policy direction, planning, design and development happen at a population level and are considered the macro scale of the service system of this thesis. Service assessment, co-ordination, purchasing and delivery occur at an individual level (Glendinning, Clarke, Hare, Maddison & Newbronner, 2008; Y. Wells, personal communication, May 1, 2015) and are considered the meso scale of the service system of this study. Finally, service use, which also happen at the individual level, includes specific touchpoints and interactions between service users and service provider staff, constituting the micro scale of the system. Although these scales drive different outcomes, they are not mutually exclusive. Activity at any level relates to the other levels and the service happens through a network of related, interconnected, elements that share a purpose.

An arbitrary distinction between system scales can be made to determine macro, meso and micro levels, which will establish what system aspect is supra or subordinate to another. This concept is addressed more fully in Chapter 4. In this thesis, I distinguish between the macro (government, administrative), meso (service provider, delivery) and micro scales (service user, receipt) (see Figure 1.1). Defining systems scales is one way to know a system. System scales are arbitrarily determined partitions that

benefit understanding because, as presented in Chapter 1, the complexity of complex adaptive systems is impossible to capture entirely. Despite what scales are defined, a holistic rather than atomistic — wholes versus parts — approach is requisite for understanding complex adaptive systems (Capra & Luisi, 2014).

Any in-home aged care service is one part of an arranged system of interacting elements, which benefits from using perspectives and practices that consider integrated wholes, rather than dissected elements. Systems theory is a perspective suited to the related interactions and holistic imperative of systems. Two basic systems theory concepts make this possible. Firstly, that every system is contained in a larger system. Secondly, that a system is not the sum of its parts, but rather the emergent product of the patterns of relationships of their interactions (Ackoff, 2008a; 2008b). In other words, in any system it is the interaction between the parts, not an action by one part, that is fundamental.

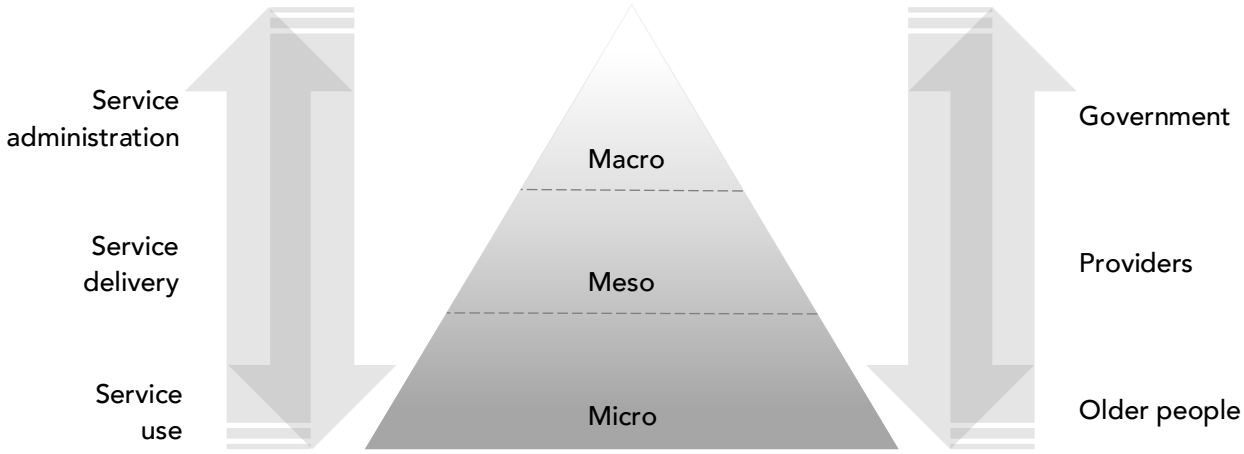

Figure 1.1 Functions at scale in the Australian Aged Care System

The Macro-scale: service administration

On July 1, 2015, the fourth of a 10-year plan of reform to the Australian aged care system commenced. The reforms, which began in 2012, have meant changes to the administration, finance, planning and delivery, as well as the philosophy underpinning in-home care services delivered to community dwelling older adults (Department of Social Services [DSS] 2014; 2015a; 2015b).

The Australian Government's Living Longer. Living Better. Aged Care Reform Package (DSS, 2012a) is informed by recommendations made by the Productivity Commission's (2011a; 2011b) Inquiry report,

Caring for Older Australians that was commissioned in 2010 by the then Gillard Labor Government. It was devised to undertake a:

> … broad-ranging inquiry with the aim of developing detailed options for redesigning Australia's aged care system to ensure that it can meet the challenges facing it in coming decades (Productivity Commission, 2011a, p. 3; see also Hughes, 2011).

The Caring for Older Australians Inquiry report is the result of a consultative process between the Productivity Commission and multiple stakeholders from the aged care sector including service providers, health, aged care, allied health professionals and members of the public, as well as older Australians, across informal forums and roundtable discussions. These were set up to better understand the key issues regarding the provision of in-home care services to older Australians. By the completion of the Inquiry, the Productivity Commission had received over 900 written submissions detailing information and advice on what improvements and innovations would make for a better Australian aged care system (Dow, Sparrow, Moore, Gaffy & Yates, 2013; Productivity Commission, 2011a).

The Productivity Commission (2011a) found the aged care system to have "key weaknesses" (p. xxii), stating in the Caring for Older Australians report that the system provided limited services and consumer choice was difficult to navigate, inconsistent and inequitable across pricing, subsidies and service user co-contributions, as well as meeting the needs of older people. Additionally, its workforce was insufficiently skilled and low wages exacerbated workforce shortages. The Commission's recommendation to the Australian Government for a reformed aged care system totalled 58, covering issues of funding and paying for aged care, access to aged care, the quality of aged care, catering for diversity among older people, accommodation for older people, those who provide informal care to older people, the aged care workforce, aged care regulation, policy research and evaluation and the transition between an old and new system.

Living Better. Living Longer. Aged Care Reform Package

Living Longer. Living Better. Aged Care Reform Package is the Australian Government response to the Productivity Commission's recommendations for an aged care system that promotes independence and wellness for older people through person-centred services and consumer-directed care (CDC) (DSS, 2012a). Part of the system reforms are the new access and assessment point — My Aged Care — and the new program for the provision of in-home aged care, the Commonwealth Home Support Programme [sic] and Home Care Packages.

The Meso-scale: service delivery

The delivery of community aged care in Australia happens via a collaborative system involving various levels of federal and state government, assorted service providers from the for profit and not-for-profit sectors as well as informal community and familial care. The Commonwealth Home Support Programme and Home Care Packages are the two in-home services available to older Australians living at home. Although each service stream caters to a different level of need, the service sequence is shared between them.

The Commonwealth Home Support Programme (hereafter CHSP) is one major change under the Australian aged care reform. Prior to its introduction in-home support for community dwelling older people comprised four separate programs:

- Commonwealth Home and Community Care Program (HACC)
- National Respite for Carers Program;
- Day Therapy Centre Program and the Assistance with Care; and
- Housing for the Aged Program.

The new CHSP consolidates and replaces these, by providing a streamlined, entry-level support service to assist frail, older people stay independent at home and in their communities for longer (DSS, 2015a; 2015b).

The term 'entry-level' in this context refers to in-home support services that are either: (1) low-intensity and delivered on a short-term or ongoing basis, or (2) higher-intensity and delivered on a short-term or intermittent basis (DSS, 2015b). Services delivered under the CHSP are intended to be short term. Their aim is for older people to regain the ability to perform tasks, either fully or mostly by themselves, such that they need the service less often, for less time or eventually not at all. The services are designed to ensure older people remain living in their own home, their independence and quality of life are improved and more intensive forms of care or entry into residential care are avoided (Lewin, Vandermeulen & Coster, 2006; Lewin, et al., 2014; O'Connell, 2013; Wilde & Glendinning, 2012). Under the rationalized CHSP, older people can access domestic assistance, personal care, individual social support and food and meal services, allied health and therapy services, minor home and garden maintenance, goods, equipment and assistive technology, transportation, specialized support services (e.g. continence services), assistance with care and housing and also respite, either flexible, cottage or centre-based (DSS, 2015b, pp. 20-23). The CHSP is a central component of what the Australian Government terms an end-to-end aged care system. The Department of Social Services (2015a) states

that the formation of the CHSP enables for a consolidated program for entry-level home support, a standardised national assessment processes that facilitates the creation of person-centred support plans, greater independence and a focus on wellness and reablement (DSS, 2015a). Additionally, it maintains that wellness, reablement and restorative care approaches within the CHSP are further supported by three extra changes: (a) the new standardized assessment process and its separation of assessment from service delivery; (b) the introduction of consumer directed care to guide assessment, planning and delivery of services alongside a wellness, reablement approach; and (c) sector support.

Home Care Packages (hereafter HCP) are designed to provide older people who wish to remain living independently in their own home, long-term support. HCP are available at four levels of care. Levels 1-4 range from basic care needs to high-level care needs respectively. Level 1 and 2 packages supersede the previous Community Aged Care Packages (CACPs) and levels 3 and 4 now replace what were the Extended Aged Care at Home (EACH) and Extended Aged Care at Home Dementia (EACHD). The HCPs are government-subsidised but designed to support Consumer Directed Care (CDC). CDC is a philosophical shift in how home care is provided where the guiding principle is that package funds — the money subsidised by the government for the older person's services — is spent according to the wishes of the recipient of the care service package. Although the funds are not paid directly to the older person, every individual has the flexibility to choose the nature of services and what service provider supplies these to them. This means that with the exception of paying for a holiday, funds may be allocated to those things the older person determines will be of more benefit to them (Home Care Today, 2016)

The Micro-scale: service users

In Australia, the target group for aged care services is defined by the Department of Social Security (2015b) as, "people aged 65 years and over and 50 years and over for Aboriginal and Torres Strait Islander peoples" (p. 15). As at 30 June 2012, there were 3.2 million Australians aged 65 and over and 423, 700 aged 85 and over (AIHW, 2013). The Australian Bureau of Statistics [ABS] (2013) states this number will increase and projects that people aged 65 years and over as a percentage of the total Australian population will be 22 percent by 2061 and 25 percent by 2101. Furthermore, the ABS expect the percentage of people aged 85 years and over to grow rapidly, projecting that this age group will be 5 and 6 percent of the total Australian population by 2061 and 2101, respectively.

These projections are based on a mix of assumptions about Australia's future fertility levels and mortality rates, as well as its levels of interstate and overseas migration and are consistent with similar trends highlighted globally. For instance, the United Nations (2002) expects the global population of

people aged 60 years and older in 2050 to be double what it was in the year 2000, an increase from 10 to 21 percent. It expects the proportion of people 18 years or under to drop from 30 to 21 percent over the same period. Indeed, the United Nations projects that global life expectancy will reach 75.9 years around 2045-50 and that Australia will have among the highest life expectancy at birth in the world, with an expected age of 87.2 years in 2045-50 (cited in ABS, 2013, p. 24; AIHW, 2007, Topic 16; AIHW, 2013).

In Australia in 2012, life expectancy at age 65 was expected to be 84.1 for men and 87.0 for women. Projections indicate that by 2036 the population of people aged 85 years and over will represent 18% of the total population of older Australians and that the total number of centenarians will increase from a population of less than 5,000 to one of over 25,000 (AIHW, 2007). Such increases in longevity have major implications for aged care service delivery and the process outcomes older people will expect. Although Australian men and women are expected to live longer, increases in disability or decreases in core activity limitations are likely, necessitating longer periods of higher levels of care.

For example, in 2012 men at age 65 could expect a further 8.7 years free of disability but 10.4 years with a disability (total 19.1 years life expectancy). Women can also expect greater limitations in their old age, necessitating greater assistance and support from services. Compared with men, women at age 65 in 2012 could expect a further 9.5 years free of disability, but 12.5 years with a disability, including 5.8 years living with a severe or profound core activity limitation. This is important in the context of aged care since women constitute the majority of the aged population in Australia. Women, as a percentage of the total population of older people in 2012 made up 54% of the 65-plus and 65% of the 85-plus (ABS, 2012a) age groups. This gender gap is consistent with global life expectancy trends (United Nations, 2002), but between 1998-2012, differences in life expectancy and years living free of disability between men and women have been decreasing in Australia. These structural shifts are changing the size, composition and dispersal of Australia's aged population, increasing its heterogeneity, calling attention to the quantity of age care services needed, what this future population expect and the complexity that service must meet.

Special needs groups

The Australian Government Department of Social Services (2015b) specifies that older people from Culturally and Linguistically Diverse communities (hereafter CALD), as well as those living in rural or remote areas are two of eight Special Needs Groups within its overall target population (see also Aged Care Act, 1997, sect 11.3). According to the Federation of Ethnic Communities' Councils of Australia [FECCA] (2014-15), one in three older people in Australia was born overseas, of which a significant minority have CALD status. A person is considered from a CALD background if they were born

overseas in countries excluding those where English is the main language. FECCA (2014-15) states that the 2011 census shows 1.34 million, or 19.4 per cent of all Australians aged 50 years and over were born in CALD countries and further, that among Australia's 'old old' (80+ year-olds) 18.5% were born in a CALD country.

Equally significant in the context of aged care service provision is the structure of this population group. FECCA (2014-15) emphasizes that 40% of all immigrants to Australia from CALD countries are aged 50+ years, whereas 32.4% of Australia's total population is aged 50+ years. Structural changes are also apparent within specific ethnic groups, where the demographics have shifted due to the ageing of their respective population. For instance, Italians, who are the largest group of overseas born older people after those from the United Kingdom, increased in number from 91,900 to 108,600 between 2001-11. 88.4% of Italian born Australians are over 50 years (ABS, 2012). However, while the largest group of old people from a CALD country living in Australia, Italians are not the only CALD group to experience a structural shift in its population. The Australian Bureau of Statistics (2012a) states that census between 1981-2011 show increases in Greek, German, Dutch, Chinese and Indian populations of older people, plus decreases in future populations of older people from other European countries and the United Kingdom, but that those from Lebanon, Vietnam, Malaysia, the Philippines, China, Hong Kong, South Africa, New Zealand, India and Sri Lanka will grow in size (ABS, 2012a). These increases in CALD populations hold for the whole of Australia, the State of Victoria is expected to have the most diverse older population of all the states and territories with 28% of people aged 65 years and over to have come from non-English speaking, migrant backgrounds (Productivity Commission, 2011a).

The heterogeneity of older people and older Australians from CALD countries is no exception. Diversity happens simultaneously within and between CALD groups (Warburton, Bartlett & Rao, 2009), there being added diversity within this population that overlaps with existing cultural and linguistic diversity. The Department of Social Services (2012b) refers to this as "diversity within diversity" (p. 2) and explains that it can include experiences of financial hardship, living with dementia, living in rural and remote locations, being lesbian, gay, bisexual, transgender or intersex, or being in palliative care. It can also include circumstances arising from the socio-economic context of individuals within CALD populations. Factors such as a peoples' level of education, home ownership or not, average income or periods of unemployment as well as migration and settlement experiences can affect the population's aged care service needs (AIHW, 2004; Shanley et al., 2012). In addition, there are differences between cultures concerning beliefs about ageing, the elderly and aged care, such that the principles of autonomy, independence, holism and person-centred care that are part of the reform have

a different meaning and relevance for older people and their families from different CALD communities (Plath, 2009; Shanley, et al., 2012).

Older people from rural and remote areas

Community care data collected by the Victorian Government Department of Health (2014a; 2014b) for the period 2012-13 shows that of the nearly 298, 500 Victorians who received some type of community care service, 111, 200 live in rural and regional Victoria. The AIHW (2013) states that Australia wide people aged 60 and over make up 18% of the total population living in greater capital cities. However, they account for 23% of the total population living outside these areas, making the distribution of the need for service uneven and possibly challenging. The percentage of older people living in rural areas needing services is growing faster than in metropolitan centres due to overall low fertility rates for Australia, net out-migration from rural and remote areas by young people and the net in-migration to rural areas by 'sea- and tree-changers', increased populations of Indigenous people in rural areas compared to urban areas and small communities that are culturally and linguistically diverse (Greenway-Crombie, Disler & Threlkeld, 2014, pp. 59-63).

Delivery of aged care services to older people living in rural locations is challenging because of the level of complexity involved in meeting their needs. In populations of rural older people many diverse influences interact to affect the provision of and access to care services for this group. Further to their demographic and geographic challenges, rural populations assume lower levels of health and higher levels of mortality and morbidity at younger ages than populations of older people in urban and metropolitan areas, the reasons for this include alcohol consumption, smoking rates and driving, which can cause injury and death (AIHW, n.d.). Health disadvantages can overlap with other types of rural disadvantage. For instance, social and economic hardship can contribute even more difficulty for rural people in their old age (Greenway-Crombie et al., 2014). Despite these conditions, in rural and remote locations primary care professionals, specialists and a care workforce remain scarce and under-resourced (Humphreys & Gregory, 2012).

Although older Australians as a whole display a higher level of diversity compared to the broader population, like their CALD counterparts, the population of older people living in rural and remote locations presents greater diversity than the remaining older population. As explained in the Introduction, a trait of complexity is the diversity within the mix of interconnected system parts. In this regard, older people living in rural and remote locations, show *diversity within type*, discussed in the Introduction. Greenway-Crombie et al., (2014) clarify the diversity comprises a mix of culture, language, politics, values, perceptions and needs because of the assortment of service users. These

special needs groups share the challenge of greater diversity that may impact their experience of being old and receiving services more than people in the broader older population.

Projected need of a larger older Australian population

In the context of the structural and compositional shifts already described, the Productivity Commission (2011a) states that by 2050, 3.5 million Australians will use aged care services annually, 80% delivered to community-dwelling older people (2011a: xviii–xxii). Although Australians are expected to live longer, projections indicate there will be fewer people available to care for the larger percentage who need care just as the incidence of certain diseases and limitations to physical activity is set to increase among older people. To illustrate, the AIHW (2007) reports that a greater number of older people, especially in old, old age, will experience what it describes as, "a disability and a severe or profound core activity limitation" (p. 62), specifying that in 2023, 1,116,200 old people will experience this. Adding to this, the prevalence of comorbidity increases with age and among Australians aged 65-74, 44% have five or more long-term health conditions. This figure increases to 70% within the 85 years and older group (AIHW, 2009; AIHW analysis of the 2009 SDAC cited in AIHW 2012). The most common diseases and conditions among older Australians include vision or hearing loss, high blood pressure and arthritis or other musculoskeletal concerns (Wells & Regan, 2014). The degree to which older people experience illness or a limitation of activities can affect older people's social wellbeing. The AIWH (2012) reports that in 2009, 81% of older adults without disability experienced a higher rate of weekly contact with family and friends, compared with 75% with a severe or profound core activity limitation.

Contingent and existential aspects of ageing

In the same way that aged care sits within a larger and broader framework of services and social policies that have a reciprocal relationship with it (Productivity Commission, 2011a), the people using the services are also affected by multiple other systems. Old age is never just about advanced age. According to Settersten and Trauten (2009), there are many *ifs* shaping old age that when played out direct the experience of being an older person:

> These {ifs}...relate to life, health and resources: if I am (or we are) healthy, if I (or we) can manage financially, if I (or we) can live independently, if my (or our) children are able or willing to help, and so on. As these contingencies come undone, so too do the futures that have been counted on or taken for granted (cited in Baars & Phillipson, 2013a, p.19).

These *ifs* are determined by the social structure people find themselves in when they are old, as well as those they were in when younger and include class, ethnicity and gender to affect the contingent aspects of growing older and old age (Settersten & Trauten, 2009 cited in Baars & Phillipson, 2013a).

Contingent and existential limitations differ in the affect and effect they have on the lives of older people. Contingent limitations are conditions such as a lack of affordable, appropriate housing, inadequate services and even ageism (Baars & Phillipson, 2013a) and are structural in nature. Existential limitations are those whose inherent nature arises from being a human being advancing in age, such as decreased eyesight, limited physical mobility and even a diminishing circle of friends. Contingent and existential limitations equally affect service process outcomes, adding more complexity to the service system,

Service Sequence of Community Aged Care

To receive community aged care at home, older Australians first need to find information about aged care services and the organisations providing these. They then need to undergo a needs assessment to determine their eligibility and required service type. Finally, based on their assessment, they receive the determined level of care as a service into their home. In doing this, older adults seeking in-home aged care progress through the steps *find*, *assess* and *receive* (henceforth FAR) toward that goal. The steps of FAR are those Qureshi et al., (2008) highlight as process outcomes in Chapter 1

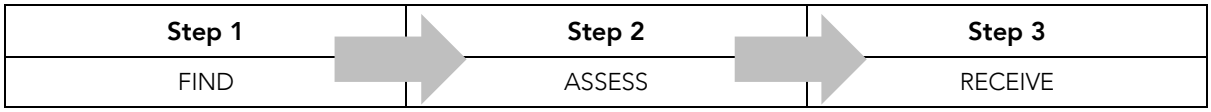

Figure 1.2 Meta representation of the FAR-sequence

For community dwelling older adults needing care in the home these steps are unavoidable. Although sequential through time-space, they are a related whole. Describing FAR as a sequence infers a process where the interactions between components are unidirectional, unidimensional and happen linearly. It implies FAR is independent from other systems where each step is complete and distinct. No person can complete the processes simultaneously, but neither is FAR a sequence of islands. Some observers of FAR might choose to view the experience of older people in this way but this view gives the impression that the service process outcomes of FAR and overall service experience are not influenced by an environment or other service systems. A more accurate description of FAR, which appears linear and

straightforward, is that it is a holistic experience for older people, which exists as part of a constellation of other systems comprising the larger system that is the Australian Aged Care System.

Describing a sequence as a whole appears like an oxymoron, but the idea has significance. Firstly, as Qureshi et al (1998) contend, service process outcomes affect the service experience, suggesting a related, interdependent sequence of processes is better understood as a whole experience given its scope to affect an older person overall or beyond the temporal point of the service interaction. Secondly, the turn to complexity demands a shift of perspective from the parts to the whole. The idea of a whole emphasises the basic systems theory idea of the whole being greater than the sum of its parts. From the perspective of design for services under conditions of increasing complexity, both reasons support the idea that what emerges from a community aged care service system as a whole may contribute to the value older people derive from the care ultimately delivered to them. As such, a more accurate description of FAR is the *FAR-whole*.

In this thesis, the "system of interest" (Ison, 2010, p. 22; Ison, 2014) is the FAR-whole. It is a sub-system nested within a larger, complex adaptive system called the Australian Aged Care System (see Figure 1.3). A system of interest exists relative to an environment, comprises subsystems and shares a boundary with other systems with which it may or may not interact. These conditions make possible the idea of scales in or surrounding a system of interest. Because complex adaptive systems are defined by the nature of their interactions the idea of scales affords that any system of interest is simultaneously a larger system containing smaller subsystems as well as the smaller subsystem of a larger system among which similarly characteristic interactions take place. While abstract, the distinctions of supra-system, sub-system and system clarify this concept. Typically, a system of interest is considered at one level above or one level below it within the hierarchy meaning the levels that sit super- and sub-ordinate to it (Katz & Kahn, 1978). In this thesis, the FAR-whole is considered relative to the system level immediately above it — service delivery. Scale and system hierarchy are explained in Chapter 4.

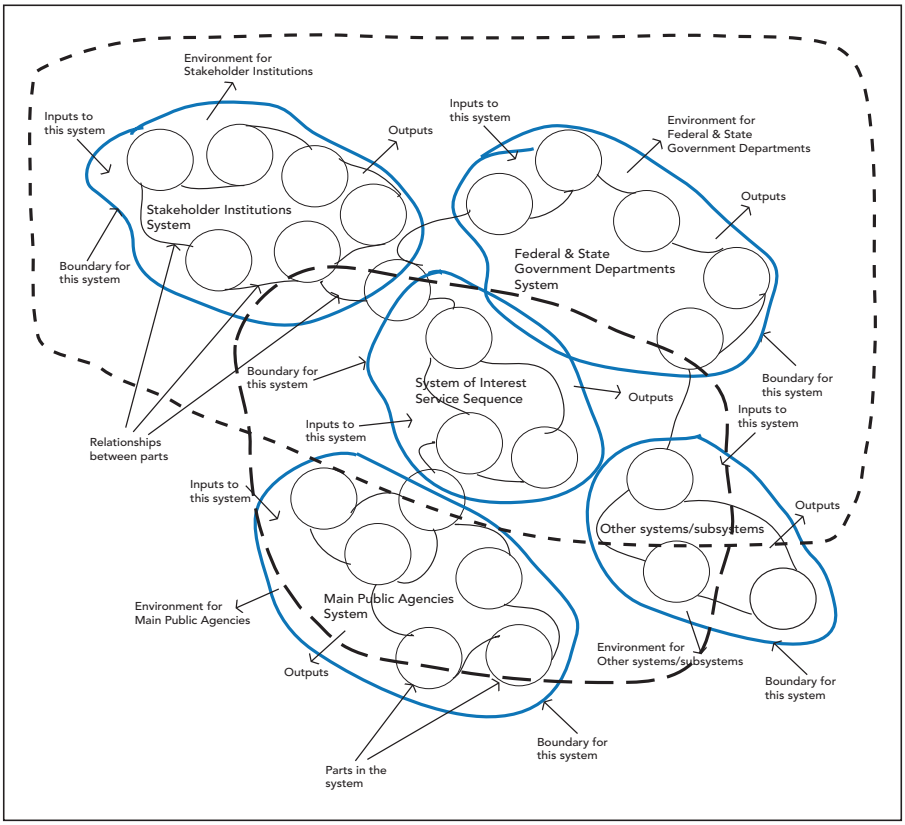

Figure 1.3 Meta representation of FAR-whole as the system of interest. (Adapted from Taylor, 2009)

Complexity Sketch of Australian Aged Care

Using Cilliers's (1998) ten characteristics of system complexity as the basis, a sketch of Australian community aged care as a complex adaptive system is constructed here by matching its component parts to each system trait:

A large quantity of different elements: The diversity within the populations of older adults in Australia receiving community aged care.

Interaction between the elements: Assorted system actors interact when planning, delivering and communicating about care, with these changing repeatedly as the older adult's needs adjust.

Rich interactions: Assorted system actors may interact with many other system elements. For example, older adults can interact with care workers, My Aged Care, Case Managers, their primary care provider or other welfare services. Some of these interactions are more frequent or longer, but this does not indicate their importance within the system.

Non-linear interactions: The delivery of care to one older adult may produce enormous benefits to multiple networks of familial and other informal carers.

Short range interactions: Older adults mainly interact with those system actors local to the step in the service sequence they are at. For instance, at assessment they interact with actors performing eligibility or needs assessments. However, local interactions are not exclusive, and they are able to interact with elements that are less local who a service provider may put them in contact with.

Loops in interactions: Care provision has consequences that feedback into the system. Feedback, being indiscriminate, means that both good and bad care provision may happen in the short or long term.

Openness: The provision of community aged care happens through a system that is open and in exchange with other systems. Shifts in demography, economic and social policy or societal narratives to do with ageing can affect the community aged care system.

Disequilibrium: Variation in composition of the older population, the availability of informal care, increased frailty and even death produce a dynamic system always adapting to change and therefore never in equilibrium.

A history: The philosophy, financing, type and delivery of care services if not dependent, evolve from previous models. This indicates not only a system history based on adaptation over time, but also the potential for patterns to form.

Local interactions: An older adult only acts on information available to them. They do not know what services other service providers have available or what are the interactions between care workers and other older adults.

Characterising diversity in the aged care service system

Chapter 1 discussed three definitions of diversity found in complexity. The CHSP and HCP display each of the three definitions of diversity found in complexity (see Table 1.1).

Table 1.1 Representation of diversity in the Australia aged care system by service type

Service / Diversity	CHSP	HCP	Explanation
of type	X	X	The CHSP and HCP are both a type of aged care service that people may receive in their homes. Each sits in the larger Australian aged care system.
within type	X	X	Each type allows older people to choose the module of service they need. For instance: The HCP offers care at one of four levels. People assessed for an HCP may receive a care package at either Level 1, 2, 3 or 4, depending on their level of need. Within each level, people can select varied modules such as, cleaning, transport, personal care to create service suites that respond to their need. Furthermore, HCP shows diversity within frequency of service delivery. THE CHSP offers one level of care where people can select varied modules such as, cleaning, transport, personal care to create service suites that responds to their need. It too shows diversity within frequency of service delivery. Older people show diversity: special needs, frail, rural, remote. Service providers show diversity: Not-for-profit; Local Councils, Private providers. Providers do not provide the same array of service modules. Most will supply cleaning, but some do not supply transport or window cleaning and clients must access these from another provider, sometimes the original supplier will contract that service in — this happens in some HCP cases.
of composition	X	X	Both CHSP and HCP services offer modularity, which allows for diversity of composition when clients compile their suite of services. Both services are subsidised by the Federal Government, but service providers choose to what degree they will charge service clients fees. Some providers, charge clients nothing for an HCP. Some charge a daily fee that is invoiced monthly.

Summary

Chapter 1 has set out the context of the Australian aged care system and presented an argument for being a complex adaptive system. It has outlined the scales of the Australian aged care system and discussed the role of each to community aged care services (see Figure 1.1). The diverse service types through which people might receive community aged care, the diversity in the composition of the population of older people and the characteristics of special needs groups have been explained. The steps older people seeking to receive aged care must journey through have been outlined and their link to service process outcomes (Qureshi et al., 2008) highlighted. The importance for combining the steps *Find, Assess, Receive* into one service experience was explained and the concept of the *FAR-whole* was

introduced. Chapter 2 presents the results of a thematic analysis of literature relevant to aged care services and older peoples' experiences of these.

CHAPTER 2

EXPERIENCING COMMUNITY AGED CARE

Chapter 1 introduced the context for this thesis and the systems scales that are its focus. Chapter 2 examines the literature pertinent to older people, finding, securing and receiving aged care at home, now referred to as the FAR-whole. Guided by Braun and Clarke (2012), I scrutinised the literature for repeated concepts and topics to assemble a unified set of themes that describe peoples' experience (Bradley, Curry & Devers, 2007) of the FAR-whole. This thematic analysis of what is thought and known regarding older peoples' interactions with home care distinguishes categories of experiences.

Although community aged care services are delivered through a complex adaptive system there is a paucity of literature discussing community aged care services from the perspective of complex adaptive systems. The scarcity of examination of community aged care as a complex adaptive system is surprising given that this perspective is applied to other closely related complex systems, for instance, the broader health care system, where the provision of care is often described as a complex system (see Table 2.1)

Table 2.1 Care domains considered complex adaptive systems

Related Complex Adaptive System	Author/s
Healthcare	Heath, 2013; Plsek and Greenhalgh, 2001; Strumberg and Martin, 2013; Tien and Goldschmidt-Clermont, 2009
Healthcare Management	Plsek and Wilson, 2001; Rouse, 2008
Mental Health	Hannigan, 2013; Hannigan and Allen, 2006; Hannigan and Coffey, 2011; Hannigan and Evans, 2013; Randolph, 1995; Randolph, Blasinsky, Leginsky, Buckleysmith Parker and Goldman, 1997
Residential Aged Care	Forbes-Thompson, Leiker and Bleich, 2007

Among the limited literature approaching community aged care as a complex system are Wolstenholme (1993), Donovan (2011) in the UK and Sahin, Vidal and Benzarti (2013) in France. In the Australian context, Taylor (2009) studied a related sub-system, the Australian Aged Care Accreditation Standards, to investigate whether it could be improved with the application of systems theory. Because the Australian aged care sector has recently undergone reforms, no empirical studies exist about how the reforms have affected older Australians' experience of the FAR-whole. Any Australian literature discussed here was published before the reform of the sector.

As literature on older adults' experiences of the FAR-whole is not available, publications on each step of the service sequence as discreet stages predominate here, with most discussing systems outside Australia. Other Australian researchers note the paucity of Australian literature about older peoples' experiences of community aged care services. These include Doyle (2010), who sought literature about the lived experiences of older women receiving a CACP (Community Aged Care Package)[2] in Queensland, Radermacher, Feldman and Browning (2009) who report the lack of literature regarding service planning of ethno-specific community aged care services, and Kendig et al. (2012) who state, "information for understanding community service use is limited" (p. 376).

The FAR-whole operates in countries other than Australia in providing public sector, community aged care or Adult Social Care.[3] In the literature, older adults' experiences of the FAR-whole are typically studied at the level of its component parts — *find*, *assess*, *receive* — rather than at a systemic level comprising related, mutually reciprocal experiences across a service system. Here, Lafortune, Beland, Bergman and Ankri (2009) state:

> The community care literature has an emphasis on specific services or needs, examining access in terms of individuals' needs and resources, with less attention to the effects of variable supply or to a service system perspective (cited in Kendig et al., 2012, p. 376).

Chapter 2 addresses this omission in the extant literature by applying a complexity lens to experiences to view them as interconnected, capable of instigating reciprocally affective behaviour and able to generate repetition. It first examines older people's experiences as they are presented in the literature — as distinct stages of finding, being assessed or receiving care — and categorises these into themes. At the end of the chapter, these themes are applied to the FAR-whole where they are viewed with a holistic lens (see Table 2.2). Finally, although older people are emphasised as the main service users in this thesis, they are not the exclusive users of the FAR-whole. Others such as familial carers or friends acting as proxies, also interact with the FAR-whole.

Peoples' experiences of the aged care service system were categorised three ways (see Figure 2.1). Category 1 is the principal experience of older people as they interact with the FAR-whole. There is one principal experience throughout the literature, which is expressed as the overarching theme, *Adaptation to loss or gain*. As a body of literature, the research indicates older people experience changes that stimulate either loss or gain. However, this is not plainly stated by the greater majority of publications.

[2] The CACP service type was superseded under the reforms.
[3] The name given in the UK to care services delivered to adults. Over 65s are the largest user group of these services (Donovan, 2011).

Rather the thematic analysis reveals that older peoples' interactions are *underscored* by the need to adapt to loss or gain. More and less implicit examples of this theme in the literature are the empirical research of Baxter, Glendinning and Clarke (2008) and the theoretical work of Hale, Barret and Gauld (2010; 2012).

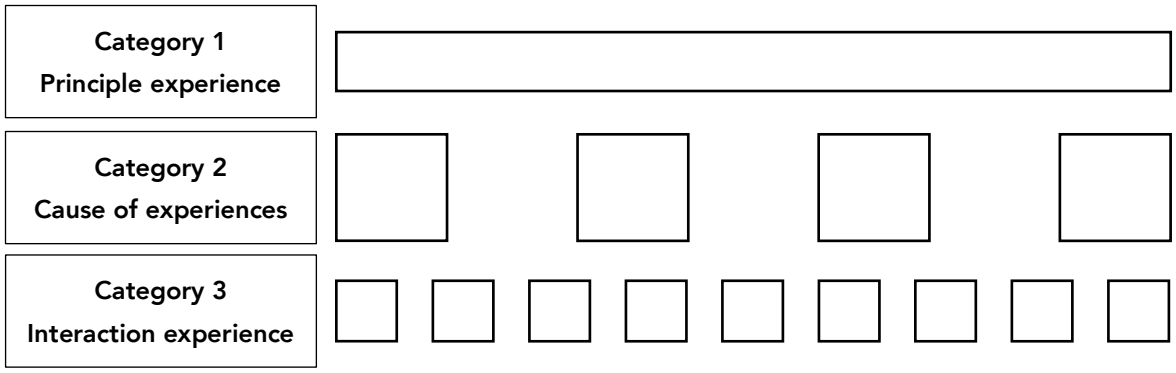

Figure 2.1 Meta-representation of thematic categories of experience in the literature

Category 2 are analytical sets that define possible causes of experiences. Four possible causes of experience were found. These are expressed as *Shifting locus of control*; *Others' impact*; *Care affects* and *Context matters*. *Shifting locus of control* explains interactions where the older person has no control or little autonomy (Fraser, Archibald & Nissen, 2014), is perceived sufficiently diminished and not capable (Stones & Gulliver, 2015) or experiences procedural inflexibility (Janlöv, Hallberg & Petersson, 2005). *Others' impact* describes experiences where conditions demand that an older person is supported to negotiate a part of the FAR-whole (Nguyen, Evans, Wilde & Shanks, 2011) or their experience of care is closely tied to other people. *Care affects* explains experiences that concern a relationship between an older person and their care worker (Giuntoli & Cattan, 2011) or other implications of receiving care. It differs from *Others' impact* in that it only applies at the RECEIVE point of the FAR-whole. *Context matters* explains experiences that are influenced by people's socio-structural circumstances. This category links with a line of thought within critical gerontology that holds that people's socio-structural circumstances can exclude them from consistent experiences of ageing in later life. Circumstantial conditions in older age include a lack of affordable or appropriate housing, inadequate services and even ageism (Baars & Phillipson, 2013a), signifying that user needs and service availability are not the only factors affecting peoples' experience of home care and contributing to complexity in the service system.

Category 3 spans analytical concepts describing peoples' experiences resulting from their interactions with system elements. This idea is explained more in Chapter 4. In this literature interactions between an older person and their care worker (Ayalon, 2016), an older person and a philosophy of care (Boudiny, 2013) or an older person and their environment (Kalman & Anderson, 2014) are examples of interacting system elements generating experience. The nine experiences distinguished in this literature are *Aptness*, *Delay*, *Habit*, *Missing foreknowledge*, *Advocacy and power, Capacity and limit*, *Inconsistency or asymmetry*, *Attitudes toward older persons*, *Attitudes toward staff*, *Disruptions and recalibrations*, *Alignment or misalignment*, and *Linkages*.

In the FAR-whole, Categories 2 and 3 are not discrete, with concepts appearing in the FAR-whole multiple times or under different conditions (see Table 2.2). This is possible. The asymmetry of complexity means experiences repeat at different times or in different system scales. Furthermore, as presented in Chapter 1, the nature of complex adaptive systems enables diverse, mutually affective, non-linear, disproportionate interactions. Several studies discuss interactions where multiple experiences converge in a single interaction (Fraser, Archibald & Nissen, 2014; Kalman & Andersson, 2014; Janlöv, Hallberg & Petersson, 2006; Janlöv, Rahm & Petersson, 2005).

Experiences of Finding Aged Care

The Australian Productivity Commission (2011b) notes the significance of finding community aged care for older people and their carers within the service sequence, commenting that, "[f]or many older Australians and their families, the first time they access the aged care system is to search for information about what services are available and those to which they might be entitled" (p. 130). *Find* starts the service journey for older people. It comprises learning what service options exist, the steps to securing a service and also the sourcing of an appropriate service provider. Accessing aged care is initially based on an interdependent relationship between people and information. The literature identifies information as critical for supporting older peoples' healthy ageing, for their remaining living in the community and for maintaining age friendly cities and communities (Australian Productivity Commission, 2011b; Everingham, Petriwskyj, Warburton, Cuthill & Bartlett, 2009; World Health Organisation [WHO], 2007). The report *Caring for Older Australians* specified that an aim of the aged care system reforms should be to create and maintain a system where information is easy to find (Australian Productivity Commission, 2011a). This goal implies designing a service system to perform equally for every service user when seeking information about services. However, according to Cilliers's (1998) traits of complex service systems and Kurtz and Snowden's (2003) outline of the nature of

complexity, advocating prediction or control is impossible when working under complex conditions. Instead probing system behaviour to discern patterns causing effects reveals appropriate responses.

While the provision of information is a vital sub-step within the step of finding an aged care service, its significance is not confined to this step only. Accessing information is pivotal throughout the service sequence for ensuring good service process outcomes, but finding information about available services and how to access them can be subject to factors beyond individuals' control or knowledge. For community dwelling older adults living in rural areas, Penchansky and Thomas (1981) explain that distance, for example, affects accessibility to health and social care services (cited in Heenan, 2006). This instance suggests that finding services is not simply a matter related to tangible access or to simply *putting information out there*. Older peoples' experiences of *FIND* in the FAR-whole are affected by two potential triggers: *Others' impact* and *Context matters.*

Some show that the need for information about care services is inter-reliant on others, the impact determined by the extent they are invested in, advocate for or exert power in the adults' care. Older Canadian's can experience finding information about home care services difficult even after having an assigned case manager and starting to receive home care because case managers were not proactive in providing information or provided beneficial information only after gaining awareness of a need by chance or accident (Fraser et al., 2014). Nguyen et al. (2011) advocates the benefit of making sense of the complex nature of service information because it derives from multiple sources. Formal care staff or the family of the person seeking the care service can act as proxy to perform the critical tasks of gathering, sorting, evaluating and implementing service information on behalf of the person being cared for (Nguyen et al., 2011).

The literature links people's circumstances to their experiences of finding information or care services. For instance, socio-economic conditions and ethnicity are shown to affect people's familiarity with the care service they seek, what sources they use to find information about services and how people engage with information. It endorses the critical role that service information plays for older people and the challenges in accessing service information. Migliorino (2012) links the impact of information to the degree to which CALD older people are able to exercise self-determination. In the Australian context, language and culture are cited as contributing to differences among people when accessing community aged care services (Black, Osborne & Lindeman, 2004; Radermacher, Feldman & Browning, 2009). Some claim the effect of timing as vital, highlighting that future service users usually seek service information at times of crisis (Swain et al., 2007). Ease is similarly singled out for its potentially counterintuitive effect on older adults' perceptions of the quality of information. Baxter and

Glendinning (2011) report that online resources may be seen to support ease of access to information, yet the quantity of information available online can be overwhelming, prompting potential service users to question its quality (see also Bright, Clarke & Dalley, 2013). Extending the effects of timing, Everingham et al. (2009) propose that timing and ease are parts of a triplet inclusive of *topic,* where these interact concurrently to affect people's opinions of information relevance.

A focus in this discussion is the link between finding service information and older people's existing knowledge. Finding information about aged care, requires older people to have good foreknowledge and understanding of the aged care system, what in-home services are available and where to access them (Everingham et al., 2009; Raynes, Temple, Glenister & Coulthard, 2001). In Australia, information about service is available from numerous channels. These include print, broadcast and social media, healthcare professionals, personal and social networks and the government, not-for-profit and industry sectors (Sanders, Chang & Ramis, 2015). Some literature contests a link between volume and utility. Swain, et al. (2007) argue that despite the extent of information, older people remain inadequately informed because they lack awareness of what already exists and thus remain ignorant of what questions to ask.

The literature broadly contests the idea of equal access to information about services; here individuals' life circumstances mean the experience of finding services may be inconsistent and asymmetrical among older people as a population (Baxter & Glendinning, 2011; Glendinning et al., 2008). People most likely to need government services are those least likely to have good information networks for finding out about such services, this being due to the effect of information capital. A concept asserting that information has value and that sharing it shares power. People living with disadvantage/deprivation typically have inadequate information capital (Sykes, Hedges, Groom & Coleman; 2008). Older people may have a limited concept of what information *is,* knowing where to access it, how to use it and how information can help (Bright et al., 2013). Some propose that the heterogeneity of older populations compounds unequal access to services, older adults service information needs and their expectations of either (Heenan, 2006; Turnpenny & Beadle-Brown, 2015).

Some discussion centres on the way individuals' preferred method of communicating and the level of trust they have for some rather than other sources, creates habit. In these instances, the literature reports older adults are likely to consult information sources they have previously consulted, potentially being disadvantaged if familiar sources are out-of-date, wrong or poorly signposted (Baxter et al., 2008; Swain et al., 2007). Relying on habit is more likely among people from deprived socio-economic backgrounds (Lindbladh & Lyttkens, 2002 cited in Baxter et al., 2008), compounding for some, the potential for

inconsistent experiences of finding services (Black et al., 2004; Heenan, 2006). Older people prefer information that is subjective, informal or experiential, gained verbally through friends or family (Everingham et al., 2009; WHO, 2007). This is evident in the Australian context, with Howe (2008) noting older people prefer sources that are person-to-person and word of mouth, especially when delivered by healthcare professionals.

According to Everingham et al. (2009) a self-perceived lack of capability might explain older adults' preference for using word-of-mouth when searching for information and may limit older adults accessing information about aged care. Impediments include discomfort using unfamiliar technology or technology that is not user-friendly, restricted access to locations where information is presented, decreased mobility or sensory perception, a lack of language skills, unfamiliar media styles and formats, no prior knowledge of the service, the use of acronyms for programs and services (e.g. CHSP; HCP) and culture and language barriers. Culture and language are structural factors in finding appropriate aged care services and the search methods people use (Migliorino, 2012). Culturally and Linguistically Diverse (CALD) communities show comparatively lower levels of digital literacy, this being further affected by language literacy in some cases (FECCA, 2015). Consistent with this, older CALD Australians prefer receiving information face-to-face or verbally rather than in written formats (Black et al., 2004).

Experiences of Being Assessed for Aged Care

The assessment process for aged care is a critical marker for older people. Assessment is the point at which an older person's circumstances are understood such that options about their care can be offered, decisions made, and care plans developed (Social Policy Research Unit [SPRU], 2000). It is the way to establish eligibility for home care and the extent of a person's needs (Lindeman, 2009). The assessment process is described as holistic, with assessors often the first to assess an older person's cognition (Vrantsidis et al., 2014). Assessment is a multi-part step that is multidisciplinary, including social work, nursing or allied health, and it is influential for driving the timely provision of services to older people so that they may live at home for longer (Warburton, Cowan, Savy & MacPhee, 2015b). In Australia, the National Aged Care Alliance [NACA] (2014) states three reasons why assessment is important. The process: (1) supports older people's independence and ensures they gain access to services that are appropriate for their needs and at the right time; (2) ensures equity of service allocation and outcomes for older people; (3) aids better management of public expenditure on "Government funded aged care services" (NACA, 2014, Introduction, para. 1).

Assessment is considered a point of change for older people, the literature stressing experiences of disruption and recalibration, assessment forcing older people to acknowledge their shift to another life stage and new identity. Hale, Barret and Gauld (2010), discussing assessment in the New Zealand context, portray it as the separation stage within a rite of passage they call "supported independence" (p. 275), where "the elderly person *becomes* a client and a care recipient" (Hale, Barret & Gauld 2012, p. 275; emphasis original). Similarly, Janlöv et al. (2005) report that older people regard a needs assessment as a point of no return, signalling the beginning of a process of decline, frailty and continued humiliation that can reinforce feelings of isolation and leave them feeling exposed. Hale, Barret and Gauld (2012) argue that assessment opens the door for disruption in older adults' material environments, with the reorganisation or removal of possessions and the introduction of assistive aids such as hand rails or ramps contributing to the identity shift older people can experience after assessment.

Assessment is the point when an older person can respond to influence their care. Yet, the literature plainly shows that older people have little control and autonomy during assessment, this being the result of interactions involving others' investment, advocacy or power. This can happen innocently in par for the course of procedures or the delivery of services, but few make this distinction, with most sources framing assessment as weighted in favour of assessors and service providers, not older people. Chevannes (2000) argues that categorization and matching of need to service during assessment ultimately allows for a "micropolitics of power relations" (Foucault, 1972 cited in Chevannes, 2000, p. 176). Similarly, Janlöv et al. (2005) report that many older people seeking home help are thwarted by the available options or by having their requests denied. The established position is that assessors have greater power within the process compared to older people in terms of the quality of the assessment in relation to needs (Worth, 1998 cited in Lindeman, 2009). Assessors are described as "gatekeepers" in Australia (Low, Fletcher, Gresham & Brodaty, 2015, p. E1) and New Zealand (Hale et al., 2012), determining an older person's eligibility for care, type of care and the dissemination of information to them. Some claim that older people's views about any decline are rarely sought during assessment, their experiences only influencing assessment in an "ad hoc way" (Vernon, Ross & Gould, 2000), affording limited reciprocity to the older person (Estes, 1979 cited in Vernon, et al., 2000). Janlöv et al. (2006) links the need for advocacy to the amount the older person is engaged with their assessment.

Although older people are depicted as having less power than their assessor, some contest this. An older person can exert influence during an assessment, but the ability to do so depends on the level of understanding or an individual's experience of the assessment process (Janlöv et al., 2005). This is noted as being more complicated than it seems, with the assessment process often being challenging to

understand and discuss post-assessment (Janlöv et al., 2006) or embarrassing if questions about intimate topics such as incontinence are asked (Hale et al., 2012). Consequently, incomplete, misunderstood, wrong or scant information about the process or what follows after an assessment may be in circulation (Low et al., 2015), with this resulting in possible confusion among older people about their right to home help (Janlöv et al., 2006).

Little consensus is found between sources reporting on individuals' experience of delay after assessment. Seeking an assessment for home help may be stalled by the older person's difficulty accepting their transition toward needing support, thus linking delay to the experiences of disruption and recalibration (Janlöv et al., 2006). Alternatively, in rural and regional Australia, inadequate carer advocacy, older peoples' preference for informal support and limited availability of services in rural locations are possible reasons why uptake of services lags behind recommendations for services following needs assessment compared to metropolitan areas (Griffiths, Russell, Brunker & Boccalatte, 2014; Warburton, Cowan, Savy & McPhee, 2015a).

The literature presents the effect of advocates on an older person in two ways. In the first, advocates are identified as providing older people with a voice — something vital, since as a group, older people generally struggle to make themselves heard (Llewellyn, Longley, Jarvis & Garthwaite, 2013), have diminished social networks or increasingly live alone (Greaves & Rogers-Clarke, 2011; Griffiths, Russell, Brunker, Boccalatte & Goldstraw, 2014). In the second, advocates are clearly identified as having the capacity to influence the assessment process to the benefit or disadvantage of the older person (Janlöv, Hallberg & Petersson, 2011). When advocates are family, assessors can establish boundaries that simultaneously leverage family as a resource while managing family influence over the process, and thereby outcomes for the older person (Janlöv, Hallberg & Petersson, 2011).

In the main, the Australian literature identifies possible limitations to the assessment process and their causes by establishing the heterogeneity of older people and geography as critical factors. Diversity within type is elevated amongst populations of older people, making tools that are standardised, centralised, inflexible or based on typicality limiting when assessing for individual contexts (Lindeman, 2009; Warburton et al., 2015a). Next, Vrantsidis et al. (2014) explain the constraints faced by CALD older people during assessment as interpreter access and skill, religious and gender differences, interpreters knowing the family personally and reduced privacy if family is present during assessment. The effect of geography is evident when Warburton et al. (2015a; 2015b) explain that regional or rural needs assessment and service provision are localised accordingly and that training for assessors working with CALD clients, especially those with dementia, is limited in rural locations. The degree to which a

complex adaptive system can respond to diversity affects its ability to deliver the right service process outcomes for older people.

Experiences of Receiving Aged Care

Research about the receipt of home care establishes two concepts: the deficient control of those receiving care, and that care services are highly context dependent and based on relationships. The majority of care recipients never complain to their service provider, in some cases, rating service quality highly even while perceiving their care unsatisfactory (Thomas, Woodhouse, Rees-Mackenzie & Jeon, 2007). Similarly, older people understand how to manage the relationship with their formal care worker so that their care is never jeopardised, and situations skew in favour of the elder, this being typified with the explanation, "not to saw off the branch you're sitting on'" (Janlöv et al., 2006, p. 32). Kalman and Andersson (2014) explain instances of elder abuse perpetrated by some formal care workers after perceiving they had not been shown the right level of gratitude by the older person receiving care. However, they fail to establish whether the abuse is a result of poor training or the care workers' temperament being unsuited to care work. Older individuals often have no control over who is sent as their care worker, resulting in a high rotation of formal carers before finding one that gelled with them. They argue that older people view being sent a new caregiver as akin to "gambling" (Fraser et al., 2014, pg. 256) and inevitably unsettling. Inversely, increased feelings of safety and of control are possible when care recipients and informal carers trust a care worker and better relationships are formed between the cared for and the carer when formal caregivers had traits complementing the care recipients or when they showed themselves to be reliable and to have compassion (Ayalon, 2016). Context and relationships are not traits exclusive to human-to-human interactions or constrained by scale. For example, Laragy, Fisher, Cedersund and Campbell-McLean (2011) compare ageing and disability support service users from Sweden and Australia and conclude that each country's social policy context produces different service expectations in their respective service users, with this resonant of interdependency between system scales noted in preceding chapters.

Abuses of control or power within the care relationship can be explicit, others less recognisable. Doyle (2014) lists inadequate care, intimidation, theft, and verbal and physical abuse of elders as patent examples of explicit abuse. Less obvious are inflexible care routines, assessments completed without the older person's approval, imposed controls and disallowing social interactions by restricting time allocations, and care arrangements favouring the service provider (Doyle, 2012; 2014). Supporting this idea is the research of Stones and Gullifer (2015) who studied men and women (mean age of 90.7 years) in rural Australia. They assert that "levels of autonomy and environmental mastery do not necessarily

diminish during old age" (p. 20), so that, too much control by others is unnecessary. Complimentary research claims older adults should retain control of their service provision because determining the nature and delivery of their care is essential to older people (Bamford & Bruce, 2000; Qureshi & Henwood, 2000 cited in Callaghan & Towers, 2014, p. 1443). Failure by service providers to meet older people's service expectations is ageist and contributes to elder abuse and neglect (Kihlgren & Thorsén, 1996 cited in Harrefors, Sävenstedt & Axelsson, 2009).

Recent empirical research isolates the relationship between older people and formal care workers as critical in the experience of receiving care but challenging to manage. In Israel, Ayalon (2016) reports that the caregiving unit, a triad between formal and informal carers and the care recipient, is interconnected such that levels of support from one carer type will relieve or intensify the degree of burden experienced by the other. South Korea's inexperience with non-familial home care for the elderly creates multiple phenomenon. Chon (2015) reports the relationship can sour when expectations are poorly aligned, when older adults are prejudiced toward migrant workers, or when these same workers are physically or sexually abused by the older adult. This leads to low job satisfaction or high turnover of care workers, ultimately producing inconsistent service quality. Furthermore, care workers are often viewed as domestic help and inexperienced care workers treat the older person as their parent (Chon, 2015). In circumstances where older people share a care workers' ethnicity, class, gender or language and under conditions when contact is frequent or older people are socially isolated, Chon finds better relationships are formed between older people and their care workers. However, isolating what makes older people receiving care happy, is difficult. In her Australian thesis, Doyle (2010; 2012; 2014) interviewed older women living in Queensland who were in receipt of community aged care and found substantial differences among them to do with "expectations, understanding and perceptions between older people and their carers or service providers overall" (Doyle, 2012, p. 916). This indicates how diversity with populations contributes to multiple purposes co-existing across service systems.

Older people assuming greater dependency is part of the ageing process, especially for those who are frail (Boudiny, 2013; Stenner, McFarquhar & Bowling, 2011). Nevertheless, the extant literature fails on the whole to emphasise the major transition toward greater dependency that the receipt of home care signposts for older people. Some draws attention to how receiving home care forces adjustments to an older person's routine. Most affective are the need to rearrange what is their typical lifestyle to make room for new schedules, the people that come with the care service (Janlöv et al., 2006) and the liminality this imposes on the older person's identity, time and environment while these changes are assimilated (Hale et al., 2010; 2012). Empirical research by Kalman and Andersson (2014) points to the

deficiency of domestic interiors to accommodate the processes of home care. Services interrupt what are private routines, even more if the care is of an intimate nature because of an older person's impairment or frailty. They conclude that the work of care is typically completed in domestic bedrooms and bathrooms that are ill-suited to the task. Extending this, Sundler, Eide, van Dulmen and Holström (2016) add that where care environments function simultaneously as homes and workplaces, the point of care receipt is defined by ambiguity; the older person simultaneously is dependent and independent and formal caregivers simultaneously are professionals at work and guests in the home of another. These examples focus on the care affects for older people, but the implications of care affect for formal care workers are underrepresented in the literature. Kalman & Andersson (2014) find home care workers in Sweden deployed strategies to create distance between them and the person they care for when circumstances required intimate services, such as toileting and bathing in seeking to strike a balance between "acknowledgement of the care recipient as a person and a matter-of-fact stance of (professional) distance" (p. 410). From, Johanssonn and Athlin (2009) find older people expect the receipt of home care to be respectful, unobtrusive, discrete and in harmony with the lifestyle of the person being cared for.

The level of satisfaction older people experience from home care depends on multiple factors. For the most part older people emphasise aspects of care that are relational, experiential, reciprocal. Some literature specifies personal qualities that influence the experience of receiving home care. Fraser et al. (2014) propose "capability, consistency, reliability, compassion and personality fit" (p. 253). Doyle (2012) finds that for older women, the experience of receiving care involves "traditional and interpersonal concepts" (p. 910), something she concludes is rarely considered during the delivery of care. Similarly, Harrefors et al. (2009) find this perception among older Swedish couples, who report that their sense of self is connected to how they are cared for and that the best level of care is with carers with whom they have a strong relationship, with this person typically a life partner. The importance of communication between care recipients and their caregivers is accentuated by a number of authors. Communication efficacy is challenged when the expectations of the cared for and the carer misalign either because of error or poor communication skills (Giuntoli & Cattan, 2011). Sundler et al. (2016) report error and poor skills as the cause of care workers' competencies being unintentionally challenged. Furthermore, they find that difficulty surfaced when older people expressed issues that were existentially important to them. At such times workers were lost for words, not knowing how to respond, since the issue was usually unexpected, illuminating the different life stages of older people and those who care for them.

In the social policy literature, misalignment is suggested when the philosophy driving the care is inconsistent with that of older people and their lifestyles, with some frameworks within aged care policy criticized for promoting normative standards of ageing. A frequently cited philosophy is the Active Ageing framework (Buys & Miller, 2006), but its value is contested in the literature for a number of reasons, including lacking clarity in defining what are considered active or passive activities (Boudiny & Mortlemans, 2011) and for setting a normative standard of ageing that denies the natural loss and decline at this stage of life (Moulaert & Paris, 2013). This links to the arguments of Hale et al. (2012) mentioned above. An important criticism of the framework is its focus on economic productivity (Moulaert & Biggs, 2013), which proposes a single, reductive perspective on ageing (Boudiny, 2013), which excludes frail older people in favour of the young-old (Bowling, 2008)

Table 2.2 Repetition of themes within the FAR-whole

FAR-whole

	FIND											
	Aptness	Delay	Habit	Missing foreknowledge	Investment, advocacy and power	Capacity or Limits	Inconsistency and asymmetry	Attitude toward older person/work	Attitude toward assessor / care worker	Disruptions and recalibrations	Alignment or misalignment	Relationship
Shifting Locus of Control												
Others' Impact					X							
Care Affects												
Context Matters	X		X	X			X					
	Themes repeating during FIND											

	ASSESS											
	Aptness	Delay	Habit	Missing foreknowledge	Investment, advocacy and power	Capacity or Limits	Inconsistency and asymmetry	Attitude toward older person/work	Attitude toward assessor / care worker	Disruptions and recalibrations	Alignment or misalignment	Relationship
Shifting Locus of Control		X		X	X					X		
Others' Impact					X							
Care Affects												
Context Matters		X				X	X					
	Themes repeating during ASSESS											

	RECEIVE											
	Aptness	Delay	Habit	Missing foreknowledge	Investment, advocacy and power	Capacity or Limits	Inconsistency and asymmetry	Attitude toward older person/work	Attitude toward assessor / care worker	Disruptions and recalibrations	Alignment or misalignment	Relationship
Shifting Locus of Control					X			X	X			
Others' Impact					X			X	X			X
Care Affects										X	X	X
Context Matters												
	Themes repeating during RECEIVE											

Summary

Chapter 2 has presented a thematic analysis of literature on the experiences of finding, being assessed for and receiving aged care. The chapter established that no existing studies examine community aged care services as a complex adaptive service system or as a FAR-whole with consideration of the reciprocally affective relationships between system elements as contributing to experience at varied steps being equally deficit. This treatment of the literature provides a fresh perspective for researching older peoples' experience of home care services. This review presents older peoples' experiences as a service system whole, where an overarching theme about adaption to loss or gain was established, along with four potential causes of older peoples' experiences and nine interaction themes characterising the nuanced experiences of older people using this complex adaptive service system.

The introduction asserts that the nature of complex adaptive systems, where the degree of relationship and interdependency among system elements is high, makes possible experiences in one part or at one scale of the system, to effect experiences in the same or across different system scales. The literature reviewed in Chapter 2 omits discussing the inherent complexity of the service systems that deliver care to older people. Although the thematic analysis of this body of work demonstrates the contingent and existential factors contributing to the diversity of the FAR-whole, the predisposition for experiences to repeat at varied parts in a service system, it fails to consider care as system wide, reciprocally affective, what qualities define care at any part in the FAR-whole, or the structural qualities of the system that influence its quality and sufficiency. No literature considers the experiences of finding, being assessed for and receiving care as equivalently co-contributing to the service process outcomes of older people. Instead it emphasises distinct stages, assumed through dyadic interactions where other system complexes are not affective. This highlights two mutually inclusive knowledge gaps in this body of literature, which this thesis will contribute knowledge to.

Chapter 3 presents the literature from service science, designing for service and systemic oriented design in order to understand the ways systems and complexity are articulated by these authors.

CHAPTER 3

COMPLEXITY CONCEPTS IN SERVICES

Chapter 3 examines the literature from three distinct areas of scholarship — service science, designing for service and systemic oriented design (SOD) — to determine how services are conceptualised compared to systems to what extent each uses systems and complexity ideas in its scholarship and which systems and complexity ideas are used.

Design has integrated the work of services deeply within its disciplinary boundaries. Contemporary service designers originate from product and interaction design (Blomberg & Darrah, 2014), where the focus is tools, processes and objects rather than theory (Akama, 2009; Dubberly, 2008). Recently, a new conceptualisation 'designing for service' was synthesised from the literature spanning service management and design (Kimbell, 2011b). Notwithstanding, early services scholars originate from the disciplines of operations, management, marketing and human resources. More specifically, the majority of early research and the major theorisations about services published between 1970 and 1990 that endure originate from marketing (Bitner & Brown, 2006).

Services

Nothing in the literature suggests authors' explicit understanding that services are complex adaptive systems, despite consensus that services are elusive, temporal and challenging to understand. The range of variables in services presents difficulty for determining exactly what to measure. Three claims persevere in support of this. One is that services are intangible, heterogeneous, inseparable and perishable (Parasuraman, Zeithmal & Berry, 1985). Next, that a tension between subjective and objective dimensions of services stimulates the need for service providers to create service outcomes that match service users' expectations and perceptions (Bitner et al., 1990; Blocker & Barrios, 2015; Gummerus, 2013; Ing, 2014). Lastly, that services are performative and phenomenological. Services result from interactive, dynamic, experiential processes among social and technical components, with co-production and co-creation requisite for producing value (Anderson et al., 2013; Blocker, 2015; Glushko, 2013; Vargo & Lusch, 2004). Here *interactions*, *encounters* and references to services being a type of enactment, saturate the design and management literatures (Berry, Wall & Carbone, 2006; Bitner, Booms & Tetreault, 1990; Polaine, 2013; Shostack, 1985; Soloman, Surprenant, Czepiel & Gutman, 1985). This suggests scripted interchanges between service users, service providers, hardware or technology, with interchanges being points where services are considered simultaneously co-produced as well as consumed by service users (Vargo & Lusch, 2008). The phenomenological nature

of services means individuals' service experiences change in contextual ways regardless the objective design of the service. These portrayals denote services as challenging to evaluate because no two experiences of a service can ever be the same, even if experienced by the same person (Bitner & Brown, 2006; Goldstein, Johnston, Diffu & Rao 2002; Katzan, 2008; Nancarrow, Moran & Parker, 2009; Solomon, 1985; Vargo & Lusch, 2008a).

Service and service dominant logic

Service is an exchange of competences between two entities, making it fundamentally relational. Mutual benefit is derived during interaction. Termed value co-creation in the literature (Ng, Maull & Smith, 2011; Spohrer & Maglio 2008; Spohrer, 2009; Vargo, Maglio & Akaka, 2008), it indicates that the relationship between the service provider and a service client is bi-directional, where providers and clients work together to "coproduce value in complex value chains or networks" (Spohrer, Maglio, Bailey & Gruhl, 2007, p. 72). This is a contradictory claim since chains and networks do not share common structural qualities and system structure is an indispensable element for understanding complex adaptive systems. Others distinguish services as occurring within a reticular system of interrelated processes that produce value for consumers (Napoletano & Carrubbo, 2010; Polese, Russo & Carrubbo, 2009; Rouse & Basole, 2010).

A germinal concept within the management literatures is the shift from a goods-centric economy to a service-centric one. Spearheaded by Vargo and Lusch (2004), this idea encourages reconsidering the goods and services divide. Goods-dominant logic (hereafter G-D logic) originates within the economics of the industrial revolution where the manufacture of tangible outputs (goods) became the basic unit of economic exchange and embedded value (Vargo, Maglio & Akaka, 2008). In G-D logic, the manufacture, sale and distribution of goods is the process by which the embedded value is transferred. G-D logic is goods centric, which seems obvious to state except that in contrast, service-dominant logic (hereafter S-D logic) is not service centric. S-D logic is customer focused and intrinsically tied to value creation (Vargo & Lusch, 2004). However, emphasising service users jeopardises S-D logic aligning with complexity or with systems theory because a focus on one system element is reductionist, atomistic not holistic, which I discuss more fully in Chapter 4.

Services provide the inherent value in goods. S-D logic proposes that G-D logic disguises that the nature of exchange is based in service-for-service (Blomberg & Darrah, 2014). G-D logic is an economic standard of the industrial revolution (Vargo & Lusch, 2004; 2008). It is integrally un-systemic because embedded in G-D logic are the division of labour, the scientific paradigm of that time, Newtonian

mechanics[1] and the Cartesian standard. These drive reducing goods into components rather than seeing their manufacture, sale, delivery as a relational, interdependent whole. G-D logic is dependent on the ideal of frictionless phenomenon, this being impossible in any system inclusive of people; therefore, complex adaptive systems. It neglects considering the effect of diversity in a service system and how this generates inequality of service experiences.

S-D logic is focused less on the exchange of matter and more on the process of exchange itself while recognising that service users define and co-create the exchange as well as the value during the exchange (Vargo & Lusch, 2004; 2008a). S-D logic centres on the notion of value in-use not value in-exchange, which is the emphasis of G-D. The implication of this is that value is only ever co-created at the point of interaction between providers and service consumers. Vargo, Maglio and Akaka, (2008) extend this to tangible goods when reasoning that goods are embedded with value, acting as the channel for service customers to derive value, which customers access when using the goods. Resultingly, value derives from relationships and interdependencies between service systems. These traits make value co-creation possible.

Value co-creation

The literature indicates value co-creation, service and S-D logic are multi-system phenomenon, where value is an emergent quality of the interactions between them. Value emerges from the co-creation of a service experience, generated by a consumer while using the service. Most contend that value co-creation defines a mutual interdependency between the service provider and the service consumer that makes possible the creation of value for both entities (Maglio, Kieliszewski & Spohrer, 2010; Ng, Maull & Smith, 2011; Spohrer, Maglio, Bailey & Gruhl, 2007; Vargo, Maglio & Akaka, 2008). Value co-creation depends on both the customer and the service provider bringing resources — for example, knowledge, time, skill — to the interaction (Ng et al., 2011), with some authors proposing it is the outcome of value in-use after a transformation in the entities involved in the exchange (Demirkan, Sphorer & Krishna, 2011).

Multiple systems are requisite for value co-creation, potentially aligning value co-creation with complexity. It is multifarious because service users are distinctive, many different business types provide services and because service exchange is multidimensional including multiple processes, actors, properties. As different entities interact, distinct resources and capabilities effect interactions. (Maglio, Kieliszewski, Cheryl & Spohrer, 2010); Napoletano & Carrubbo, 2010). The effect of viewing value co-

[1] See the section *Systems Paradigm* in Chapter 4.

creation as mutual interdependence between diverse service user and service provider types is the need to be cognizant of the additional service systems each brings to value co-creation (Mele, Pels & Polese, 2010; Ng et al., 2011). This requires service providers propose interactions that generate value co-creation that service users will accept and subsequently realise (Maglio, Vargo, Caswell & Spohrer, 2009). An expanded, more inclusive way of approaching value co-creation through the notion of balanced centricity (Gummesson, 2008a; 2008b) assumes a value-creating network of relationships between different entities where value is derived by all entities interacting (Mele & Polese, 2011).

Critical perspectives about services

Few authors consider services through a critical lens. A few recognise the ubiquity of services and support services research and services design more broadly yet are cynical about the scarcity of critical perspectives applied to either, especially in contexts of vulnerability and disparity (Anderson et al., 2013; Blocker & Barrios, 2015). Concepts such as service encounters, co-production, co-creation and service systems are examined within an anthropological frame by Blomberg and Darrah (2014) and they are found equally problematic as they are useful for evaluating and designing services. They promote an anthropology of services, which acknowledges that inequality may be present within interactions among individuals as well as the processes and outcomes of value creation through co-production. This perspective aligns with complexity and systems theory. It widens the focus from the individual in a service to include the socio-structural context a service sits in, the subjective nature of a service experience and the emergent nature of service systems.

The benefits of value creation are challenged by the idea that value creation is intended to satisfy context dependent needs rather than generating transformation for the well-being of individuals and society (Blocker & Barrios, 2015). Alternatives to this are transformative service research (Anderson et al., 2013) and transformative value within service experiences (Blocker & Barrios, 2015) these being approaches to services that would ensure well-being for service users at both individual and societal levels. Similarly, Blomberg & Darrah (2014) reason that:

> Services perform larger social purposes beyond the immediate and individual benefit gained by the recipient or provider [they have] broader societal implications that attend the growth of the service economy, including what we value not only as individuals, but as a society. (p. 124).

These are nascent ideas in the services literature. They suggest that the impact of services crosses macro, meso and micro socio-structural levels. These match the claims of critical gerontologists who highlight how intersections of ethnicity, class, gender and policy influences experiences of services (Baars &

Phillipson, 2013b; Estes, 1979; Holstein & Minkler, 2003). Something I noted in Chapter 1 and evident in the empirical findings of Chapters 6 and 7.

Service Science

Systemic design scholar Peter Jones (2014) states design should familiarise itself with the discipline of service science. Service science studies value-co-creation. It recognises that many sectoral, disciplinary entities comprise services and that service interactions involve assorted service system entities (Maglio, Bailey & Gruhl, 2007; Maglio, Kieliszewski & Spohrer, 2010; Ng, Maull & Smith, 2011; Spohrer, Demirkan & Krishna, 2011; Spohrer & Maglio, 2008; Spohrer, 2009). Accordingly, "service science builds on traditional service research, while seeking to create a complementary holistic systems perspective based on coordinating deeper traditional disciplinary and sectoral research and practice components" (Demirkan, Sphorer & Krishna, 2011, p. 3).

Service science is particularly relevant for understanding service complexity because it acknowledges the interconnection between multiple different systems that are characteristic of complex service systems. Cities, cruise ships, universities, hospitals, and luxury resort hotels are examples of holistic service systems (Spohrer, Demirkan & Krishna, 2011). These suggest that service science views holistic service systems as self-contained entities with multiple interconnections in and outside their boundaries. Consequently, Spohrer and Maglio (2008), suggest that the evolution of service science could aid understanding "value co-creation in sociotechnical systems" (p. 244). The drive of service science is to "discover the underlying logic of complex service systems and to establish a common language and shared frameworks for service innovation" (IfM & IBM 2008; p. 1).

The nature of service systems

Service systems are networks of value co-creation where S-D logic leads. Multiple systems are necessary for value co-creation within one system and some argue that services might more accurately be described as "systems of value co-creation" (Vargo, Maglio & Akaka, 2008, p. 150). Service science is particularly useful when designing for service under complexity because it views services as systems. Many assert the complex, heterogenous, multi-perspectival, adaptive, integrative nature of service systems, highlighting networks of individuals, technology, shared language, laws, policies, metrics, knowledge and information needed to realise one service system (Vargo, Maglio & Akaka, 2008; Maglio & Spohrer, 2008; Spohrer, Anderson, Pass & Ager, 2008).

Some describe service systems using concepts that echo systems theory. Resonant of the idea of system environment and system boundary, Spohrer et al. (2008) argue for the 'intraentity' and 'interentity' of

services. Intraentity claims service systems have an internal structure. Interentity claims service systems have an external structure that affects the co-creation of value directly or indirectly with other service systems. Other authors use the idea of an ecology comprising multiple entities interacting (Spohrer, Demirkan & Krishna, 2011). A few distinguish *smart service systems* where dynamic interactions lead to adaptation or prediction for value co-creation (Napoletano & Carrubbo, 2010).

Recent literature draws explicit associations between systems theory and service systems. Nested networks and ecosystems are proposed as ways to innovate service research approaches when analysing value co-creation for all stakeholders (Barile, Lusch, Renoso, Saviano & Sphorer, 2016; Vargo & Lusch, 2016). Extending this, value co-creation is proposed as a complex adaptive process, arising from the manifold, not linear and dyadic, interactions between different actors in a complex adaptive system (Polese, Mele & Gummesson, 2017). Comparably, some reason that despite consumer's interactions with distinct service providers that consumers perceive all service providers within the one holistic service experience (Baccarini & Cassia, 2017). This argues the significance of understanding system boundaries and their criticality in consumer perceptions of service systems, service experience and satisfaction. Recognising transitions between systems during value co-creation, Simmonds and Gazley (2018) contend that significant attention must focus on system boundaries since these are the points where the relationships between systems occur. System boundary is discussed in Chapter 4.

The notion of services as systems is flipped in two instances so that systems are considered services. The claim being that this reframing orients systems toward service such that greater customer centricity is possible (Akter, Ray & D'Ambra, 2011; Alter, 2008a; 2008b; 2010a; 2010b; 2010c; 2011). Yet, focusing on the customer makes this idea reductionist rather than system focused Something I noted earlier in this chapter. While value co-creation is a critical component of service systems, the mutuality among system parts for making value co-creation possible is understated.

Investigating complexity in service systems

Service science evidently recognises that service systems are complex. However, it struggles with articulating what aspects of complexity need investigating and fails to consider that any framework can only yield partial knowledge, an idea argued in the Introduction.

A relationship between complexity and the system observers' perspective is concluded by some. These authors make the system observer, their meta-models and context central for understanding the subjective interpretation of complexity (Barile & Savianno, 2010; Badinelli, Barile, Ng, Saviano & Di Nauta, 2012). This view aligns with soft systems rather than hard systems methodologies (both

discussed in Chapter 4) where system complexity is deemed a product of a system observer, and therefore, subjective. Attention on the nature of interactions is a focus for some. Here the link between interaction and outcome, and the effect of space, time, scale for this are examined (Maglio, et al. 2009 cited in Spohrer et al., 2011; Spohrer, Demirkan & Krishna, 2011)

Designing for Service

The designing for service literature acknowledges contemporary services as complex. It cites the evolving needs of people (Fitzsimmons & Fitzsimmons 2004), the mix of components, minimal control, plus interconnectivity and assorted interdependencies within evolving contexts (Jégou, 2011) as contributing to service complexity.

Discussion about patterns appears in the literature, but it is indistinct. No explicit attention is given to patterns of behaviour that happen in service systems, what generates patterns or how to intervene to shift them. Using narrative such as directed storytelling, is promoted as one way to reveal consistent patterns in people's experiences but the discussion does not extend to the benefits for understanding complexity (Evenson, 2011). That patterns may form around similar purposes or scales of a service is expressed by Meroni, Simeone and Trapani (2011) but the implications of these on adjacent system purposes or system scales is not considered. Within sociotechnical networks, one belief is that patterns can be leveraged to sustain communities, particularly in the case of those that are marginal, because interactions among service users evolve in ways that are common to the community and can be used to sustain it; however, how patterns emerge and the potential for seeding systems to generate different patterns is not discussed (Bury et al., 2011).

Some tackle the temporality of services, where they frame the quality as controllable and predictable. Both impossible within complex adaptive systems. Here the role of service design is to design services that remain socially sustainable and capable of developing over time rather than fixed on achieving an end goal (Raijmakers, 2011). Services are articulated as platforms enabling an array of interactions (Manzini, 2011). Action platforms work by establishing rules that guide preferred behaviour by users. This idea speaks to the idea in Chapter 1, "seeding the space" (Kurtz & Snowden, 2003, p. 469), where conditions are embedded into a system so that over time preferred behaviours are expressed.

The literature recognises that interactions happen at different places in a service and under different configurations of service elements but the complex systems traits of rich, asymmetric, local interactions lack deep explanation by authors. For instance, Meroni and Sangiorgi (2011e) report three levels of service interaction: user-to-service, service staff-to-service system, and those that are service system-to-

service system. However, a discussion about the mutually reciprocal effect between users and the service system characteristic of rich interactions is absent. There are two other exceptions. Holmlid (2011) proposes expanding the attention beyond user-service interactions to include interactions within the wider service system and Kimbell (2011a) discerns the possible asymmetry of systems interactions within a service in terms of value co-creation when she questions how to measure value co-creation.

A distinction between open and closed systems is made in Chapter 4 and their defining features explained. Whether a system is opened or closed to its environment is critical to how a system functions and whether it is complex or not. The boundaries of complex adaptive systems are flexible, operating interscale to include different stakeholders or service systems to deliver service process outcomes. Some designing for service literature implies this. Evenson (2011) notes that services are contained within a context distinct from the service and that context affects the heterogeneity of service users. The heterogeneity of services is influenced by the broader context effecting the service, for instance socio-cultural, policy, market or economic issues (Meroni & Sangiorgi, 2011b; Vanderbeeken, 2011). These ideas speak to the effect of boundaries between or within services. For Bury et al. (2011), boundaries are important since they help distinguish between the social and technical interactions in a service and can contribute to service users' sense of belonging. Inversely, they can restrict users' awareness of other parts of the bigger service as demonstrated by Pacenti (2011). That study showed citizens did not leverage the larger network of the service to their benefit because they were unable to find certain touch points.

This literature points to the criticality of boundary considerations when designing a service. Along these lines, Holmlid (2011) argues for services that allow service staff to access information from distinct stages of the service process; an action possible only in open systems and when boundary conditions are understood. Moy and Ryan (2011) explain the complex loss of the corner store by showing how food is more than just food. They acknowledge the intricate interconnections between oil prices, water scarcity and the value of land making this icon of the Australian suburbs impossible to sustain. They illustrate how interactions within complex adaptive systems while localised do not happen in a void (Meroni & Sangiorgi, 2011e) but are affected by other systems.

Holmlid (2011) also raises the idea of local interactions when proposing 'service ellipses' as self-contained contexts at specific points in the service sequence. Although this acknowledges the complex system trait of local interactions, the language used to describe the function of service ellipses is somewhat jumbled, since in open systems a "closed meaningful activity" (p. 92) is an impossibility. Most recently, design for service has turned to systems theory, where distinct systems concepts are offered for supporting services research and design in complex, multi-system conditions. Sangiori, Patricio and

Fisk (2017) propose interdependence, emergence and participation as key systems concepts enabling these.

Systems Oriented Design

Systemic Design is an emergent approach to designing for complexity hybridised from systems theory and design thinking (Ryan, 2014). Systemic design is different to designing for service because the scale and nature of complexity that systemic design solves for is greater than that found in most service and experience design problem spaces. One major approach to systemic design is Systems Oriented Design [SOD]. This approach developed from designers investigating how they could apply systems theory to tackle multi-perspectival, ambiguous, complex problems (Sevaldson, 2013b; Sevaldson & Ryan, 2014). SOD recognises the need to consider multiple aspects of a system; it expands upon common design approaches placing humans at the centre (Sevaldson, 2008, para 10), which I have noted, is reductionist not holistic in nature. Besides services, SOD has been applied to ergonomics (Sevaldson & Vavik, 2010), public services (Aguirre & Paulsen, 2014), government (Wildhagen, 2014) and the Norwegian off-shore oil industry (Lurås, Lützhöft Sevaldson 2015).

Complexity in systems oriented design

Early literature from this field articulates the benefits of blending design with systems theory. SOD literature is underpinned by the argument that complexity is a challenge that design cannot ignore. Rapid globalisation produces conditions of progressively greater complexity where design solves for challenges involving a high degree of complexity (Lurås, Lützhöft & Sevaldson, 2015). Here design must orchestrate large quantities of interrelated information (Sevaldson, 2005; SOD, 2009), and designers need skills that disambiguate complexity, integrate flexibility, resilience, sustainability into solutions (Sevaldson, Hence & Frostell, 2010; SOD, 2016c).

A principal focus of the SOD literature is that everything is complex and that the practice and tools of design are predisposed to handle this better than others. Sevaldson (2009) claims that designers characteristically work in situations that can be framed as complexes with ill-defined limits (Sevaldson, n.d. b; SOD, 2009). The overarching intention when applying SOD is a proactive response to complexity that can only be accomplished with a shift in mindset (Sevaldson, 2015). Object orientation, design's usual area, is rejected by SOD because it invites artificial levels of simplicity. Whereas the true nature of most phenomenon is the intersection of multiple systems, each equally complex and interrelated. SOD argues that complexity emerges from the interrelations between objects, the result — the object itself —

not being the locus of complexity, this understanding benefitting design because it generates more creativity by capturing more of the complexity in a context (Sevaldson, 2005; Sevaldson, 2013a).

Much of the SOD literature devotes itself to explaining why the relationship between design and systems theory has important potential and how SOD leverages this. When systems theory was first introduced to design it was based on mathematics, modelling and simulations that were text-based rather than practice-based. Narrative and practice being dichotomous, these early attempts failed because system theory was either foreign, inflexible or too dogmatic to integrate with design (Sevaldson, 2014). For Sevaldson, hard and soft systems theory, which are discussed in Chapter 4, are limited because neither supports generative design. In being narrative based, they focus on descriptive analysis of situations, making no room for the practice of design being requisite for mapping complexity, with mapping eventually needed to understand complexity (Sevaldson, 2013a; 2013b).

While emphasis is placed on the hybridized processes resulting from synthesising designers' tacit skills with systems theory, the literature also implies SOD is a type of action research that design can apply to complex situations when the aim is to shift from problem solving to observation. This suggests SOD may contribute an epistemic shift for how designing for service is done. However, it is not clear in the literature whether SOD is positioned as a method or a methodology[2] — explanations of it frequently oscillate between both. For instance, Davidova (2014) refers to it as a method and Sevaldson and Ryan (2014) explain that as a practice SOD emphasises designing the process being key for projects (SOD, 2016a). This suggests that SOD is considered more than a method.

This literature is decisive about the contribution of systemic approaches for enhancing design and gaining holistic understanding. SOD aims to fuse systemic approaches for tackling complexity with designerly ways of working by developing design-driven, proprietary methods for visualizing complexity (Sevaldson & Vavik, 2010; Sevaldson n.d. a; para. 4; Sevaldson, 2013a). The outcomes are intended to address complex situations through processes that bring to design a degree of complexity thinking so that design moves away from an object orientation to emphasise processes and relationships (Hensel & Sotamaa, 2002 cited in Sevaldson, 2005), with these disclosing the multiple complex systems comprising the whole system (Wildhagen & Bang, 2013). This is possible because SOD is capable of illustrating systems of systems within systemic environments (Lurås & Nordby, 2013). This includes

[2] Here I am using the social science distinction between method and methodology, where the first is a research tool and the latter being the philosophical position justifying using a particular tool.

systems containing the material and immaterial, relationships, and socio-political environments (Sevaldson, 2014; Sevaldson, Hence & Frostell, 2010).

SOD provides benefits across many dimensions of problem complexes. Paulsen and Romm (2015) suggest SOD is a mindset including designerly methods combined with systems theory to tackle complexity. Design methods by themselves are not holistic to the degree needed to address the complexity of contemporary environments (Sevaldson, n.d. b; Sevaldson, Hence & Frostell, 2010). SOD helps design — a typically intuitive and creative process — to manage the many different elements within complex situations needing consideration. Here the systems lens of SOD increases design's potential for generating sustainable, holistic solutions because systems perspectives apply across macro through micro scales, system types, and multiple, diverse stakeholders (Sevaldson, Hence & Frostell, 2010) with greater utility than designerly ways alone. Sustainability in this context covers the whole system within which a problem is situated, including, politics, culture, economics and technology (Sevaldson, n.d. b).

The approach is an amalgam of design and systems theory where both gain mutual benefit, resulting in fuller accounts of complexity. For instance, the application of systems theory to many contexts, has resulted in making visible the dominant intersections of a system while the interrelationships amongst intersections remain obscured (Aguirre & Paulsen, 2014). Visual thinking can represent what Aguirre and Paulsen (2014) term "the in-between" (p. 4; see also Aguirre & Vink, 2013), these being the relationships between the parts in a system. SOD focuses on understanding interrelationships between socio-technical elements. The Library of Systemic Relations (Sevaldson, n.d. cited in Aguirre & Paulsen, 2014) is an example of this. It is an ongoing collection of relations between things, whatever their form.

Combining systems theory with designerly ways encourages a disciplinary gain for design. Jones (2014b) argues that using design thinking to understand complex social systems proves "hubris and panacea" (p. 123). Design thinking encourages methods as the way to understand and tackle complexity, with this ultimately promoting design thinking as a ubiquitous methodology across many disciplines (Jones, 2014b). While design is full of methods, the discipline lacks any theoretical standards (Jones, 2014a) elevating it beyond studio practice (Jones, 2014c). In contrast, systems theory has a 50-year history of input from multiple disciplines and a well-established body of theory supporting it; therefore, informing design with systemic theories and practices, adds value to design, expanding its ability for tackling complex problems (Jones, 2014a).

Systems theory supports design to handle the level of complexity found in systemic problems. Systemic problems such as those that might emerge from community aged care, are not problems that can be understood individually — systemic environments require approaches able to handle multiple stakeholders with multiple and sometimes conflicting values. The remedy is not the direct application of systems theory to design as implied by Ryan (2013) and Darzantes and Darzantes (2013), but a set of principles equally significant to both design and systems applications: (1) idealisation; (2) appreciating complexity; (3) purpose finding; (4) boundary framing; (5) requisite variety; (6) feedback coordination; (7) generative emergence; (8) continuous adaptation; (9) system ordering; and, (10) self-organizing (Jones, 2014a; 2014b; 2014c) so that the nature of complexity is reflected in the design process.

In contrast, a persistent theme in this literature is that design is naturally inclined for systems ways of thinking. The argument here is that design's arts and crafts heritage grant it significant tools for tackling complexity. Perception, choreography, orchestration, time, rhythm as well as composition are paramount to systems approaches in design, but being inbuilt in designerly approaches they are taken for granted, ignored or shunned as unscientific, thereby risking redundancy (Sevaldson, 2014). The SOD agenda is to retain designerly ways for working with complexity. For this, the idea of Gesantkunstwerk, which refers to a work of art that is an "all-embracing art form" (Sevaldson, 2014, p. 11), is invoked. It explains artistic output inclusive of multiple disciplines so that political, social, practical and aesthetic functions are considered (Sevaldson, 2014). Gesantkunstwerk is an enduring concept in the SOD literature. It is made manifest through the proprietary tool of SOD, GIGA-mapping.

GIGA-mapping

SOD concentrates on visual mapping as the way to get a grip on complexity. The principle tool used is GIGA-mapping (SOD, 2016c). A GIGA-map is a co-created diagram of the existing understanding, information, biases or assumptions about a project (Sevaldson, Hence & Frostell, 2010; Sevaldson, 2013a). Its objective is cultivating relational thinking. Relational thinking retaining not reducing complexity (Aguirre & Paulsen, 2014; Sevaldson, 2013a). GIGA-maps illustrate multiple scales and layers of a system so that the interrelationships between the parts of a system are revealed (Sevaldson, 2016). This aligns the process with the systems theory idea of boundary critique (SOD, 2016c). The process leverages designerly ways for visual sense making where maps are based on a colour coded topology so that systemic relations are visually classified (Sevaldson, 2013a cited in Aguirre & Paulsen, 2014). GIGA-maps are design artefacts with epistemic value for illustrating the properties of relationships in the complex system (Sevaldson, 2014; 2015; SOD, 2011; SOD, 2016c). They can be classified as contextual, sequential, relational or exploratory (Pauline & Romm, 2015).

The maps allow for large amounts of information of a complex nature to be simultaneously available (Sevaldson, 2013a). As the core tool of SOD, GIGA-mapping must perform across disciplinary boundaries so that stakeholders from multiple diverse fields may speak to an issue (Sevaldson, 2015; Sevaldson, Hence & Frostell, 2010). GIGA-maps help understand complexity at multiple system scales. Importantly, the process permits shifts between descriptive and generative design processes (Davidova, 2014; Sevaldson, 2013a; Sevaldson 2013b; 2015; Sevaldson, Hence & Frostell, 2010), making GIGA-maps perpetually a work in process.

The benefits of GIGA-mapping for users is highlighted in the literature. Luraås, Lützhöft and Sevaldson (2015) applied the process within the Norwegian off-shore oil industry, finding GIGA-mapping useful for showing the system within which a designer is working. Wildhagen (2014) found a GIGA-map brought to the fore the challenges and role of each stakeholder group of a project. Ideal GIGA-maps include field (the environment/context of a system), a sense of Gestalt (the essence of a system), an indication of complexity levels, the system history and the amount of effort or resistance (Sevaldson, 2015).

Compared with service science and design for service, SOD shows greater alignment and cognisance of how complexity manifests and the role of relationships in this.

Summary

Early service science literature does not discuss systems concepts explicitly. Instead, service systems and the challenges for services practitioners and theorists are discussed by virtue of their nature in being interconnected, multiple and networked. The later service science literature clearly aligns service systems to systems theory, the idea that reductionist approaches to science have driven selectivity of problems, parsimonious explanations and fragmentary understanding of experiences, situations and contexts is introduced and using distinct systems theory concepts for generating understanding is advocated. At around this time, the idea of ecologies comprising of interacting entities is introduced into the service science vernacular, with the importance of this for driving value co-creation being expanded. However, the importance of understanding the purpose of multiple stakeholders and the degree of equifinality the system provides for meeting peoples' needs along with other important systems ideas are absent. The most recent literature from this domain specifies distinct systems concepts, articulating their importance for understanding their significance for value co-creation. The centrality of the observer to any understanding of a system is an emerging idea within some literature

from this field. However, the frameworks are complicated, with none addressing service systems using systems concepts explicitly.

The literature recognises that service is intricate, knowledge and context dependent, mutual and relational in many dimensions. The complex, networked nature of contemporary services and design practice is highlighted but overall, the full suite of complex systems traits are under articulated within the service science, designing for service and SOD literatures. Where they are mentioned, it is done intuitively or by association. Although substantial published research about the systems nature of services exists, this is scarcely grounded in empirical research where systems concepts are applied to interrogate the service system to understand the patterns of relationships and interdependencies underpinning the system structure generating system behaviour. A suggestion that appears in the literature is that of using common concepts to describe the patterns of interactions between entities in a system the value assigned to the interactions and the resources used in the interactions by the different entities in the system and the outcomes achieved. However, this literature fails to address how working at one level causes effects at another. Systems ideas are prevalent in the service science and to a lesser extent the SOD literature, but limited in the designing for service literature, which still focuses on approaches grounded in design thinking rather than systems theory. Here meta-strategies for dealing with complexity based in design or that are designerly are offered. These emphasise the cognitive challenges of working with complex service systems, but a vernacular sustained by concepts that interrogate relationships remains missing.

Complexity has always existed, yet the literature fails to recognise this. Overall, the literature surveyed argues that many more components interacting than at any other time is what contributes to today's complex service systems. This is most pronounced in the service science and designing for service literature. The focus being that quantity of interactions rather than quality of interactions determines complexity. This is a misaligned focus, according to antecedent discussions in the Introduction outlining the traits of complex adaptive systems. This study fills this gap by focusing on describing the quality of interactions in a complex adaptive system. It proposes, as others have, that systems concepts and a system view of the world are best placed to deal with complexity but that until now a paucity of empirical research from either the service science or designing for service literatures have attended to this in any fulsome empirical way.

Chapter 2 and 3 surveyed literature covering older peoples' experiences of aged care and domains of scholarship central to services and service design. Each chapter uncovers omissions that are complementary for guiding the focus of this research. The first being the failure of the care literature to

consider services and service delivery through a complexity lens, as holistic entities or beyond dyadic interactions. The second being the service literature's failure to articulate the critical complexity traits of pattern and relationship, despite recognition of complexity. Investigating both places this research in a unique position for gaining empirical understanding of multiple dimensions when designing for service in complex adaptive systems. It informs refining approaches for understanding care service delivery, a deeper cognisance of complexity and its implications on service process outcomes for older people receiving community aged care.

Chapter 4 discusses the usefulness of applying theoretical lenses equally suited for interrogating complex adaptive systems and care, and presents and argues for an analytical framework capable of this.

CHAPTER 4

THE STRUCTURE OF CARE

The chapters of the thesis to this point have highlighted the nature of complexity, complex adaptive systems, assorted system domains and their challenges when designing for service. Chapter 1, situated the research within the Australian aged care context, presenting and arguing this is a complex adaptive system. Chapter 2 established that common experiences repeat across the FAR-whole regardless the service sequence step. That despite this, service process outcomes are assumed the result of independent, discreet interactions between system parts with no attention given to the patterns of relationships driving the outcomes. Chapter 3 established the tendency of Systemic Oriented Design for using designerly ways of mapping complexity. It noted the naïve understanding about complexity in the systems science and designing for services literature. Significantly, Chapter 3 showed that recent scholarship in these fields lacks consideration of patterns of relationships, tools to probe for patterns of relationships in service systems or the significance of patterns of relationships to system structure affecting system behaviour. Chapter 4 argues and presents a reasoned framework that attends to these omissions.

By partnering relevant systems theory concepts with Joan Tronto's (1993; 2013) Ethic of Care, I have created a framework in this thesis for probing complex adaptive service systems that deliver care. The original term I have given the framework is *Thick Care*[3]. The heuristic value of Thick Care is threefold. Firstly, it interrogates system structures to understand the patterns of relationships giving rise to system behaviour. Secondly, it gives scalable qualitative attributes of the care delivered by the service system, signposting where service improvements might be made. Finally, because systems theory approaches and an Ethic of Care share an ontological premise grounded in relationality, the framework deals with the importance of reciprocally affective relationships between system elements that impact individuals' experiences of the FAR-whole. Systems theory is the theoretical orientation addressing the conceptual aspect of this study. An Ethic of Care provides the theoretical orientation addressing the contextual aspect of this study.

The systems nature of services

Interdependence among many and varied components is noted in the designing for service literature as key attributes of system complexity (Sangiorgi et al., 2017). While both contribute, neither is sufficient

[3] My inspiration for the term here is anthropologist Clifford Geertz's (1973, 1-30) use of "thick description", but I acknowledge Gilbert Ryle as introducing the term.

to determine complexity. Rather, it is the *nature* of the interactions among system parts that defines a system as complex, complicated, simple, or chaotic.[4] Interactions occur within systems because systems have a purpose, functioning to get something done. The definition of a system in this research is, "A system is an interconnected set of elements [of multiple scale] that is coherently organized in a way that achieves something" (Meadows, 2008, p. 11). I have added the dimension of scale to Meadows's definition because system complexity is built on hierarchy and hierarchy exists within, as well as between scales of a system.

If interdependence and variation among parts are insufficient for complexity, what else contributes to the systems nature of services? Manzini (2011) explains that:

> Services are complex, hybrid artefacts. They are made up of things — places and systems of communication and interaction — but also of human beings and their organisations. They therefore belong to the physics of natural and technical systems and to biology, but also sociology and the culture of human beings. Permeated with human activity as they are, with a network of relationships between people, and people and things at their centre, they can never be reduced to the simplicity of mechanical entities. (p. 1)

Manzini describes a set of interrelationships — a basic yet critical idea in the systems paradigm — between people, technologies, their environment. His words provide a sense of the social and technical dimensions of services, what has been classed as a sociotechnical system. The term sociotechnical originated from Trist and Bamford's (1951) study of British long wall coal mining, where they show the relationship between the technical and social subsystems of the larger system of a coal mine by highlighting the effects a change in technology had on the work and workers' organization inside the mine. Their study is pioneering for understanding how the social (human) and the technical (machines) interrelate and reciprocate, and the effects of this on people's general wellbeing and how people work. Socio-technical systems design seeks to generate conditions that optimise both.

In this research the term sociotechnical is not used explicitly, but that care services constitute both is implicit. Technology, in this study is considered anything used as a means to achieve something. This includes, but is not limited to, paper forms, digital channels, physical spaces, policies, procedures or best practices and tangible objects. This is evident in Chapter 2 where the literature discussed Category 3 experiences stemming from peoples' interactions with social and technical system parts. When

[4] An explanation of these terms relative to systems is addressed in the Introduction and will not be repeated here. Readers should consult Cilliers (1998) and Kurtz & Snowden (2003) for more detail.

Kimbell (2011b) writes of the socio-material configurations present in services, I interpret this to mean the entire artefactual world people might use to get work done.

Reflecting back on Manzini's (2011) words, we might intuit that for a service to work well thought must be given to relationships, communication, organization and scale. Except for scale, each idea is accounted for in Meadows' (2008) definition, supporting my argument for the value in applying systems theory for aiding understanding complex adaptive systems.

in a crossover between services and systems theory. The resemblance between services and systems is evident when the definitions of Manzini and Meadows are disaggregated, and their parts compared (see Table 4.1). Mapping the crossover between these service and system descriptions shows what they have in common and how individual parts in a service are in relationship to each other concurrently, notwithstanding the number and mix of component parts. This clarifies why linear, analytical methods focusing on one part or scale at a time are not suited for understanding or designing for services that are typically complex. It furthers my contention that services might be better understood and planned if we use theoretical concepts with the capacity to engage multiple reciprocally affective patterns of relationships between service system part.

Table 4.1 Services and systems comparison

		Meadows (2008)			
		Interconnection	Elements	Organisation	Scale
Manzini (2011)	complex, hybrid	X	X		
	places	X	X		X
	communication and interaction	X		X	X
	human beings	X	X	X	X
	their organisations	X	X	X	X
	physics of natural … technical systems and … biology		X	X	X
	sociology			X	X
	culture			X	X
	human activity	X	X	X	X
	network of relationships	X	X	X	X
	can never be reduced to … simplicity of mechanical entities	X			X

Systems Paradigm

The systems paradigm is a conceptual framework. Its practice, systems thinking, presents one way to understand and react to reality (Churchman 1979). Systems approaches are ancient and cross-cultural. The Chinese *I Ching*, Indian *Upanishads* and *Bhagavad-Gita*, Taosim, indigenous spiritual traditions, the Greek philosophy of Hericles, old wisdom teachings and some proverbs are examples (Reynolds & Howell, 2010; Booth Sweeney, 2001). Recently, the concepts of a systems paradigm have been applied to contemporary phenomenon such as organizational design and theory (Gresov & Drazin, 1997), nursing services delivery (Myer & Obrien-Pallas, 2010), project management (Kapsali, 2013), automotive manufacturing (Marksberry, 2013), and mortgage markets (Brown, 2015). The paradigm is vast, boasting many concepts, multiple practices, scholars and varied philosophical assumptions. A survey of the systems paradigm and its scholar-practitioners is not the focus of this research and a comprehensive review is not provided here. But, the paradigm was surveyed for concepts with the greatest relevance to designing for service in complex adaptive systems.

The imperative of the systems paradigm is the whole. The idea of the whole is typically evoked by the idiom the whole is greater than the sum of its parts. This indicates the synthetic nature of systems, which has implications for the way systems are understood; an idea explicated by the Sufi parable about the blind men and the elephant (see Figure 4.1)

The blind men and the elephant

Three blind men encountered an elephant for the first time. Each proclaimed to know what it was because he could feel one part of the animal.

The first grasping an ear said, "It is a large rough thing, wide and broad, like a rug."

The next, holding the trunk, said, "I have the real facts. It is a straight and hollow pipe."

The last, holding a front leg said, "It is mighty and firm, like a pillar."

Each man had felt one part out of the many. Each perception was wrong.

Figure 4.1 The blind men and the elephant (Adapted from Meadows, 2008 and Singe, 1990)

Regardless of geography, epoch or culture, the implications of this Sufi parable are firstly that no system part is considered in isolation from the whole. A system can never be understood from the individual parts comprising the system because a system is predicated on the interaction between its parts, where the interactions make the synthesised whole experienced as a system (Ackoff, 1981) and any understanding of the system is the Weltanschauung[8] of the person observing the system (Checkland, 1999; Ison, 2010). Finding an example of an actual system is elusive since systems are abstract, subjective concepts that do not exist in reality but are conceived in people's minds (Checkland, 2012; Daellenbach, 2004). The second implication is that consideration of the whole means equivalence can be given to elements that might otherwise seem in contrast, making systems dialectical (Ramage & Shipp, 2009). Examples of reconciled system opposites are the social-technical, the part-whole and the objective-subjective. Thirdly, because a systems lens is synthetic, it has the capacity to dissolve disciplinary boundaries rather than mediate them, making a system approach trans-disciplinary. Conceptually, systems theory can integrate theories, methods, techniques originating within other disciplines to construct meta-theories that are holistic and particular to a context (Houghton, 2009). I have leveraged this in this thesis, but although systems theory focuses on the whole, the approach is not holism and although often conflated, they differ epistemically. According to Ryan (2008), holism prefers intuition

[8] Weltanschauung means worldview and in this context, refers to the worldview a person brings to or imposes on their observation or interpretation of a system.

rather than explanation through analysis, whereas systems theory aims to understand and explain the whole by clarifying the organisation of the parts.

Despite system thinking's emphasis on the whole, the dominant way of viewing and knowing reality within Western knowledge models is through Descartes' analysis and Newton's mechanics (Capra & Luisi, 2014), which are reductionist, mechanistic lenses oriented toward thinking in terms of decomposition, singularity, independence, cause and effect, determinism and simplicity. These are perspectives that never bring the full picture any closer to being understood and which may indeed contribute to other issues:

> Sometimes people go ahead and divide the elephant in half ... You don't have two small elephants then; you have a mess. By a "mess", I mean a complicated problem where there is no leverage to be found because the leverage lies in interactions that cannot be seen from looking only at the piece you are holding. (Senge, 1990, p. 67)

Open systems theory

All complex systems are open systems. The attributes of open systems are what make possible the behaviour of the interactions of complex adaptive systems that Cilliers (1998) highlighted, making an overview of principles of open systems important. Service systems are deemed complex adaptive systems in constant exchange with their environment. Systems can be closed too. Closed systems have no ongoing interaction with and are not dependent on their environment. In such systems, inputs are determined at the start and transformation occurs within the limits of the system boundary until the maximum entropy is reached, this signalling equilibrium. At that time, the process stops and the system ceases to exist. In other words, as the available, but non-renewable energy is used by the system, the greater the increase in disorder within the system with the eventual consequence being the end of the system (von Bertanlanffy, 1973). Inversely, the critical principle of open systems is that an ongoing relationship between them and their environment is maintained that enables energy renewal. The focus for von Bertalanffy, the father of General Systems Theory (GST), was on biological open systems, but he claimed that the behaviour of biological systems could be applied to any open system in any other domain. Although inputs and outputs between systems may differ, the process remains unchanged making the principle operational cross-context. The Open Systems Theory of Katz and Kahn (1978), applied to social organisations, is used to outline the fundamental principles of open systems and their complexity.

Open systems are in constant exchange with their environment because they import energy from it, this being considered an input. Here, energy should be thought of as the resources needed for the system to complete the processes that the system is designed to undertake to achieve its purpose. Any social or material elements, knowledge and information, even money can be inputs for a system. The activities the system undertakes as it processes the inputs are throughputs. Open systems export the results from the throughput processes back into the environment, these being a system's outputs (Katz & Kahn, 1978). Because the nature of this energy exchange is ongoing, it determines the next round of energy exchange and cycles of events between a system and its environment (Katz & Kahn, 1978) involving input > transformation > output is displayed (see Figure 4.2), causing what we might refer to as patterns of system behaviour.

Because environments are not stable, open systems responding to this continual flux remain in a state of change as a steady state. Steady state allays entropy, where a system moves towards more disorganisation as the quantity of available energy is used up, until eventually the system uses all the available energy and dies. Steady state is the continued import and export of energy by the system without altering the "character of the system" (1978: 26). The process of input > transformation > output is negative entropy in action. This cycle counteracts decreases in the quantity of available energy, avoiding the ultimate depletion of energy so that the system can maintain itself (Katz & Kahn, 1978).

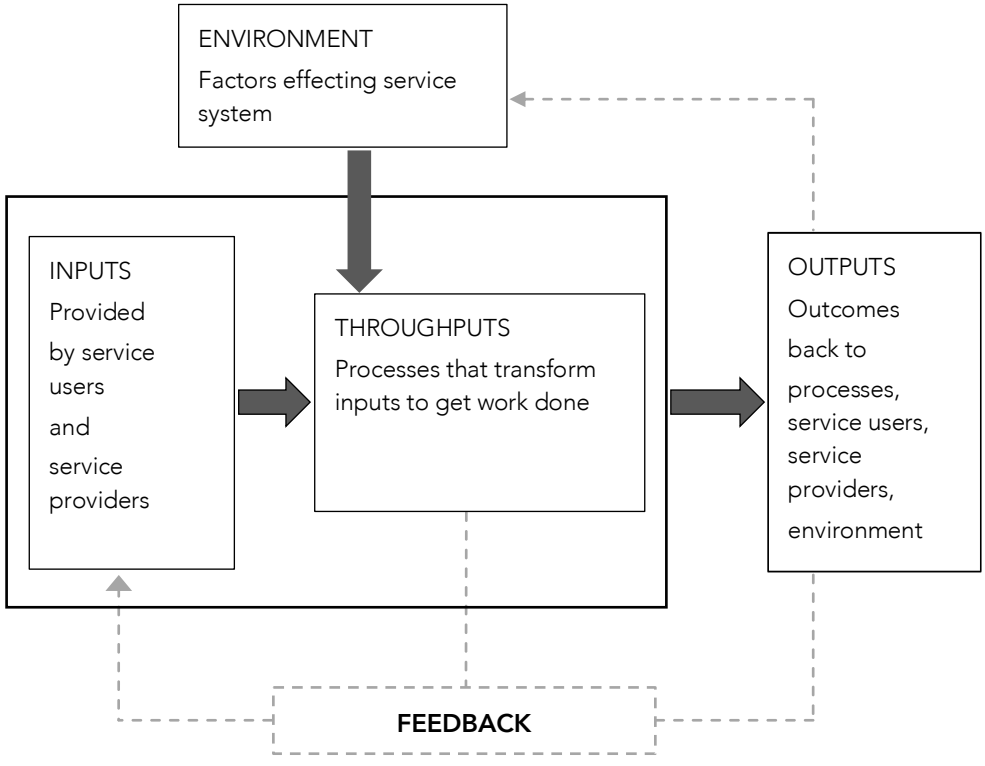

Figure 4.2 Meta-representation of complex open system. (Seemann, 1997)

Adaptability is a necessity of open systems, since to survive they must adjust and reorganise themselves to respond to changes in their environment (Katz & Kahn, 1978), but this leads to increased heterogeneity and complexity within the system. Open systems use information, feedback loops and coding to adapt relative to their environment. System inputs are not restricted to the energy needed to perform functions. Information is considered an input that systems use to regulate themselves (Katz & Kahn, 1978). When a system receives information from its environment in the form of negative feedback, it is able to correct itself toward its goal or purpose (Katz & Kahn, 1978). But arbitrary inputs are not received by the system, since systems include coding that accepts only the energetic and informational inputs suited to the system (Katz & Kahn, 1978). Specialisation is a character of open systems. Where specialisation happens within a system, differentiation, integration and coordination are present (Katz & Kahn, 1978). More specialised functions require arrangement within a system, since the specialised functions need to be brought "together for unified functioning" (Katz & Kahn, 1978, p. 29). This quality contributes to the hierarchical nature of complex systems. Finally, open systems present equifinality, the idea of reaching the same final end state through a variety of means.

Systems and their environment

That open systems are dependent on their environments is evident through the energetic input-output characteristic of open systems. Environments are as diverse and potentially as complex as systems. Social services' environments include fiscal, policy, physical and human attributes. Opposing philosophies or socio-structural conditions are also included in the context of the environment. Chapter 1 noted that certain aspects of receiving care are criticised as bias when considered through the lens of critical gerontology, showing that the contexts of services affects the process outcomes of services for older people. Jackson (2003) similarly contends that systems may be present in three kinds of contexts. The most basic, a simple-unitary context, assumes there is an explicit goal, set of values or beliefs that are shared among system stakeholders. Such contexts are simple enough to accurately model and are typically found in operational applications such as inventory, queuing or routing systems. The next level is a pluralistic context where multiple values, beliefs and philosophies are held among system stakeholders but where change is feasible if these differences are made apparent and consensus among stakeholders is reached. The final level are coercive contexts, which are defined as situations where stakeholder conflict prevails until an "exercise of power" moves the conflict toward consensus (Jackson, 2003, p. 281).

System qualities

There is debate surrounding what are the most suitable approaches for understanding open systems. In some, systems approaches have been dichotomised as hard, soft or critical based on an assumption that

these are mutually exclusive approaches, whereas others have assigned a particular philosophy to the systems epistemology, for example, interpretive, critical or positivist (Houghton, 2009). The open systems theory of Katz and Kahn (1978) includes both 'hard' and 'soft' systems qualities. Hard systems theory recognises systems as ontological. Within this approach, the engineering of systems toward goal seeking and viability is considered possible because systems exist as part of reality. In using hard systems theory, the aim is optimisation towards an identified goal. For some, this seems impossible given the number of variables included in complex adaptive systems. Jackson (2003) contends that hard systems theory assumes problem contexts to be simple and unitary, rather than complex and pluralist, seeing him deem such approaches as unsuitable for tackling complexity. Conversely, soft systems theory recognises systems as epistemological. A soft systems approach assumes diversity of purpose, values and beliefs between system stakeholders, with the aim being to learn about a situation by finding the common epistemic system held among stakeholders (Checkland, 1999; 2012; Jackson, 2003). This approach determines that an objective dimension of systems is impossible, given the subjectivity of every context.

Soft systems methodologies aim to investigate and make clear the *Weltanschauung* (worldview) of the system observer so that their purpose for the system can be understood (Ison, 2010). Flexibility and transparency become paramount during a soft system inquiry. Soft systems methodology is interpretative and pluralist (Jackson, 2003) with this approach considered better suited for tackling complex problem contexts. Conversely, a critical systems approach recognises the opportunity for systems to promote transformative or emancipatory benefit to stakeholders and support diversity amongst them. The nature of these systems approaches seeks to ensure fairness within a system's design and the maintenance of heterogeneity. I disagree with these distinctions. Stating a systems perspective when applying systems approaches to designing for service is unnecessary. As I have already noted, a benefit of using systems theory is its capacity to integrate multiple perspectives to create a meta-theory. Hard, soft and critical systems categories should not be considered mutually exclusive because any complex adaptive service system comprises hard and soft systems qualities and also benefits from a critical stance.

System hierarchy

Two characteristics not apparent from Cilliers 10-traits are that complex systems have a structure and that all complexity is built from simplicity. Structure infuses simplicity into any complex system because it is the hierarchical organisation that shows itself in the patterns of interactions between system parts (Cilliers, 2001; Gell-Mann, 1995; Pattee, 1973, Simon, 1962; 1996). This means smaller, simpler modules build on one another towards a hierarchic whole. This is Simon's (1962) concept of "stable intermediate

forms" (p. 473) or more simply, subsystems. The idea asserts that the rate and stability at which a complex system evolves is affected by the degree to which it comprises subsystems. This is because composing a series of subsystems that together form other subsystems and so forth at a successively higher level of hierarchy and complexity is an efficient way to build towards a whole (Simon, 1962). In the first instance, it minimises the total time needed to build the whole if the process stops for some reason by limiting any effect to a small part of the work — the sub-assembly — rather than the whole (Simon, 1962). Secondly, the composing of sub-assemblies increases the ability of the whole to resist damage, meaning future or ongoing maintenance, regulation and repair are easier (Simon, 1962).

Studying hierarchies helps tame complexity because through subsystems complexity is simplified. Hierarchy also affects emergence. While emergence is a bottom-up phenomenon, causality is top-down meaning the interactions at system levels higher up the hierarchic whole effects components at the levels beneath. In designing for services, the focus is often touchpoint to touchpoint, which implies elements of a similar size, structure and function, arranged to interact in a specific way. Interactions are assumed as horizontal or vertical sequential processes, which encourages a perception of a service as an island. However, the complex systems traits of openness, rich interactions and non-linearity show this not to be the case. Similar to the hierarchies that comprise complex systems, services can be considered at their various scales by attending to the relationships and transfer of information between systems scales and their entities. Determining the affecting and effected scales of a service system will help tame a complex service system because scales have temporal and spatial characteristics affecting any processing between them (Allen & Starr, 1982; Ahl, 1996).

Applying the hierarchy concept when designing for services has benefits. Firstly, hierarchies impose constraint (Allen & Starr, 1982). Without hierarchies, every interaction between every part within a system would be evident, this being impossible for anyone to process, less still understand (Simon, 1962; Cilliers, 2000a). Secondly, applying hierarchy to complex service systems shifts any service system inquiry away from dyadic relationships, reducing the complexity of complex adaptive systems to an artificial level and enabling the discovery of patterns in a service system. Thirdly, chunking complexity means that appraising the impact of interactions over system scales is possible so that equivalent consideration is given to scales that sit superordinate and subordinate to the system of interest and their effect on interaction. Taking a service system hierarchy approach to designing for service shows relationships between patterns, processes and scale (Wu, 2013) within a service system that are otherwise easily lost within the detail of dyadic interactions because systems function on interconnection.

System holons

Applying the concept of a *holon* when designing for service supports the notion of hierarchy and finding the patterns of relationships, processes and scale within complex adaptive service systems. A holon is the neologism proposed by Koestler (1967). It combines the Greek word *holos*, meaning whole, with the suffix *on*, which indicates a part added to describe something that is both a part and a whole. Hierarchical organisation within complex open systems involves a dichotomy between the autonomous (the whole) and the dependent (the part) (Koestler, 1967). This is because within hierarchy all elements are simultaneously autonomous and dependent. Thus, categorical parts or wholes within complex adatpive systems do not exist. As a whole, the holon acts from its autonomous tendency imposing constraints on the holons subordinate to it, and as a part the holon acts from its dependent tendency, playing its role in the system it is a part of (Koestler, 1967; 1970)

Holons reconcile the dichotomised ideas of reductionism and holism found in systems theory because in hierarchies it is not possible for elements to be exclusively a part or a whole (Koestler, 1967; 1970). Indeed, Checkland (1988) argues that replacing the word *system* with the word *holon* might clarify our understanding of systems all together. The idea of *service holons* indicate the simultaneous whole-part nature of scales within complex adaptive systems. In combination with systems theory, the idea of service holons produces a different category of utility for understanding service systems that is capable of managing shifts in focus between micro and macro system levels.

To this point, I have presented some broad, yet critical systems concepts I judge as necessary when designing for service under increasing complexity. The ideas presented here contrast with the reductionist view, which believes that separating and understanding the components of complex adaptive systems leads to understanding the complex system itself. An aggregate of parts does not make a system. The interactions between them does, meaning that concepts able to interrogate system interactions across scale are required.

System Concepts for Complex Adaptive Systems

In 1971, Ackoff claimed that, "despite the importance of systems concepts and the attention that they have received and are receiving, we do not yet have a unified or integrated set (i.e. a system) of such concepts" (p. 661). Taxonomies of systems concepts and terms have been constructed among systems scholars and practitioners, one might assume, to facilitate the use of systems theory in varied applications. Between individuals' systems of systems concepts there is variation of which concepts and terms are included. For instance, writing from a management perspective Ackoff's (1971) system of

systems concepts organised a total of 30 systems concepts and terms under five categories: systems, system changes and behavioural classification of systems, as well as relationships between systems and their elements, and adaptation and learning (p. 662-667).

Gharajedaghi (2011) a contemporary of Ackoff, promotes a model consisting of five principles: openness, purposefulness, multidimensionality, emergent property, and counterintuitive behaviour. Taylor (2009) draws from varied original systems theory sources to customise a system of systems concepts. Her taxonomy contains five concepts: purpose, interconnectivity, underlying tension, boundary, transformation, learning and self-improvement. Checkland (1999) proposes a simple yet essential system of systems concepts. According to him, "the most important systems ideas are emergence, hierarchy, communication, and control" (p. 19). Checkland and Taylor's approaches have inspired the system of systems concepts used in the Thick Care Framework, where the concepts judged with the greatest applicability for Thick Care being *purpose*, *equifinality*, *communication and control* — where communication and control are reframed as *regulation — boundary*, *interconnectedness emergence*.

Purpose

Explaining system purpose means differentiating between three interrelated concepts: *purpose*, *purposeful behaviour* and *purposive behaviour* (see Table 4.2). The behaviour of systems and their outcomes are contingent on the system type. Ackoff's (1971) Behavioural Classification of Systems (Table 4.2) lists system types and the characteristic behaviour and outcome of each. Broadly, purposeful and purposive are considered types of system behaviour. Whereas, purpose describes what the system does.

Table 4.2 Ackoff's behavioural classification of systems

Behavioural Classification of Systems		
Type of System	**Behaviour of System**	**Outcome of Behaviour**
State-maintaining (are reactive)	Variable but determined	Fixed
Goal-seeking (are responsive)	Variable but chosen	Fixed
Multi-goal-seeking and purposive	Variable and chosen	Variable but determined
Purposeful (display will) active	Variable and chosen	Variable and chosen

The concept *purpose* assumes a different nature within soft and hard systems approaches. In the latter, purpose is typified as system goals or system objectives, achievable within a timeframe (Checkland,

1999). Whereas, a soft systems approach views purpose as a common pursuit that unifies behaviour and activities (1999, p. 173-174). These approaches determine that a system's purpose is not intrinsic to the system. It is assigned to a system, ordinarily by the observer of the system, emphasising the system observer as a part of the system, such that what is observed within the system reflects the observer and recursion develops between action and perception (Ison, 2010). This means that a system's purpose is subjective and consequently variable. As Becvar & Becvar (2006) explains "we can only invent and state the purpose of a system according to our own perceptions as outsiders looking in" (p. 77). The idea of looking in to or at a system, is a first-order cybernetic action, which is said to be analogous to looking at a "black box" (Becvar & Becvar, 2006, p. 77), the metaphor used when describing observations of systems from the point of view of the inputs and outputs between a system and its environment. The black box metaphor points to what is going on within a system, but the approach has a shortcoming in that it fails to consider the observer's inclusion within the observed system and therefore their effect on it. Instead, we might consider the phrase 'their effect on it', which is the same as saying, 'their interpretation of it'. By contrast, second-order cybernetics defines the observer as part of the system being observed, which means that everything observed within the system is a reflection of the observer (Becvar, 2006).

Alternatively, purposeful behaviour is always present within systems involving any social element. In a system context, any behaviour or activity that is willed and accomplished by exercising choice is regarded purposeful (Checkland, 1999; Ackoff & Emery, 2008). Purposeful systems exercise free will over the goals they pursue and their means of attainment only people can behave purposefully within a system. Any one person participating within a system is considered purposeful and a group of individuals can be considered a purposeful social system (Ackoff, 1994). It is possible to represent purposeful action as a system (Checkland & Poulter, 2006). Since the nature of assigning purpose to a system rests with the system observer and because people within a system are able to exercise choice and assign value to outcomes, it is possible for misalignment of understanding to happen. Checkland and Poulter (2006) note that:

> All problematical situations, as well as containing different worldviews, have a second important characteristic. They always contain people who are trying to act purposefully, with intention, not simply acting by instinct or randomly thrashing about — though there is always plenty of that too in human affairs (p. 192).

Table 4.2, illustrates that purposeful systems are able to determine their behaviour and the outcomes from it, indicating that purposeful systems have a choice over both the ends and the means. Thus, a

purposeful system is defined as one that "can produce (1) the same functional type of outcome in different structural ways in the same environment and (2) can produce functionally different outcomes in the same and different structural environments" (Ackoff & Emery, 2008, p. 29). In other words, a purposeful individual or purposeful systems are those that can achieve the same outcome in different ways under the same conditions or achieve different outcomes under the same or different conditions (Ackoff, 1971; Ackoff, 1994; Ackoff & Emery, 2008). This definition of purposeful systems contrasts with that of Rosenblueth and Weiner (1950) who tie the outcomes sought by the purposeful system to its conditions and environment, something Ackoff & Emery (2008) challenge. In this study, the definition of purposeful systems used are those of Ackoff (1971) and Ackoff & Emery (2008).[9]

Additionally, Gharajedaghi and Ackoff (1984) list a purposeful system as having the capacity to learn, adapt and create:

> purposeful systems have all the capabilities of goal-seeking and state-maintaining systems, and goal-seeking systems have the capabilities of state-maintaining systems. The inverse is not true. Therefore, they form a hierarchy (1984:297)

> social systems are purposeful systems. Moreover, their parts are purposeful systems, and they are part of larger social, hence purposeful system. To understand a social system, then one must not only know what the ends of the parts, systems and containing system are, but how these affect their interactions. Managing a social system not only requires dealing with ends that may be in conflict at the different levels, but dealing with conflicting ends at any or all of the levels (1984:297)

The final definition is *purposive behaviour*. Purposive behaviour is any behaviour or activity that, "simply serves a purpose" (Checkland, 1999, p. 119) in the system. Both can be present within a larger system, thus making them sub-systems of it. For instance, the escapement of a clock is a purposive system, but the person using the clock to tell the time is purposeful (Checkland, 1999).

Equifinality

The concept of equifinality asserts the ability of an open system to achieve the same result through a variety of paths, regardless of starting conditions (Skyttner, 2001). Consequently, the concept is vital for

[9] These citations are not the only ones to use Ackoff and Ackoff and Emery's definition of a purposeful system. Gharajedaghi (2011); Gharajedaghi and Ackoff (1984); Ackoff (1994); Ackoff and Gharajedagi (1996) use this definition. What is being noted here is that Ackoff's definition will be followed, and that on occasion from this point forward, any of the references mentioned here may be used to support a claim and it will still be Ackoff (1971) and Ackoff & Emery (2008)

any purposeful system. Within a complex adaptive system that delivers care, equifinality supports autonomy, choice and convergence among system actors. Complex systems benefit from the assurance equifinality provides. It counters the trait of non-linearity, an equifinal structure supporting purposeful systems to achieve goals under contingent circumstances (Gresov & Drazin, 1997). Equifinality presupposes system resilience because it affects system adaptability in relation to its environment by predisposing a system to dynamic equilibrium (Kapsali, 2013; Marksberry, 2013).

Regulation[10]

Remembering that all open systems display cycles of input > transformation > output, between them and their environment, the concept of regulation covers how a system steers itself toward attaining its purpose by managing the inputs received from its environment or systems at other scales. Regulation is the system process of maintaining alignment with an intended end state. Understanding regulation requires three critical concepts: information, feedback, requisite variety. Information affords system constraint and organisation because information avoids the entropic tendencies of systems (van Gigch, 1991), where increased entropy leads to greater system disorganisation. Information is considered any input into a system, which the system then uses to decide whether to adapt and if so by how much. A simple example of the relationship between information and regulation is the behaviour of a thermostat, whereby the room temperature is the information input the system bases its adaptation to match the pre-set temperature. By contrast, learning is an ancillary regulation exhibited by complex adaptive systems, albeit one only possible by purposeful systems, because learning is a reaction to a disturbance in the system that allows the system to adapt patterns of behaviour to what new conditions are present (Umpleby, 2008).

Feedback is significant for maintaining a complex adaptive system ongoing and is what creates the history of such systems. At their most basic, feedback loops are either positive or negative, where amplification and reinforcement or dampening and balancing of behaviour occur because of each respectively (Meadows, 2008). However, their effects are usually not immediate with lags or delays in time typical. Requisite variety is the ability of a system regulator to control the quantity of variety input into the system from its environment and maintain its purpose. Umpleby (2008) explains this can happen in one of two ways: either by matching the variety of information available for selection to the variety of information input into the system, or by matching the variety in the system with the variety in a regulator. According to Ashby (1956, p. 1999), the originator of the theory, only "variety can destroy variety" (p. 207). Requisite variety indicates a need for local nuance in a system, meaning at the point

[10] I use *regulation* instead of communication and control, which are the terms Checkland (1999) uses for the functions associated with feedback and system regulation.

where interactions take place or as close to this as possible. A lack of requisite variety has implications for complex adaptive systems in that it minimises a systems ability to respond, potentially decreasing its resilience and therefore, viability.

Boundary

Boundary is a significant concept for complex adaptive systems. The principle of system openness mandates that a system be understood in the context of its environment. A system boundary defines open systems from their environment, but the effect is not restricted to system wholes. Service holons, are also delimited by boundary so that boundary concerns occur internal to as well as across systems. However, a system boundary is difficult to distinguish. Boundary determination is subjective. A system boundary can be drawn anywhere to demarcate any set of interactive elements as a system, making the boundary an arbitrary definition of what is perceived and operationalized as a system. In soft systems theory, boundary is applied to a system from the perspective of the person observing the system, consequently founding what is and is not included and those who are and those who are not included in a system (Jackson, 2003; Midgley, 1998; 2000; 2011; Ulrich, 1987; 2003). Thus, a system's boundary conditions play a critical role for any purposeful behaviour in a system, where values and ethics influence boundary decisions with implications for resources and individuals' interests affected.

Interconnection

A system is said to not exist unless there is interaction between system parts. As such, interconnection across system boundaries is fundamental for supporting purposeful systems attain their goals, for aiding equifinality and facilitating regulation. Although interconnection is a simple concept, its significance for system function depends on a mindful understanding of system hierarchy due because of differences between the ideas of arrangement and aggregation. Aggregation of components never denotes a system because aggregation is nothing more than a collection of parts. The crucial concept enhancing interconnection in a system is organisation, which reiterates the notion of hierarchy of complex adaptive systems and the constraint this creates on system dynamics already mentioned (Ryan, 2008). Arrangement of the parts in a specific way that gets something done makes possible the necessary interactions between system parts. Gharajedaghi (2011) argues that incompatibility between parts will result in less potent force than the aggregate would have been able to produce, whereas, organising system parts to strengthen reciprocal interactions generates the conditions required for emergence.

Emergence

Emergence is a macro phenomenon of complex adaptive systems that arises through the micro interactions of system components (Goldstein, 2000). Emergent properties are the characteristics

revealed by the interacting component parts that are not apparent within the individual component parts. Emergence is possible because of the complex system traits of non-linearity among variables, which makes emergence non-dependent on cause and effect (Urry, 2003). A complex adaptive system displaying emergent properties is a system that was able to adapt to shifts according to disruptions to it from its environment, because the emergent phenomenon is the system's response to these disruptions. A link between system hierarchy and emergent properties exist in so far as emergent properties *appear* on a level above the scale on which the interactions occurred. Emergent properties are an attribute of the whole and we might think of them as the essence of a system. The idiom "the whole is greater than the sum of its parts" exemplifies the concept of emergent properties. This definition of emergent properties gives the impression that a system's emergent properties might remain constant or that emergent properties reliably reveal themselves in the same way each time. But emergent phenomenon is subjective so that among different observers of a system, different properties may be seen to emerge. This is consistent with Daellenbach (2004) and Checkland (1999), who both stress the subjective and conceptualised nature of any system. Emergent properties can be thought of as the essence of a system, with this quality only apparent in the collective of what emerges and not within any individual parts (Urry, 2003). The water quality *wet* illustrates this idea because it does not exist in any single part of hydrogen or oxygen, only in the quality that emerges after they are combined.

Ethic of Care

The Ethic of Care proposed by political scientist Joan Tronto (1993) provides the theoretical orientation addressing the contextual aspect of this study. The Ethic of Care is a normative, feminist moral theory originating within 1980s feminist scholarship, specifically the work of Sara Ruddick and Carol Gilligan (Held, 2005). A historiography of the Ethic of Care is beyond the scope for this study, but Gilligan's (1982) empirical research is significant for the assertion it makes about differences between justice and care approaches to moral logic. In the first instance, applying universal principles in rational ways is paramount. In the second, relationships dominate with forethought given to the effect of context and narrative in decision-making (Held, 2005). Accordingly, Gilligan states, "the logic underlying an ethic of care is a psychological logic of relationships, which contrasts with the formal logics of fairness that informs the justice approach" (p. 73). In Gilligan's research, boys and men broadly dominated justice approaches and girls and women dominated care approaches, but neither exclusively preferred one to the other. Within her sample, some men applied a care approach and some women applied a justice approach to moral reasoning. Gilligan's research found that in matters of morality, women had a

"different voice"[11] where their moral judgements were chiefly bound by relationships. In the scholarship that followed, others attributed this to a gender difference in moral judgement or the inherent orientation of justice and care approaches, and their implications for the decisions people make (Fine, 2007). In the work of Joan Tronto (1993; 2013), however, an Ethic of Care is a mutually inclusive moral style.

Applicability to complex adaptive systems

When Tronto (1993; 2013) discusses what constitutes an Ethic of Care, a striking resemblance to systems theory is revealed. Both are ontologically and epistemologically based on a relational imperative. The language of an Ethic of Care articulates this explicitly by using terms such as relationship, relational or being in relation to (Tronto, 1993; 2013). Systems language refers to hierarchy, interdependence, emergence, interaction and feedback; the principal nature of these being *relationship*. Indeed, what makes each possible is their relationship to other system elements. Similarly, the appearance or deficiency of care depends on the quality of relationships.

Tronto's (2013) Ethic of Care counters the neo-liberal imperative for independence, choice and autonomy, which she argues are concepts founded on erroneous understanding of care as a market concept and omissions of relationship and interdependence from the reality of providing or receiving care. Hence, the Ethic of Care is pertinent to systems concepts and their application for interrogating complex adaptive service systems that deliver care, which increasingly exist under neo-liberal approaches to service delivery such as those that promote personalisation, personal budgets or consumer-directed care. The Ethic of Care suspends the divisions between justice-based morality and care-based morality, the private and the public, men and women, the universal and the particular, or any that oppose morality and politics as mutually exclusive (Tronto, 1993; 2013). Tronto's argument about the benefit of a morality based on care is succinct. She argues that, "Care helps us to rethink humans as interdependent beings" (2013, p. 21). The statement aligns care with the vital systems concepts of openness, interconnection and boundary.

As a political scientist, Tronto challenges big and small '*p*' politics, not designing for service, but designing for service under conditions of increasing complexity often applies in contexts where politics affects, as noted by SOD in Chapter 3. For instance, a stakeholder map, often used in designing for service represents the loci of greater and lesser influence within a service. This makes *care* opportune as a unit of analysis for complex adaptive systems that deliver care. From a systems perspective, Tronto's

[11] The title of Gillgan's (1982) book is *In a Different Voice*.

Ethic of Care echoes critical systems theory, especially Midgley's (2000) Systemic Intervention and Ulrich's (1987) Critical Systems Heuristics, both of which highlight boundary critique for moderating marginality and inequity. What is more, Tronto describes care as complex, holistic, resultant of process not commoditisation, and emergent (Tronto, 2010). Care in institutional contexts, should allow three foci: purpose, power and pluralistic, particular customisation (Tronto, 2010). What is being argued indirectly here are the systems concepts of purpose, boundary and requisite variety. For Tronto (1993), care is "both a practice and a disposition" (p. 104), where "care institutions have to think about the nature of the caring process as a whole in order to guide their actions" (Tronto, 2010, p. 162). This gives her dimensions even greater applicability for designing for service. The idea of practice implies a set of criteria to apply in contexts where care is needed and provided. By defining care as a practice, all contexts involving designing for service will benefit from applying the dimensions of care in a local rather than universalist manner. The power of Tronto's definitional components is in their ability to express, trigger and promote care despite gender, class, ethnicity or geography.

Elements of an Ethic of Care

The Ethic of Care proposed by Tronto (1993) developed out of her collaboration with Berenice Fisher (Fisher & Tronto, 1990). In that work, they devised a definition of care and identified its four phases to which Tronto's subsequent Ethic of Care version corresponds (see Table 4.3). They state:

> On the most general level, we suggest that caring be viewed as a species activity that includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves [sic], and our environment, all of which we seek to interweave in a complex, life-sustaining web. (Fisher & Tronto, 1990, p. 40)

This definition includes features relevant to designing for service. The interactions are inclusive of both the material as well as social and caring is not confined to dyadic or individualistic scales. It explains that care is political and social, that culture defines care activities and care can take the form of a single event or ongoing process (1993:103-104).

Table 4.3 Phases of care with corresponding Ethic of Care elements

Phases of Care (Tronto & Fisher, 1990)	Ethic of Care Elements (Tronto, 1993; 2013)
Practice	**Disposition**
Caring about	Attentiveness
Taking care of	Responsibility
Care-giving	Competence
Care-receiving	Responsiveness
Caring-with (Tronto, 2013)	Solidarity

The explanations of each practice and disposition are from Fisher & Tronto (1990) and Tronto (1993; 2013) respectively. While Tronto's ethic of care comprises the five elements listed in Table 4.3, she always refers to their intellectual origin, this being her work with Bernice Fisher. In my treatment of Tronto's Ethic of Care below, I couple each phase with its corresponding moral quality to acknowledge their collaboration:

Caring about and Attentiveness.

Caring about stresses that people must first, notice the needs of others before a decision about how to meet those needs is possible. In service systems, the presence of this practice-disposition couplet may manifest as service providers/staff who are selfless, proactive, have authority to act and are aware. As a disposition, *attention* is "other directed" (1993:128). Thus, the practice depends on empathy, a highly cited quality of good design, but is inadequate without a response. The absence of this couplet may show as self-interest, passivity, inflexibility and ignorance.

Taking care of and Responsibility.

Taking care of is only possible with a response to identified need, meaning that "someone or some group has to take on the burden of meeting those needs" (2013: 34). This couplet is possible when a service system is materially and socially well resourced, a shared purpose exists among service holons and the service system has connections with allied service systems outside its boundary. The couplet can be considered as a system's *response-ability*.

Care-giving and Competence.

Care-giving corresponds to any dyadic interaction within a service system as the practice "involves physical work, and almost always requires that care-givers come in contact with the objectives of care"

(1993:107). This practice-disposition couplet is supported when staff is adequately trained, material and social resources are sufficient, and a shared understanding of purpose exists.

Care-receiving and Responsiveness.

The effects of care-receiving are only recognised after a response from the care-recipient or their advocate. This couplet depends on service system feedback and control mechanisms, and a shared purpose among system actors. Because the moral quality of responsiveness depends on feedback, the regulatory mechanisms of the system need to be suitable. A response can signal either the receipt of good or bad care. Thus, it has a regulatory function for maintaining alignment of purpose. Responsiveness brings to the fore inequality (1993) in a service system because individual's different circumstances may affect service receipt. This couplet reinforces the idea that contingent limitations impact service system equity of service experience.

Caring-with and Solidarity.

This couplet depends on a societal level commitment to caring that is consistent with "justice, equality and freedom for all" (2013:23). It determines a practice-disposition view of care that accepts plurality and makes primary the qualities of "communication, trust and respect" (Sevenhuijsen, 1998 cited in Tronto, 2013, p. 35). Caring-with and solidarity highlight the significance of the system concept *purpose* because this concept interrogates the multiple perspectives and experiences among system users.

The holistic and interconnected quality of complex adaptive systems and the relational nature of an Ethic of Care have been explained. The remainder of this chapter is dedicated to the central tenet of my argument: the significance of the common relational ontology between systems theory and an Ethic of Care for investigating the patterns of relationships found in complex adaptive systems that deliver care. The chapter concludes by introducing the Thick Care Framework.

Relationship and Pattern

The Introduction to this thesis presented the fundamental role of patterns and relationship for complexity. The following sections expand on why pattern and relationship are essential for understanding complex adaptive systems and their behaviour.

Relational ontology

Ontologies are theories of reality. Some ontologies used to describe reality vary between a static or dynamic state, a whole or plural expression, a transcendent or immanent source, an individualistic or relational condition (Stout, 2012a). Dynamic, whole, immanent relational ontologies as explained by

Margaret Stout (2012a) complement Cilliers' (1998) definitive list of traits and his arguments for why partial knowledge of complex systems is only ever possible:

> Static means that being simply is — we can know truth through various means. Dynamic means that existence is continually becoming, and so understanding is difficult beyond temporary "snapshots" of its expression. Whole means that the source of existence is complete — it cannot be broken apart in some way. Plural means that there are many sources of existence. Transcendent means that the source of being is beyond that which exists. Immanent means that being is contained within itself, whether it is considered as an abstract single whole or a plurality of actual singular units. Relational means that apparently separate beings are actually connected in some way. (p. 389)

Stout declares the value of applying relational perspectives to public administration[12] for developing a practice that is "holistic or systems oriented, nondiscrete, nonbinary, nonhierarchical, and gerundial in character" (2012b, p. 408). She draws from varied philosophies and worldviews, among them indigenous ways of knowing, feminist philosophy and quantum physics, all of which rest on principles of relationality, to argue for a relational approach to public administration, contending that ontology affects the assumptions driving policy and therefore prefigures that which ultimately will be implemented by government (Stout, 2011). The correlation of this is that the ontology underpinning a government policy will shape the structure of a service system in manifold material and philosophical ways. Stout's scholarship about ontologies is particularly relevant for this study, which connects system thinking with a feminist Ethic of Care based on their common relational ontology and argues the fitness of this combination for interrogating complex adaptive systems that deliver care. A relational ontology assumes patterns of relationships between system levels are present and can be identified. Complex adaptive systems, to apply Stout's (2012a) phrasing, are dynamic, whole, immanent, relational.

A relational ontology contends that relationships are primary to entities and assumes everything exists in a relationship to something else; consequently, the relations between things matter more than what they are relating to. This contrasts with Aristotle's argument that entities exist superordinate to relations as well as classic Cartesian assumptions that uphold dividing and reducing phenomenon in order to understand it (Capra & Luisi, 2014). A relational ontology differs from atomistic or dualistic ontologies. Relational perspectives assuage the dualism inherent in Cartesian thinking, such that body/mind,

[12] Public administration being the implementation of government policy. Australian community aged care results from Federal government policy and its administration. See Chapter 1 where the place of the Australian Federal Government in this complex adaptive system is discussed.

parts/wholes, object/subject, socio/material can be equivalently considered by virtue of the relation between them. Relational perspectives contest atomistic views owing to the belief that matter is not intrinsic or fixed and cause and effect are not constrained and commensurate to billiard balls colliding (Santos, 2015). Correen (2018) explicitly states that entities are relative to their complementary opposite, for instance, body/mind. In a not too dissimilar vein, Benjamin (2015) states that relational ontology speaks to plurality.[13] To me, both Correen and Benjamin blur relationship with relativeness. Relational ontology is not postmodern solipsism. The aim of relational ontology is not to argue for the existence of entities, but to recognise and understand the nature, quality and effect of relationships between entities.

Surveying the ethical, philosophical and theological debates about relational ontology is out of scope here, but I use the thinking of the philosopher Wesley Wildman (2006) as the basis for explaining relational ontology, its relevance to complex adaptive systems and to care. Relations can communicate, embody or define values, whether in personal, moral or aesthetic contexts, making assigning a relational ontology metaphysically demanding for any enquiry: Are relations real? Conceptual? Imaginary? Does their existence precede matter? What sorts of relations are there? Are they causal? Value-laden? Ethical? Aesthetic? To get around this, Wildman proposes that all relations be considered causal and suffusing physical, spiritual, social, psychological and moral extents, so that neither relations or entities are subordinate, but should be considered equivalently:

> A serviceable theory of causation will honor the diversity of relations in the whole of reality, within and beyond physics. This requires calling on complexity theory to explain how, causation between complex entities emerges with structural complexity from the causal relations among their constituent parts. (p. 6)

Relationality is the keystone of any system. Focusing on relationships permits understanding of structure and behaviour, which are the basic constituents by which we can gain knowledge of a system (Kineman, 2012). Compared with Cilliers (1998), Kineman makes incautious claims about the wide-ranging knowledge that is possible to gain from a complex adaptive system; notwithstanding, what he states is accurate. Exposing the structure behind system behaviour is critical for any system intervention. However, total understanding of a complex system requires modelling all its relationships, which is impossible when relationships in complex adaptive systems are dispersed. Relations are implicated with emergence (Santos, 2015) as well as a system's boundary because a determined boundary exists in

[13] I consider relational ontology to be about wholes rather than just plurality, despite the many varied parts comprising a system. Underpinning my point of view is the systems idea that the whole is greater than the sum of its parts.

relationship to other boundaries (Niemimaa, 2016; Orsatti, Hafermalz & Hovorka, 2016), boundaries delimit system inclusions and exclusions, instituting the quality of relationships across boundaries, between systems or system parts.

Purposeful systems are inordinately relational. Without relationships with other system entities — human or non-human — purposeful systems have no way to exercise choice for achieving their goals:

> From this, an understanding is created of agents as interactants, ones who are interdependent, vulnerable, intermittently reflexive, possessors of capacities that can only be practised in joint actions, and capable of sensitive responses to others and to the situations of interaction (Burkitt, 2015, p. 322).

Relationality is the keystone of care, too. The relational ontology of an Ethic of Care is evident in two ways. Firstly, how the philosophy makes relationships between people the focal point, prioritising these over individuals (Held, 2002; Paulsen, 2011; Shui-Ching, 2016). Secondly, how the Ethic of Care discloses binary oppositions "between autonomy and dependence, individual and community, and independent citizens and those dependent on care" (Sevenhuijsen, 2003, p. 183), which shows the prevalence of Cartesian dualism, even within an experience as concrete as care. An Ethic of Care recognises caring as a relational process and practice, where individuals are interdependent, vulnerable, connected and potentially unequal rather than independent, autonomous, unrestricted and equal (Barnes, 2012; Feder Kittay & Feder, 2002; Shiu-Ching, 2016) — qualities that Petersen (2011) stretches to cover "groups, institutions and nations" (p. 53), confirming how irreducibly interconnected the parts in a service system are. Further, Gopinath (2018, p. 261) argues that, "a relational ontology permits a focus on processes and interactions thereby encouraging consideration of fluid and dynamic nature of interactions between the social and individual." Relating has consequences. If relationships and interdependence are preconditions of systems and care, then the quality of the relationship is more crucial then the relationship itself for building interconnections of relationships in service systems. My view of the relational ontology of the Ethic of Care, includes the relationship between any system parts — human or non-human. Therefore, policy or procedures, cultures, carers, staff rosters are all profoundly relationally interdependent, with affective powers.

Pattern

Relationships precede and are intrinsic to patterns and complex adaptive systems are built on patterns. Despite their asymmetry, "it is the pattern of relationships that determines what a [complex adaptive] system does" (Jackson, 2003, p. 115; see also Santos, 2013). Patterns result from non-random

relationships between system parts. Random, chaotic systems are not pattern-based, unlike complex systems which are completely pattern derivative. Though prediction is impossible under complexity, patterns let us antedate or effect the future, therefore they have epistemic value for understanding service systems and value co-creation.

Patterns of relationships define complexity from randomness, therefore complex from chaotic systems. Relationships, interdependency, pattern, emergence require organization, with structure and organization significant in a complex system. Relationships and interdependency relate to system adaptiveness, where adaptivity equates to learning. Pattern is linked to a system's capacity to learn new behaviour with the caveat that the system requires the right amount of equifinality supported by suitable structure for any learning to ensue or evolve. As patterns play out, the adaptive function of complex adaptive systems allows the system to reorganize — learn new behaviour — to match the pattern, subsequently making the system better able to meet its goal. This is resilience and requires equifinality to be successful. Relationships and patterns are important for understanding emergence (Capra & Luisi, 2014).

Pattern and emergence directly correlate through links in time (Johnson, 2002). Micro behaviours at a local level combine and generate enough energy to change patterns in the system; this is emergence. Relationships of local interactions will shift patterns, if they happen for long enough and with enough momentum. Yet self-organisation is not enough; new patterns must also become more effective, otherwise they are "frozen patterns" (Johnson, 2002, p. 119). To release patterns and make room for emergence, requires new behaviour known as feedback. The significance of relationships and patterns is clarified by Johnson (2002):

> Think about Deborah Gordon's harvester ants, or Paul Krugman's model for edge-city growth. In both systems, the interaction between neighbours is two-way: the foraging ant that stumbles across the nest-building ant registers something from the encounter, and vice versa; the new store that opens up next to an existing store influences the behaviour of that store, which in turn influences the behaviour of the new-comer. Relationships in these systems are mutual: you influence your neighbours, and your neighbours influence you. All emergent systems are built out of this kind of feedback, the two-way connections that foster higher-level learning. (p. 120)

Assorted pattern types ranging from the stable to the ephemeral appear in complex systems (Cilliers, 2000b). Nevertheless, pattern is not mysterious. To change patterns, change the relationships between the parts or change the parts in relation to each other. Patterns are identifiable and open to interrogation

for understanding how system structure affects system behaviour to produce beneficial process outcomes for people using the service system or to innovate for system and experience improvements. The quantity of interdependency and interconnection in complex systems means patterns appear in relationship with other patterns. The concern for pattern demands a recognition that connections re-appear in systems, making the hunt for pattern equally a search for and cognisance of, what I propose be termed, inter-pattern relationships. Inter-pattern relationships are affected by the same influencers as any other pattern. They include feedback, are interconnected and hence interdependent. Alignment with larger patterns in a service system facilitate "good solutions" (Berry, 1981, p. 3), a process that Berry calls "solving for pattern":

> A bad solution is bad, then, because it acts destructively upon the larger patterns in which it is contained. It acts destructively upon those patterns, most likely, because it is formed in ignorance or disregard of them. A bad solution solves for a single purpose or goal, such as increased production. And it is typical of such solutions that they achieve stupendous increases in productions at biological and social costs. (p. 3)

> A good solution improves the balances, symmetries, or harmonies within a pattern — it is a qualitative solution — rather than enlarging or complicating some part of the pattern at the expense or in neglect of the rest. (p. 5)

Berry's idea of "larger patterns" speaks to variance of system scale and the capacity for patterns to not just repeat across scale but to affect across scale too. This is the idea of a "fractal whole" (Jackson, 2003, p. 13) and refers to how relationships and patterns generated at one system level, appear at other system scales too, evidenced by the experience of community aged care in Chapter 2. Identifying patterns of relationships helps reduce complexity. Relationships and patterns are central to complex adaptive systems, but not without limitations as I have explained. Knowledge of complex systems is only attainable using frameworks, which invariably are self-selected, making the knowledge gained subjective and only ever incomplete (Cilliers, 2012). However:

> In order to model a system precisely, we therefore have to model each and every interaction in the system, each and every interaction with the environment — which is of course also complex — as well as each and every interaction of the history of the system. In short, we will have to model life, the universe and everything. There is no practical way of doing this. (Cilliers, 2000a, p. 28)

One alternative to this dilemma may be to use retroduction[14] to model the system structure based on the experience-patterns derived from people's narratives about their interactions when using the service system.

Relational ontology although relative is not solipsistic. The relative existence or qualities of entities does not mean they only exist in relation to something. If I am right that common to systems and care is a relational ontology that guides the primacy of relationships between entities over the entities themselves, then the idea that entities are in relationship should not be taken for granted but should rather be considered primary for interrogation of system behaviour leading to service process outcomes for people. Relationships and pattern have merit for understanding value co-creation in complex adaptive systems. The common relational ontology of systems and care illuminates a web of interdependencies held together by patterns of relationship. Thick Care is the framework capable of interrogating these.

Thick Care: Investigating Patterns of Relationship in Aged Care

The Thick Care Framework interlaces the related, disparate threads of complex adaptive systems with the elements of an Ethic of Care. *Thick Care*[15] is a term I have coined. It permits interrogating designing for service when the foremost virtue is an Ethic of Care and when conditions and service systems are becoming ever more complex (Lorenzetto, 2017). A Thick Care interrogation of a complex adaptive system that delivers care to older people means an equivalent understanding of care as well as the service system is possible, leading to a better understanding of the process outcomes older people experience (Qureshi et al., 1998). Thick Care gives scope for probing the non-linearity, simultaneous, multi-scale traits typical of complex adaptive systems. The idea for Thick Care is generated from an overlooked commonality amongst care, designing for service and systems theory, "Care and complex adaptive systems have a common ontology that is based on relationships and interdependence, both being central to producing meaningful service outcomes for older people" (Lorenzetto, 2017, p. 138). Thick Care combines key systems theory concepts with an Ethic of Care (Tronto, 1993) to provide a qualitative assessment of the patterns of relationships between system parts.

Thick Care is possible only when complex adaptive systems take in the affects and effects of system structure on older people's experiences of care. Two benefits derive from combining these theories. First, the care elements afford planning and monitoring for the presence or absence of care at any stage

[14] Retroduction is the Critical Realist practice of identifying the causes of a finding. It is discussed in Chapter 5.
[15] My inspiration for the term here is anthropologist Clifford Geertz's (1973, 1-30) use of "thick description", but I acknowledge Gilbert Ryle for introducing the term. In Chapter 5, Research Design, I comment that through retroductive analysis Critical Realist Research avoids thick description — the nomenclature of my framework in no way contradicts this.

of the FAR-whole or at any scale of the service system. Next, systems theory concepts afford for a structural understanding of the presence or absence of care by interrogating system structure effects. Thus, the notion of *thickness* of care denotes care that is viewed as a whole system concern. Thick Care goes beyond the dyadic of a care giver and care receiver to calibrate care through an approach to service delivery that spans context, at varied system scales. "Applying thick care for understanding peoples' experiences of community aged care highlights where a service delivers sufficient or insufficient care" (Lorenzetto, 2017, p. 139) (see Figure 4.4) as well as the underlying structural mechanisms holding patterns of relationships between system elements.

Table 4.4 Thick Care Framework: System elements and Ethic of Care elements

	Inadequate use of system elements						**Adequate use of system elements**					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent	-	-	-	-	-	-	-	-	-	-	-	-
Attentiveness	-	-	-	-	-	-	-	-	-	-	-	-
Responsibility	-	-	-	-	-	-	-	-	-	-	-	-
Competence	-	-	-	-	-	-	-	-	-	-	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-	-	-	-	-	-	-
	Quadrant 1 (Q1) total =						**Quadrant 2 (Q2) total =**					
Present	-	-	-	-	-	-	-	-	-	-	-	-
Attentiveness	-	-	-	-	-	-	-	-	-	-	-	-
Responsibility	-	-	-	-	-	-	-	-	-	-	-	-
Competence	-	-	-	-	-	-	-	-	-	-	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-	-	-	-	-	-	-
	Quadrant 3 (Q3) total =						**Quadrant 4 (Q4) total =**					
	Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour											

The aim of the framework is to show patterns of relationship between system and/or care elements. Applying the framework draws from the methodological practice of qualitative data coding, where a transcript is read and codes denoting meaning are applied to passages of text. In this case, the framework

elements perform similarly to codes applied to a passage of text. There are 20 options available in the framework. They cover, absent / present: *attentiveness, responsibility, competence, responsiveness, solidarity* (2 x 5 = 10 options); and adequate / inadequate: *purpose, equifinality, regulation, interconnection, emergence* (2 x 5 = 10 options). For example, if a passage of interview data shows an experience that is absent in *responsibility*, *competence, solidarity,* a quantity of one is applied for each instance in the corresponding cell of the matrix. Likewise for the system elements. The final tally of populated cells in the matrix shows the number of times an intersection between framework elements appears in a service experience. For example, if the cell between *absent attentiveness* and *insufficient purpose* displays, a sum of 10, this indicates that within that service experience an intersection between those framework elements occurred 10 times. The emergent patterns of relationships are visible once an analysis is finished. Intersections that occur the most frequently in an experience or across a data set indicate significant patterns. These can be investigated further or used to derive design principles. In this study, the process of applying Thick Care to data sets was completed using NVivo.

The implications of blending systems concepts with an Ethic of Care is the capacity for their synthesis to address the social and material properties of complex adaptive systems equivalently well while also inquire into the nature of system outcomes. System thinking concepts alone lack the means to inform about system affect. Once a service is deemed a system, the presence of systems concepts is automatically established but the presence or absence of systems theory concepts only aids describing the effect of interactions within a complex adaptive system. An inquiry of interactions between service holons should account for the reciprocally effective and affective interactions amongst parts and scales of the service system. Therefore, the relevant question to ask of systems concepts in the context of services that deliver care is not: Are they present or not? Instead, causal questions are necessary: What cause is the system having on the ability of the service to deliver the practice and disposition of care? To what degree are the systems elements applied adequately or inadequately? Thick Care brings magnitude to understanding the service experience. This is because the ethic of care elements and systems concepts can be either scaled up or scaled down, such that equal cognisance of care and systems may be noted in micro activities between the cared for and their caregivers, between the social and the material or in the macro activities between a government policy and a service sector.

A Thick Care probe of a complex adaptive system produces a generalised model of the patterns of relationships that emerge from interactions between system parts. Any Thick Care model attempts "to grasp the structure of complex systems" (Cilliers, 2001, p. 139); where structure is defined as the patterns of relationships displayed by a system. A Thick Care probe provides a "relationship based" (Cilliers,

2000b, p. 41) description of the system structure behind the experiences of service users. The framework may also address concerns for the ethical dimensions of decision making within complex adaptive systems in that it forces the recognition among stakeholders that decisions, although not arbitrary, are neither objective and are made using incomplete knowledge (Cilliers, 2000a). The frameworks we choose afford the exploration of complexity for generating knowledge that is specific to context, time and place. Applying the Thick Care Framework means a qualitative probe of experiences revealing the degree to which care is absent or present and the structural qualities of it are possible. Denoting the dominant or weak system structure indicates where and what type of intervention is needed to improve the experience of the service.

Summary

Chapter 4 has explained the theoretical orientations comprising Thick Care. It has argued for the ontological similarity between them, the significance of patterns of relationships for interrogating complexity and the benefits of the Thick Care Framework for generating a holistic system view of care, the related system behaviour and the system structure driving behaviour. From here, Chapter 5 sets out the research design. Chapters 6 and 7 present the experiences of older people as they interact with the FAR-whole in the Australian context. In Chapter 8, Thick Care is applied to probe the experiences presented in Chapter 7 in order to retroduce the patterns of relationships in the system structure giving way to older peoples' experiences.

CHAPTER 5

RESEARCH DESIGN

This chapter explains the methodological choices for the research design used to study people's experiences of the FAR-whole and the application of Thick Care for determining the system structure effecting these. Firstly, it discusses the philosophical orientation guiding the inquiry. It then outlines the case study approach, sampling and recruitment, method of primary data collection as well as data analysis. Finally, it discusses issues of validity and reliability. The chapter is the basis for the results presented in Chapters Six to Eight.

A research design is the strategy guiding the inquiry to complete a study. The strategy for this inquiry uses critical realism to investigate how Thick Care aids designing for services under conditions of increasing complexity. Case study rejects reductionist, mechanistic views of phenomenon in favour of one that is holistic, interdependent and contextualised within its broader environment. Similarly, critical realism accounts of phenomenon is founded on the idea that 'reality' is an open, stratified system, structured, yet in constant flux and thus capable of emergence (O'Mahoney & Vincent, 2014). Critical realist epistemology is based on ways of knowing that are subjective and imperfect, for which theoretical and methodological tools exist that help "discriminate among theories regarding their ability to inform us about the external reality" (Danermark, Elström, Jackobsen & Karlsson, 2002, p. 10). While this study is grounded in the theoretical ideas of complex systems theory, it proposes the suitability of critical realism for designing for service, especially when the research is systems focused. By nature, systems focus reinforces the idea of causal explanation, which is the intention of a critical realist ontology and a product of critical realist research.

Because method and theory are interdepended in social science (Danermark et al., 2002), combining case study with complex systems theory produces a significant model for undertaking research for investigating a complex service system such as community aged care services (Anaf, Drummond & Sheppard, 2007, p. 1314). Adding critical realism to guide analysis and undergird knowledge claims enables the investigation of issues of cause that might be part of the structure and context of the system. Systems scholar John Mingers asserts that systemic and holistic premises are fundamental to critical realism. In an email exchange with him about the overlap between systems theory and critical realism, he explained:

> So, my feeling now is that all three fields are talking about the same things but using different words, so it should not really matter which you use.[16] However, I do think that CR has a much better overall philosophical position than systems. (J. Mingers, personal communication, January 26, 2017).

The assertion is demonstrated in Mingers's comparison of systems concepts with the critical realist concepts proposed by Roy Bhaskar — the originator of critical realism (Mingers, 2011; 2014). However, it must be stressed that critical realism does not replace the Thick Care Framework proposed in Chapter 4. The use of critical realism in this study is intended to support the analysis of data for explaining the causal mechanisms at work in the system by orienting the inquiry towards interrogating the patterms of relationships within the system. This is feasible because a critical realist approach to analysis prescribes as its central question: "What is it *about* the structures which might cause the effects at issue?" (Sayer, 2000, p. 65; Easton, 2010). This style of inquiry is pertinent given the theoretical undergirding of Thick Care. Using critical realism philosophy greatly enhances the function of Thick Care for probing the complex patterns of relationships within the service system.

Critical Realism

Chapter 4 noted that systems are viewed as either ontological or epistemological. In the first instance, systems are seen to exist absolutely in the world and independent of our interpretation of them. Moreover, our understanding of a system is possible by studying its behaviour and the system dynamics affecting this. This is the province of "I spy systems which I can engineer" (Taylor, 2009, p. 77). In the second instance, systems are seen as subjective and based on our interpretation of them but possible to understand once a systemic approach is applied to thinking about systems. In this case, the catchcry is "I spy complexity and confusion but I can organise exploration of it as a learning system" (Checkland, 2000a: S18 cited in Taylor, 2009, p. 77). I hold systems are simultaneously ontological and epistemological. In this view, systems are neither absolutely real nor absolutely perceived (Wu, 2013), highlighting a need in this study for orientations to research that are able to accommodate duality.

Critical realist ontology and epistemology

In social science, the notion of a singular objective reality versus a plural subjective reality is typically dichotomised into a positivist versus constructivist paradigm where each is usually correspondingly assigned quantitative or qualitative methods (Feilzer, 2010). The focus of positivism on finding a reality

[16] The three fields he is referring to are: systems theory, critical realism and the philosophy of science (J. Mingers, personal communication, January 12, 2017).

that is "logically deducted from the theory, operationally measured, and empirically validated" (Patton, 2015, p. 105), requires creating a closed system where inquiry can be controlled for bias (Greenhalgh, 2014). This is artificial since closed systems unaffected by circumstances do not exist in truth, demonstrating the limitations of positivist orientations for understanding complexity. On the other hand, constructionism maintains no real and absolute truth, but instead multiple interpersonal and intersubjective versions of it, defined by people who are part of a network of interacting relationships (Patton, 2015). This position has limitations. It invalidates the possibility of agents — human and non-human; mental or tangible — existing with power to affect, regardless our level or awareness of them. Critical realism is an alternative philosophy able to bridge both paradigms.

Critical realism is ontologically focused. Its assumptions about the nature of reality are based on the premise of an independent and stratified reality, emergence and an open systems perspective (Wynn & Williams, 2012). Critical realism assumes an objective reality makes the world which is independent of people's knowledge or experience of it. It nevertheless acknowledges the subjectivity of human experience, along with the relativism and fallibility of this knowledge, recognising that despite the structures that restrict or permit human action, peoples' subjective interpretations of the world are theory-laden and sway their perception and experience of it (Bhaskar, 2008; Danermark et al., 2000; Sayer, 2000). Notwithstanding people's subjective interpretations — conditional to time, culture and context — critical realism assumes that ontologically, a "world of objectives and structures" (Mingers, 2006, p. 19) would be, even if people were not:

> If men ceased to exist sound would continue to travel and heavy bodies fall to the earth in exactly the same way, though ex hypothesi there would be no-one to know it. (Bhaskar, 2008, p. 21)

This indicates a distinction between things that remain relatively the same and independent of our knowledge of them and our constantly changing knowledge of them formed from human social activity, termed, in critical realism as the intransitive and transitive domains respectively (Bhaskar, 2008). This is possible because critical realist epistemology assumes knowledge to be conceptually mediated and consequently fallible, although not equally fallible. It prefers explanation of events rather than their prediction. It acknowledges that multiple explanations for events are possible and advocates for explanation through casual mechanisms while assuming that these mechanisms are sometimes located on dimensions that are unobservable by us (Danermark et al., 1997; Easton, 2010; Wynn & Williams, 2012).

Stating that the world *is* regardless human knowledge of it, allows critical realism to avoid the "epistemic fallacy" which is to reduce *being* to human *knowing* or *experience* of it (Mingers, Mutch & Willcocks, 2013, p. 796). This is practical in the context of designing for service because the idea permits a complex adaptive service system to exhibit dynamics despite our awareness, experience, knowledge or interpretation of them. This tenet of critical realism reflects the complex adaptive system traits of non-linearity and asymmetry because those traits rest on the idea that events happen in complex systems that we often are not aware of and might only come to understand in hindsight. This is what Kurtz and Snowden (2003) have termed "retrospective coherence", that is, through a post-event explanation of cause. Using critical realism as a philosophical guide for case study research about complex adaptive systems permits causal explanation of system events or phenomenon from the experiences and interpretations of people, as well as the structure and dynamics of the system (Wynn & Williams, 2012). This supposes that any critical realism orientation to designing for service research bridges the hard, soft and critical systems theory paradigms discussed in Chapter 4. This is a necessity in this study, since my view is that all three paradigms are affective within every complex service system.

Stratified reality

Central to critical realist ontology is the idea of a stratified reality, where reality is divided into three nested domains: *the empirical, actual and real*. Besides the domain of experienced, observed events (the empirical), are the domain where events happen (the actual) despite human knowledge or observation of the event, and the domain where causal powers exist (the real) that catalyse these events (Bhaskar, 2008). In other words, empirical reality is the result of causal mechanisms that exist regardless whether they are witnessed, known or understood. The concept of a stratified reality is emphatically described by Fletcher (2016, p. 183) as an iceberg (see Figure 5.1).

Critical realist informed research avoids atomistic, successionist approaches to explaining causation, embracing instead the irregularity of open systems where cause can be regarded as asymmetrical (Maxwell, 2012; Sayer, 2000). It determines the possible mechanisms through which change occurs but does not frame these as isolated events typical of cause and effect (Sayer, 2000). Causal explanation of outcomes and events within critical realism bases itself on understanding causal powers and liabilities, contextual factors the mechanisms of a system agent *if they act*. Mechanisms are the way *things act* (Bhaskar, 2008, p. 14). Outcomes and events are seen as generative, where causal links result from a confluence of certain conditions plus the right timing to create a certain outcome (Clark, MacIntyre & Cruickshank, 2007). As Sayer (2000) argues, "A causal claim is not about a regularity between separate things or events but about what an object is like and what it can do and only derivatively what it *will* do

in any particular situation (p. 105; emphasis original)." This makes outcomes and events characteristic of emergence (Sayer, 2000), aligning critical realism with complexity.

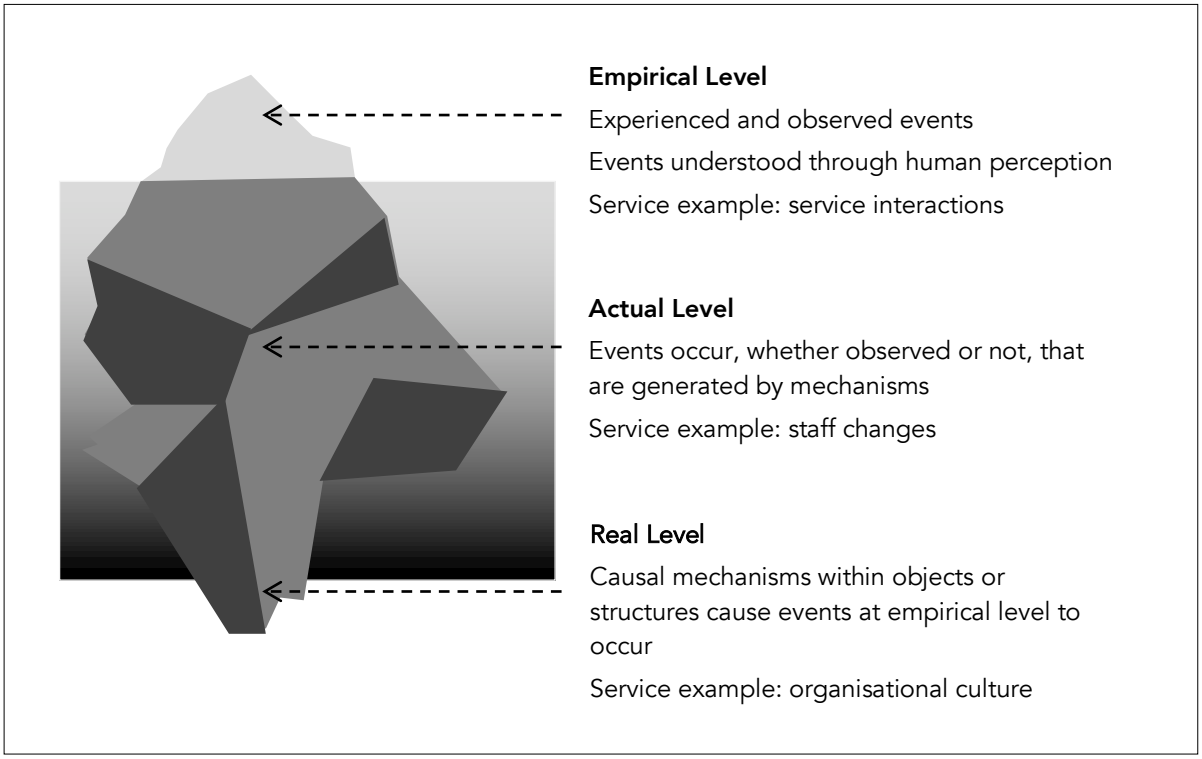

Figure 5.1 Iceberg metaphor describing critical realist ontology. (Adapted from Fletcher, 2016)

Critical realist case study

Case research investigates a current phenomenon within its real-world context to provide empirical evidence about the phenomenon. A defining feature of case study research is the undetermined nature of any actual boundary between the phenomenon being investigated and its context (Creswell, 2013; Yin, 2009). The case boundary is defined by the researcher as part of the process of determining *the case* that is to be studied. This is sympathetic to the systems' practice of defining the "system of interest" (Ison, 2010, p. 22). As Mingers (2011) explains, "the drawing of a boundary is in fact the most primitive systemic act that one can perform" (p. 319).

A case study approach seeks to discover both what is particular and what is common within a case or between cases, allowing researchers to take account of a phenomenon's historical, political, economic and legal contexts as well as its physical environment and to compare between similar cases (Stake, 1995). The method suits investigations where numerous variables present (Yin, 2003) and where causal

links are sought so that an explanatory model can be constructed, making it apt for studying system effects and causal mechanisms of a complex adaptive system (Anderson, Crabtree, Steele & McDaniel, 2005).

Case study is methods and paradigm agnostic. However, the approach values observational, dialogical and experiential data to produce rich data accounts of the phenomenon and its context, a hallmark of the approach (Creswell, 2013; MacDonald & Walker, 1975; Simons, 2009; Stake, 1995; Patton, 2015). Rich data should not be conflated with the term *thick description*, which is not the aim of critical realist research (O'Mahoney & Vincent, 2014). In this study, data collection and analysis produced rich data in order for the necessary empirical information about participants experiences of the FAR-whole to emerge, making the search for causal explanation using the Thick Care Framework possible.

Case study is a popular approach of realist researchers working in organisational (Ackroyd & Karlson, 2014), industrial marketing (Easton, 2010) and information systems research (Wynn & Williams, 2012; Williams & Karahanna, 2013). The approach is claimed as the basic research design for realist research[17] because it is a powerful method for investigating "causal mechanisms at work" (Ackroyd & Karlson, 2014, p. 24). Five principles for completing critical realist case study are given by Wynn and Williams (2012), (see Figure 5.2).

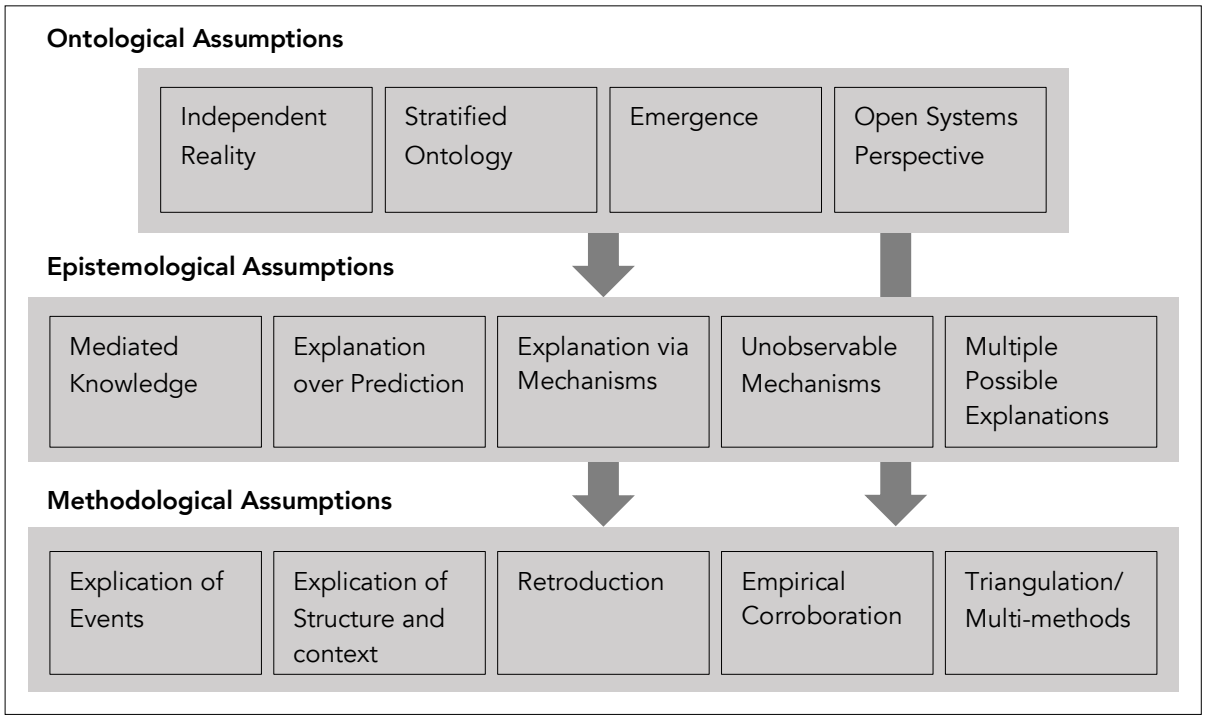

Figure 5.2 Assumptions guiding Critical realist case study. (Adapted from Wynn & Williams, 2012)

[17] Realist research derives from the philosophical tenets of Bhaskar's critical realism. This study uses the terms 'realist research/er' to mean any research guided by the principles of critical realism.

The design of a case study is subject to the case and the research question (Hyett, Kenny & Dickson-Swift, 2014) with a mutual interdependence existing between them and the case boundary. These elements are an important triad that ultimately directs the scope and plan of the study. The reason for this is because a case study is a system assembled for a particular inquiry and the idea of a boundary around a system delimits what is included and excluded from the system, thus influencing what is the object of the study. Therefore, the research questions, methods and the case study boundary have implication for the congruence of the case study design while a well-considered case boundary helps stop an inquiry from blowing out of scope by becoming too broad or including too many objectives (Baxter & Jack, 2008).

There are many ways to bind a case. Creswell (2013) proposes using time and place. Stake (1995) prefers time and activity. Miles and Huberman (1994) suggest binding cases by definition and context. In this study activity and time are used, where activity is a person's interaction with any part of the FAR-whole and time is the point when the interaction happens. This addresses a central idea of realist research: "A realist can only identify causal mechanisms of they operate to cause events to happen, a time-based phenomenon" (Easton, 2010, p. 211).

The significance of the boundary-case-question triad to the study design has been mentioned. However, boundary definition and therefore knowing what exactly the study is a case of can feel elusive. To disambiguate doing this, Dumez's (2015) three fundamental case study questions are answered:

- What is it a case of?
- What is the stuff that my case is made of?
- What do cases do?

Firstly, in terms of this study, the case describes what salient features emerge from applying Thick Care for understanding people's empirical experiences of a complex adaptive system, in this case community aged care. Secondly, the case boundary includes two service scales at the point of interaction: the micro-scale of service users and the meso-scale of service delivery to understand their experiences. Thirdly, this case study is classified as heuristic (2015, p. 54) because the intention is to inform of the utility of systems-based approaches when designing for service under conditions of increasing complexity:

> The new ideas that a case can produce are not universal laws ...[A] case can allow to redefine a concept, in identifying its range of validity [and] its context of application (Dumez, 2011a cited in Dumez, 2015, p. 54)

Figure 5.3 The case within context, showing imbedded units of analysis.

Therefore, the case study type and design for this research is a heuristic (Dumez, 2015; Merriam, 1998) embedded, single-case study (Yin, 2003; 2009). The case (n=1) of this study is the application of the Thick Care Framework for revealing system structure and its impact on care delivery. It includes two embedded units of analysis, these being distinct holistic entities (Patton, 2002) representing cohorts receiving different types of service from different service provider types. The case context is the Australian community aged care experience of the FAR-whole (see Figure 5.3). These findings are reported in Chapter 9 and Chapter 8, respectively.

Case study method reiterates the systems concept of the unfeasibility of trying to understand the whole from its constituent parts. A case study collects data "on the lowest level unit of analysis possible" (Bernard, 1995, p. 37 cited in Patton, 2002). This allows for synthesis towards a whole. The inverse, disaggregating units of analysis from the whole, is not possible (Patton, 2002). The final case study becomes a holistic and context sensitive qualitative inquiry (Patton, 2002) of the utility of Thick Care.

Table 5.1 Snapshot of case study research design used in this thesis

Snapshot of the Case Study Implemented	
Research design Component	Corresponding Case Study Component
Case study type / design	Heuristic, embedded, single-case study, comprising 2 units of analysis.
The case — object of the study	The application of Thick Care for explaining individuals experience of community aged care services; its saliency for designing for service.
Units of analysis	Service types delivered by local council and not-for-profit service providers.
Recruitment	Participants aged 65-years or older in receipt of or caring for someone who is in receipt of community aged care. Recruited from across metropolitan Melbourne and regional Victoria via U3A, seniors' groups, not-for-profit service providers and local media e.g., community radio, community notice boards.
Sampling	Convenience sampling of *n*=20 individuals in receipt of or caring for someone receiving a CHSP or HCP community aged care service.
Data sources	Participant interviews
Data collection method	Semi-structured interviews.
Data management	NVivo
Data analysis	Inductive thematic analysis of interview data Retroductive application of Thick Care Framework

Sampling and Recruitment

A purposive sampling strategy was initially implemented for recruiting participants, but this did not secure the intended sampling and recruitment outcomes. Purposive sampling is especially suitable if recruiting hard to find populations or when samples with specific criteria relevant to the inquiry are needed and whose experience can yield insights of the greatest depth and breadth (Bernard, 2000). The aim was to select "information-rich cases" because this type "yields insights and in-depth understanding rather than empirical generalization" (Patton, 2015 p. 264). This imposed a set of constraints on the characteristics of participants to consider during recruitment and selection criteria was developed for the purposive sampling. After an intensive recruitment effort, it became apparent that securing the sample to meet specific criteria would be problematic in the time available to complete the study. Consequently, the sampling criteria was broadened (Miller, McKeever & Coyte, 2006) and convenience sampling was used instead (see Table 5.3). Convenience sampling is a type of non-probability sampling where the sample is drawn from people who are easy to access and willing to participate (Salkind, 2010). A recent Australian study about Baby Boomers' aged care preferences had similar recruiting challenges that required McNeil-Brown (2013) to abandon her purposive sampling and employing convenience

sampling instead. Like that study, this investigation's sample comprises people who were able and volunteered to take part, so long as they were in receipt of or cared for someone in receipt of an aged care service.

Recruitment challenges

I assumed recruitment would be easy, but it took longer than anticipated and controlling for respondent characteristics proved challenging. I expected that because of the size of this population, individuals would be easy to find and naturally interested in taking part in an interview about a service they use or may one day need. My assumptions revealed a form of 'benevolent ageism' (Cary, Chesteen & Remedios, 2016) in failing to consider older adults' autonomy, showing I held a stereotyped view of the population that diminished its heterogeneity.

Literature discussing the difficulties encountered recruiting older people is scarce in the health related and homecare literature (Miller, McKeever & Coyte, 2003). It is non-existent in the designing for service or services literature, leading me to wonder about the representativeness of sampling in studies about older adults originating from those fields. The difficulties encountered in this study contribute knowledge to the designing for service literature about the issues of recruiting and sampling older adults

Table 5.2 Initial recruitment methods and final results

Participant yield by recruitment method / February 2016 – February 2017		
Method	Distribution	Yield
Flyers/Posters/Postcards		
Community boards, libraries & seniors' groups	142	0
U3A	unknown	9
Member newsletters		
Independent living villages, carers groups	1255	0
Targeted mail out		
Suburban optometrist	250 plus	0
Community radio		
30 sec. spot X 2 daily X 2-weeks	30k listenership	0
1 x 15-minute interview about project		
Social media		
Personal network canvass	29	0
Seniors Facebook group	unknown	0
Other		
Gumtree (free) advertisement	139 views	0
Service providers		
Not-for-profits	6	11
Local council		0
Total	**1597 (ex. Radio)**	**20**

While inexperience may have brought limitations to the effort (White, 2012), the recruitment of older adults, more broadly, is problematic, something only a few have reported on. There are barriers and facilitators when recruiting and retaining this population. For instance, sampling from the oldest old, or marginalised groups such as those living in deprived areas or who are from ethnic minorities have proven more difficult (Liljas et al., 2015). Trust, having the support of family, appropriate advertising and providing incentives were found to be beneficial facilitators for recruitment (Liljas et al., 2015). Conversely, low self-confidence, poor knowledge of services, negative past research experience, cultural barriers, feeling tired, having poor health, a lack of motivation, restricted transport options, stranger fear, lack of independence, being a caregiver, fear of providing consent — typically driven by the concern of adult children — and a lack of English proficiency were found to be barriers to older adults' involvement in research (Anderson et al., 1995; Arean & Gallagher-Thompson, 1996; Gauthier & Clarke 1999; Gilliss et al., 2001; Miller et al., 2003; Wilcox et al., 2001).

Finding a person who agrees to participate is no guarantee of success, because once a potential participant is found their actual eligibility in respect of fulfilling all criteria can provide additional challenges. Williams, Vitiello, Ries, Bokan & Prinz (1988) found "that for every nine to 12 older adults contacted, one will meet the eligibility criteria and enrol in the study" (cited in Hawranik and Pangman, 2001, p. 172). These barriers exclude issues that can surface from study design, the referral source or recruitment methods (Miller et al., 2003).

The reasons I encountered recruitment difficulties remain unknown, but the realities of investigating a public service process under reform and in flux, peoples' misunderstanding or not knowing what *homecare* means exactly[18] may have contributed. Anecdotally, the challenges might have had something to do with the nature of the topic. Like the studies of Lijas et al. (2015) and Miller et al. (2003), this study concerned the delivery of homecare that more broadly raises questions about health and longevity. The current study may have confronted adults' sense of their decline and mortality since the service delivers care to people finding it difficult to care sufficiently for themselves. This is possible when considered in light of the Australian study of Buys and Miller (2006), where 2,546 people aged over 50 were asked the question, "*What does being actively engaged in life mean to you?*". While their sample was large and appears to have been easily secured, it is not representative of Australia's older population. In their own words:

> It is important to note that participants in this exploratory research are fee paying members of National Seniors, a large Australia-wide seniors organisation. Thus, participants are relatively 'young, healthy and wealthy', and not representative of the general Australian population as a whole. (2006: 4)

If the current study were more *lifestyle* oriented, recruitment might have taken less time and provided fewer challenges.

Miller et al. (2003) stress that recruitment difficulties often forced changes to research designs, reporting extending study time, decreasing sample size, altering eligibility criteria, starting payments to agency recruiters and changing data collection methods or the analysis strategy as work-arounds after recruitment had gone awry. In my case, the eligibility criteria were relaxed to include men and widened to allow for older adults receiving a CHSP. The original intent of interviewing participants before each step was abandoned so that participants were discussing their service use experiences in hindsight. This

[18] Individuals with no first-hand experience of the sector typically confused it with residential care, i.e., nursing homes.

change was the most disappointing to make, but aligns to Kurtz and Snowden's (2003) argument that a complex system can only be known with retrospective coherence

Another change was approaching service providers to help by asking for volunteers from within their client base. Partnering with service providers has some disadvantages. This strategy was originally avoided because of the effect it could have on participants feeling safe enough to freely express their experiences without fear of payback or discrimination in any future service they may receive. Issues of power have been noted to affect older adults' experiences of in-home service provision (Doyle 2010; 2012) and when participating in research (Reinharz & Chase, 2002; Wenger 2002). The effects of a perceived imbalance of power in the relationship can impact not only the psychological and emotional wellbeing of participants, there is also the possibility that it will affect the quality of the data. If participants feel unable to express and share their experiences safely, the richness of their experience might be limited by participants' self-censorship. It can also result in sampling bias or ineligibility (Miller, et al., 2003). Aiding researchers is a low priority for service provider staff if they are not directly involved in the study and staff might discourage older adults from participating (Porter & Lanes, 2000 cited in Miller et al., 2003). It is difficult to determine whether this occurs consciously or not or the result of the way the opportunity is suggested to older adults. Eventually the reality of recruiting from this population imposed considerable time constraints on the study, which would have jeopardised its timely completion were changes not made, so service providers were approached. There was some benefit from doing this, but only marginally. In total, two separate service providers agreed to help. Together they recruited (n = 13) participants: (n = 9) and (n = 4) each from their respective client base.

Ten participants were recruited from an advertisement in the University of the Third Age (U3A) newsletter where an incentive was offered to potential participants. Although incentives had been offered at other times, the timing of the U3A callout — October 2016 — coincided with the Christmas period. It should be acknowledged that this might have contributed to recruiting and retaining participants. Participants who agreed to participate and who were clients of the not-for-profit service providers, were not offered an incentive. One participant was secured through word of mouth.

In total, I met with 26 people. Only 24 were interviewed. The data of four were excluded from the final analysis. A male recruited from the service provider named Complete Care, was ineligible because he was younger than the 65-years. His age was revealed while collecting the demographics portion of the interview by which time the interview was finished. Despite being 57-years, he was applying for an HCP,

but as a disability client.[19] His recording was deleted. Another was a 67-years old female, who recounted episodes of childhood sexual abuse, recent time in a psychiatric facility, the estrangement from her adult children and bullying by other residents of the retirement village where she lives. Overall her transcript lacked sufficient detail related to her service experience for a reasonable analysis of her data and it was discarded using secure document shredding. The third involved an 86-year old female who responded to the U3A advertisement and was interviewed in her home. Soon after beginning the interview she became agitated and confused while trying to recall certain details of her experience of the FAR-whole. On noticing this, the interview was immediately stopped by explaining that all questions had been answered. She was thanked for her time and given the gift voucher as stipulated in the recruitment flyer. Her recording was never transcribed.

Table 5.3 Final sample

Final Participant Sample of Study		
Final sample size	(*n* = 20)	
Essential criteria	Community dwelling and living in their own home, i.e. not in residential aged care.	
Gender	Male	5
	Female	15
Age	65-70	1
	70-75	8
	75-80	6
	85+	5
Ethnicity & location	Australian - Melbourne metro	14
	Australian - Rural or remote	3
	CALD - Melbourne metro	3
Years receiving service	Up to 1	-
	2-5	17
	5-10	3
	10+	-
Service type	CHSP	10
	HCP	10
System version	New system	1
	Old System	15
Carer	Yes	6
	No	14

[19] Under the reforms HCP services are available to adults with a disability who are younger then 65-years

The final instance was an 83-year old male from the service provider named Dutton Care. This participant's interview lasted three hours. While long the information insufficiently related to his experience of the FAR-whole. This transcript was discarded using secure document shredding. Of the two participants met with, but not interviewed, one was an 87-year old woman who misunderstood my reason for being there and thought I was a volunteer sent by the service provider to keep her company. The other was an 89-year old man who refused to sign the consent form.

An 'Application for Ethic Clearance' was submitted to Swinburne University Human Research Ethics (SUHREC) on 19 November 2015 and approved in February 2016. Included in that application were copies of 'Information Statement', 'Informed Consent Agreement for Participation in Research', interview questions and protocol (see Appendix). Modifications were submitted and approved in March and May 2016. Data collection ran from February 2016 until March 2017.

Data Collection

Interviews

According to Yin (2009) interviews are a primary data collection method used in case study research. Interviews are favoured by qualitative researchers (Robson, 2011). They are useful for exploring past events (Merriam, 2009) for gathering rich accounts of human experience. This study employed semi-structured interviews where the study topic is explored using a discussion guide (Minichiello, Aroni & Hays, 2008). While interview schedules guide semi-structured interviews, this type of interview retains a conversational approach to interviewing participants. This gave participants flexibility for elucidating their subjective experiences of the FAR-whole and the researcher could probe participants for deeper exploration or clarification if noticeable topics emerged during the discussion. Because of the nature of semi-structured interviews, it was possible to probe using the '*Who? What? When? Where? How?*' questions when appropriate for supporting people narrating their experiences in ways that would reveal the patterns within the service system (Evenson, 2011).

While this study is not to be considered narrative research, narrative is a key for probing complexity. Semi-structured interviews are one method for collecting information about the context of interactions in a complex adaptive system (Uprichard, 2011) that led to events and people's experiences, context being the intersection of time and space (Maxwell & Miller, 2008).

Critical realist guided interview method, recognises that meaning communication is layered and socially constructed and that the structure and context of conditions constrains or facilitates how people act, make meaning and the theory-laden nature of 'facts' (Danermark et al., 1997, p. 21). The approach

to CR interviewing taken in this study sought to collect data from which causal mechanisms, contexts and outcomes might emerge (Smith & Elgar, 2014). Critical realist interviews:

> provides one route for gaining access not only to the attitudes and emotions of informants but crucially to richly textured accounts of events, experiences, and underlying conditions or processes, which represent different facets of a complex and multi-layered social reality. (Smith and Elgar, 2014, p. 119; emphasis original)

One suggestion is for interviews to be theory-driven; informed by "an appropriate analytical framework … to enhance the depth, texture, and complexity of the accounts being developed" (Smith & Elgar, 2014, p. 119). Initial theory helps the search for causal explanation. It facilitates retroduction — the key analytic strategy of critical realist research leading to explanation — with recognising and validating causal mechanisms of events.

Interview guides were planned around three main sections where people could recount their experiences of the FAR-whole. Questions in each section were designed to gather data about systems concepts effect(s) within the system. Section questions were designed to invite discussion that elucidated the systems concepts of *purpose, equifinality, regulation, boundary, interconnectivity*. The open-ended approach was maintained throughout the discussions. The guide covered the topics:

- Find. The intention of this section was to gather information about participants need for care and how the system did or did not facilitate this for them. It was also used as a way to gather information about what other support networks were available to participants, their state of health and whether knowledge of the system was pre-existing to provide context.
- Assessment. This section addressed questions about their experience(s) of being assessed to receive care, focusing on timing and information. It was also a way to probe for affective response(s) about transitioning to needing care.
- Receive. The third section dealt with the experience(s) of service receipt. The focus of this section was the micro interaction between provider and service client. As interviews progressed, the section was used by participants to vent varied emotional responses about their satisfaction or dissatisfaction with the service.
- The closing section asked participants to make recommendations for changing any part of the FAR-whole. It also asked their age.

As interviewing progressed, my approach was informed by the proceeding interviews and iterated. Subsequent interviewees and data quality benefitted from more nuanced probing, the result of my growing understanding of the emergent patterns in the data. The interviews were conducted within the home of 19 out of 20 participants. One person preferred meeting at her local library. Two participants were from a CALD[20] background and their adult children were present at the interview, bridging the language barrier for their parent. This was important because familial carers or CALD service users typically play a major role helping parents access information about aged care services (Nguyen et al., 2011). All interviews were audio recorded for later verbatim transcription.

Analysis

This element of the research design is guided by critical realist approaches to case study data analysis. When analysis is guided by a CR approach, the intent is to avoid a 'flat reality' by probing the actual, real and empirical domains for mechanisms acting in particular ways. Hence, the search for cause drives a CR approach.

Although CR philosophy emerged over three decades ago, scant literature detailing its application in empirical research or CR-informed methodology is available, most evidently concerning coding of data (Fletcher, 2017). In planning this study, I consulted exceptions discussing CR inspired research approaches such as Fletcher (2016), Ackroyd and Karlson (2014), Wynn and Williams (2012), Williams and Karahanna (2013) and Easton (2010). The arrangement of this analysis draws from Fletcher (2017), Wynn and Williams (2012) Williams and Karahanna (2013). Fletcher outlines her data coding method and her use of abduction and retroduction for finding the causal mechanisms of her study. The latter two detail a complete approach to analysis of case research that is based on five principles from CR. Their focus on developing explanations of events and the reasons for their happening matches to the sub-questions of this study. O'Mahoney and Vincent (2014) explain that in research oriented by CR:

> The task of the researcher, then, is to work out a better and causally accurate, correct, or reliable explanation for these patterns of events via the development of more accurate accounts of the powers, entities, and mechanisms which created them. (p. 9)

The analysis sought to explain service users' experiences of the FAR-whole by identifying the causal mechanisms that produced the events. Analysis was in the style of Wynn and Williams (2012) five methodological principles for critical realist case study: explication of events; explication of structure

[20] Culturally and Linguistically Diverse (CALD)

and context, retroduction, empirical corroboration, triangulation and multimethod. Bearing in mind that in description (see Figure 5.4), the analysis presents a step-by-step, linear process, in practice working through the steps happened in parallel and with much recursion demanding of reflexivity.

Data coding

This section addresses the analysis process for the results presented in Chapters 6 and 7 (see Figure 5. 4). At this step events are extracted from experiences to understand what happened in the study phenomenon (Wynn & Williams, 2012), and the experiences of people were identified. Thematic analysis was the methodological choice for completing this. Data were coded and categorised according to the phases of thematic analysis specified by Braun and Clarke (2006).

Thematic analysis is one of many ways to identify themes and assign them meaning within a corpus of qualitative data. Thematic analysis can be applied to different data types, small and large sample sizes, inductively or deductively, is useful when findings must be clearly understood or applied in practice and is theoretically flexible (Braun & Clarke, 2014; Clarke & Braun, 2013). The aim of thematic analysis is to develop "patterns of meaning", particularly *across* data sets (Braun & Clarke, 2012, p. 57; Clarke & Braun, 2017). Pattern identification is key to analysing complex adaptive systems, but while many patterns can be found in qualitative data, the urge to collect patterns based on frequency should be avoided. Effective thematic analysis is more concerned with significance than it is repetition and always measures analysis and identification of patterns against the specific research question it seeks to answer (Braun & Clarke, 2012)

Before starting coding, the interview transcripts were read through as a set. Extensive memos where made about ideas as they emerged (Richards, 2015; Miles, Huberman & Saldana, 2014), but more detailed notes about each participant were compiled in subsequent readings. The transcriptions were read fully — exclusive of actually coding — twice. Once at the beginning and a second time at a critical point in the analysis when patterns were being reviewed and defined. After two rounds of transcription reading, the intimate details of participants stories were very familiar (Clarke & Braun, 2013), including phrasing, nuance of tone and individual personality.

Like Williams and Karahanna (2013) multiple coding cycles were completed before the final themes emerged. Coding progressed inductively using NVivo software to compile the initial codes. Inductive in that I worked bottom up from the data, coding participants' accounts without using existing theoretical positions to interpret their experiences. This stage generated 328 individual codes. In successive cycles these codes were refined, evolved or deleted as new analytic insights emerged (Miles

& Huberman, 1994; Saldana, 2009). Next, themes were generated where similarity between codes indicated something significant to do with the research question. Relationships between themes were explored visually using thematic maps and category tables (Braun & Clarke, 2013) and further refinements made. Themes were then compared with their printed data extracts to scrutinise for representativeness. Refinements were again made. Lastly, the final themes were defined and given names indicating their relationship to the research question, "[n]aming might seem trivial, but this short title can and should signal a lot." (Braun & Clarke, 2012, p. 67).

Abduction, retroduction, corroboration

This section describes the process for the results presented in Chapter 8 (see Figure 5.4).

After the final themes were compiled, the next step was abduction; also referred to as theoretical redescription (Fletcher, 2016; Danermark et al., 1997). Abduction is a form of inference where the empirical is abstracted and redescribed so that the potential causal mechanisms, structures and contexts of patterns is provided in new and different theoretical perspective (Ackroyd & Karlson, 2014, p. 30; O'Mahoney & Vincent, 2014, p. 17; Wynn & Williams, 2012). Thick Care was applied at this point. Some guiding questions were:

> What does the existence of this object (in this form) presuppose? Can it exist on its own as such? If not what else must be present? What is it about the object that makes it do such and such? (Sayer, 1992, p. 91).

Next retroduction was completed. Retroduction is the principle tool of critical realism (Oliver, 2012). It allows analysis to move from experiences in the empirical to the possible causes of these in domains that may not be seen or experienced (Mingers, Mutch & Wilcocks, 2013). This analytic step sought to find the causes of outcomes already identified rather than strengthen explanations in the extant literature (Williams & Karahanna 2013). Since this analysis was of a complex adaptive system, the process of identifying the possible causes had to consider that their form might be political, social, physical or psychological (Fletcher, 2017; Mingers, 2006). These possibilities are covered by both systems and care elements of the Thick Care Framework.

The outline of critical realist case study analysis proposed by Wynn & Williams (2012) was followed. According to Williams and Karahanna (2013), retroduction is challenging to apply because of its unstructured and unpredictable nature, but creativity, intuition and openness to allowing the process to evolve over time are of benefit. In this study, the distinction between abduction and retroduction was

obscure, often seeming redundant. However, since very little detailed guidance for conducting retroduction is available and examples where the principles of abduction and retroduction are unequivocally distinct are rare (Mingers, 2014; Oliver, 2012), I persevered with the prescribed approach.

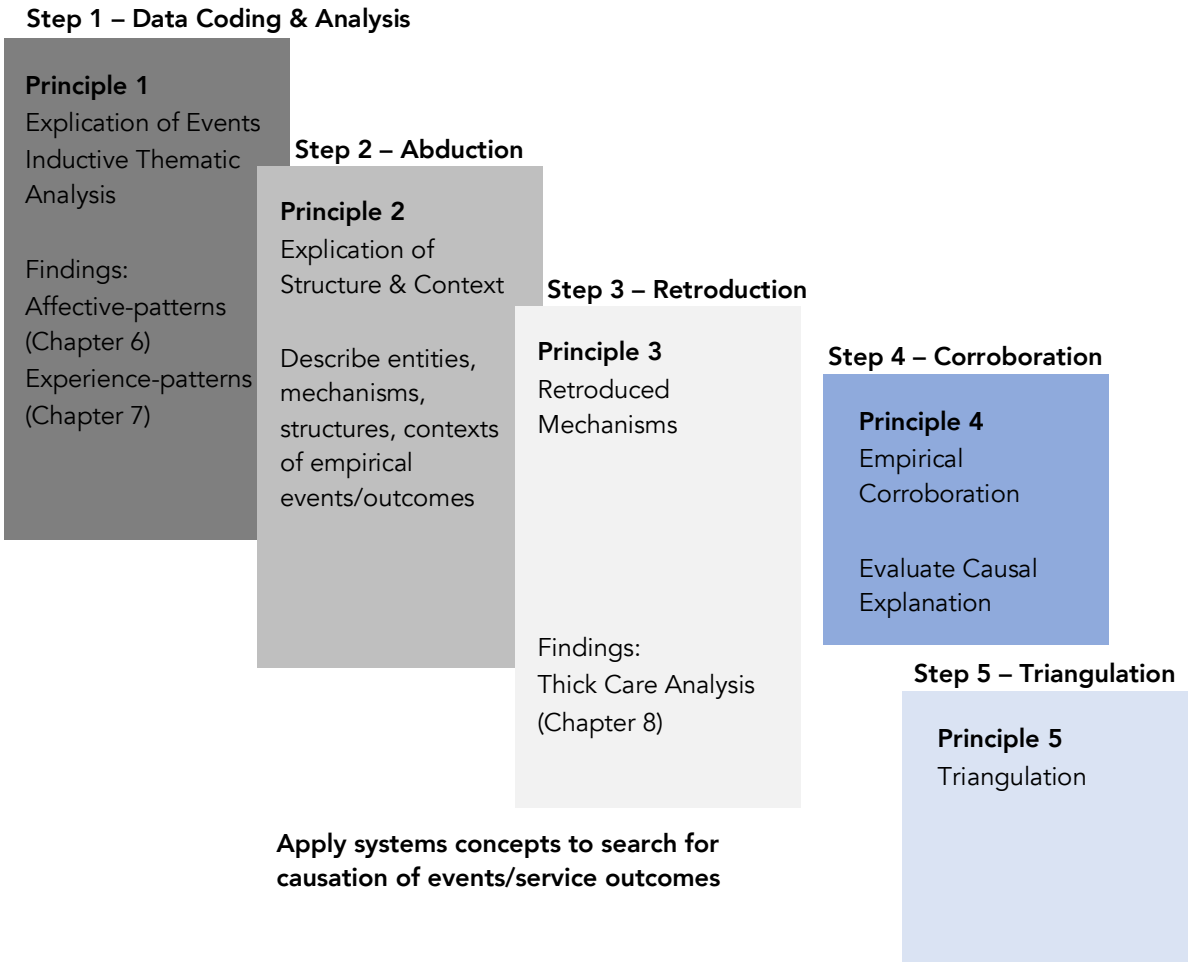

Figure 5.4 Steps in data analysis. (Adapted from Wynn & Williams, 2012)

The final step was corroboration. The retroduced causal mechanisms were next corroborated to ensure they satisfactorily represent reality and better explain the phenomenon of interest — in this case the experiences of service users of the FAR-whole — than other explanations. Through corroboration, earlier understanding of contextual conditions and mechanisms was enhanced (Wynn & Williams, 2012). In this study, the four key questions for evaluating casual explanations proposed by Runde (1998; Wynn & Williams, 2012, p. 802) were used[21] (see Table 5.4). These questions facilitate testing the

[21] The table format is extracted from Wynn & Williams (2012, p. 802) where the authors paraphrased Runde's original four questions.

sufficiency of the proposed retroduced mechanisms to provide causal explanation of empirical events, experiences and the context and structures underlying them (Wynn & Williams, 2012)

Table 5.4 Causal test questions. (Wynn & Williams, 2012)

Are the causal factors of the phenomenon actually manifest in the context?
If the causal factors were part of the context, were those factors causally effective?
Do the causal factors provide a satisfactory explanation to the intended audience?
Does the proposed mechanism provide causal depth?

Rigour of the Study

Standards for reliability and validity in qualitative research are contentious topics because the extremes of positivism and constructivism have different approaches for ensuring these. Qualitative researchers working interpretively have argued that the social and contextual nature of 'reality' makes it impossible to specify a common standard for assessing validity of findings (Bazeley, 2013; Richards, 2015). On the other hand, it is necessary to account for how conclusions were achieved. Miles, Huberman and Saldana (2013) call this "goodness criteria" (p. 311). Using their criteria, the reliability and validity of this study are discussed.

Reliability

The reliability of a study refers to its dependability. Ways to account for reliability include whether the study was undertaken consistently and congruently across all elements of the study design. This can be assessed by asking: Have things been done with reasonable care? (Miles et al., 2013, p. 312). Answering this is possible using an audit trail, which is an account of how the study was managed conceptually and practically. This chapter does this by detailing the study design: connectedness between philosophical orientation, methodological approach, primary method of data collection. It explicitly accounts for the composition of the final sample. Moreover, it specifies the analytic approach for arriving at the conclusions.

Internal validity

Internal validity considers: Do the findings of the study make sense? Are they credible to the people we study and to our readers? Do we have an authentic portrait of what we are looking at? (Miles et al., 2013, p. 312).

Triangulation is considered an approach for ensuring validity (Merriam, 2009; Richards & Morse, 2013). Multi-methods are an often-cited way to achieve triangulation, with this being a characteristic of case study approach more broadly (Stake, 1995; Creswell, 2013) critical realist case study specifically (Wynn & Williams, 2012). Two reasons exist in the latter case: Firstly, triangulation acknowledges the critical realist idea of a reality comprising multiple varied structures, with different emergent properties. Secondly, triangulation allows different methods and points of view arising from varied structures to be accounted for (Wynn & Williams, 2012).

The aim for using triangulation in case study approaches should be to ask the same question of multiple data sources as opposed to collecting and analysing multiple data separately and then comparing the conclusions within it (Richards & Morse, 2013). This tactic may be unique to case study research compared to other kinds of empirical research where triangulation is typically done during the interpretation of findings (Yin, 1999, p. 1218). Unfortunately, the aim of triangulation is commonly misunderstood as seeking to find *correspondence* between different data sources or approaches to inquiry (Patton, 2015). The benefit of triangulation is that it can foreshadow *inconsistency* between data:

> Finding such inconsistencies ought not be viewed as weakening the credibility of results but rather, as offering opportunities for deeper insight into the relationship between inquiry approach and the phenomenon under study. (Patton, 2012, p. 317)

In this study, triangulation was supported in three ways: data collection from users of two distinct service types, peer review of coding strategy and emergent themes through supervision meetings and by using different data sources: semi-structured interviews and document review.

Consideration to confirmation findings and rival explanations (Miles, Huberman & Saldana, 2013) is another way to ensure for validity. In this study, the stages of abduction, retroduction and corroboration address this consideration.

Having participants check conclusions is another approach (Miles, Huberman & Saldana, 2013) to ensure validity. But given the age and circumstances of some participants, respondent fatigue was a possibility and doing this was not feasible. On the topic of conclusions, Miles, Huberman and Saldana (2013) propose validity is apparent within findings that are context-rich descriptions, where relationships among findings are systematically presented and links between evidence and emergent theory is clear. This is attended to in Chapters 6 and 7.

External validity

This relates to how generalisable are the findings are. Pertinent questions to ask are: Are they transferable to other contexts? Do they fit? How far can they be generalised? Miles, Huberman and Saldana (2013, p. 314). This can be difficult to achieve in smaller studies. According to Erickson (1986 cited in Miles, Huberman & Saldana, 2013), generalisability is the provenance of the reader. This supposes the reader is sufficiently informed about the sampling, is given 'thick description' findings and claims of transferability are clearly stated to them. The idea of transferability was potentially difficult to conceptualise in this study because complexity accepts the idea of weak signals, which by definition are discrete not popular. For readers to determine transferability, this study provides detailed descriptions of participants, context and detailed data extracts as evidence.

Summary

Chapter 5 has explained the reasons for the application of critical realism as a philosophical orientation for the case study, the methodological choices made, the sampling strategy and corrections to it after recruitment challenges, the use of thematic analysis and retroduction for data analysis. Approaches to rigour and the limitations to do with the sample were also discussed. Chapters 6 and 7 present the findings of the thematic analysis of older peoples interview data to do with their experiences of the FAR-whole. Chapter 8 uses the Thick Care Framework to retroduce the system structural qualities affecting the system behaviour from which emerge people's experiences.

CHAPTER 6

AFFECTIVE-PATTERNS OF THE FAR-WHOLE

We can only experience our personal pathway through a system. (Buchanan, 2001, p.1)

This is the first of three findings chapters. It presents the results from a thematic analysis of participants' narratives highlighting their affective experiences of the FAR-whole and any links between these and the findings in Chapter 7. This chapter answers the first part of the question: *What are older adults' affective- and micro-experiences of Australian community aged care services and what adaptive behaviour emerges?*

Earlier discussions in Chapters 2, 3 and 4 are empirically reflected in Chapters 6 and 7. These chapters show the influence of complexity on service process outcomes and the contribution of people for creating complex adaptive systems. Further that inter-system interactions occur, the function of the artefactual world in service experiences, the number of variables in a complex adaptive system making measurement challenging, and that no two service experiences are equivalent. Findings show the relational ontology of care and systems leading the interdependency between system elements and the quality of care a complex adaptive system delivers.

Language

Chapters 6 and 7 use quantifying language to denote the prevalence of a theme within the interview data. This should not be understood as *counting* a theme to establish its importance through recurrence as might be undertaken in content analysis.[22] In this study, the degree to which a theme is relevant for being new, increasing understanding of the topic or useful for addressing real-life problems determines the significance of it (Buetow, 2010). Thus, a single occurrence of a theme is accepted if the event sheds light on people's experiences of the behaviour or its structure. The systems concept of weak signals supports my approach here. Weak signals are early indicators of some kind of change, heralding either threats or opportunities (Ansoff, 1975).

Finding weak signals can be challenging. Co-existing signals, the effects of cynics or timing obscuring their detection (Coffman, 1997). In complex adaptive systems, weak signals can drive political, technological, economic and social trends innovation. They are contextual, their emergence and

[22] This statement and Table 6.1 are inspired by Braun & Clarke (2013), who recount the explanation given by one of their doctoral students — Gareth Terry — who provided a similar explanation for the findings of his thematic analysis. The full account is found in Braun & Clarke (2013, pp. 260-261, Box 11.6).

maturity being augmented by other weak signals and considered part of larger system patterns (Saritas & Smith, 2011). Hiltunen (2008) classes a category of weak signal as early information. In these instances, since the quantity of signals, their explicitness and the issues they effect are small, they are possibly not recurrent themes in the data but can still produce results in the real world. Table 6.1 sets out the quantifying language for reporting results used in this study based on the sample of 20 participants

Table 6.1 Quantifying language used in Chapters 6 and 7

Quantifying Word	Quantity out of 20	Quantity for either LoCo or NFP group
Most, almost	15 plus	9-10
Many	At least 15	At least 8
Commonly, typically, often	Between 13-15	Between 6-8
Some, few	Between 9-12	Between 3-5
Occasionally, rarely, uniquely	Less than 9	Between 1-2
Total group/total participant group	Used when indicating an effect was throughout the total sample 20	

Anonymity, nomenclature and contribution

> *Even though you say you'll de-identify us, if people read what you write and put the pieces together, they would probably work out who it is. Anonymity in the country is different than in the city.* [Jean-Anne]

To protect participants' anonymity, the names of suburbs, towns and regional centres where they live were changed, as well as the person's first name. So too, the names of hospitals, service providers and their staff, if mentioned (see Table 6.2). People in receipt of aged care services were interviewed for this study. This means the large majority of people interviewed were over 65 years, the age when the Australian Government Department of Human Services determines an individual is eligible to receive the age pension. The nomenclature *elderly, elders, seniors* is not used (Resnick, 2017) in Chapters 6, 7 or 8. This is to avoid "othering" participants (Lindland, Kendall-Taylor, Haydon and Fond, 2015, p. 220). Instead, *service client/s*, *participant/s, individual/s* and *people* are. Mostly, I refer to study participants using their assigned pseudonym.

In five cases, study participants' family member answered interview questions on their behalf either because they lacked English language skills, were too ill to leave their home or had limited speech. The

person receiving the aged care service was present at some interviews, but not for others (see Table 6.3). In one case, a daughter spoke about her experience arranging aged care services for her now deceased mother.[23] The mother (93-years), died shortly before our interview, but the daughter wanted to continue with the study. In every instance of a family member answering interview questions, the respondent either has an ongoing involvement maintaining the aged care service, or played an integral part arranging community aged care for that relative. In such cases pseudonyms reflect that unit, not just the individual that is the actual service client (see Table 6.3).

Table 6.2 Provider pseudonym and nomenclature throughout Chapters 6 and 7

Entity named in thesis	Type	Location
LoCo	Local council service provider	
NFP	Not-for-profit service provider	
Service providers		
Banksia City Council	LoCo	Servicing LGA[24] of Banksia, in metropolitan Melbourne
Caladenia City Council	LoCo	Servicing LGA of Caladenia, in metropolitan Melbourne
Complete Care	NFP	Servicing various regions of metropolitan Melbourne and rural Victoria
Dutton Care	NFP	Servicing various Eastern suburbs of metropolitan Melbourne
Grevillea City Council	LoCo	Servicing LGA of Grevillea, in metropolitan Melbourne
Golden Wattle Shire	Rural Shire	Servicing LGA of Golden Wattle in rural Victoria
Green Valley	Rural area in state of Victoria	Rural region of Victoria, containing a number of LGA Shires
Service provider staff		
Helen	NFP case manager, employed by Complete Care	
Sherry	NFP case manager, employed by Complete Care	
Hospitals		
Prince Albert Hospital		Public hospital in metropolitan Melbourne

[23] Jean-Anne's account of arranging aged care services for her mother is interwoven with the family's realisation that their father was experiencing the effects of dementia. While the services were for Jean-Anne's mother, ensuring her father's care was a necessary step in supporting her mother and he features in some extracts from Jean-Anne's transcript.
[24] LGA is the official abbreviation for local government area.

Table 6.3 Participant pseudonym and contribution during interview

Pseudonym	Actual service client/s	Actual service client present
Adeline and Jack	Jack	Yes
Alice		
Antonio and family	Antonio	Yes
Benita and Nunzio	Nunzio	Yes
Bernadette		
Carole and Peter	Peter	No
Christine		
Connie and Matina	Matina	Yes
Eadie		
Geraldine		
Gloria		
Jean-Anne and mother	Mother	No
Kathleen		
Manjula		
Maria		
Meredith		
Moira		
Richard and Evelyn	Richard and Evelyn	Yes
Sue		
William		

Sample attributes

Convenience sampling resulted in a diverse participant sample, with a mix of provider and aged care service types. The sample attributes are significant for giving context to participants' responses and the findings. Attributes according to participant appear in Table 6.4 and Table 6.5.

Table 6.4 Participant attributes by gender

Attribute		Women	Men
Age	65-70	1	nil
	71-75	6	1
	76-80	4	2
	81-85	1	2
	86-90	1	nil
	91 plus	2	1
Relationship Status	Single	1	
	Married	4	5
	Divorced	2	nil
	Widowed	7	1
Living Arrangements	Lives with spouse	4	5
	Lives alone	10	1
	Lives with children	nil	nil

Table 6.5 Service profile by gender

Attribute		Women	Men
Family or other informal support	Yes	9	4
	No	6	1
Care type	HCP	5	5
	CHSP (formerly HACC)	10	
Years receiving care	Less than 12 months	nil	nil
	1-3years	3	
	4-6 years	6	3
	7+ years	7	1
Service used for	Carers respite		
	Cleaning	10	
	Personal care		
	Transport		
	Mixed suite	5	5

Using Saldana's (2009) explanations for each affective type to guide categorisation, participants affective experiences are assembled to depict study participants' values, beliefs and attitudes about the aged care service they receive or towards the service provider. *Values* are determined by the importance given to either a place, a person, an idea, or a thing. *Attitudes* describe how people think or feel about something. *Beliefs* combine a person's values and attitudes with their personal knowledge and experiences of the world. The resulting affective model comprises three values, one attitude and two beliefs, each identifying a pattern of affect at the micro scale of the service system and generated by service interaction. From here on, I refer to these as *affective-patterns*.

Values

Pass the baton

Pass the baton captures the physical and psychological quality of study participants' discussion about the most prevailing value they want met from service receipt — having another person who will share their burden. The pattern is inherent within participants' positive and negative talk about FAR experiences. When people recall positive service outcomes, participants talk about service features that align with their ideal standard for service outcomes. Commonly, when standards are fulfilled, participants FAR experiences exhibited accuracy, affordability, consistency, convenience, flexibility timeliness. When negative service outcomes are experienced, participants articulated FAR experiences typically marred by inconsistent quality and timing, miscommunication and missing information. This affective-pattern links to the belief *Good service is never guaranteed* and the attitude *Us versus Them* (see Appendix - Thematic map of participants' affective- and experience-patterns)

The reference to a relay race in the pattern's naming is intentional. *Pass the baton,* indicates the team work that is essential for a FAR experience to meet participants' standards and identifies the tensions participants experience when transitioning from doing things for themselves to having someone else take on some of the responsibility. Adeline explicitly articulates this idea in terms of who makes use of the home respite component in her husband' s home care package to '*catch up*', which includes running errands and doing things for herself, commenting, '*So immediately, because as soon as they come, they're in charge so to speak, because I leave. I have to give them that protocol and respect.*' An added tension that is part of the transition is the service client's shifting role in the handover to another person. Participants know their needs, habits and preferences, their home or the person they are caring for. Fulfilling these places the older person in an awkward position, Adeline, for example, commenting, '*I didn't want to treat them like domestics, if you know what I mean, like you would have over or even at home…*'

The idea that participants are handing over their previous responsibilities is integral in *Pass the baton*, but the implied ideal is that whoever is taking that mantle — a service provider or its staff — will complete the work as though the older person is doing it themselves. The participants' preference was for service outcomes that mirror their ways and standards of working, an inference being that service provider staff would know what it takes to achieve this:

> *And a couple of times I've actually come in as she's* [the care worker] *finishing and say, "Look, you've missed there." And I don't want to have do the policing, but that wouldn't happen if you had a consistent person because you'd be used to them and they'd be used to you and you'd say, "As you're finishing the kitchen, please wipe down that kitchen bench. It's got a dribble down it from something."* [Kathleen]

Notable in Kathleen's projection is the suggestion that a regular care worker would have the capacity to read her mind to complete the work to Kathleen's ideal standard, but her words actually suggest a situation where she has enough familiarity and a sufficiently good relationship with a person to tell them what to do to fulfil her standards and meet her value, which is something she believes is possible with a consistent worker coming to her home.

Pass the baton frames the service as the de-facto for the person in need of receiving an aged care service. Carole exemplifies this. A carer for husband, Marcus, who has cancer, she candidly explains the benefit she derives from his service, commenting, '*The thing about it was, it was wonderful knowing certain things would all get done at the one time … whatever else happened you knew those things were going to get got to once in the fortnight.*' The logic underpinning Carole's comment is that frailty or illness disrupt and restrict routines and lifestyles (Hale et al., 2010; 2012), initiating a need for the service to 'stand-in' her place. For Carole, it is important knowing that things will get done when she is not able to get to them in the manner and timeframe she wants — a view voiced by many in the group but most stridently articulated by LoCo clients who experienced poor service outcomes.

Two core ideals dominated participants' discussions about this affective-pattern — *doing things right* and *doing the right thing*. These are matched with their corresponding values of *efficiency* and *effectiveness*, identified as sub-patterns of Pass the baton. *Efficiency — Doing things right* captures the value participants place on both achieving sufficient outcomes and the processes and methods for achieving better than sufficient outcomes, this encompassing the qualities needed for ensuring these. Efficiency thus predisposes the service to the ideal quality standard held by participants, bringing people as close as possible to service outcomes that could have been done by them had they not needed

community aged care. *Effectiveness — Doing the right thing* captures the value participants place on good communication in retaining a sense of involvement within the situation they are now in. The ideal FAR experience embraces the values of *efficiency* and *effectiveness* equally to achieve the ideal standard each person holds in their mind. These sub-patterns signpost the preference of participants for ensuring their transition to greater interdependency progresses according to their plan and continues throughout service receipt. In the main, these affective-patterns focus on the receipt part of the FAR-whole. This is not surprising. After finding a service and completing an assessment, this service delivery endures the longest and is what occurs most frequently for service users.

Efficiency – Doing things right

The sub-pattern *Efficiency – Doing things right* hinges on consistent staffing and scheduling. For example, Alice suggests how consistent staffing is critical for her values fulfilment in commenting, '*So, after six weeks, they managed to get me a regular cleaner; and I have a list for them when they come.*' Here, Alice shows that she is prepared to *Pass the baton* if staffing and scheduling is consistent, but LoCo clients commonly detailed events when both were compromised, expressing significant anger about these times. In the following account, 75-year old Meredith, who suffers with fibromyalgia rheumatica and osteoporosis, targets the frequent staffing changes she believes create inconsistency and hinder efficient service outcomes for her:

> *… in home care, which I'm receiving, they started sending, on the roster, "We'll put this one on this week. And, this one this week". And I thought, "No, this isn't good enough. I can't do any of this myself. I cannot vacuum. I cannot mop floors. I cannot clean the shower and toilet." That's all they do. And if I'm getting this service, I think there should be consistency there. So, I said, "Could I have Penny? Could I have Agnes?" So that all happened.*

Participants explained how inconsistent staffing sometimes obstructed pre-existing appointments, usually medical, resulting in them having to reschedule because the care worker did not show up. This was the case more than once for Benita, during the time her husband, Nunzio was receiving services from their local council to help with his Parkinson's Disease:

> *They would forget to ring me and say, "Look, the carer is not available on Thursday." And I'll be sitting here waiting for the carer and the carer did not turn up. Okay, I can understand some will get sick at the last minute, but a couple of times I had to cancel doctor's appointments because I couldn't leave him on his own.*

Participants value staffing being done right, it was not the only attribute counting towards this sub-pattern and most local council clients evaluated the absence or presence of efficiency in ways that tightly coupled it with time. Occasionally, participants homed in on care workers' *use* of time, linking efficiency and quality with speed, Sue commenting, '*But everyone is different. I mean some of them chat and they're not as good as others, because others put their head down and off they go and wiz through it. Others take forever'.* Mostly, however, issues with time were discussed in relation to maintaining a regular schedule and were only made by participants who were or had been clients of local council service providers and whose lifestyles were active and social.

For these participants, maintaining a regular schedule for delivery of their service was critical and they expressed strikingly similar reasons for wanting regularity, Alice commenting, '*I have other commitments*' and Kathleen, '*I actually have a life and I need to know what time the person is coming*'. Maria best exemplifies how issues of time effect people, why the attribute matters when one is socially active and how it supports the value of this sub-pattern:

> *So, I'll organise my day to be home at 1.30pm for sure. And then I'm home and I'm racing home because I'm volunteering at the U3A on the reception desk and I'm there till 1:00pm. So, I'm making sure I'm home at 1.30 and then somebody doesn't come … then I start getting annoyed because I think, "Well, I have retired, but I have my commitments." I'm organising my life. I'm just very — I'm just as busy as when I used to go to my normal work, and I expect people, when they offer you a service, to really come up with it, properly, in a professional manner.*

Participants were irritated by both the irregularity and because it is disrespectful of their time. Maria continues her account by explaining the rebuking of her service provider, "*Well it would've been courteous to let me know because I did arrange my time for that … So I'm not sure whether they would have told me. I think they should really brush up on their efficiency*."

The first logic behind these comments is that just because service recipients are retired, this does not mean they have no interests and are always at home. The second is that the subsidised and community nature of the services does not mean the service provider can fall below a standard available in the market place. These complaints point to a misalignment of purpose among service system stakeholders (Checkland, 1998), a phenomenon that always draw dissatisfaction within a service. Participants need for consistent staffing and timing indicate how service system users have projected a perception of a simple and predictable system onto what is actually a complex adaptive system despite predictability being a contraindicated trait of complex systems (Kurtz & Snowdon 2003; Cilliers, 1998).

The degree to which a service is delivered accurately and with flexibility realises the sub-pattern *Efficiency – Doing things right*. These attributes are only occasionally identified by the participants yet have a critical role in facilitating participant's core value, *Passing the baton.* Kathleen's story of a half-finished service confronts the function of accuracy in achieving efficiency:

> *Another time, I can remember somebody came and they left all the cleaning things in the middle of the room and didn't say, "Where do you want me to put them?", or "Could I put them away?" … And, I thought, "Look, you've gone and then I have to clean up after you." There's not much point.*

The key phrase '*There's not much point*' is a succinct description of the effect on participants of a service provider or its staff *not* doing things right. When participants core value is the affordance to *Passing the baton* that the service makes, having to complete unfinished work partly defeats the purpose of receiving the service and most importantly fails to support service recipients' values fulfilment. One remedy for this, occasionally mentioned by participants across the whole group, is flexibility, a trait that helps side-step any limitations and restrictions that makes a good service experience difficult to achieve. Gloria compares service efficiency between her former, LoCo service provider with her current NFP provider. Although her local council provider was pleasant to deal with, Gloria was underwhelmed by the service they delivered because of the restrictions imposed on the care worker, commenting, '*But like I might have a box on the floor, they won't move it … some of it gets a bit outrageous and I don't see how they can keep your place clean if they don't move anything.*' By contrast, Gloria expresses satisfaction with her current service provider in proportion to the sense she can extend a limit to get something done, stating, '*Complete Care has been excellent and like I said, even the things that you mightn't have been able to deal with and you might say, "Could you do that?". They get things done, which is fantastic. They're flexible, like I said.*'

Kathleen confirms the importance of flexibility for efficiency, except she compares individuals not service provider types:

> *I think some people, just because of who they are or maybe because they're a bit work-shy, are a bit rigid. I mean the lady who came last time … said, "Oh, I finished before an hour-and-a-half, is there anything else you'd like me to do?" I said, "Would you mind dusting my bedroom?"... that's the first time anybody had said that.*

For some within the total group, the ease afforded by a service or service provider was relative to the level of satisfaction and values fulfilment. Explaining why her mother's service is beneficial, Matina

comments, '*The good thing about it is, it's sort of like a one-stop-shop*.' Similarly, Meredith only approached her council to get a grab rail for her bathroom because, '*It sounded easy that you got the rail and the handyman at the same time and you didn't have to go and do the hard yards and find a rail and then get a handy man.*'

Convenience is the foremost quality expressed in Meredith's account of efficiency in the face of the challenge faced getting a handyman to do small, odd jobs at a reasonable price in the private market. Kathleen remarks that convenience trumps any saving she would make from using the service:

> *I certainly would like some home handy man services, not necessarily because they are subsidised or cheaper, but because it's very hard to get a handy man to do small things and reliably. And if you don't know of anybody, it's very, very hard to get those things done.*

Conversely, Geraldine and Claude talked about the dual benefit of having their service provider subsidise window cleaning, commenting, '*I took advantage of the window cleaning … 'cause it's much cheaper than the commercial people and, I mean, I can't do the windows.*' Many participants mentioned the benefits of pricing and subsidisation for these services. Alice noted the cost benefit to her: "*$6.65 an hour, would you believe?*". For Moira, subsidisation made a world of difference. She recalled the time she found out about home care packages and the advantages it would provide:

> *So, she sat down with me and she told me all about Complete Care. All about what I could have done for me. All about getting extra money! Which sounds great doesn't it! And, 'cause when you're on a pension you think to yourself, "Can I get this, or can I do that, or not?"*

Effectiveness - Doing the Right Thing

This sub-pattern captures the significance of the value of effectiveness for participants, how it manifests in service interactions that depend on communication. In this sub-pattern, the notion is that for a service to achieve participants' ideal standard, as detailed in the previous sub-pattern, participants expect to be kept appropriately informed. Yet *effectiveness* is not only about information. It also hinges on the quality of communication. The adult children of Antonio, a 93-year-old Italian man, undertake a substantial advocacy role for the delivery of their father's service. Paolo, Antonio's son, comments of his father's service provider, '*So, the communication was always pretty good and remains so […] we feel comfortable approaching them and they can contact us.*' Inherent in Paolo's description is the two-way relationship that has developed between them and the service provider, backing up the link between *Passing the baton* and the affective-pattern *Good service is never guaranteed.*

Most participants valued *effectiveness*, but negative experiences were commonly reported when LoCo service providers were discussed. Participants reveal the significance of the value via instances when events have gone wrong, with blame unequivocally laid on the communication practices of their service provider. Such events were only always recounted by participants who were or had been LoCo clients. An example is Benita, whose husband used to receive a service from the local council her recounting the time she complained to the council after a series of 'no shows' by her care worker:

> *And they kept saying to me, "Have you got an issue with the carers? Aren't they good enough?". I said, "It's not the carers that I'm talking about … It's you lot in the office." That's what made me furious. They were trying to blame the carers, but the carers were wonderful. They really were.*

Underpinning Benita's account is her disbelief at the provider's lack of awareness and its inability to critically reflect on its practices. Meredith, Sue and Eadie, all current LoCo clients, each echo similar sentiments with the addition of sarcasm and condescension in discussing how ineffective communication has caused problems for them:

> ***Anna:*** *When you say, "Where they fall down", what is it specifically that you're naming?*

> ***Meredith:*** *The fact that it's quite pathetic that they haven't — like, duh! — if you can't get on to someone, that person doesn't know the information you're trying to contact them to tell them. So why would you do such a ridiculous thing of sending someone around when the client doesn't know they're coming? It doesn't make any sense.*

Sue encountered the police being sent to her home to undertake a welfare check and being on the verge of breaking in through a window when a message that she would be away for a time was not circulated to the care worker scheduled to attend her house. Sue explains that, '*now I always say to them* [her service provider], *"Now, you will pass this message on because there has been a bad experience of a message not passed on.*"' For Eadie, sarcasm appears to be the only way she can vent her frustration at her service provider. Recounting an event that culminated with her provider threatening to stop service delivery, she states:

> *No department in Grevillea City Council contacts any other department in Grevillea City Council. So, the woman in there — who's in charge — ringing me a fortnight later — I must have the buckets and the alarms put up. Well, of course, I had by then. She said, "I haven't been told." I thought —*

> *"Oh"— in fact, I said, "Oh, that's good organisation!". They just don't combine. What do they think they get paid to do?*

In these instances, the absurdity of a service provider's poor communication, the doubt that your message will actually reach the right person and the frustration of having to repeat yourself can contribute to peoples' preferences for face-to-face communication (Howe, 2008), Adeline and Jack commenting:

> *If they're seniors, they sometimes don't even read it, they prefer one on one. So, that's where we had the mix, where I could communicate with the lady whereas Jack couldn't. So, it's a little bit of a mix, you need both, but definitely one on one.*

The degree that communication is deemed transparent improves effectiveness by promoting confidence in participants about their service provider. Some in the NFP cohort highlighted its importance through their satisfaction with the billing and payment process of their service, particularly the monthly statements, Manjula commenting, 'They come and tell you, "*This is what you have to pay. This is what you have. This is your balance." You get a statement … That sort of feedback does help me to know what is happening …*'.

Passing the baton is the foremost value participants want fulfilled. The value affects participants' attitudes about the service they receive and their service provider, regardless whether this is a local council or a not for profit provider, or their service is a CHSP or HCP. Compared to *Efficiency - Doing things right*, participant's comments about this sub-pattern mentions less variables[1], thus it is smaller. This in no way reduces its significance in fulfilling participants' core value, *Passing the baton*, making it clear why both sub-patterns are important and how they dovetail to effect participants' FAR experience. Plainly put, without good information and communication, no element of service delivery can run smoothly.

Attitudes

Us versus Them

Us versus Them captures the way participants frame their relationship with their service provider and the care workers who deliver the services. The experience-pattern is prevalent among the LoCo data set. Clearly and commonly articulated in these participants' accounts was the adversarial relationship many

[1] Attributes of consistency and time, accuracy and flexibility and convenience and affordability, are what I refer to.

had constructed between themselves, their provider and its staff. This pattern hangs on a construction of service provision that is not in the interests of clients, but rather is skewed for the advantage of providers. A strong sentiment of opposition pervades the interview data.

Meredith, for example, offers her pre-service expectations as proof of her dissatisfaction with her eventual service, commenting, '*But look, I didn't have high expectations of an excellent service or something like that. I certainly didn't …'.* Alice held similar pre-service expectations, but in contrast to Meredith, her eventual service experience did not match her expectation, '*… it was a bit different to what I thought it might be, but that's just because … sometimes you maybe hear people are not treated as well as they could be. I don't know, but I was lucky possibly. I don't know'.*

There is an expectation that experiences of the service, at whatever stage, will be negative. Luck is perceived to be the only way out of this predicament. It is believed to have a significant role in the quality of care received, but participant's distrust the service system designed to provide it. Trust for the system, service providers and care workers were commonly limited among LoCo participants. The following extracts reveal Carole's cynicism about both assessment and service delivery:

> *… it's not really a transparent process I think I can say. They're not rude, but you don't actually know what they're there for exactly.*

> *I wish they didn't ask how you were because it's none of their business and they don't give a shit about anyone really.*

Occasionally, cynicism for why service provider staff chose to work in the community sector is expressed. When asked what motivations LoCo staff might have for working in the sector, Carole condescendingly muses, '*I hope I can get one of the free council car parks, so I can get away from work early and I can get my coffee on the way … I shouldn't have too much inconvenience in my job*'. In some examples, LoCo participants express disdain for their service provider or the person delivering their care, Sue commenting about her assessment, '*I mean, it's all a bit of a cushy job for someone really*'.

Sue's perception may emerge from the scarcity of information in the public domain about what the assessment part of FAR involves (Janlöv et al., 2006, Low et al., 2015; Hale et al., 2010; 2012). The affective-pattern is possible for other reasons too. When Eadie recounts the story about her service provider threatening to stop her service, she gets personal. This suggests the influence of participants' prejudice or personality in forming this attitude (Chon, 2015):

Anna: *Who was the person who threatened to cut your service? What was her role?*

Eddie: *Floor cleaner, as far as I'm concerned. I don't know. She was a cleaner, I suppose. What would you call them? You couldn't call them anything else. I suppose you've got a nice working name or something?*

There is a tentative link between the affective-patterns *Us versus Them* and *Good service is never guaranteed*. Under adversarial conditions, people try to manage the relationship with their service provider or its staff. Maria, for instance, used knowledge and diplomacy as tactics here, '*I've got people skills and I don't sort of invite those kinds of problems … Some of them are better than others, that's the normal nature of us being human beings'*. Occasionally, however, coming out all guns blazing was seen as the required course of action. According to Meredith, '*I will be keeping a very close eye on it. And I think they would know that. They've met their match in me and I won't let them get away with anything'*.

This approach also surfaces a rare instance of saving face. When Eadie's son was called by her service provider because Eadie refused to install fire alarms according to the service provider's requirement, it started a chain reaction that challenged Eadie's sense of independence and her pride, '*Of course, he panicked. Wouldn't you? It's the stupid council. They had no right over a bloody, stupid alarm. No right at all*'. In Eadie's case, her loss of control is more focused on saving face with her son and winning the argument, such that she regains the upper-hand with her service provider:

Anna: *So, what happened with the smoke alarm?*

Eadie: *What do you think happened?*

Anna: *Well —*

Eadie: *Don't worry. They're were I want them.*

Anna: *They're were you want them?*

Eadie: *Exactly. It's my house. And if they — as the Indian lady tells me — if they want to cut it*[2] *off and so, I said to her, "Well, cut it off! Stop it.". And of course, I never heard another thing.*

[2] 'It' is the service Eadie receives.

Eadie's extreme reaction over the location of a smoke alarm is disproportionate to both the event causing her disapproval and the consequences threatened by her service provider. She never explains in her interview why she and her service provider disagreed on the smoke alarms' locations, '*You'll never unravel all of that*', she comments. She doesn't mention any attempt at negotiating with them, suggesting her aim was to assert her authority and a view of service predicated on the client as central.

Inherent in *Us versus Them* is participants' preference for a model where the service satellites them. On the surface, this sounds similar to the social care principles of *person-centred care* (Helen Sanderson Associates, n.d) but the data corpus does not reflect this. Instead, a confrontational, punitive tone often accompanies participants' talk about having their needs met, even among altruistic participants such as Richard and Evelyn and those with good people skills like Christine and Maria. In the following example, Maria describes what happens whenever her service is cancelled at short notice; '*So, they apologise. I really* [emphasises this] *make them apologise'*. Here, retaining the upper-hand is the antidote for any tension that comes with a feeling of being in opposition to the service provider or care worker, averting the possibility of receiving a sub-standard service outcome, not having your needs met or being taken advantage of as Richard and Evelyn explicitly point out in this account about changing the gardener in their HCP:

> ***Richard:*** *Like the man that we've axed from doing our garden. What was he costing?*
>
> ***Evelyn:*** *$180, just to whipper snip the back. So, we've told Helen [case manager] that. We then removed him. We've got another one.*
>
> ***Richard:*** *We do have flexibility.*
>
> ***Anna:*** *What type of flexibility?*
>
> ***Richard:*** *Well, we were unhappy with his services, so, I've told Helen that I'd prefer someone to work an hourly rate. They can come in and I can say, "Well, we need to do that and do that and do that". Instead of him giving a quote, he works on an hourly rate and that's more acceptable to me. So, we do have flexibility in that. And also, if I don't say something about being unhappy with the service their giving, then they're getting away with it and if Evelyn doesn't say anything…*
>
> ***Evelyn:*** *Right. They've got away with it.*

Richard: *They're getting away with it. So, we do have flexibility.*

The focus here is the insistence that the gardener was taking advantage of them. For them, the real worth of flexibility within a service is not that it provides choice and therefore autonomy, but that choice allows for *calling the shots* whenever conditions are perceived as negative or threatening. In this regard, flexibility equates to protection. This means Richard and Evelyn can remain feeling financially secure and alert to how their package money is spent. This is a critical need often expressed in the NFP data where service clients are allocated monies according to their level of care package and receive a monthly statement detailing what has been spent.

Us versus Them is further supported by the sense of entitlement that is clear in some LoCo participants discussions. For instance, the comment by Geraldine's husband Claude, who believes in making use of the subsidised nature of community aged care services, "*Well, I couldn't see why we should have to pay $50 an hour, when you can get it for ten dollars an hour."* And those by Meredith and Eadie:

> *I worked for the government for many, many years and did my time looking after other people and now I shall have something a bit cheaper. [Meredith]*

> *Why should I do it when I can get it for free … why should I do it myself when the service is there and I'm paying rates? [Eadie]*

The logic supporting these comments is the idea of exchange. The extracts suggest a sense of earned entitlement felt by older people after a life of good citizenship, paying taxes and limiting their welfare use (Hanratty et al., 2012).

Beliefs

Two affective-patterns prevail in the interview data highlighting participants held beliefs about experiences of the FAR-whole: *Good service is never guaranteed* and *Aged Care? Not applicable*.

Good service is never guaranteed

The first pattern hinges on the idea that good service experiences depend on the relationships participants maintain with their service provider or the care worker who comes to their home. The pattern has a lateral relationship with both the value *Passing the baton* and the attitude *Us versus Them* (see Figure 6.1) because the assumption underlying this pattern presupposes good service is possible only because of client vigilance in the management of the relationship with their service provider or its

staff. The extension of this thinking is that power rests with service providers and their staff, not service clients. Carole forcefully explains this by recounting her thoughts after another service cancellation:

> *I think, "Yeah, I can handle that". But, I think, I wonder when you're really vulnerable and you're waiting on having a shower […] As a vulnerable, elderly person, you can't afford to get these people offside […] What I want to say is, "It's fine for you because you can tick us off your list as someone now who won't have a service, but you're in a position of power". They're in a position of big power over frail and elderly people and it's all fine for them. They've ticked you off their list. You're not complaining. But I'm thinking, "Most of your client group is so vulnerable, they wouldn't complain".*

There is a potential link between this pattern and the sub-patterns *Efficiency – Doing things* right and *Effectiveness – Doing the right thing* in the sense that to achieve efficient and effective service outcomes, clients must intervene. For example, Kathleen believes that to bypass the rigidity of her service, the right relationship is necessary, '*I think it depends a bit on, I suppose, your relationship...with the person who comes*'. The alternative is remaining at the mercy of a service provider or the staff assigned to your scheduled service, which risk restrictions imposed on your service outcomes. Holding this belief in place is the inherent distrust of service providers, their agendas and their staff as expressed in the attitude *Us versus Them*. Typically, the belief *Good service is never guaranteed* is expressed by participants who receive a service from a LoCo or were once LoCo clients. Participants whose service provider is an NFP never mention the need for vigilance or managing relationships to ensure a service meets their ideal standard. An occasional overlap does exist across both participant sets linked to the role of personality for helping or hindering relationships with a service provider or its staff.

Kathleen and Christine and Matina and Adeline speak about personality effecting their service experiences, albeit in contrasting ways. Matina uses her mother's relaxed nature to explain why it has helped with good service experiences for her mother, '*No I can't complain at all … I've got no issues. I mean, I know other people that do have some, but mum's pretty easy-going too. Yeah. So, I think it works both ways*'. Yet for Kathleen, being easy-going effects the consistency of her service, allowing the LoCo to make changes to her service schedule, something that displeases her, '*I don't think I've had the same person more than … twice. Now, I've put that down to perhaps I'm not as needy as others and probably a bit more flexible and amenable*'.

A disposition for relationship management cannot be taken for granted however. On occasions, participants' stories expressed how a skill for self-advocacy, speaking up or being pushy were handy for

communicating their needs to a service provider. Christine and Meredith knew their individual strengths in this regard, because of their previous work experiences in the social service sectors:

> *You have to know who to speak to. I cannot ring up the lady who does the rosters. That wouldn't probably help me. […] So, I suppose I've just learnt my way around the traps. And it'd be so difficult if English wasn't your first language. [Christine]*

Meredith uses her capability for advocacy to help not just herself, but other women too. Answering my question about why she makes complaints to her service provider she explains:

> ***Anna:*** *Why do you do that? Why do you pick up the phone?*
>
> ***Meredith:*** *Because they need to know. And, because they need to change their practices.*
>
> ***Anna:*** *Why do you think other people don't do what you do?*
>
> ***Meredith:*** *Well, they just haven't got the wherewithal to. They are frightened. Look an immigrant would — someone who has perhaps little English — and they need help in the house, how are they going to pick up the phone? So, I speak up on behalf of them every time I give constructive criticism.*

Examples like these are rarely mentioned within the total participant group data perhaps because only LoCo participants detailed events where speaking up was needed. This suggests that LoCo services were most often those that fell below an ideal standard for participants.

Aged care? Not applicable

Aged Care? Not Applicable captures participants' core belief about their need for an aged care service. It originates from one of two premises. Either, a self-assessed, unlikely need for aged care now or in the future or a perceived ineligibility for such services. These ideas were expressed by some participants from among the group as a whole. The emotion at the heart of this pattern is *surprise*. The thinking behind the first premise is compellingly disclosed by Carole who cares for her 75-year-old husband living with cancer. Leaning toward me, she says:

> *Can I say — let you in on a secret? It seems like the older you get the less likely you want to think about yourself as relevant to aged care. That's why I supposed … Well, whatever age or whatever time, when trouble hits, because I think lots of people don't think of themselves as old or aging.*

Simone de Beauvoir said she'd look into the mirror and think, "I am an old lady", but she didn't feel any different to when she was 25 and it's a bit like that.

Such comments are underscored by thinking that presupposes one's activities will continue into advanced age and that frailty will never impede these. The constructed ideal of independence and the glory associated with this state may facilitate this thinking among participants (Albertson Fineman, 2004)). As Jean-Anne surmises, '*I think for my parents, the concept of not coping was something that happened to other people*'. Although Jean-Anne cannot explain how her parents might have arrived at this conclusion, her assumption frames her parents' view of *need* as avoidable or circumstantial and thus controllable instead of unplanned or a natural product of advanced human age. An example is the accident that brought Alice to suddenly needing a service. Reversed into by a four-wheel drive as she stepped off the footpath to cross the road, Alice's injuries now limit the range of movement possible in one shoulder, making house work difficult, '*I've gone through life Anna, sort of on a breeze and I never thought about anything happening to me that would curtail my activity you see*'. Alice and Carole and Jean-Anne's parents were all taken off guard by the need for service that surfaced in their lives despite their pre-FAR lives sustained by long, professional careers, family, friends and community.

In relation to the second premise, participants described being in dire straits as the only way to be *sincerely* eligible for aged care services. Alice, Carole, Kathleen, Richard and Evelyn, Moira and Maria all held working beliefs this situation was a prerequisite before they were authentically able to access in-home aged care. Here Maria comments, '*I think I'm really a fraud*', and Sue, *'I don't look like I need the service, but I do*'. The feeling of being impostors tie Maria and Sue to the glory implied in the constructed state of independence surrounding ageing in place. Kathleen thought she would need to be, '*disabled, I suppose*', before she was eligible to receive help. For Richard and Evelyn, their altruism prevented them from searching for any help they could receive. As Richard reflects, '*I had to go through the, 'Perhaps I'm not as bad as other people and I don't deserve this'*. Their disposition for giving impeded their thinking they could instead receive, Richard adding, '*And, I guess, delighted to think that we were entitled to something because we didn't know we were entitled to anything*'.

The belief that one is not entitled to any support or that support appropriate for one's circumstances is unavailable is often echoed by other participants after they arrive at a point of no return. Moira's exchange with her GP reinforces exposes this belief, '*And he said, "Well aren't you getting any help?". I said, "No, I didn't think anybody would want to give me help"*'. The sensitivity to not being deserving of the care may explain why occasionally participants explain changes to their scheduled service through the lens of not being a priority for a service provider. Carole's explains, '*It varies all over the shop. I think*

probably without them saying anything, we would be seen as, understandably, a lower priority than someone who needs showering or whatever …'.

Summary

Chapter 6 has explored the affective-patterns of participants as they engage with the FAR-whole. From this the affective model accompanying participants as they interact with the service system was constructed. This was achieved by investigating the interview data of people currently in receipt of community age care service through one of two service types – Community Home Support Programme (CHSP) or a Home Care Package (HCP) and provided by either a local council or a not for profit service provider to establish participants' attitudes, beliefs and values.

Four patterns emerged to form the affective model describing community aged care: One is about participants' core *value* for *Passing the Baton* where their need and desire for another party to shoulder the burden for or with them is expressed and what they perceive as critical service elements for fulfillment of this. A second concerns participants' prevalent *attitude* described as *Us versus Them* where service providers or care workers were regarded with antagonism. The final two concern participants' held *beliefs* about the service and how they regard themselves within it. The first is *Good service is never guaranteed* where participants discuss the factors on which a good service experience depends. The second is *Aged Care? Not Applicable* where participants articulate self-perceptions that illuminate their reasons for experiencing surprise when need prompted them to access community aged care.

The resultant affective model reflects a shared value of *Passing the Baton* and a shared belief, *Aged Care? Not Applicable*, among participant sets. In *Passing the Baton*, the LoCo participant set clarified what was important to them by recounting events where their ideal standards were unmet. The inverse is the case for the NFP participant set where participants provided examples when they perceived they received good service to their standard. In *Aged Care? Not Applicable*, participants from both sets articulated their beliefs about service eligibility in similar ways. The most difference between participant sets is seen in the belief *Good service is never guaranteed* and the attitude *Us versus Them*. Many LoCo participants recounted negative experiences that mostly concerned changes to scheduling or staffing where individuals with skill to communicate grievances or who understood how to navigate a service provider, a care worker or the larger macro system are advantaged.

Chapter 7 provides research results in respect of participants' empirical experiences of the community aged care FAR-whole.

CHAPTER 7

MICRO EXPERIENCE-PATTERNS OF THE FAR-WHOLE

Chapter 7 builds on the previous chapter in examining the interview data set and answers the second part of the first research question: *What are older adults' affective- and micro-experiences of Australian community aged care services what adaptive behaviour emerges?* People's experiences are compiled into a set consisting of one macro-experience. This is divided into two further categories and six basic level experiences (see Appendix - Thematic map of participants' affective- and experience-patterns), each identifying a pattern of service interaction at the micro scale. From here on, these are referred to as *experience-patterns*.

Experience-patterns appear as two broad kinds: contingent or dichotomous, where each affects the macro experience-pattern *Maximising their normal*. *Contingent experience-patterns* originate with service clients, with factors covering language and culture, lifestyle and information access noticeable in participants' talk about their experiences. The model distinguishes here between *Affordance of know-how* and *Access to information linchpins*. *Dichotomous experience-patterns* are driven by factors originating with service providers but affect service clients directly in profound ways. The most profound influence on participants' overall service experience here are service provider type and the impact of case management. *Dichotomous experiences* are unyielding, there being no gradations when experiencing good service or bad service. Dichotomous experience-patterns, when negative, mandate shifts to an opposite for any improvement. In this model there are four dichotomous experience-patterns: *In or out of the loop*, *Getting the short shrift*, *Fit for purpose*, *Case management eclipse*.

Macro Experience-pattern

Maximising their normal

Maximising their normal is the macro experience-pattern of the FAR-whole. It is commonly expressed across the total participant group and marginally more by people receiving community aged care services from an NFP-service provider. The pattern captures participants' motivation for using the service system. The emphasis is on *maximising* what is already *normal* for participants, that is, maintaining the status quo, indicating this experience-pattern assumes more than a simple preference for ageing in place. This supports existing research about older people's concept of ageing in place being about familiarity with their social and communal attachments, rather than attachment to a house (Wiles, et a., 2012).

Christine is the only participant to mention how the service could benefit her in the future by allowing her to remain living in her ground floor apartment:

> *I know when things get bad, there's someone else that can come and do it for me so that I can — I just feel I can stay here and everything will be okay … And I just know that with the help of the services that they offer that I can remain in my own home …*

Participants typically admitted to not expecting needing help at this stage of their lives, tentatively linking this macro pattern to the belief, *Aged Care? Not applicable* as discussed in Chapter 6. The reasons more often expressed by participants for service use are maintaining a *current* lifestyle and managing their *current* needs. Sue candidly expresses the former aim when highlighting the main benefit of her service is that it helps maintain her social and cultural lifestyle:

> ***Sue:*** *Well it's a big benefit. I can concentrate on other things to use my energy for, rather than trying to vacuum this house.*
>
> ***Anna:*** *What sort of other things?*
>
> ***Sue:*** *Like, what activities?*
>
> ***Anna:*** *Yeah.*
>
> ***Sue:*** *Well, I do quite a number of things. So, I am in U3A, so I do different courses there. I mind one grandchild … I go out to lunch … I do the Strong Bones Program.*
>
> ***Anna:*** *Where is that held?*
>
> ***Sue:*** *It's up here at the Grenley Centre, which is wonderful for oldies. It's got heaps of programs … I do enjoy interacting and stimulating things. And I'm a reader. I'm up at the library all the time…*

The degree of Sue's sociability is matched only by Alice, Maria and Kathleen, but she expresses a crucial element of this experience-pattern, the active not passive nature of participants using the service and the central utility of the service in maximising what is *their* normal. Many participants, even those with comparatively less mobility, such as William and Bernadette, neither of whom drive, framed the main benefit of the service as allowing them to continue in a manner that is business as usual. The idea of

continuing is intrinsic to this experience-pattern despite different versions of what this means. For Carole, keeping organised is paramount:

> *Well, it just helps me feel more organised and in charge of whatever else happens. It helps me feel more organised and, in a way, more independent in terms of running our house and running our lives.*

Carole's goal for maximising the service is to have one less thing to think about. For her, the service normalises instability. The organisation of her house means she is better prepared to handle other kinds of disruptions if they happen, minimising upheaval in her life and that of her sick husband. For Carole, *maximising their normal* relates to independence, but the paradox of her statement escapes her. Carole's sense of independence is increased only through her *dependence* on someone else. In one breath, she explains how her dependence on the service makes it possible for her to be '*more independent*', yet does not connect how this dependence fails her when it does not fulfil her purpose for needing the service, a fact she adamantly vented about in her affective-patterns. (See Chapter 6)

The tension between independence and perceived dependence is clearly articulated within this experience-pattern, albeit uncommonly. The following extracts from Antonio and family, Carole, Gloria, Jean-Anne and Manjula each illustrate three ways in which tension appears as participants experience *maximising their normal:*

The stronghold of independence:

> *Anyway, he understands now, that it's something that he has to have done. I think he hates losing his independence and everything. That's pretty normal … I think that's what he needs, his being independent. [Antonio's son discussing their father]*

> *She was so staunchly independent. So, for a lot of the time, she would not agree to have services. [Jean-Anne discussing her mother]*

The incredulity at needing community aged care:

> *It was only that I thought, "we are really in trouble"; because my husband and I, we're very independent, we would have thought we were the last people who'd need any help. [Carole discussing her husband and she]*

The practicality of receiving such support:

> *I have days where I can't do it, can I. I'm sleeping, I'm falling asleep and all that sort of — but on the other side of it, I'm independent. [Gloria]*

> *But after I got this package, I was at least, independent. I didn't have to rely on those parents. [Manjula]*

The omission in each participant's thinking is understanding how interdependent their *independence* is, where the relational nature of the service systems is what makes possible achieving their service process outcomes.

Occasionally, *maximising their normal* was evident in participants' talk about how critical the service is to them for relieving the pressure of having to do so much under difficult circumstances. The ultimate benefit here becomes the assurance that what needed doing was getting done. This is particularly cogent when highlighting the link between this experience-pattern and the affective-patterns *Passing the baton*. For instance, Connie's daughter Matina makes this clear when she details the benefits of the service for her and the care of her elderly mother:

> *To take the pressure off of everyone. Off me. Off mum. Just knowing that there's help out there. That could come and give us a hand. Both of us, both parties. So — and mum? I think … they're basically … serving their purpose for mum. They're keeping the house clean, keeping the gardens clean. And for me as well — knowing that there's help out there so it's — not all the pressure's put on me.*

Pressure relief is a rarely mentioned element of this pattern, this motif surfacing only when a participant shoulders the majority of the caring responsibility alone. Matina and Carole express it and Moira too when discussing caring for her now deceased husband. Uniquely, Richard and Evelyn express it in relation to self-care. Because Richard is a sober alcoholic, the need to maximise their normal is especially prominent for this couple. When describing how the service facilitates this, Richard explains:

> *… in a roundabout way, this takes the pressure off me coping with life. If I didn't have it, I'd be worried about this, I'd be worried about that and getting all upset and everything about having to move perhaps and I can easily pick up a drink. I mean it is possible that I can get myself in such a state and that's my whole 50-years of sober life gone. So, that's been taken care of in the package as well, in an indirect way.*

A central idea in this experience-pattern is assurance in the simplicity of knowing that things will get done. Occasionally within the pattern, participants express the comfort of knowing that when all else fails, the work required to maximise their normal is taken care of. The form of this is unique to individuals, with some participants expressing psychological, emotional, physical or practical benefits, advancing use of the marker '*their normal*'. In Adeline's case, maximising the home respite component of Jack's home care package means her personal errands or similar clerical chores get done, 'I*t's used now to do shopping, doctor appointments, hair appointments, account payments and car maintenance — all those sorts of things*'. Gloria, by contrast, focuses on the emotional benefits she gains from returning to her normal, *'It makes me feel much better and all that sort of stuff*'. A precise correspondence between cleaning and maximising their normal is articulated by Christine, '*I can do the things that they don't do and manage to keep the place looking as I would like it to be …*'. An evocative, but rare idea is how the delivery of service is outlined as a surrogate by some participants:

> *It has been such a great help — not only a great help. Those ladies who come and give me help have become my family and my friends, 'cause I don't have family here. [Manjula]*

Similarly, Moira suggests her case manager, Helen, fulfils a familial role for her too, which is like what Matina did for her mother before the women sought Connie's, HCP:

> *Because I felt I needed more help. I need somebody here … But the thing is, somebody's there. Somebody's helping me, coordinate, shall we say, all the things I need done.*

Adaptive responses

Two adaptive strategies emerged from this experience-pattern. These appear in participant accounts describing behaviour after service interactions where expectations were not met. Adaptive strategies to emerge when participants are using the service for maximising their normal are *learning (a new normal)* and *Seeding the space*.

Learning (a new normal)

Occasionally, participants accepting a *new normal* expressed an adaptation based on existing skill, knowledge or a receptive attitude. In these cases, talk focused on events that highlighted system weaknesses concerning time or information. This was so for Adeline and Jack and Carole and Moira. Recounting the time care staff did not administer Jack's medication when Adeline was away from the house on home respite, Adeline's exemplifies how a combination of skill, knowledge and attitude helped

her eventually adapt a response that matched the service system output to generate a new normal within their FAR-whole:

> *Jack and I deal with it now. We have a tablet program we start an hour sooner and we have it up to date until I leave and then I leave half of one on his spoon and he's well enough to take that himself, so he can deal with that … However, we've adapted it in a sense. So now, I won't be leaving the home that long … So that was a learning curve — what they're allowed to do and what they weren't allowed to do.*

After learning about the restrictions on care staff for administering medication, Adeline acted accordingly. Although she adapted, it was the weakness in the system that caused her need to adapt. She comments here, '*Perhaps they could have a little introduction — what they're allowed to do and what they're not allowed to do*'. In one way, Adeline has been forced into policing the work of the service system. By establishing a new normal and creating a routine that avoids the care worker, Adeline has adapted to a new behaviour brought about by the system. This is her responsiveness (Tronto, 1993).

Carole's adaptive response originates in minimising the risk of sitting at home having to wait for her care worker. Carole has experienced the service system enough times to know that timing is its greatest weakness and she crafts an adaptive response that diminishes the fall out for her household:

> *… usually we have someone in the morning. We've gone to that because that seems to be a bit more reliable — that you don't have to wait around until two o'clock and then get the call. Do you know what I mean? If they're going to cancel, you'll know on that morning.*

Seeding the space

In unique cases, *learning (a new normal)* links to another adaptive response, *Seeding the space*.

The response is unique to participants whose adult children perform dedicated advocacy or intervening roles in their parent's community aged care. In this study, Antonio's children and Jean-Anne responded to challenges related to their parents' care by *seeding the space*. It is an adaptive response directed at the older person rather than the system, *'that would be our plan of attack*', offers Antonio's son when discussing how they will avoid their father's recalcitrance towards receiving aged care at home. In both cases, these adult children influence situations to either convince their parent into accepting community aged care or to get the ball rolling.

When the cognitive decline of Jean-Anne's parents was recognised, she made an excuse to intervene in the staunchly independent couple's life, '*I invented a reason to go and stay with them for a couple of days*', she recounts, '*and I suggested that I ring around all the utilities*'. This approach continued into the aged care assessment part of her mother's FAR experience. As Jean-Anne explains, '*My mother said, "You don't need to be here". And I said, "Oh they like to have — you have to have two people there". So, she accepted that'.* A tactic used by Antonio's children is leveraging his empathy. The HCP Antonio receives also benefits his wife, Carmella, as much as it benefits him, '*It's one package in dad's name and mum's getting help*'. To get Antonio to accept the care, his son explains that, '*We've consistently said to dad that, "It's as much to help mum as it is to help you" — so that he can be more empathetic toward mum and realise it's for that as well'.* This means there are frequent tensions between what Antonio wants and what Carmella needs to remain living at home and not wear herself out taking care of him and running the house. In this instance, the tensions exist between Antonio and the service, Antonio's needs and his children's purpose and Carmella's need and Antonio's desires.

Seeding the space as an adaptive response might evolve from extant tension of multiple stakeholders' purpose within the service system. In this study, the participants using this adaptive response are adult children of parents resisting a service or reluctantly cooperating with a service where there is tension between family purpose and older person purpose. *Maximising their normal* is the primary aim for the participant group. It is the reason for accepting community aged care, but the experience-pattern depends on many elements for its realisation and participants' satisfaction. The degree participants can maximise their normal relates to the quality of experience-patterns in other parts of the service system.

Micro Experience-patterns

Affordance of know-how

Affordance of know-how captures how participants' existing knowledge about community aged care influences how participants secure a service for themselves, the degree to which others advocate or intervene for them in this or how participants use skills gained during employment to find care or maintain it long term. The experience-pattern is not limited to experiences pre-service receipt but the majority of the extracts here relate to that stage of the FAR-whole. In these instances, participants talk rarely indicates knowledge of community aged care services because of previous experience with it. This aligns with other studies that report a limited awareness of such services among potential users and carers (Brodaty, Thompson, Thompson & Fine, 2005; Tang & Pickard, 2008; McNeil-Brown, 2013). The exception is Manjula, who drew on her experiences having arranged community aged care for her

husband years earlier, commenting, '*I knew the ropes. I knew what to expect*'. More commonly, participants admitted to not knowing these services existed as Richard and Evelyn show:

> ***Anna:*** *You didn't know it existed?*
>
> ***Evelyn:*** *No.*
>
> ***Richard:*** *No.*
>
> ***Anna:*** *Tell me about that: What do you mean?*
>
> ***Evelyn:*** *Well, no one tells you that there's such a thing as a homecare package out there.*

Among these participants, knowledge of the service came to their attention while under crisis, accentuating the criticality of timing (Swain et al., 2007). For Moira, this coincided with her husband's cancer diagnosis. For Gloria, it was her cancer that prompted a friend to recommend a not-for-profit service provider and a homecare package. Benita, despite caring for her elderly Italian parents, did not know help was available. It was her husband's diagnosis with Parkinson's Disease that precipitated her finding out:

> ***Anna:*** *Before the neurologist told you about the help available at the council, did you know that there was help?*
>
> ***Benita:*** *No.*
>
> ***Anna:*** *Why do you think you didn't know?*
>
> ***Benita:*** *I've never had to deal with any of this when my Mum and Dad were alive, so I wasn't aware of what was available … and it's not easy to find out …*
>
> ***Anna:*** *What isn't easy to find?*
>
> ***Benita:*** *Things like this information. If it hadn't been for the occupational therapist and the neurologist — I didn't know that we were entitled to any care.*

Participants express missing foreknowledge repeatedly in this experience-pattern regardless if they are LoCo or NFP clients, '*we didn't know home care packages existed*' [Connie and Matina]; '*I had no idea they existed …*'[Gloria]; *'a lot of the services they were absolutely unaware of*' [Jean-Anne]; '*No, I didn't know before …'* [Maria].

The *Affordance of know-how* experience-pattern also appears in accounts from participants who leveraged skills gained in the workforce. These were put to use to make sense of the system, ensuring it worked for their benefit. Although uncommonly articulated by the total participant group as a whole, Antonio's children, Christine and Meredith told how their former careers equipped them to navigate large quantities of information for their non-English speaking parents or to source specific services for themselves. Such experiences suggest that understanding the system is problematic unless a person has sufficient English literacy or an advanced ability to source information when it is needed. Where this is not present, the service system can deliver asymmetrical experiences among users, a finding confirmed in research by Knapp, Hardy and Forder (2001). This extract, from Meredith, exemplifies this phenomenon within the Australian FAR-whole

> ***Anna:*** *Had you not had the experience with your friend getting the grab rail in her bathroom, would you have known to go to the council?*
>
> ***Meredith:*** *Yeah, because I'm a social worker. [Laughs] You map these things out.*

An inclination to being proactive helps in the search for community aged care and when interacting with the service system. This trait was revealed by some participants in their talk about how they found information about services, secured additional services, guaranteed a standard of quality and managed the large amount of information given to them. Participants' accounts point to an essential disposition for being hands-on, a trait not discussed in the literature on older people's FAR experiences. '*I have the lead in being proactive*', states Christine, '*I get onto as much help as I need and I can get'.* Proactivity, resourcefulness and comprehension skill mean people can better initiate and self-manage experiences within the FAR-whole. Significantly, these dispositions support participants adaptive responses when the service system fails to meet their needs.

Adaptive responses

One adaptive response was identified as emerging from this experience-pattern:

Taking matters into their own hands

This adaptive response surfaces in participants' accounts describing times they self-initiated action to secure a desired outcome. The response is seen in cases of concealed and explicit system failure alike. The following accounts of Christine and Meredith exemplify each. Christine tells how she used knowledge from her working life to get the service she needed, '*I had at one stage worked at the Rehabilitation Centre, in their education department … with people, with needs. I just knew the councils …*', but only because the LoCo was not forthcoming providing her with any extra information:

> ***Anna:*** *In that interaction where you got the extra services through Banksia City Council, was it you that had to prompt them?*
>
> ***Christine:*** *Yes ... Except that Banksia — I'm sure they know about them, but they didn't refer me to them.*

Explicit service system failures generating this adaptive response are typical within interactions between participants and a LoCo service provider and are related to timing. For instance, when the pain of Meredith's illness meant she desperately needed community care to help with house cleaning, she made her original inquiry with her LoCo, but having to wait too long for any resolution, she acted:

> *I know it was weeks. It was a matter of many weeks and I thought, "Bugger this! I'm going to ring them back". So, I rang the council back. They're pretty slack … I know I had to hurry them along … I was in a terrible lot of pain and I just kept acquiring more fractures and getting worse … it was pretty gruelling …*

The relationship between time and this adaptive strategy is patent. When a physical need arises, often unexpectantly, participants' comments reveal their expectation for an experience of the service system with corresponding momentum. However, although time is an important factor, not every instance of this adaptive response happens under dire straits. Manjula, for example, decided it was time for her to receive extra help:

> ***Anna:*** *You rang the assessor? You got in contact with the assessment?*
>
> ***Manjula:*** *Yes, yes. But I already got my doctors' reports and everything. So, I rang up and said, "I've got problems. I've got all these medical records. How do I go about it? I want help".*

Although timing issues typically initiate this adaptive response, occasionally it was the quality of knowledge of system staff that meant participants had to employ alternate means. This was the case for Jean-Anne when she sought services for her parents. After failing to find the information she needed using formal channels, her husband suggested a different approach, '*In the end, my husband said, "I've got an idea. I will ring such and such in this Green Valley Hospital. It's a private hospital. I'll see whether they can both be admitted there*"'. Jean-Anne expected staff at the services she contacted would have depth of knowledge that could help her address her concern quickly. Instead, she found that unlike her husband, they were unable to think laterally to find a solution for her situation, '*None of the services I spoke to suggested anything as practical and useful as that'*. To care for her parents, Jean-Anne and her husband had to take matters into their own hands, '*We had to resort to these various sorts of devious strategies to separate them and to get him into residential accommodation, so we could get mum home and get … care delivered to her'*.

Access to information linchpins

The second contingent experience-pattern identified is *Access to information linchpins*. This captures how participant's social and material networks support finding or securing community aged care for either themselves or someone they care for. Most participants recounted experiences illustrating this pattern, with these mostly occurring in the FIND part of the FAR-whole. This experience-pattern typifies how the social, as one system element, contributes to the interdependent, relational character of complex service systems and represents networked social and material elements working together (Kimbell, 2011b; Manzini, 2011). Here people intervene on others' behalf, catalyse people into action, support finding information and disseminating it. In one way or other, participants talk describes how the innately interdependent, relational qualities of the service system aided them when community aged care was needed.

Access to information linchpins is rarely discrete in participant's stories. It is commonly expressed within accounts of another intervening on their behalf. An example of this is Antonio's family, specifically his son, who uses his professional skills to service manage for his father, illustrating a link between this experience-pattern and the *Affordance of know-how*. This extract illustrates, the socio-material nature of community aged care service systems:

> ***Antonio's son:*** *So, these are the sort of leaflets that they gave us. All the different services that were available through them … That's all the other stuff for aged care from the government; all the different leaflets relating to home care packages …*

Anna: *Did you read all of it?*

Antonio's daughter: *I tried. [Laughs]*

Antonio's son: *Yeah. I spent the better part of a day.*

Antonio's daughter: *I tried, but then I know my brother's very good with this — all this sort of stuff, so I let him.*

Antonio's son: *I worked in the government — Centrelink — for many years … I know the importance of keeping proper records.*

Anna: *None of this fazes you?*

Antonio's son: *No.*

The significance of Antonio's son within this process is clear. Because Antonio does not read English, his children need to make sense of the information provided by the service provider or the government for him. Although there is no way of knowing from this extract whether Antonio's daughter could do the work as her brother does, she indicates deference to her brother by virtue of the family's shared understanding of his skill. He *is* the *information linchpin* working with other system parts, a role the children of CALD parents commonly undertake, aligning this finding with Australian research undertaken by Hurley et al., (2013) and the UK research of Merrell et al., (2006). Without him, this family's experience of the FAR-whole may not work as efficiently, undermining the quality of Antonio's care.

When realised as an intervening strategy, this experience-pattern happens in less direct ways. Moira also experienced the benefit of information linchpins. Starting her FAR experience after her doctor's intervention with a LoCo, she later switched to an NFP-service provider. Explaining how it is that she came to be in receipt of an HCP, Moira says:

I was just talking to Helen and she said, "Well I belong to Complete Senior Care", and she was telling me all about it, "you are somebody that should be in here with it". I said, "Well, why?". She said, "Because the government is going to help you".

In some cases, health professionals intervened for participants without fully explaining what was happening. When Richard and Evelyn discuss the initial contact with their LoCo service provider, the extract emphasises their half-knowledge about what their doctor was initiating:

> ***Richard:*** *He recommended us to Green Valley Council to see what care we could get from them or what our need was at that time.*
>
> ***Anna:*** *How long after the doctor called Green Valley Community Health —*
>
> ***Richard:*** *We don't really know. We didn't know that he was going to do it.*
>
> ***Anna:*** *Oh. He just went out and —*
>
> ***Evelyn:*** *No, he just did it.*
>
> ***Anna:*** *He didn't ask your permission or discuss it with you?*
>
> ***Evelyn:*** *No. Well, he just said, "You need it".*
>
> ***Anna:*** *He told you?*
>
> ***Evelyn:*** *After he'd done it.*
>
> ***Anna:*** *How did you feel about that?*
>
> ***Evelyn:*** *I don't know. I don't think I felt — it didn't affect me one way or another. I just said, "Oh, okay".*

Another quality is apparent in this extract, the matter-of-fact reaction Evelyn has to her doctor's intervention. Under similar circumstances analogous reactions are expressed by Eadie, "*And then I thought, 'Oh yes, well, why not?*'; Moira, '*He's a marvelous doctor. He really thinks about people. So that was it".;* and Sue, '*And then, when the doctor spoke about it, I thought, "Oh well, I'll give it a try and see*'". Such composed responses contradict the intensity participants expressed in the affective model, notably within the experience-pattern *Us versus Them*. This is especially the case with Eadie and Sue, the most ardent, sardonic critics of the total participant group. Although there is no conceptual link between

Access to information linchpins and *Us versus Them,* one reason for the contradiction may be the function of personality for moulding people's views about their community aged care and how this can affect their experiences of the FAR-whole, this finding supported by previous work completed by Chon (2015).

In a few cases, intervention or advocacy by others meant differences in accessing a service or not and the time it took for a service to start. Such experience-patterns show the advantage of having access to people who know the system and leverage their knowledge or connections to get things done. Carole, for instance, was stonewalled when she enquired with her local council about services for her husband:

> *When I'd made direct contact with the council, they'd said, "No, you wouldn't be eligible", and so I didn't bother asking anymore.*

A chance meeting with the right linchpin, helped Carole secure a service:

> *I contacted that lady and she said, 'You should be getting care from the council.' Then she emailed the council … And that lady, emailing them, sort of put them on notice that they needed to follow up … I think she was some kind of overall service coordinator … she emailed them quite firmly, "This family needs assessment". So, it was because it was in writing and she was with another service provider that it seemed to motivate them, because initially they made it sound like we shouldn't be asking.*

While uncommon within the total participant group, participants learned about service options from others with whom they had loose connections, suggesting the "strength of weak ties" (Granovetter, 1973) for finding information about community aged care. The strength of weak ties depends on having access to a network of people to whom participants are loosely connected, who are sufficiently informed and connected themselves that they can provide the right information. This happened to:

Connie and Matina —

> *Basically, her friends down the road were getting that service and they put us on to it. So, we didn't know that Home Care Packages existed … they told her where to call and how to get the process going;*

Gloria —

> *I was fortunate that someone who knew about it mentioned it to me … She didn't recommend it, but she asked me if I was aware of those services and that they were available.*
>
> ***Anna:*** Before she told you about the services, were you aware of them?
>
> *No. Not at all;*

Kathleen —

> ***Anna:*** So, what prompted you to search for a service?
>
> *I wasn't searching for it. A neighbour suggested it. She was using Banksia City Council for outings and activities and she suggested that I might be interested in what they have to offer.*

Maria —

> *… I was told by a friend of mine who is a carer for her husband. She said, "I think you qualify for that and I think if I were you, I would apply for it". So, I did.*

Rarer still, were times when participants sought validation from their peers. In these extracts, participants' express hesitation about the service so seek assurance from their peers. This is typified best by Eadie, who comments, '*And so, I went from there, asked around various old friends about it all, "Had they heard? Did they feel comfortable about it?"*'. Sometimes, vagueness about their eligibility appeared, "*And everybody said, "Of course you'll get cleaning! You can't look after this on your own with the aftermath of the accident and having cancer"*', explained Alice, pointing to a possible link between this experience-pattern and the belief *Aged Care? Not applicable.* The small numbers of participants to consult friends prior to seeking a service in this study appears to contradict current thought about older people seeking information from people they trust (Howe, 2008; Low et al., 2015; Swain et al., 2007). However, this could be a consequence of small sample size.

Occasionally, participants mention the role of local information for securing information services. Here, the extent a person is involved in their community affects the degree and quality of information they can access. Omitted from such accounts is the experience of people with a CALD background and those living in rural locations. The LoCo participants who described accessing information about services

using local opportunities were sophisticated communicators, live in upper-middle class suburbs with many kinds of communal activities available and maintain active, social lives:

> *I read the bulletins that we get and they have information in them because I go to a number of concerts. Grevillea City Council is a pretty good council for what it provides entertainment wise, lectures wise and I am at the U3A in a particular Books for Life course and Spanish course … [Alice]*

A benefit of participants' connection to locally available information is that it allows them to gather incidental knowledge about services, reinforcing how the strength of weak ties influences the process. The continuation of Alice's above extract epitomises this:

> *… and all the people that you meet there, they talk because they're all of a similar age and really, they talk about what they are able to access. So, I did know about it.*

Inherent in Alice's explanation is the sense of ease underpinning her experience of finding information. She is comfortable participating in her community to make connections and find what she needs. The critical gerontology argument that aged care experiences are *contingent* upon class, education, circumstances and geography (Baars & Phillipson, 2013b; Holstein & Minkler, 2003) and the social care research of Bright et al., (2013) resonate within Alice's account and with the lives of Kathleen, Sue and Meredith. This experience-pattern shows how socio-economic status can prime individuals for ease or difficulty if community aged care is needed. From this data, acquiring information from locally available outlets is less about serendipity than it is about constantly interacting with the community and having an interest in learning. As Sue outlines, '*Yeah, learning about it and reading … being educated what services are available. Just the same as everything else*'.

In or out of the loop

In or out of the loop captures the experiences described by some participants where they felt either informed and confident, they knew what was going on or were caught in liminal states because of poor communication. This experience-pattern demonstrates how staff, information and communication business processes have consequences for people having a good service experience. The pattern is unforgiving; participants either do or do not feel well informed after interacting with the service whether interactions were with service provider staff, ACAT assessors or printed information. When Bernadette discusses how it is that her service provider keeps her informed, she flatly states, '*They give me information*'. What is not disclosed by Bernadette's statement is what additional factors makes her experience straightforward. She is an NFP-service provider client receiving an HCP, meaning

Bernadette's service includes case management overseeing the delivery of her care. *In or out of the loop* is related to the experience-pattern *Case management eclipse*.

The quality of information is essential to participant's feeling *In or out the loop*. Five qualities were identified in accounts about this experience-pattern:

Clarity and access:

> *I didn't feel left out of the process; but she did explain things so well that I felt that I was on top of it and I think she gave me contact details and so forth if I wanted to contact her [Jean-Anne, talking about her mother's ACAS assessor]*

Speed:

> *They hinted at the fact that they would be able to approve that kind of package … they pretty much told us right there and then … [Antonio's son, talking about his father's ACAS assessment]*

Transparency:

> *They told me. Each time, they made me aware of what happens, the steps of it basically [Alice, talking about her FAR experiences before receiving service]*

Organisation:

> *Yes, it was very systematically worked out [Kathleen talking about her assessment]*

> *And she also gave some — there was — for us to contact the Prince Albert Hospital, to register with them under a couple of things … so that was a follow-up on what she did here [William talking about his first assessment]*

Ease:

> *She just rings me up and she tells me that I'm due for an assessment and just asks me when it would suit me. It's easy and just a normal arrangement … It's just one tick basically [Maria talking about the assessments that monitor her progress]*

Despite these accounts, the pattern comprises a greater frequency of talk about being left *out of the loop*. In such accounts, the liminal state of participants after episodes of poor communication, exaggerated delay or disorganisation are present. For instance, Jean-Anne describes her mother's second assessment after moving from Metropolitan Melbourne to the regional town where Jean-Anne lives:

> *And when she came down here, it became more confusing because the person wasn't nearly as clear at explaining it. We were more muddled when the person explained it than before she started explaining it … the person was not a good communicator. She was a hopeless communicator!*

Responsibility for good communication rests with service providers. Poor communication was similarly experienced by Benita and Nunzio, who comment, '*There was no communication in the office. There was something terribly wrong in that office …*'. Maria also comments, '*What I'm not happy about is if somebody can't come. Sometimes, I find that I have to ring them and they forget to tell us that this person can't come, which I don't consider being professional*'.

These experiences might accentuate the betwixt and between state of people as they transition into using community aged care (Hale et al., 2010; 2012). The following extracts are underpinned by participants' sense of ambiguity about the situation they were forced into:

> *Unfortunately, if you ring them, they don't recommend anyone else, so when I asked about the gutter cleaning, I said, "Well, do you know of anybody who does them on a regular basis?' and they said, 'No'. So, it wasn't incredibly helpful. [Kathleen, recounting an experience of poor knowledge]*

> *I didn't know for about one or two weeks, I think. And this gentleman had gone off on holidays too. So, I had to wait for about three weeks, I think. [Manjula recounting an exaggerated delay]*

An emphatic account of the ambiguity of this experience-pattern is expressed by Meredith:

> *There hasn't been any contact since the beginning of the year to review my situation. Has it improved? Has it got worse? Do I need more or less help? When does it finish? I know nothing about that, just that the cleaners turn up once a week.*

Besides its emotional and psychological effects, there is also a practical dimension to this experience-pattern. Moira, currently the client of an NFP-service provider, details her frustrations with poor communication when formerly a LoCo client. Her transcript compares her LoCo- and NFP-service providers; here she focuses on the lacking communication of her previous LoCo:

But when you're assessed they don't seem to — well, at least Golden Wattle Shire didn't give me any idea of what was going to actually happen. They said, "Oh yes, we can arrange for somebody to come to clean up". They didn't tell me anything else ... Nobody said, "Well, she'll be bringing out her own little bit so everything will be properly earthed". Nobody said, "Well, you need to have" — I forget what it was now … But it does mean that you don't know about it until somebody comes along and says, "Oh, you have got to have so and so, so I can clean your bathroom" … I did not receive [emphasises receive] enough information when I asked about services … They forgot to tell me things … or they just didn't think to tell me things like that. That's the — that's the thing.

Two parts of the FAR-whole show more instances of this pattern: assess and receive. In the below extract Richard and Evelyn, retell their moment living this pattern:

Anna: *After assessment, how did you know what stage your application was at?*

Evelyn: *We didn't.*

Richard: *We didn't.*

Anna: *You didn't?*

Richard: *No.*

Anna: *Did they give you any indication of time?*

Evelyn: *No.*

Richard: *No.*

Anna: *So, the assessor didn't give you an indication of time?*

Richard: *No.*

Evelyn: *No, we just waited.*

Richard: *Well, yeah. We just waited.*

Anna: *No one kept you up to date?*

Evelyn: *In a loop? No.*

The experience-pattern *In or out the loop* is connected to the affective-patterns *Passing the baton* and *Good service is never guaranteed.* In the first, the link is based on the consequence of this pattern for either supporting or undermining participants fulfilment of this primary value. Information and communication are significant for bridging service providers and their clients. The quality determining how well participants are able to *Pass the baton* to their service provider. In the second case, the pattern links to the belief *Good service is never guaranteed* because being, *In or out of the loop* is an either/or state. When people felt out of the loop, it contradicted the idea of good service. *Good service is never guaranteed* was considered to have an element of chance. Service clients are lucky if they interact with service provider staff capable of good communication and supported with good information to do their job.

Getting the short shrift

The experience-pattern *Getting the short shrift* captures participant's talk about sudden changes to their service or unexpected service restrictions. Critical to this pattern is participants' sense of not attaining what they expected and presently need from the service, at the time of delivery. A lateral relationship exists between this and *In or out of the loop*.

This experience-pattern is expressed by LoCo service clients only, contributing to its being a dichotomous experience. Many in this group recount events when they were frustrated and felt short changed, with no control. Occasionally, participants' reveal utter dismay about their situation, as emphatically vented by Benita:

> *They kept saying, "But, we're short of carers". But then, they would send them to seminars and stuff like that … then forget to ring me! ... So, one day — I was furious when I rang — and, you know, "The carer is on a seminar today — or a meeting — or, blah, blah, blah". I said, "Look, I'm sick and tired of you lot. You cannot organise" — I really lost it — I said, "You cannot organise a piss-up in a brewery!".*

The hallmark of *Getting the short shrift* is upheaval. Participant's talk commonly emphasises events when they were exposed to significant, regular changes to staffing and delivery times that meant they were not able to *maximise their normal*. The extracts that follow exemplify this:

Alice —

> *She came — the first lady came — then a fortnight later, the next lady came and then a fortnight later, a gentleman came. And I said to the council, "It's a bit awkward that you can't advise me until the day before, because I have other commitments" … So because each time … they came at different times and I didn't know the time until maybe one day before when they were coming, so that meant … I just had to hang around until they could tell me … Anyway, I did say …, "Look, it's not really great because it means that I don't know what I can do on a Friday because you can't tell me".*

Carole —

> *Well, this last time … they … spoke to my husband a few days before saying the normal lady wouldn't be coming and someone else would be coming … they were due at 9.30 and I got the call at 9.20. It's not uncommon for them to call … Usually we have someone in the morning … we've gone to that because that seems to be a bit more reliable … you don't wait around until two o'clock and then get the call. Do you know what I mean? If they're going to cancel, you'll know on that morning.*

Kathleen —

> ***Anna:*** How many different workers have you had come to your home?
>
> *Six.*
>
> ***Anna:*** Six in six months?
>
> *I don't think I've had the same person more than — I think I had the Aussie woman twice and I had one other person twice … I did ring them once and say to them, "For God's sake! Can you give me a time…" — it's always on a second Tuesday — "Can you give me a distinctive time because I actually have a life and I need to know what time the person is coming". They told me 1.45pm on a Tuesday, but sometimes they came at 10.30am, sometimes they came at three o'clock.*

Each extract pinpoints an expedited solution to a problem originating at the service provider's end, where the solution did not address the shortfall to clients, but side-stepped them, demanding even more

change, such as a different day, a new time or staff. Reactive solutions to problems leave participants feeling they are *Getting the short shrift*, making a tentative link between this experience-pattern and the affective-patterns *Passing the baton* and *Good service is never guaranteed*.

Besides upheaval, these extracts identify the constraint participants experienced when *Getting the short shrift* — '*We organise our day to be here when they come*', asserts Maria, '*quite often I get irritated and I think, "God! I rushed around" … then either they don't come at all and then we have to organise another — they have to squeeze us in somewhere. It's an inconvenience*'. Changes to participants' routines are aggravated when quick fixes are applied, their flow-on a further hurdle to people achieving *their normal*. Meredith's experience is the exemplar of reactive, expedited solutions central to *Getting the short shrift*:

> *I was at a scheduled appointment at the doctor … came home and found a worker standing at the door who had been there for an hour, sitting in her car wasting time … And then couldn't stay with me at my appointed and scheduled time [emphasises this] because she was asked to move on to someone else because the council sent her at an earlier time because another client had cancelled. So, I was grossly disadvantaged that week. This has happened on at least five occasions over the last few months … I was very angry … and felt it was very unfair and unjust that someone else had pulled out of their appointment and because of that, they sent that worker to me without … actually connecting with me by either of my two phone numbers which have been given to them, to ask if its certain I would be home.*

Although upheaval and constraint are tightly linked in this experience-pattern, which one precedes the other varies, so that one may bring about the other depending on the context. In the few cases where constraint preceded upheaval, it was in the form of restrictions on the duties a worker was allowed to do. This is articulated by Kathleen who comments that, '*The rigidity of tasks sometimes irritates me*'. Gloria, discussing her former LoCo-service provider, reports, '*I might have a box on the floor — they won't move it. It might be heavy, I can understand … they've got safety issues … but some of it gets outrageous. I don't see how they can keep your place clean if they don't move anything*'; or Geraldine, who comments, '*I had the window cleaning done … they would only do the downstairs. They wouldn't do upstairs …*'. Then there is Carole, who recounts:

> *While the council said, "You could have stuff like your windows cleaned …", the person who came along to do it had never cleaned windows before and they wrecked stuff in the garden while they did it. So, we would never bother asking the council for anything else at this stage.*

Noticeable in Carole's account is the sense that she deemed the service as amateur. *Getting the short shrift* is demonstrated by Carole's experience. The service provider not only assigns an untrained worker for the job but one who is *also* careless. When this happened, the constraint led to under fulfilment of service, meaning the participant was not able to use the service for maximising their normal

Adaptive responses

One adaptive response was identified as emerging from this experience-pattern. This appears in participant accounts describing their reactions to service provider behaviours that were expedited to benefit the provider but resulted in upheaval for participants. The participants expressing adaptive responses to this experience pattern are clients of a LoCo service provider. The adaptive strategy to emerge when participants experience Getting the short shrift is: *Refusing the service*

Refusing the service

Refusing the service relates to participants refusal of options for another day, time, or fill-in service worker, after the service provider fails to meet their regular service as scheduled. This happened to Kathleen:

> *She rang and said, "Oh look, sorry, the person rang in sick", and it was 20 minutes or something [before the service was to begin]. And I rushed home from shopping to be here. She said, "Oh, she can come another…", and I said, "Look forget it". I was a bit irritated.*

This adaptive response is rare, its significance resting on its extremity. By refusing any substitution in their service, participants further sacrifice using the service for *Maximising their normal*, making the response seems counter-intuitive. The tactic seeks to protect a critical element of the earlier mentioned value held by participants, *Passing the baton*, which is *consistency* (see Chapter 6). Carole articulates the logic of this response when discussing the time that she and her husband experienced a double cancellation of his service:

> *They knew that they'd already replaced the person, "They're not coming today. They're not in today", or whatever, "We might try to get you someone else a bit later". And we say, "That's alright. Don't bother" [Contemptuous]. They do change the person a lot, so sometimes we'd say no to it because I think having another person, who's different again [emphasises this point], we'd be better off not having to go through explaining everything.*

For both women, consistency in their service is commensurate with quality and efficiency (see Chapter 6). Disruptions to consistency when receiving aged care services forces participants to shift mode into

accepting a compromise in quality, efficiency or to their personal time. *Refusing the service* is how they avoided this.

Fit for purpose

The focus here is service worker deficiency or sufficiency. The experience-pattern *Fit for purpose* describes the categorical effects for participants of workers' suitability and competence for the work so that people feel they are *maximising their normal*. As a group, participant accounts of this experience-pattern vacillate focus between skill level and personality type. Extracts demonstrate simple events where worker skill or personality type was ill-suited and participants felt underwhelmed, bewildered or dissatisfied. Participants emphasize the merit of service worker personality and competency for delivering acceptable service outcomes. Discussions show their assessments are exacting, with little variance in quality acceptable. However, distinguishing participants' boundary between personality and skill in such discussions is challenging, implying their mutual reciprocity for fulfilling participants needs:

> *When the first one, Margaret stopped coming, they sent me a couple of other people … then I said, "I just can't work with her. She's too this or she's too…". You have to have someone who suits your personality … With some of the different carers that come … I've sorta had to ring them up and say, "Please, not that one. Find me another one.". It's the personality of the person. [Christine]*

Notable in Christine's explanation is the dyad she forms between herself and the care worker — the smallest system within the FAR-whole — "*I just can't work with her*", she explains, even though Christine is not actually *working with* her. This coupling reiterates the association between this experience-pattern and the affective-patterns, *Passing the baton* and *Good service is never guaranteed*. Particularly, a link with the latter is evident within participant accounts. Later in her interview, Christine explains, '*… it's not sort of part of her whatever, but she'll — because she and I are on really good terms, I know that I can ask her to do those little extra things occasionally*'.

The vital relationship between participants and service providers and participants and their care workers is clearly and commonly articulated by LoCo and NFP participants alike. In the first instance, participants usually complain; in the second, they praise their providers and the staff delivering their care. The pairing is obvious, as Adeline, explains, '*With Helen keeping a tab on … what we need and what we don't need or what we might be ready for*'. This relationship works because Adeline's case manager is proactive, an unexpected quality for the rare participant. Jean-Anne articulates her mother's surprise while a LoCo client in Metropolitan Melbourne:

She really clicked with the lady who took her shopping … and was surprised by how much the lady did … the lady didn't just drop my mother on the footpath. She came in and carried the shopping in and put it all away for mum. Mum couldn't believe it.

Kathleen remembers:

The lady who came last time … said, "Oh, I finished before an hour-and-a-half, is there anything else you'd like me to do?". I said, "Would you mind dusting my bedroom? I know it's very dusty". She said, "I'd be happy to". But that's the first time anybody has said that.

Personality is important in other ways besides the attitude of a care worker at service delivery. Service provider culture, although rarely mentioned, dominates participant accounts detailing service satisfaction:

… when there's any difficulty, they always seem to oblige as quickly and courteously as they can. [Bernadette]

Look, Complete Care is versatile. They're 100% on anybody else. I won't mention names, but if I want a window cleaned, they will … like I said, even to the things that you mightn't be able to deal with and you might say, "Could you get that?". They get things done, which is fantastic. They're flexible, like I said. [Gloria]

The degree to which a service client assesses a service worker as *Fit for purpose* reveals itself in other, less common, but relevant service experiences. Shared among these is the critical link between service worker behaviour and its effect on service clients. This is critical for clients' feeling well and fairly treated and having their minimum standards met. Below, extracts from Jean-Anne, Carole and Meredith articulate such moments:

Jean-Anne recounting her mother's assessment:

The experience of assessment was actually very good … I was impressed with how sensitive … pleasant … sensible the person was … she spoke very clearly to my mother … who talked incessantly about irrelevant things — much to my embarrassment ... but the person who did the ACAS assessment was obviously aware of that … and dealt with that … nicely and appropriately. I was so impressed with that service.

Carole describing the time she felt judged during service receipt:

> *We did have one man once who told us … that he came to people who needed him to be civilised to live and obviously that was what he was there for … I don't know why he was so judgemental? He felt he could sit in judgement of us, but most of them are like that.*

Meredith justifying her insistence of having a consistent person as her service worker:

> *… some of them are just pathetically incompetent. I bought this vacuum … which I paid a lot of money for … and they stuff around with it … there was one guy who kept turning it, on and off … on and off … on and off … and spent 10 minutes in the toilet! ...you just don't do those sort of things, when you come to someone's house to do a job for an hour… He hardly did a thing …*

The preceding dichotomous experience-patterns form a triad that links to the affective-pattern, *Us versus Them.* This triad also has a lateral relationship to the next dichotomous experience-pattern: *Case management eclipse*.

Case management eclipse

The experience-pattern, *Case management eclipse* is the fourth and final experience-pattern contributing to *Dichotomous Experiences*. The saliency of this pattern is that it polarises service into good or bad experiences among people who are the service's client base. In the 'count' of this pattern it skews to clients of NFP service providers. All extracts comprising this theme are from people who are clients of an NFP provider and therefore in receipt of an HCP, which is built on case management. This suggests that case management is the differential for experiences considered *good* service. Among this sample, *Case management eclipse* has a critical lateral relationship with the preceding experience-pattern, *Fit for purpose* and *In or out of the loop*. The naming of this theme is a deliberate aim to highlight the way case management can eclipse problems that arise in the service. Dichotomous experiences of inefficiency and ineffectiveness are avoided when the attributes of case management are applied to a service, explaining why participant experience in this study is found to be divided and the contributing differential a result of service provider type and the availability of case management. This pattern's strength is the capacity for absorbing disruption and calming havoc, illustrated in this extract from Benita and Nunzio:

> ***Benita's daughter:*** *Mum had to go to hospital Christmas morning … it was last minute … an emergency; we just made a phone call to Sherry … and she took care of everything. She got someone*

— organised someone to come out and shower dad and all that sort of stuff — 'cause he was … we had to step in and look after him.

Benita: *She took care of everything, even though it was Christmas.*

This extract starkly contrasts Benita's former service experiences during her time as a LoCo client, where she recounted instances of being left without a carer for her husband without prior warning:

Oh, you can't compare. You cannot compare it. Reliable care — not that the carers weren't reliable — the office — communication [of her former LoCo provider]. With Sherry from the office [NFP provider case manager], she does all the rostering and if you need any help with the carers — I can't compare it. It's been such a relief when we went to Complete Care.

In one extract, Benita summarises how case management eliminates the concerns most frequently articulated by participants in this study. Her example of case management eclipse shows how case management avoids disruption, poor quality, inconsistency and lacking communication. For this reason, *Case management eclipse* has a relationship with the affective-pattern, *Passing the baton,* a link that is most prominent when participants gave examples of their case manager relieving them of the burden of thinking about every little thing. Participants who are NFP clients occasionally spoke about their relief in having another person carry some of the cognitive load for them. This being experienced by participants who are single, coupled, have or are without familial support, alike. An example is Moira, who explains what it means for her to experience *Case management eclipse*:

I don't know about Complete Care full stop … but Helen … has been so good telling me … about different things; trying to help me all the time; making a list of all the things I want done, as I think of them. You don't always say, "Well I want this done", and then … think of the next. Just say, "I want this done, I want that done, but this needs to be done before that,…", she's just sat and worked it out with me. She's been very good to me and very helpful.

Moira accents the value of her case manager, rather than the service provider organisation *Complete Care*. The nuance is significant for hallmarking what makes good service and the attributes of the experience-pattern. The case manager has such significance for Moira, this person eclipses the service provider and the value of the actual service, for her.

Often, participants' talk about this experience pattern surfaced the benefits of intercession, brokerage or reconnaissance in their service experience and the intrinsic capacity of this theme for facilitating this. This contradicts other dichotomous experiences mentioned in *Fit for purpose, Getting the short shrift* and *In or out of the loop*. These capacities are articulated by Connie's daughter, Matina:

> *… the good thing is, it's sort of like a one-stop shop. You've … got one manager. You call that person and you say, "Oh, we're looking for this", or "We wanna do this", and they'll guide you, "Yes, we can do that", or "No, we can't do that", or "We can do it that way, or that way"… .that's the good thing about it. You've got one point of call … you tell them what … you need … then they'll tell you what they need and what you can do.*

And Moira's comment, '*Next will be to ginger up Golden Wattle Shire*', explaining the brokering her case manager will do for her to secure service receipt of repairs by an outside service provider, not her NFP. The inherent capacity for case management eclipse to eclipse service trouble when it surfaces is what makes for this pattern's significance for participants' *Maximising their normal.*

Summary

This chapter explored participants experiences of the FAR-whole as they interact with the service system. It did this by investigating the interview data of people currently in receipt of community age care services by one of two service types — Community Home Support Programme (CHSP) or a Home Care Package (HCP). In the first, participants were service clients of local council service providers. In the second, participants were service clients of not-for-profit service providers. From this a model of experience-patterns and adaptive responses emerging from the interactions was constructed. Overall, one macro and six micro experience-patterns were identified.

The macro experience-pattern reflects participants' desire for *Maximising their normal* where they need the service system to support the continuance of their lifestyle and what are the critical ways the service enables this for them. Unlike ageing in place, *Maximising their normal* is not exclusively about participants continuing to live in their own home. It has varied significance amongst the total participant group — a clean, organized home with much less effort, reduced psychological stress and increased emotional stability while maintaining social and educational interests. The degree to which participants fulfilled this experience-pattern was dependent on micro experience-patterns.

The micro experience-patterns fall into two categories. The first is *contingent*, where experience-patterns emerge from factors generated by service users, not their service provider. A second is

dichotomous, where experience-patterns emerge from factors generated by service providers, not service users. Two contingent experience-patterns emerge in the service system. One concerns the effect of skill and knowledge for navigating and making sense of the aged care system enough that a service can be secured and is described as *Affordance of know-how*. The second is about the effect of networks for finding information, described as *Access to information linchpins*, where communal or filial connections initiate or advocate for the person needing the aged care service. There is a close to even spread of both service user cohorts experiencing each contingent pattern, but this is the case for dichotomous patterns. Dichotomous experience-patterns total four. One, described as, *In or out of the loop*, regards people's sense of being more or less informed about their service, the role of service providers for this and was close to evenly spread among both cohorts. A second, described as *Getting the short shrift,* concerns participant's feeling sidelined when regular changes happen to a scheduled service. It was experienced only by those who were LoCo clients. The third, *Fit for purpose*, explains participants' assessment of service providers and their staff, where suitability was based on capability and personality. It was the only experience-pattern to be evenly spread among cohorts. The final micro experience-pattern is *Case management eclipse* in which participants describe the beneficial effects of having an assigned case manager supporting the delivery of their aged care service. Here participants' interviews reflect distinct service experiences among the service user cohort, where those receiving a HCP, thus, not-for-profit service provider clients, experienced consistently better service outcomes and less upheaval. The contrast of experience was a direct effect of being in receipt or not of a service with case management.

Links between themes of Chapters 6 and 7 are shown in *Thematic map of participants' affective- and experience-patterns*, presented in the Appendix.

Chapter 8, the final chapter of the findings section of this thesis, presents the results of applying Thick Care Framework for understanding the structural qualities of the experience-patterns in the FAR-whole. Chapter 8 determines the patterns of relationships in the FAR-whole, the inter-pattern relationships between them to articulate what is the pattern of care of the FAR-whole in the Australian context.

CHAPTER 8

THICK CARE ANALYSIS OF AUSTRALIAN COMMUNITY AGED CARE

This is the third and final chapter presenting the findings of this study. It presents the structural analysis of the experiences-patterns identified in Chapter 7, undertaken by applying the Thick Care Framework. It answers the second question of this study: *What is it about the structure of the service system that makes these experiences possible?*

The current study investigates the saliency of the prototype Thick Care Framework developed during this PhD, for probing how service system structure does or does not support the delivery of care within community aged care services. To do this, it was necessary to apply the framework to the experiences of people already using this service system. Chapters 6 and 7 present results from the semi-structured interview data set, which was subsequently analysed for peoples' affective-patterns and experience-patterns respectively. Those chapters are a discussion of the key results, making any links between patterns and relevant literature. This chapter is a structural analysis of the findings of Chapter 7, using the Thick Care Framework to determine its saliency. The chapter accomplishes the critical realist process of retroduction, providing an explanation of the casual mechanisms creating events at the empirical level of experience-patterns, highlighting any links to affective-patterns in Chapter 6.

Firstly, the chapter emphasises that the service system manifests as a complex adaptive system with emergent patterns of relationship forming among users not a simple system as the linear, sequential nature of FAR suggests and service providers and government assume. Secondly, it affirms the usefulness of underpinning inquiries about services with critical realist philosophy, an important tenet of critical realism being the necessity to investigate the structural qualities of phenomenon occurring at the empirical level. Thirdly, it confirms the saliency of Thick Care for interrogating the structural quality of complex adaptive systems that generate system behaviour leading to users' experiences.

Chapters 6 and 7 demonstrate how service users see their use of the service system as a way for maximising what is *their normal.*[27] Remaining socially active, intellectually stimulated, tidy and organised or emotionally stable are some things the service system maximises for users. For most, "their normal" was novel, meaning it was different to how they had earlier led their life and was the result of advancing age or sudden, unexpected illness. Service users greatly value an efficient, effective service

[27] *Their normal* is the macro experience-pattern revealed from the analysis of data in Chapter 7. It speaks to the ultimate purpose for service users wanting the service. The pattern emphasises the desire for participants to maintain their current lifestyle, rather than remain living in their own home.

system, equating these characteristics with a service provider's ability to deliver good service outcomes that ultimately makes it possible for service end-user beneficiaries to maximise their normal. Handing over responsibility for part of their care to another is acceptable to service users, so long as the service provider ensures consistently good communication, skill, rapport scheduling. When service providers or their staff regularly failed to deliver these users developed an adversarial attitude toward the provider. Only one person mentioned the expectation to remain living in their current home when older and the benefit of the service for this. Most had not considered what they would do in more advanced age or if they needed higher levels of care, supporting that maximising their normal reflects service users desire for managing their current lifestyle. Emergent affective-patterns show users' values focus on maximising their current normal, where all service users expect the service to fulfil their affective and effective needs. An occasional few explained the belief that good service requires constant monitoring and cannot be taken for granted.

Emergent experience-patterns effecting participants fall into two types — dichotomous and contingent. Contingent patterns originate from among service users and dichotomous from among service providers. The differential being whether the provider was a local council or a not-for-profit. The participant group was split 50/50 into people receiving a service from a local council service provider and those from a not-for-profit service provider. Each group having markedly different experience-patterns of the service system and contributing to the contrast in participants' experiences.

Not-for-profit service clients experienced better, more regular communication, skill, rapport scheduling from their service provider and its staff. The inverse is true for all local council clients. Some not-for-profit service clients had formerly been local council clients. In all cases these users expressed dissatisfaction with their former local council providers, comparing them unfavourably to their current not-for profit service provider. The variance between the two groups resulted from the provision or not, of case management. Case management is the foremost contribution to study participants' satisfaction when interacting with the service system[28], driving the contrast of experience-patterns among study participants. People receiving services based on case management experienced less disruption and a better overall quality of service experience, than those without case management. On the other hand, contingent experiences, being service user centric, are not polarised among the participant group. Overall, these experiences are almost evenly spread between both local council and not-for-profit client types. Generally, these experience-patterns depend on service users' networks, their former

[28] The facility is a product of service type, not service provider type. Home Care Packages [HCP] are based on a Case Management model and can only be delivered by providers that are registered providers of HCPs. CHSP (Commonwealth Home Support Programme) services are not.

employment, access to information, language skills, education, familial composition individual personality.

The influence of *Case Management Eclipse* extends to participants' affective-model, where overall, local council and not-for-profit service users share a more common distribution of values and beliefs, but a marked difference between them is obvious in the only attitude displayed by the affective model. The more adversarial attitude *Us versus Them* is expressed by most participants who are local council clients. Participants' attitudes are influenced by case management because the case management function is a balancing feedback loop whenever the system experiences disruptions, possible because of the structural composition of the pattern, which is visible in its structural analysis.

The remainder of Chapter 8 presents the experience-patterns of Chapter 7 through the lens of Thick Care. It begins with a structural summary of the FAR-whole (see Table 8.1). Next, Thick Care is applied to each of the six experience-patterns from Chapter 7 where a structural analysis is undertaken. The dominant and weak behaviour and the nuance of each pattern are presented and their implications for the experiences of service users are discussed. Each experience-pattern is presented as a matrix display showing the extent and composition of the patterns of relationships between system and care elements. This is followed with a systems explanation where the effect of systems components of Thick Care, their role in the quality of relationship between components and their influence in the absence or presence of care in the relationship between the parts is provided.

Structural Summary of Care in the FAR-whole

The degree to which care appears in the FAR-whole and the breakdown of this according to service client type may be seen in Table 8.1. As in all complex adaptive systems, entry and exit points to the system are unique to individuals. People remember their past and compare their current experiences with previous ones, approaching the system with diverse purposes. This was the case for three NFP service clients[29] — Benita and Nunzio, Gloria and Moira — who initially started in the FAR-whole as LoCo service clients.[30] Their experiences while clients of a LoCo service were coded for the absence or presence of care and the adequacy or inadequacy of the system structure for enabling this, even though at the time they were interviewed, they were NFP service clients. This means some frequency counts of mentions by service client type are higher or lower than they would ordinarily be. In such instances, the

[29] NFP is the acronym for service clients who receive services from a not-for-profit service provider.
[30] LoCo is the acronym for service clients who receive services from a local council service provider.

number in Table 8.1 is altered.[31] The amount by which it is altered appears in footnotes. In this chapter, numerical values are presented within tables with specific conventions accompanying them. Thus, instances of phenomenon appear as numerical values with no letter beside them. When numerical values appear parenthetically with a *p* beside them, this indicates the number of participants that spoke of the instance during interviews.

Table 8.1 Thick Care summary of the FAR-whole by service client type

	FAR-whole			
Client type	**Care elements**		**Systems elements**	
	Absent	**Present**	**Inadequate**	**Adequate**
LoCo service clients	58 (12p)[32]	60 (10p)	60 (12p)[33]	41 (9p)
NFP service clients	8 (5p)[34]	78 (10p)	8 (5p)[35]	68 (10p)
Total within FAR-whole	**66 (17*p*)**	**138 (20*p*)**	**68 (17*p*)**	**109 (19*p*)**

Table 8.1 is the degree and quality of care in the FAR-whole and its manifestation among different service client types. It shows the synthesised degree of care within the FAR-whole and the Thick Care composition affecting the experiences of each service client type. Comparing experiences of the FAR-whole by service user type, NFP service clients described fewer service experiences with absent care elements and weak, disabling system structures than did LoCo service clients. This is not surprising given the sway of case management for delivering consistently better overall service experiences for NFP service clients. The result also confirms the principle argument of this thesis — that attention to the quality and conditions of relationships between system parts are central to designing for service in complex adaptive systems. On the surface, the table presents a good system providing good care. However, as the subsequent structural analysis of experience-patterns reveals, the influence of case management and its ability to absorb service disruption are the likely explanation for why the FAR-whole appears to be a good system providing good care. The tables that follow are the sub-components that together make up the summary table above.

[31] Only values pertaining to *absent care elements* and *weak system elements* are altered. This is because three NFP clients discussed negative experiences while a LoCo service client. Values for *present care elements* and *strong system elements* were not similarly affected. (Footnotes 6 to 45 replicate this process).
[32] Numerical values for LoCo clients' *absent care elements* have been *increased* according to column one below. Thus, 10 and (3*p).*
[33] Numerical values for LoCo clients' *weak system elements* have been *increased* according to column three below. Thus, 11 and (3*p).*
[34] Numerical values for NFP clients' *absent care elements* have been *decreased* according to column one below. Thus, 10 and (3*p).*
[35] Numerical values for NFP clients' *weak system elements* have been *decreased* according to column three below. Thus, 11 and (3*p).*

Structural Analysis of Experience-patterns

This section presents results of the structural analysis of each experience-pattern. Applying Thick Care, the dominant and weak system behaviour and the system structural quality of each experience-pattern are presented via a series of tables. The dominant and weak behaviours of an experience-pattern are presented and the relationship between care and system elements summed up. In each case, only the structural highlights of an experience-pattern are explained.

Affordance of know-how

The *Affordance of know-how* speaks to the capacity for system users to employ skills from previous employment, the advocacy of others, or pre-existing knowledge about aged care services to secure or maintain service delivery. The experience-pattern is an outcome of input from service users or their advocates rather than system efficacy, although system structure, as Table 8.2 shows, determines the specific experiences people have. Table 8.2 shows every intersection between care and system elements shaping this experience-pattern for users of the FAR-whole. The overall quality and quantity of care within the experience-pattern along with the system structure underpinning this are presented here. Tables 8.3 and 8.4 show how this materialises for each service client type.

Table 8.2 Affordance of know-how: System behaviour

	Inadequate use of system elements						Adequate use of system elements					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent												
Attentiveness	4	1	3	2	2	-	-	-	-	-	-	-
Responsibility	2	1	6	-	1	-	-	-	-	-	-	-
Competence	1	1	1	-	-	-	-	-	-	-	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	6	2	9	2	3	-	2	-	-	-	2	-
Sub-total	**13**	**5**	**19**	**4**	**6**	**-**	**2**	**-**	**-**	**-**	**2**	**-**
	Quadrant 1 (Q1) total = 47						**Quadrant 2 (Q2) total = 4**					
Present												
Attentiveness	-	-	-	-	-	-	1	-	-	-	1	-
Responsibility	-	-	-	-	-	-	1	3	-	2	3	-
Competence	-	-	-	-	-	-	-	1	-	1	1	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-	-	2	-	1	1	-
Sub-total	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**6**	**-**	**4**	**6**	**-**
	Quadrant 3 (Q3) total = 0						**Quadrant 4 (Q4) total = 18**					
Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour												

Quadrants 1 and 2 reflect the dominant system behaviour exhibited by this experience-pattern. Overall, a greater absence of care predominates driven by inadequate use of systems elements. This is clear from the results of Q1 where participants' accounts reveal the ineffectually implemented system elements, *regulation* and *purpose* as key mechanisms generating the deficiency of care outcomes with the most deficient being *solidarity, attentiveness* and *responsibility* respectively. Table 8.2 structurally confirms participants' narratives about this experience-pattern. Here, the adaptive pattern. *Took matters into own hands*, emerged as people used personal resources, knowledge or enrolled the advocacy of others to secure care for themselves. Without intervention, the system fails people looking for a service or those already using the service and experiencing difficulty during its delivery. This may materialise because of the inadequate alignment or *purpose* (Q1) between users of the service and service providers. Inadequate *purpose* makes it difficult to materialise *solidarity* in the FAR-whole and so forth, creating

an amplifying, reinforcing feedback loop. As a societal level commitment to care, *solidarity*, if present within a service system, should attune the macro-, meso- and micro-scales of the system towards *attentiveness* to those needing care, what are their specific needs and how to fulfil these. The effect of missing *solidarity* is exemplified by Gloria:

> ***Anna:*** *Why do you think you didn't know?*
>
> ***Gloria:*** *I don't know really. I mean the services are there when you need it.*[36]

Further, inadequate *regulation* — strikingly scarce in the system behaviour overall — is the mechanism making possible the conditions for this experience-pattern to flourish, determined how readily available information was for people or accentuated the difficulties of service users for finding it:

> *Perhaps they could have a little introduction — what they're allowed to do and what they're not allowed to do ... if they're seniors they sometimes don't even read it — they prefer one on one. So, that's where we had the mix: I could communicate with the lady, whereas Jack couldn't. So, it's a little bit of a mix. You need both. [Adeline & Jack]*

Ineffectual *regulation* in the system reinforces the inadequacy of *purpose* and *solidarity*, potentially linking this experience-pattern with the affective-pattern *Good service is never guaranteed*.

Weak system behaviour is revealed by Quadrants 3 and 4, despite Q4 showing times when sufficient system structure generated a greater presence of care, resulting in a better service experience. However, Q4 should not be interpreted as the inverse of Q1. Rather, it shows which care and system elements are needed for service users to experience a better ethic of care when searching for services or receiving aged care services at home. Results in Q4 display participants' experiences when care elements are present and system elements are adequate. At such intersections, participants recounted times when others advocated, as they did for Benita & Nunzio; as Jean-Anne did for her mother; information was readily found within the community, '*… you can go down the library and have a look at all the things that they put down. You just ask. I probably rang the council*' [Eadie]. Or a provider had access to information ultimately helpful to the participant that was forthcoming when the participant asked for it, '*And the transport, I actually — I rang Banksia* [City Council] *to say, "This is what I need. What can you do?". And they gave me the number of the transport people and I organised that myself*'. [Christine].

[36] Some participant quotes used in Chapter 8 appear previously in Chapter 6 or Chapter 7. These quotes are deemed to exemplify the experience more fully than others.

Quadrants 2 and 3, despite showing contrasting behaviour, confirm the magnitude of system structure for realising any quantity or quality of care whatsoever. To mitigate absent *solidarity*, Q2 results, although illustrative of absent care, explain the structural quality when system users act and lead their search for care. At those times, service users behaved *purposefully* to achieve their pursuit of securing care and supportive *boundary* conditions in the system were requisite for making this possible.

Table 8.3 Affordance of know-how: Quality of care by service client type[37]

	Quality of care by client type			
	LoCo service clients		NFP service clients	
Care element	**Absent**	**Present**	**Absent**	**Present**
Attentiveness	2 (1*p*)	1 (1*p*)	4 (3*p*)	1 (1*p*)
Responsibility	1 (1*p*)	2 (2*p*)	5 (2*p*)	2 (1*p*)
Competence	-	1 (1*p*)	1 (1*p*)	-
Responsiveness	-	2 (1*p*)	-	1 (1*p*)
Solidarity	3 (2*p*)	1 (1*p*)	9 (5*p*)	-
Total	**6 (4*p*)**	**7 (6*p*)**	**19 (11*p*)**	**4 (3*p*)**

Table 8.4 Affordance of know-how: Experience-pattern structure by service client type[38]

	System structure by client type			
	LoCo service clients		NFP service clients	
System element	**Inadequate**	**Adequate**	**Inadequate**	**Adequate**
Purpose	3 (2*p*)	-	3 (3*p*)	2 (1*p*)
Equifinality	1 (1*p*)	2 (2*p*)	1 (1*p*)	-
Regulation	3 (2*p*)	-	6 (3*p*)	-
Interconnectivity	2 (2*p*)	2 (2*p*)	1 (1*p*)	-
Boundary	2 (2*p*)	2 (2*p*)	1 (1*p*)	2 (1*p*)
Emergence	-	-	-	-
Total	**11 (3*p*)**	**7 (2*p*)**	**12 (3*p*)**	**4 (1*p*)**

Displaying the results by service client type displays a surprising result. More NFP service clients spoke with greater frequency about instances where care elements were absent compared with LoCo service

[37] There are no increases/decreases in this experience-pattern. NFP clients are not comparing their former LoCo provider. This is not a dichotomous pattern.
[38] Same as Footnote 10.

clients. The result should not be understood as a failure of the NFP service provider. *Affordance of know-how* emphasises participants' experiences pre-service receipt, which is something not influenced by service provider type. Table 8.3 and Table 8.4 emphasise the contingent nature of this experience-pattern.

Access to information linchpins

Access to Information linchpins explains the degree and quantity of socio-material information sources that service system users can leverage when seeking or managing service delivery. As an experience-pattern, it is dependent on language and comprehension, social participation and intervention or advocacy by others. The quality of care in this experience-pattern signposts the degree to which participants had someone intervene on their behalf, either because another decided to self-appoint themselves as it was for Jean-Anne, Richard and Evelyn, and Moira:

> ***Anna:*** *And your doctor started that process for you?*
>
> ***Moira:*** *Yes. He's a marvellous doctor. He really thinks about people. So that was it.*

After making a request, like Bernadette who approached her pastoral care officer after deciding it was time to get help:

> *I approached him to see what he could do to help me get things a little earlier and he asked me did I have my papers, have I been assessed … He said, "Have you got your papers?", I said, "Yes". He said, "I'll come and collect them I'll take them down to the office and I'll see what can be arranged for you.".*

Or because participants leveraged their socio-material resources, for instance, Carole:

> *Probably from the library; just being there and them having things about the council. They have signs up about services and whatever …*

Table 8.5 shows every interaction between care and system elements shaping this experience-pattern for users of the FAR-whole. The overall quality and quantity of care within the experience-pattern, along with the system structure underpinning this are presented in it. Table 8.6 and

Table 8.7 show how this materialises for each service client type.

Table 8.5 Access to information linchpins: System behaviour

	Inadequate use of system elements						Adequate use of system elements					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent												
Attentiveness	2	-	-	-	2	-	5	-	-	1	5	-
Responsibility	3	1	2	1	3	-	2	-	-	1	2	-
Competence	4	1	1	1	4	-	1	-	-	1	1	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	3	1	5	1	3	-	5	-	-	2	5	-
Sub-total	**12**	**3**	**8**	**3**	**12**	**-**	**13**	**-**	**-**	**5**	**13**	**-**
	Quadrant 1 (Q1) total = 38						**Quadrant 2 (Q2) total = 31**					
Present												
Attentiveness	2	1	1	1	2	-	14	-	-	7	7	-
Responsibility	1	-	-	-	1	-	18	-	-	8	11	-
Competence	-	-	-	-	-	-	1	-	-	1	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	1	-	-	-	1	-	3	-	-	3	3	-
Sub-total	**4**	**1**	**1**	**1**	**4**	**-**	**36**	**-**	**-**	**19**	**21**	**-**
	Quadrant 3 (Q3) total = 11						**Quadrant 4 (Q4) total = 76**					
	Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour											

Quadrants 3 and 4 reflect the dominant system behaviour of this experience-pattern, where a greater presence than absence of care prevails in the experience-pattern despite *regulation* and *equifinality* being non-existent. This suggests it is possible to deliver care when a system element is lacking if others function sufficiently to absorb scarce or underperforming elements. In this instance, the element doing this is *purpose*. The triplet *purpose-interconnectivity-boundary* functions to provide service users opportunities for accessing sources that help them secure relevant information. Close to equivalency between interconnectivity and boundary suggests their interdependency for people needing to source information.

Every quadrant displays *purpose* and *boundary*. In this experience-pattern, the couplet highlights the unique trait of linchpins in this system — only human linchpins could behave purposefully enough to exercise choice and insist on attaining a system goal. At these times, struggle rather than ease occurs.

Row 1 of Quadrant 3 is the structural condition that generates struggle for people. Jean-Anne's account of trying to find a service for her parents is an example of purposeful behaviour despite colliding with system obstructions:

> *We organised it with great difficulty. I would've spent a week almost constantly on the phone trying to get help for them … I rang every person, every council, every service I could possibly think of … but no one could really tell me how I could find some help for my parents right now.*

Weak system behaviour is shown by quadrants 1 and 2, where care appears less frequently in people's interactions with the system. Despite this, the difference between quadrants 1 and 2, and quadrants 3 and 4 while not marginal, is neither diametric. Quadrants 2 and 4, for instance, display the same system structure underlying the system behaviour, just to a different magnitude.

The care element *responsiveness* is missing entirely from this experience-pattern. One reason for this may be that participants, having their *purpose* fulfilled by someone who has decided to take on the burden of care for them, evident from high instances of *attentiveness* and *responsibility*, are disinclined to take matters into their own hands. Since most examples of *responsiveness* in the FAR-whole are complaints made to a service provider, the absence of *responsiveness* here is interpreted as a positive rather than a negative. Every quadrant of this system behaviour is populated, proposing that the experience-pattern is highly susceptible to variance depending on the context of service users, confirming the contingent nature of the experience-pattern.

Table 8.6 Access to information linchpins: Quality of care by service client type[39]

	Quality of care by client type			
	LoCo service clients		NFP service clients	
Care element	**Absent**	**Present**	**Absent**	**Present**
Attentiveness	3 (2*p*)	8 (5*p*)	3 (1*p*)	8 (5*p*)
Responsibility	4 (3*p*)	8 (5*p*)	1 (1*p*)	10 (5*p*)
Competence	4 (2*p*)	1 (1*p*)	-	-
Responsiveness	-	-	-	-
Solidarity	5 (3*p*)	4 (2*p*)	6 (2*p*)	-
Total	**19 (3*p*)**	**21 (7*p*)**	**10 (2*p*)**	**18 (5*p*)**

[39] Same as Footnotes 10 and 11.

Table 8.7 Access to information linchpins: Experience-pattern structure by service client type[40]

	Experience-pattern structure by client type			
	LoCo service clients		NFP service clients	
System element	**Inadequate**	**Adequate**	**Inadequate**	**Adequate**
Purpose	4 (2*p*)	11 (7*p*)	-	11 (5*p*)
Equifinality	1 (1*p*)	-	-	-
Regulation	1 (1*p*)	-	1 (1*p*)	-
Interconnectivity	1 (1*p*)	7 (5*p*)	-	3 (3*p*)
Boundary	4 (2*p*)	4 (3*p*)	-	8 (4*p*)
Emergence	-	-	-	-
Total	**11 (2*p*)**	**22 (7*p*)**	**1 (1*p*)**	**22 (5*p*)**

Both LoCo and NFP groups experience less care in this experience-pattern. A marginal difference between LoCo and NFP service clients' quality of care, when present, appears in Table 8.6. This is because LoCo service clients experienced slightly more solidarity than NFP service clients, where solidarity originated from the macro environment of the service system. As Eadie explains, '… *you can go down to the library and have a look at all the things they put down*'. However, when system attributes of this experience-pattern are investigated an almost equivalent structure, comprising the triad *purpose-interconnectivity-boundary* appears for both groups, indicating the significance of this combination for the experience-pattern to function well for service system users. The effectiveness of any linchpin in the service system is the influence or knowledge they have, both of which rely on multiple, varied connections in and across system boundaries.

In or out of the loop

In or out of the loop is the first of four dichotomous experience-patterns. It explains how people, processes or information influence the experiences of users in the FAR-whole such that participants described feeling either well informed and confident about understanding their service or caught in liminal states, never knowing exactly what would happen next. Table 8.8 displays every interaction between care and system elements shaping this experience-pattern for users of the FAR-whole. It presents the overall quality and quantity of care within the experience-pattern, along with the system structure underpinning this. Table 8.9 and Table 8.10 show how this materialises for each service client type.

[40] Same as Footnotes 10, 11, 12.

Table 8.8 System behaviour: In or out of the loop

	Inadequate use of system elements						Adequate use of system elements					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent												
Attentiveness	2	-	2	-	-	-	-	-	-	-	-	-
Responsibility	8	3	6	1	2	-	-	-	-	-	-	-
Competence	7	3	6	1	2	-	-	-	-	-	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	5	-	4	-	-	-	-	-	-	-	-	-
Sub-total	**22**	**6**	**18**	**2**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Quadrant 1 (Q1) total = 52						**Quadrant 2 (Q2) total = 0**					
Present												
Attentiveness		-	-	-	-	-	1	-	-	-	1	-
Responsibility	-	-	-	-	-	-	4	1	1	1	3	-
Competence	-	-	-	-	-	-	2	1	2	-	2	-
Responsiveness	-	-	-	-	-	-	2	1	1	-	2	-
Solidarity	-	-	-	-	-	-	2	-	1	-	2	-
Sub-total	**-**	**-**	**-**	**-**	**-**	**-**	**11**	**3**	**5**	**1**	**10**	**-**
	Quadrant 3 (Q3) total = 0						**Quadrant 4 (Q4) total = 30**					
Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour												

Quadrants 1 and 2 display the dominant system behaviour of the experience-pattern, where Q1 highlights the greater absence than presence of care and less adequately considered system structure. Although all system elements are accounted for in Q1, the results point to how system structure generates functions that work against the delivery of sufficient care for people. Abundantly inadequate *purpose* and *regulation* are key mechanisms contributing to the absence of *responsibility* and *competence* in this experience-pattern. Under the structural conditions of Q1, *regulation* amplifies any absent care elements — in this case *responsibility* and *competence* — such that a vicious cycle of poor service experiences supervenes. This may explain how this experience-pattern relates to the affective-patterns *Passing the baton* and *Good service is never guaranteed*. Just how the intersections presenting in Q1 manifest as experiences is clearly articulated by Meredith:

> *The fact that it's quite pathetic that they haven't — like duh! If you can't get on to someone, that person doesn't know the information you're trying to contact them to tell them. So why would you do such a ridiculous thing of sending someone around when the client doesn't know they're coming? It doesn't make any sense.*

In contrast to Q1, quadrant 4 displays times when system behaviour resulted in people feeling *In the loop*, therefore, better informed. The quadrant supports the unforgiving nature of the experience-pattern, the five care elements that are present when people feel, *In the loop* the greater frequency of participants who expressed feeling *out of the loop* as discussed in Chapter 7. Unlike Q1, quadrant 4 shows the presence of the care element *responsiveness*. Its presence here, challenges its typical expression found elsewhere in this study, where participants frequently showed *responsiveness* as grievance. One reason for this may be the almost equivalently adequate use of the system elements, *purpose* and *boundary*. This couplet may moderate the influence of inadequate *regulation* in system structure by providing service users scope to exercise their agency to achieve their goals, the outcome being increased *responsibility* by service providers as expressed by Richard & Evelyn, '*Like the man that we've axed from doing our garden. What was he costing? Oh, I don't know…so then we've told* [Tracey] *that — we've removed him we've got another one*'. Another could be that participants in Q4 were given opportunities by their service provider for providing feedback. Kathleen explains:

> *At the assessment, the woman had said to me, "It's okay to say, 'I don't particularly like this person, or I don't feel they're on my wavelength or whatever". So, I just rang and said, "Look, I'm sorry, I find him too talkative and it drives me berserk".*

Quadrants 2 and 3 results support the dichotomous nature of the experience-pattern. In this experience-pattern, participants who were service clients of LoCo service providers more often recalled events when system elements performed inadequately or one or more care elements were absent with this also confirmed in Table 8.9 and Table 8.10. The level at which both are visible in the system behaviour of this experience-pattern is significantly different between service client types. This is likely explained by the effect of *Case management eclipse* — the experience-pattern noted in Chapter 7, the system behaviour of which is discussed later in this chapter.

Table 8.9 In or out of the loop: Quality of care by service client type

	Quality of care by client type			
	LoCo service clients		NFP service clients	
Care elements	**Absent**	**Present**	**Absent**	**Present**
Attentiveness	2 (1*p*)	1 (1*p*)	-	-
Responsibility	8 (5*p*)[41]	1 (1*p*)	1 (1*p*)[42]	3 (3*p*)
Competence	7 (5*p*)[43]	1 (1*p*)	2 (2*p*)[44]	1 (1*p*)
Responsiveness	-	1 (1*p*)	-	1 (1*p*)
Solidarity	4 (3*p*)[45]	2 (2*p*)	2 (2*p*)[46]	-
Total	**21 (6*p*)**	**6 (2*p*)**	**5 (2*p*)**	**5 (3*p*)**

Table 8.10 In or out of the loop: Experience-pattern structure by service client type

	Experience-pattern structure by client type			
	LoCo service clients		NFP service clients	
	Inadequate	**Adequate**	**Inadequate**	**Adequate**
Purpose	9 (5*p*)[47]	2 (2*p*)	1 (1*p*)[48]	3 (3*p*)
Equifinality	3 (2*p*)[49]	-	-[50]	1 (1*p*)
Regulation	8 (3*p*)[51]	1 (1*p*)	1 (1*p*)[52]	1 (1*p*)
Interconnectivity	1 (1*p*)	-	-	1 (1*p*)
Boundary	2 (2*p*)	2 (2*p*)	-	2 (2*p*)
Emergence	-	-	-	-
Total	**23 (5*p*)**	**5 (2*p*)**	**2 (2*p*)**	**8 (3*p*)**

To reflect instances when current NFP client's discussions where about their experiences while a LoCo service client the following numerical adjustments were applied to the number of mentions and participants:

[41] Numerical values for LoCo clients' absent responsibility have been increased by 4 and (2p).
[42] Numerical values for NFP clients' absent responsibility have been decreased by 4 and (2p).
[43] Numerical values for Loco clients' absent competence have been increased by 4 and (2p).
[44] Numerical values for NFP clients' absent competence have been decreased by 4 and (2p).
[45] Numerical values for LoCo clients' absent solidarity have been increased by 2 and (1p).
[46] Numerical values for NFP clients' absent solidarity have been decreased by 2 and (1p).
[47] Numerical values for LoCo clients' disabling purpose have been increased by 4 and (2p).
[48] Numerical values for NFP clients' disabling purpose have been decreased by 4 and (2p).
[49] Numerical values for LoCo clients' disabling equifinality have been increased by 2 and (1p).
[50] Numerical values for NFP clients' disabling equifinality have been decreased by 2 and (1p).
[51] Numerical values for LoCo clients' disabling regulation have been increased by 5 and (2p).
[52] Numerical values for NFP clients' disabling regulation have been decreased by 5 and (2p).

Getting the short shrift

Getting the short shrift is experienced by LoCo service clients only. It is the second dichotomous experience-pattern of this study. It highlights times when participants' needs were not meet by the service either because of sudden changes to services or unexpected service restrictions. Table 8.11 shows every interaction between care and system elements shaping this experience-pattern for users of the FAR-whole. The overall quality and quantity of care within the experience-pattern, along with the system structure underpinning this are presented in it. Tables 8.12 and 8.13 show how this materialises for each service client type.

Table 8.11 Getting the short shrift: System behaviour

	Inadequate use of system elements						Adequate use of system elements					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent												
Attentiveness	1	1	1	-	1	-	-	-	-	-	-	1
Responsibility	27	18	20	4	22	-	-	-	-	-	-	10
Competence	26	18	19	3	21	-	-	-	-	-	-	10
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	4	2	2	-	3	-	-	-	-	-	-	5
Sub-total	**56**	**38**	**41**	**7**	**45**	**-**	**-**	**-**	**-**	**-**	**-**	**26**
	Quadrant 1 (Q1) total = 193						**Quadrant 2 (Q2) total = 26**					
Present												
Attentiveness		-	-	-	-	-	-	-	-	-	-	-
Responsibility	2	2	1	-	1	-	1	-	1	-	1	-
Competence	2	2	1	-	1	-	1	-	1	-	1	-
Responsiveness	9	6	8	3	9	1	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-	1	-	1	-	1	-
Sub-total	**13**	**10**	**10**	**3**	**11**	**1**	**2**	**-**	**2**	**-**	**2**	**-**
	Quadrant 3 (Q3) total = 48						**Quadrant 4 (Q4) total = 9**					
	Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour											

Quadrants 1 and 2 display the dominant system behaviour of the experience-pattern, where Q1 displays a much greater absence than presence of care and less adequately considered system structure across

the majority of system elements than any of the other experience-patterns. In this case, the system appears engineered to deliver the exact experiences participants defined as *Getting the short shrift*.

In Q1, every care and system element are lacking at the point of service interaction. *Purpose*, *boundary*, *regulation* and e*quifinality* are inadequately considered in this quadrant, making the quartet a key mechanism contributing to the grossly absent care elements *responsibility* and *competence*. Furthermore, lacking *purpose* contributes to the absence of *solidarity*. Equifinial pathways for fulfilling system *purpose* are under-resourced, meaning users of the FAR-whole lack other means of having their needs met by the service provider similarly are constrained by what they can offer. Inadequately managed *boundaries* between service providers accentuates this deficiency, creating the almost equivalent absence of *responsibility* and *competence* apparent in the service experience. Under these conditions, the system structure underpinning the experience-pattern means users of the FAR-whole did not achieve their purpose fulfilment at all or to the level of satisfaction they wanted, generating the emergent adaptive behaviour of *refusing the service* that emerges in Quadrant 2.

Q3 shows the degree to which this experience-pattern generates, *responsiveness*, among service users. It displays the largest incidences of *responsiveness* of any quadrant and experience-pattern and confirms participants accounts of upheaval and frustration (see Chapters 6 & 7). Its prominence here, indicates those times participants complained about the effect of the outcome of this experience-pattern.

Getting the short shrift is the first experience-pattern with a complete absence of the element *attentiveness* from its quality of care. One reason for this result may be the stage at which this experience-pattern occurs. Because it happens at the point of service delivery, the period typically attuned to *attentiveness* — when a need is noticed and before commencing a service — is already passed. This may also explain the emphasis on absent *responsibility* and absent *competence* reported in participants' accounts of this experience-pattern. Table 8.12 and Table 8.13 confirm the dichotomous nature of the experience-pattern.

Table 8.12 Getting the short shrift: Quality of care by service client type

	Quality of care by client type			
	LoCo service clients		NFP service clients	
Care element	**Absent**	**Present**	**Absent**	**Present**
Attentiveness	-	-	-	-
Responsibility	28 (7*p*)[53]	1 (1*p*)	-[54]	-
Competence	29 (7*p*)[55]	-	-[56]	-
Responsiveness	-	10 (5*p*)	-	1 (1*p*)
Solidarity	5 (3*p*)[57]	1 (1*p*)	-[58]	-
Total	**62 (7*p*)**	**12 (6*p*)**	**-**	**1 (1*p*)**

Table 8.13 Getting the short shrift: Experience-pattern structure by service client type

	Experience-pattern structure by client type			
	LoCo service clients		NFP service clients	
System element	**Inadequate**	**Adequate**	**Inadequate**	**Adequate**
Purpose	29 (7*p*)[59]	1 (1*p*)	-[60]	-
Equifinality	20 (7*p*)[61]	-	-[62]	-
Regulation	21 (6*p*)[63]	1 (1*p*)	-[64]	-
Interconnectivity	4 (2*p*)	-	-	-
Boundary	23 (7*p*)[65]	1 (1*p*)	-[66]	-
Emergence	-	-	-	-
Total	**97 (7*p*)**	**3 (1*p*)**	**-**	**-**

Fit for purpose

Fit for purpose emphasises participants' assessments about a service workers sufficiency or insufficiency to deliver the practice of care. It is the only experience-pattern in this study to centre on the actual work of care or the processes that support the delivery of such care work. However, participant accounts are

[53] Numerical values for LoCo clients' absent responsibility have been increased by 9 and (2p).
[54] Numerical values for NFP clients' absent responsibility have been decreased by 9 and (2p).
[55] Numerical values for LoCo clients' absent competence have been increased by 9 and (2p).
[56] Numerical values for NFP clients' absent competence have been decreased by 9 and (2p).
[57] Numerical values for LoCo clients' absent solidarity have been increased by 3 and (2p).
[58] Numerical values for NFP clients' absent solidarity have been decreased by 3 and (2p).
[59] Numerical values for LoCo clients' disabling purpose have been increased by 8 and (2p).
[60] Numerical values for NFP clients' disabling purpose have been decreased by 8 and (2p).
[61] Numerical values for LoCo clients' disabling equifinality have been increased by 6 and (2p).
[62] Numerical values for NFP clients' disabling equifinality have been decreased by 6 and (2p).
[63] Numerical values for LoCo clients' disabling regulation have been increased by 6 and (1p).
[64] Numerical values for NFP clients' disabling regulation have been decreased by 6 and (1p).
[65] Numerical values for LoCo clients' disabling boundary have been increased by 6 and (2p).
[66] Numerical values for NFP clients' disabling boundary have been decreased by 6 and (2p).

not limited to assessing skill only and a suitable personality is considered equally beneficial by service users for care worker suitability.

Table 8.14 shows every interaction between care and system elements shaping this experience-pattern for users of the FAR-whole. The overall quality and quantity of care within the experience-pattern, along with the system structure underpinning this are presented in it. Table 8.15 and Table 8.16 show how this materialises for each service client type.

Table 8.14 Fit for purpose: System behaviour

	Inadequate use of system elements						Adequate use of system elements					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent												
Attentiveness		-	-	-	-	-	-	-	-	-	-	-
Responsibility	2	1	1	-	2	-	-	-	-	-	-	-
Competence	4	1	1	-	4	-	-	-	-	-	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	5	-	-	-	3	-	-	-	-	-	-	-
Sub-total	**11**	**2**	**2**	**-**	**9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Quadrant 1 (Q1) total = 24						**Quadrant 2 (Q2) total = 0**					
Present												
Attentiveness		-	-	-	-	-	4	-	2	-	3	-
Responsibility	-	-	-	-	-	-	6	1	3	1	3	-
Competence	-	-	-	-	-	-	7	1	2	1	4	-
Responsiveness	2	1	1	-	2	-	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-	3	-	2	-	2	-
Sub-total	**2**	**1**	**1**	**-**	**2**	**-**	**20**	**2**	**9**	**2**	**12**	**-**
	Quadrant 3 (Q3) total = 6						**Quadrant 4 (Q4) total = 45**					
	Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour											

Quadrants 3 and 4 show the dominant system behaviour of this experience-pattern, where a greater presence than absence of care is revealed. In Q4, a triad formed between *purpose, regulation* and *boundary* is the key mechanism contributing to the events where service users experience a care worker they evaluate as *Fit for purpose*. In this system structure, peoples' *purpose* for using the service — *maximise their normal* — was achieved. *Regulation* in Q4 performs as an amplifying feedback loop

where it reinforces behaviour people evaluate as positive, as Jean-Anne elucidates, '*… She explained what the service could provide and what the service couldn't provide … she was very clear about that … she didn't promise things that they couldn't offer*'. The success of *boundary* in Q4 appears in the freedom of care workers to exercise judgement for securing the best possible outcomes for people. Flexibility, consideration and initiative were the ways a care worker did not apply *boundary* as an absolute that derailed service users achieving their goal. Q3 reveals participants' reaction to the system behaviour, where *responsiveness* is used by service users as a regulatory function to reorient the system to its *purpose*, as Kathleen explains, '*And then a man came he similarly wasn't very good he just talked non-stop, so much so that I rang them and said, "Please don't send him again"*'. [Kathleen]

This experience-pattern centres on service users' evaluation of care workers' suitability, personality and skill for delivery of the service. Therefore, it is strongly tied to the care element *competence*. Q1 and Q4 results, where people reported less and more competence, respectively than other care elements, supports this. Because there is interdependency between system elements, the higher frequency of present *competence* mentioned by participants may have influenced the presence of *responsibility* to almost parity and similarly, the levels of *attentiveness*. The triad *attentiveness-responsibility-competency* explains the ambiguity between personality and skills that was often challenging to distinguish in participants' accounts.

Quadrants 1 and 2 show the weak system behaviour in the experience-pattern. In Q1, the interdependency between *purpose* and *boundary* generates a different property of this experience-pattern. A missing alignment of *purpose* between users of the FAR-whole and care workers produces outcomes where care workers complete the work of care under absolute boundary conditions, '*… up until now, they put away the vacuum cleaner, but not putting away the cleaning stuff. It was a bit annoying*' [Kathleen].

Overall, Q1 and Q4 reveal the mechanisms contributing to the exact nature of the experience-pattern discussed in Chapter 7.

Table 8.15 Fit for purpose: Quality of care by service client type

	Quality of care by client type			
	LoCo service clients		NFP service clients	
Care element	**Absent**	**Present**	**Absent**	**Present**
Attentiveness	-	2 (2*p*)	-	3 (2*p*)
Responsibility	3 (3*p*)[67]	1 (2*p*)	-[68]	4 (3*p*)
Competence	5 (3*p*)[69]	2 (2*p*)	-[70]	5 (4*p*)
Responsiveness	-	3 (2*p*)	-	-
Solidarity	6 (5*p*)[71]	2 (2*p*)	-[72]	1 (1*p*)
Total	**14 (5*p*)**	**11 (2*p*)**	**-**	**13 (5*p*)**

Table 8.16 Fit for purpose: Experience-pattern structure by service client type

	Experience-pattern structure by client type			
	LoCo service clients		NFP service clients	
System element	**Disabling**	**Enabling**	**Disabling**	**Enabling**
Purpose	7 (4*p*)	3 (2*p*)	-	6 (4*p*)
Equifinality	1 (1*p*)	-	-	1 (1*p*)
Regulation	1 (1*p*)	1 (1*p*)	-	3 (3*p*)
Interconnectivity	-	-	-	1 (1*p*)
Boundary	5 (2*p*)	3 (2*p*)	-	3 (3*p*)
Emergence	-	-	-	-
Total	**14 (4*p*)**	**7 (2*p*)**	**-**	**14 (5*p*)**

Table 8.15 shows a marginal difference between LoCo and NFP service clients to do with the degree to which care is present for each in this experience-pattern. The results suggest participants recounted times when they evaluated the care work or worker as competent, regardless of provider type. Most striking is the higher level of absent care that LoCo service users recounted compared to NFP service

[67] Numerical values for LoCo clients' absent responsibility have been increased by 1 and (1p).
[68] Numerical values for NFP clients' absent responsibility have been decreased by 1 and (1p).
[69] Numerical values for LoCo clients' absent competence have been increased by 1 and (1p).
[70] Numerical values for NFP clients' absent competence have been decreased by 1 and (1p).
[71] Numerical values for LoCo clients' absent solidarity have been increased by 1 and (1p).
[72] Numerical values for NFP clients' absent solidarity have been decreased by 1 and (1p).

users, which supports the lateral relationship to the experience-pattern, *Case management eclipse*, suggested in Chapter 7.

Similar results appear in Table 8.16 where any inadequate use of system elements that could generate system behaviour to undermine the quality of care, are non-existent. This indicates that NFP service providers' system elements enables care workers so that they are *Fit for purpose*.

Case management eclipse

Case management eclipse describes how NFP service clients have a markedly different experience of the system than LoCo service clients. It is a dichotomous experience-pattern, unique to people receiving a home care package (HCP), who, in this sample, are all NFP service clients. A hallmark of the experience-pattern is its capacity for absorbing disruption and calming havoc, ensuring better care work quality, consistency and communication for service users. Table 8.17 shows every interaction between care and system elements shaping this experience-pattern for users of the FAR-whole. The overall quality and quantity of care with the experience-pattern, along with the system structure underpinning this are presented in it. Table 8.18 and Table 8.19 show how this materialises for each service client type.

Quadrants 3 and 4 show the dominant system behaviour of the experience-pattern, where there is a greater presence than absence of care elements and adequately managed system elements that give people better scope for achieving the goal for using the service, which is to *maximise their normal*. A triad comprising *purpose — regulation — boundary* is the key mechanism driving the higher overall presence of care and explains the limited presence of *responsiveness* and *solidarity* and high levels of *attentiveness*, *responsibility* and *competence* in the quality of care. The result may also indicate that the capacity of case management for absorbing disruptions means it performs as a dampening not amplifying feedback loop for when things go wrong, redirecting disruptions before they reach a service user and mitigating the need for *responsiveness* from service users back to the service provider. In this regard, the service function of case management assumes the entire regulatory function in the service, leading to this experience-pattern.

Quadrants 1 and 2 show the weak system behaviour, which is the deficiency that not having case management creates for service users.

Table 8.17 Case management eclipse: System behaviour

	Inadequate use of system elements						Adequate use of system elements					
	Pu	Eq	Re	In	Bo	Em	Pu	Eq	Re	In	Bo	Em
Absent												
Attentiveness	-	-	-	-	-	-	-	-	-	-	-	-
Responsibility	-	-	-	-	-	-	-	-	-	-	-	-
Competence	-	-	-	-	-	-	-	-	-	-	-	-
Responsiveness	-	-	-	-	-	-	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-	-	-	-	-	-	-
	Quadrant 1(Q1) total = 0						**Quadrant 2 (Q2) total = 0**					
Present												
Attentiveness		-	-	-	-	-	7	4	6	2	6	-
Responsibility	-	-	-	-	-	-	13	5	10	5	10	-
Competence	-	-	-	-	-	-	17	6	11	7	12	-
Responsiveness	-	-	-	-	-	-	1	-	1	-	1	-
Solidarity	-	-	-	-	-	-	3	-	2	-	2	-
Sub-total	-	-	-	-	-	-	41	15	30	14	31	-
	Quadrant 3 (Q3) total = 0						**Quadrant 4 (Q4) total = 131**					
	Pu/Purpose • **Eq**/Equifinality • **Re**/Regulation • **In**/Interconnectivity • **Bo**/Boundary • **Em**/Emergence Dominant behaviour • Weak behaviour											

Table 8.18 and Table 8.19 unequivocally show the dichotomised conditions of this experience-pattern and the significance of *Case management eclipse* for delivering a better service experience and quality of care for participants. However, the emphasis should not be on the benefit of case management itself, since this would suggest that all service users without case management as part of their community aged care will undergo poor service experiences and quality of care. Rather, the emphasis is on the system qualities of case management and how it benefits a system that has weaknesses or inadequately performing system elements leading to poor processes and quality of care outcomes. Case management represents the optimised use of system and care elements in the FAR-whole.

Table 8.18 Case management eclipse: Quality of care by service client type

	Quality of care by service client type			
	LoCo service clients		NFP service clients	
Care element	**Absent**	**Present**	**Absent**	**Present**
Attentiveness	-	-	-	8 (4*p*)
Responsibility	-	-	-	14 (8*p*)
Competence	-	-	-	19 (8*p*)
Responsiveness	-	-	-	1 (1*p*)
Solidarity	-	-	-	3 (2*p*)
Total	**-**	**-**	**-**	**45 (8*p*)**

Table 8.19 Case management eclipse: Experience-pattern structure by service client type

	Experience-pattern structure by client type			
	LoCo service clients		NFP service clients	
System element	**Inadequate**	**Adequate**	**Inadequate**	**Adequate**
Purpose	-	-	-	24 (8*p*)
Equifinality	-	-	-	9 (5*p*)
Regulation	-	-	-	16 (8*p*)
Interconnectivity	-	-	-	7 (2*p*)
Boundary	-	-	-	18 (6*p*)
Emergence	-	-	-	-
Total	**-**	**-**	**-**	**74 (8*p*)**

Patterns of Relationships in the FAR-whole

The asymmetry of complex adaptive systems is apparent in all experience-patterns where every quadrant of a Thick Care probe uncovers a noticeably different structural quality revealing persistent structural variation amongst experience-patterns. Notwithstanding the array of structure in the FAR-whole generally, emergent patterns of relationships between specific elements materialise in the quality of care and structural attributes of peoples' experiences. Table 8.20 displays times that a care or system element appeared in the system behaviour of an experience-pattern regardless the pattern's dominant or weak behaviour. The highlighted elements in Table 8.20, are those appearing most often as one of the top three elements irrespective of absent or present care or if system structure was adequate or inadequate. Accordingly, results show that in the FAR-whole, the quality of care in all experience-

patterns is determined by an emergent triplet between *responsibility-competence-solidarity* and that the major structural condition determining all experience-patterns is determined by an emergent triplet between *purpose-regulation-boundary*. An equivalence between the care elements *responsiveness* and *solidarity* also emerged. This is addressed below.

Table 8.20 Tally of Thick Care three most frequently appearing care and system elements

	Table											
	8.2	**8.5**	**8.8**	**8.11**	**8.14**	**8.17**	**8.2**	**8.5**	**8.8**	**8.11**	**8.14**	**8.17**
	A	**A**	**A**	**A**	**A**	**A**	**P**	**P**	**P**	**P**	**P**	**P**
Care element												
Attentiveness	x	x	-	-	-	-	-	x	-	-	x	-
Responsibility	x	x	x	x	x	-	x	x	x	x	x	x
Competence	-	-	x	x	x	-	x	-	x	x	x	x
Responsiveness	-	-	-	-	-	-	-	-	x	x	-	-
Solidarity	x	x	x	x	x	-	x	x	-	-	-	x
System element												
Purpose	x	x	x	x	x	-	-	x	x	x	x	x
Equifinality	-	-	x	-	x	-	x	-	-	x	-	-
Regulation	x	x	x	x	x	-	-	-	x	x	x	x
Interconnection	-	-	-	-	-	-	x	x	-	-	-	-
Boundary	x	x	-	x	x	-	x	x	x	x	x	x
Emergence	-	-	-	-	-	-	-	-	-	-	-	-
	A Absent care as the dominant system behaviour **P** Present care as the dominant system behaviour											

Two patterns of relationship appear in the FAR-whole. One is a triplet comprising the care elements *responsibility-competence-solidarity*. The other is a triplet comprising the systems elements *purpose-regulation-boundary*. Their mutual presence forms an inter-pattern relationship affecting the experiences of services users as they achieve their purpose for using the service, which is to *maximise their normal*.

Responsibility-Competence-Solidarity

Among care elements, a dominant, emergent pattern of relationship between *responsibility-competence-solidarity* appears consistently throughout the FAR-whole irrespective the system behaviour. A close to parity relationship between responsibility and competence exists — 11 to 8 respectively — indicating that in this complex adaptive system, *responsibility* is closely coupled with *competence*. In other words, this is the ability of a service provider to deliver a service such that it meets service users' needs. Comparatively fewer occurrences of *solidarity* in the system behaviour might be an outcome of the influence of *responsibility*, where accepting the responsibility to *care for*, supersedes the need for alignment between a service provider and service user. Moreover, in the context of designing for service under conditions of increasing complexity, the result may signpost how emphasising *responsibility* in a complex adaptive system, allows for rationalising using the other care elements, potentially elucidating the weak, emergent pattern of relationship between *attentiveness* and *responsiveness* where either care element appears infrequently in system behaviour. This emergent pattern of relationship affirms Tronto's (2013) argument for the significance that *responsibility,* as a practice of care, should assume at individual, familial, societal and political scales. As well, *responsibility-competence-solidarity* links to service user's purpose for using the service, which is *maximising their normal*, discussed in Chapter 7. Consequently, the triplet is crucial for the degree of satisfaction service users believe they have experienced resulting from the service process outcomes of service delivery (Glendinning et al., 2008; Qureshi et al., 1998).

Purpose-Boundary-Regulation

Among system elements, a dominant, emergent pattern of relationship between *purpose-regulation-boundary* appears consistently throughout the FAR-whole irrespective the system behaviour. A close to parity relationship between the elements happens at the ratio of 10-8-10 respectively, indicating that in this complex adaptive system, *purpose-regulation-boundary* are critical to system structure for service delivery that meets service users' needs. In the context of systems concepts, the triplet is sparing, affiliating it with a similarly economical approach suggested by Checkland (1999) who argued needing three systems concepts[73] only, for understanding a system. Despite this, when adequately materialised the triplet is effective for aligning needs, promoting cognisance of enough channels for supporting interdependency, providing ample mechanisms for feedback, therefore reorientation if the service goes awry and finally, avoiding marginalisation of service users, possibly bringing the triplet into line with the idea of boundary critique (Midgley, 2000; Ulrich, 2003). Moreover, in the context of designing for

[73] Checkland (1999) states the only systems concepts required are emergence, hierarchy and communication and control (what I call *regulation* in this study). Refer to Chapter 4 where Checkland is quoted.

service under conditions of increasing complexity, the triplet affords interrogating and designing fittingly for the plural, disparate purposes extant among service holons. With this in mind, the adequate or inadequate consideration of boundary appears significant for supporting this because by crossing system boundaries, different system *purpose* can be understood, brought into alignment or accessed on behalf of service users. Therefore, the manifestation of this element in the pattern of relationship *purpose-regulation-boundary* likely explains the weak, emergent pattern of relationship between the systems elements *equifinality* and *interconnection* because the attention to boundary issues means these elements are inherently considered. Finally, the infrequency of *emergence* within the FAR-whole indicates the redundancy of the element for the framework. *Emergence* being a capability of complex adaptive systems and emergent behaviours an output of system structure, rather than a contributing element.

Inter-pattern Relationships in the FAR-whole

In Chapter 4, I introduced the idea of *inter-pattern relationships*, which are times of junction between multiple patterns of relationship present in the system whole. Like patterns of relationship, inter-pattern relationships are governed by interdependency to other patterns in the system. In the case of the *responsibility-competence-solidarity* and *purpose-regulation-boundary*, the triplets create an inter-pattern relationship effecting the experiences of service users as they seek to *maximise their normal* (see Table 8.21 and Table 8.22). Consequently, it is the inter-pattern relationships from which arise the experiences of service users of the FAR-whole and are central for securing delivering good service process outcomes and an optimal quality of care. Inversely, the patterns are impactful for delivering service poor process outcomes and a sub-optimal quality of care.

When the dominant system behaviour is an absence of care, the system structure shows itself as inadequate. Therefore, the experience-patterns *Affordance of know-how*, *In or out of the loop* and *Getting the short shrift*, emerge from inter-pattern relationships between inadequate system structure leading to system behaviour where requisite care is absent and process outcomes fail to meet service users' needs (see Table 8.21).

Table 8.21 Absent care: Inter-pattern relationships leading to system behaviour

	Inadequate system element		
	Purpose	Regulation	Boundary
Absent care element			
Responsibility	41	30	30
Competence	41	28	30
Solidarity	27	16	15

When the dominant system behaviour is a presence of care, the system structure shows itself as adequate. This is the case of the experience-patterns *Access to information linchpins*, *Fit for purpose* and *Case management eclipse*, where *purpose-boundary-regulation* are consistently adequate for delivering the care requisite to ensure process outcomes that meet service users' needs.

Table 8.22 Present care: Inter-pattern relationships leading to system behaviour

	Adequate system element		
	Purpose	Regulation	Boundary
Present care element			
Responsibility	67	20	41
Competence	39	14	23
Solidarity	24	7	18

Experience-patterns will reflect *responsibility-competence-solidarity* to the degree system structure supports *purpose* alignment between service users and service providers *boundary* conditions allow for autonomy among system actors or supporting agencies. When *purpose* and *boundary* are adequately considered in system structure, *regulation* is similarly affected; the inverse is also true (see Table 8.21 and Table 8.22). Since *regulation* speaks to the feedback competency of systems, its adequacy/inadequacy relative to *purpose* and *boundary* indicates the significance of *purpose* alignment among system actors or supporting agencies for ensuring system feedback functions well. One reason for this may be because under such conditions, *purpose* alignment between older people and their service provider compensates for *regulating* their experiences of the system. This suggests that the

quantity of *regulation* in a system is not mandatory as much as its quality. Therefore, if *purpose* and *boundary* are well considered in system structure, they may assume a part *regulatory* role in the system.

Summary

The attention of this chapter has been patterns of relationships. A structural analysis of older people's experience-patterns of the FAR-whole, recounted in Chapter 7 was completed using the Thick Care Framework and the intersections between care and system elements — either absent or present and adequate or inadequate — for each were revealed. Dominant and weak system behaviours, the quality of care and system structure for LoCo and NFP service client types were highlighted. The outcomes mapped the mechanisms driving the events people described as their experience-patterns while using the FAR-whole. The probe confirmed that not all interdependencies among system elements and care elements are equivalent or symmetrical, again emphasising the asymmetrical dynamics of complex adaptive systems. While the pattern of relationships and inter-pattern relationship emerged at the scale of dyadic, micro interactions between service providers and service users, conceptually the patterns could move between service holons in a complex adaptive service system to include the macro environment.

A Thick Care probe of the FAR-whole revealed the requisite system structure for the delivery of process outcomes leading to service users' experiencing absent or present care from the FAR-whole. The significance of the correct amount of consideration to *purpose* alignment, sufficient, resilient feedback loops (*Regulation*) and the right degree of understanding of *boundary* means the system is capable of managing the multiple varied ways people find, are assessed for and receive their community aged care service from the system. Two overarching patterns of relationship comprising a triplet effect the quality of care in the FAR-whole, the adaptive behaviours to emerge from the experience-patterns and experience-patterns being either dichotomous or contingent. Attention to the effect of a structural triplet *purpose-regulation-boundary* and using these structural elements cogently when designing for service under conditions of increasing complexity, will deliver the presence of care through the triplet *responsibility-competence-solidarity* in complex adaptive systems that deliver care. Thus, in the Australian context of community aged care, Thick Care affords the care dimensions *responsibility-competence-solidarity* by attending to the system dimensions of *purpose-regulation-boundary*. The triplets are the basis for recommended design principles for the design of aged care services in the Australian context.

Two central ideas emerge from this structural analysis of service users' experience-patterns. First, these findings support my argument that designing for service should be an interrogation of patterns of relationship because system structure effects system behaviour with this effecting service process outcomes people experience. To enable better service process outcomes, shift system behaviour to seed appropriate experience-patterns by considering system structure.

The second is that applying a critical realist approach to inform the structural analysis of a system is beneficial for understanding the nuance of system behaviour in ways that accommodate the ideas that systems are neither absolutely real, nor absolutely perceived, as well as the essential tenets of complexity and systems theory. This means the explanation of events or multiple explanations of events are possible (see Chapter 4). The advantage of this when designing for service under conditions of increasing complexity means a fuller interrogation of service users' experience-patterns so that our understanding extends beyond just the quality of care delivered at a dyadic point in time and users' interpretation of that, but also, the unseen system structure contributing to service users' process outcomes.

This chapter affirms the holistic, complex nature of the FAR-whole. The findings provided have implications supporting the utility of applying Thick Care for interrogating users' experiences of complex adaptive systems and the affordance of this when designing for service under conditions of increasing complexity. This leads to the next chapter of this thesis, which is a case report of Thick Care presenting the contextual, conceptual and practical saliency of the framework including a final synthesis of the framework in the Australian community aged care context.

CHAPTER 9

THICK CARE: A FINAL SYNTHESIS

This is the final chapter. It answers the third and final research question of this study: *How does a complexity informed lens aid designing for service to deliver care under conditions of increasing complexity?* The chapter presents a case report on the saliency of applying the Thick Care Framework when designing for service under complex conditions. The discussion addresses the utility of Thick Care for the contextual — *care* — conceptual — *complex systems theory and an Ethic of Care* — practical — *Australian community aged care context* dimensions of the study.

In the Introduction to the thesis, the idea of service process outcomes was given for gleaning the effect of services on older people's experiences of service systems delivering care. Qureshi et al., defined process outcomes as the impacts of the process of service delivery older people perceived to have experienced while interacting with the service when finding, being assessed for or receiving a service. Thematic analysis of narrative accounts of peoples' experiences inform understanding sufficiently to display the experience-patterns of service users, but narrative accounts fail to expose system structural qualities underwriting the emergence of any experience-pattern, thus limiting awareness of what changes to structural elements are necessary if service designers are to solve for service improvements, design or innovation such that the quality and degree of care are proportionate with service users expectations.

Utility for interrogating system structure is a requisite feature when designing for service if, as the literature states, all services are indeed systems and if a service system includes people, who make complexity standard in any system. With proper pre-treatment the regular linear view of a service may be interrogated as a holistic entity; fundamental for explorations immersed in complexity. Aggregated understanding of service experiences is the antithesis of a systems approach, since any systems approach must culminate with synthesis. In this study, the sequence *find-assess-receive* was incorporated into a system entity called the *FAR-whole*, affording discovering the shared patterns of relationship amongst steps in a process that were previously considered separately. Using Thick Care to probe the FAR-whole gives a holistic — thereby systems — understanding of the degree and quality of care service users experience not an assembly of understandings from discrete stages — something customary design for service methods may inadvertently accentuate.

Frameworks provide a way to probe, rather than an explicit answer. Thick Care supports Kurtz and Snowden's (2003) *probe-sense-respond,* vital in complex domains, consequently presenting nuanced guidance to service providers. Contextually, the framework has immediate utility for highlighting care elements that are missing, abundantly provided, in need of calibration or unnecessary for meeting service users expected quality of care from the community aged care service system. Thick Care could reveal service clients preferred composition of care, showing what care elements are important for whom, to what extent and in what form and context. In this regard, Thick Care may aid gaining a cultural understanding of care among service client cohorts, thus responding to the special needs groups discussed in Chapter 1, reflecting Tronto's (1993) idea that care is contextual not universal therefore variable. An extension of this thinking is the opportunity for service providers to define the nuance of each element relative to the philosophy, resources our client cohorts they deliver services to. Applying the framework could prove useful for disclosing instances where best practice restricts meeting service users' needs — best practice not supporting complexity — thus allowing service providers to improve service designs to respond in ways that support front line staff recalibrating during service interactions. Thick Care orients service providers delivery efforts, indicating where to apply more, less or a certain type of resource to achieve service clients expected service process outcomes.

In the Introduction, the point was made that complex adaptive systems require frameworks able to probe the structural qualities of patterns of relationships. Conceptually, the import of Thick Care is its ability for addressing the exact structural qualities that do or do not make care present in the service process outcomes of people. Patterns of relationships point to what care elements need amplifying or dampening, along with what structural means will provide the necessary shift. Thus, Thick Care reveals omissions in care along with the necessary structural changes to bring about change such that service designers may know how to create different conditions for the delivery of care to successfully meet the process outcome expectations of service clients. Further, because any understanding of complex adaptive systems never considers the parts distinct from the whole, Thick Care could allow for cross-scale analysis, where using Thick Care at one scale allows subsequent consideration of the supra or subordinate scales — service holons — in the system hierarchy. Once peoples' experience-patterns are analysed and their structural quality determined, this structural quality may be traceable throughout the system, since in the highly interconnected, interdependent, relational nature of complex adaptive systems, similar patterns of relationship are likely to be found in other service holons and could be addressed.

Complex adaptive systems only appear in complex domains, where the search for patterns that emerge through interactions in the system governs ways for understanding system behaviour. Thick Care is a framework that probes service users' experiences to uncover patterns of relationship. In this study, Thick Care uncovered a distinct pattern of relationships between care and system elements similarly experienced by two different service cohorts, expressed through the behaviour of the complex adaptive system known as Australian community aged care.

The resultant Thick Care Model (Table 9.1) defines the precise set of care and system elements necessary when designing for service in Australian community aged care. Attending to these Thick Care elements aids designing for service towards fuller understanding of existing system structure driving system behaviour and the service process outcomes people experience. It guides designing future state service process outcomes that reflect a quality of care commensurate with their expectations.

Table 9.1 Thick Care: Australian community aged care

Inadequate use of system elements				**Adequate use of system elements**		
	Pu	**Re**	**Bo**	**Pu**	**Re**	**Bo**
Absent						
Responsibility	-	-	-	-	-	-
Competence	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-
Sub-total	**-**	**-**	**-**	**-**	**-**	**-**
Quadrant 1(Q1) total = 0				**Quadrant 2 (Q2) total = 0**		
Present						
Responsibility	-	-	-	-	-	-
Competence	-	-	-	-	-	-
Solidarity	-	-	-	-	-	-
Sub-total	**-**	**-**	**-**	**-**	**-**	**-**
Quadrant 3 (Q3) total = 0				**Quadrant 4 (Q4) total = 0**		
Pu/Purpose • **Re**/Regulation • **Bo**/Boundary				Dominant behaviour • Weak behaviour		

CONCLUSION

This thesis has explored what saliency a framework derived from complex systems theory and an Ethic of Care has for designing for service when the service is a complex adaptive system. It asserted that services are complex adaptive systems and that designing for service must engage with the complex patterns of relationships underwriting complexity and that this endeavour can only be supported by analytical frameworks capable of investigating complexity on its own terms. It argued that relationship, being a hallmark of complexity, should be the focus of any investigation of service systems, especially those deemed complex, so that the patterns of relationships between system parts are made visible, responded to and new patterns capable of meeting service clients' expectations of service process outcomes, emerge. In doing so, this thesis investigated older people's experiences of a complex adaptive system, specifically Australian community aged care. It has addressed three questions:

1) What are older adults' affective- and micro-experiences of Australian community aged care services what adaptive behaviour emerges?

2) What is the structure of the service system that makes these experiences possible?

3) How does a complexity informed lens aid designing for service to deliver care under conditions of increasing complexity?

These questions were addressed through a detailed analysis of the empirical data presented in Chapters 6 and 7, and the structural analysis of system behaviour using the Thick Care Framework presented in Chapter 8. The goal of this research was not to uncover people's experiences of community aged care services, but through interrogating their reported experiences to elucidate the structural quality underwriting the system behaviour generating these, in so doing, understand the utility of such an approach when designing for service. Using a qualitative approach guided by critical realism, a detailed analysis of data collected through semi-structured, in-depth interviews with older Australians living in Melbourne and in receipt of community aged care from either a Home Care Package or Commonwealth Home Support Package, this thesis extends current nascent thinking about the application of systems theory for designing for service.

Contribution to Research

The thesis started by articulating what contributes to complexity and complex adaptive systems, diversity, varied system states and introduced the idea of service outcomes for older people. In Chapter 1, *The Australian Context of Aged Care*, the thesis was situated in Australian community aged care, explaining the composition of Australia's population of older people, the key approaches for understanding the outcomes of community aged care services, recent Federal changes to aged care services, the usual ways that older people find, are assessed and receive community aged care, what makes Australian community aged care services a complex adaptive system was explained and the idea of the FAR-whole — a new articulation, emergent from the language of complexity and systems — was introduced into the lexicon of community aged care. A literature review about older people's experiences of finding, being assessed for and receiving aged care was completed in Chapter 2, *Service Experiences in Community Aged Care*. This Chapter established that no existing research has examined community aged care as a complex adaptive system, considered the conceptualisation and implications to older people of a FAR-whole, the complex adaptive nature of service systems or the relational nature of service systems that deliver care, the patterns of relationships between system parts and their role in older people's experiences. This chapter served to clarify the potential for viewing community aged care through the lens of complexity and systems theory concepts.

Chapter 3, *Systems and Complexity Concepts in Services*, reviewed the literature from service science, design for service and systems oriented design (SOD). This chapter served to clarify the extent to which systems theory is understood, articulated, applied in each domain. The chapter established there is recognition that services are systems but that there is a lack of empirical research investigating the utility of systems concepts for designing for service under conditions of increasing complexity, that systems oriented design emphasises designerly ways of interrogating complexity and that more broadly, the inherent nature of complexity and its incumbent traits are understood naively by scholars and practitioners in each domain. The chapter elucidated the dearth of investigation by preceding scholars for understanding and attributing the significance of pattern and relationship for understanding service systems. It established a foundation for the research investigation into the saliency of applying a framework derived from systems theory for interrogating services that deliver community aged care.

Chapter 4, *The Structure of Care,* highlighted the qualities of services that make them comparable with systems. This chapter introduced the systems paradigm, explaining the functioning of open systems and presented essential systems theory concepts. It discussed the feminist Ethic of Care presented by political scientist Joan Tronto. Most significantly, this chapter presented and argued for the shared

relational ontology that is the basis of both systems and care, founded the prominence and consequence of patterns of relationship in complex adaptive systems and ended with the introduction of Thick Care as an appropriate framework for interrogating the structural analysis of an experience-pattern in complex adaptive systems that deliver community aged care in Australia.

Chapter 5, *Research Design*, provided an opportunity to introduce critical realism as an appropriate theoretical perspective for understanding the structural qualities that lead to the emergent experiences from this complex adaptive system. Further, the chapter set out the method of critical realist data analysis and how the Thick Care Framework would aid analysis of this to reveal the structural qualities, something not previously considered in designing for services. The data analysis was conducted via thematic analysis of interview transcripts, which subsequently revealed the emergent affective-patterns presented in Chapter 6, *Affective-patterns of the FAR-whole* experience-patterns presented in Chapter 7, *Micro Experience-patterns of the FAR-whole*. In Chapter 8, the critical realist process of retroduction was undertaken using the Thick Care Framework and causal conclusions were drawn. This decision was guided by the central tenet of critical realism that assumes a layered ontology, requisite of interrogation of its deep structures for gaining a fuller account of human experience (Elder-Vass, 2010, 87-88). The analysis provided the mechanisms, contexts and outcomes contributing to system behaviour, exemplified by the affective- and experience-patterns presented in Chapters 6 and 7.

In Chapter 8, *Thick Care Analysis of Australian Community Aged Care*, the Thick Care Framework was applied for the first time to qualitative data about peoples' experiences of a complex adaptive system — Australian community aged care. This perspective shifted the analysis from thick description towards articulating the system structural foundation giving rise to peoples' experience-patterns. The chapter presents the dominant and weak system behaviour and system structure of each experience-pattern. Two patterns of relationships emerged from the analysis: one a triad comprising the care elements *responsibility-competence-solidarity*; another a triad comprising the system elements *purpose-regulation-boundary*. Furthermore, the chapter establishes the inter-pattern relationships resulting from these triads and their affect. This is the first application of the Thick Care Framework, extending on recent theoretical work to do with the application of systems ideas in designing for service presented by Sangiorgi, Patricio and Fisk (2017).

Chapter 9, *Thick Care: A Final Synthesis,* reports the saliency of the Thick Care Framework for providing a qualitative assessment of the patterns of relationship emerging from Australian community aged care. The chapter reports the utility of the Thick Care Framework to service providers and service

designers for gaining understanding of a complex adaptive service system so that improvements are possible.

Contribution to Knowledge in the Field of Designing for Service

The contribution of this project to the field of designing for service is three-fold, these being contextual, conceptual and practical. Firstly, contextually, the thesis makes a contribution to existing empirical studies and published knowledge about older peoples' experiences of community aged care as affected by the behaviour of a complex adaptive system. Significantly, it presents this knowledge as experience-patterns emerging from a FAR-whole, a term coined for the thesis derived from a systems approach. Here the treatment of a previously distinct sequence was reconsidered through a systems perspective and reconfigured as a FAR-whole. This is the first-time peoples' experiences of community aged care are studied and the results presented in such a way, making this an original contribution to knowledge in both international and Australian settings. Secondly, at a conceptual level, the thesis considers the implications of combining two theoretical perspectives — systems theory with political scientist Joan Tronto's (1993; 2013) normative ethical theory, an Ethic of Care — for application when designing for service. It presents the significance of this by arguing two elements: (a) that a relational ontology common to both theories makes their blending optimal for interrogating system structure causing system behaviour leading to people's experience-patterns and (b) that patterns of relationship are crucial for understanding complex adaptive systems and what response is required to ensure improvement of process outcomes generated from complex adaptive systems. This is the first time an Ethic of Care is combined with systems theory concepts to investigate complex adaptive systems, community aged care services, or in the designing for service domain in either international or Australian contexts. Lastly, the thesis contributes to the designing for service field by providing empirical insights into a new framework for aiding understanding the experiences of older adults as they interact with complex adaptive systems that deliver care to them, I have called this original framework *Thick Care*. The study clearly showed Thick Care provides opportunity for gaining another dimension of understanding of complex adaptive systems that deliver care.

Limitations

The tenets of critical realism suit the nature of systems, complexity and designing for service. However, in this study using both a critical realist case study method and the Thick Care Framework to analyse the data may have been unnecessary. Using the Thick Care Framework for performing a system structural analysis of experience is retroductive in itself, making redundant the need for formal critical realist retroduction, but retaining critical realisms philosophical assumptions is worthy for maintaining

sight that any Thick Care investigation is to discover patterns of relationship acting as mechanisms affecting experience.

A number of limitations are identified specifically about sample composition. The first is the gender imbalance of the sample. Male participants were outnumbered by the number of women who participated. Out of 20 participants three were male. This may have impacted some of the data that contributed to results about standards of cleaning. Another is the sample size. Despite having argued why generalisability is not relevant when researching in complex domains (see Chapter 5), a larger sample size might have given a broader range of participant experiences to investigate. The third is the lack of diversity in the sample. The sample was predominately Anglo-Australian people living in Metropolitan or peri-urban locations of Melbourne. This meant under-representation of Special Needs Groups within the broader population of people over-65. Of the 20 people, three were CALD and three lived outside the Metropolitan area. The final limitation of this study, concerns access. Participants were accessed from a limited range of sources, this might mean their experiences are similar. More sources might have generated a more varied sample, the findings might have been broader. Triangulation across NFP and LoCo service client types, along with linking back to the literature, ensures conflicts or corroboration with existing research emerge, supporting the rigour of this examination.

Implications for Future Research

While this study made original contributions to the field of designing for service and Australian community aged care, further research applying the Thick Care Framework to complex adaptive systems that deliver care or where the advocacy and wellbeing of others is primary, should be undertaken to gain a richer understanding of the framework's utility. Particularly instructive would be studies applying Thick Care to disability and mental health services, broader healthcare services, for example, outpatient services, public or private hospital patient experience, services in support of youth, the homeless, those in hardship or experiencing family violence, the unemployed or people searching for employment. Expanding to sectors outside those that are health related, but still in the public sector should be considered too. Public transport and the prison system are possibilities here, so too public utilities.

Secondly, this prototype framework will benefit from investigating what design principles each element could represent such that recommendations for the design or redesign of care services is readily applicable to services researchers and designers. It is recommended this be undertaken with others from the service design sector.

Thirdly, there is merit applying the framework to the same phenomenon where the sample includes more male participants. A shift in sample composition may alter the experience-patterns that emerge from the FAR-whole, with the potential of this to affect subsequent emergent patterns of relationships.

Fourth, great benefit will be derived from investigating using the final synthesised model of Thick Care that emerged from the Australian context. An appropriate investigation should use the final model to design a complex adaptive system or undertake services research of existing community aged care services. Fourth, investigating the care and systems dimensions of the framework to clarify and expand each element such that their application is consistently applied is needed.

Finally, more research into the merit of applying critical realist theory in designing for service is needed. This evidence will build on current methodological approaches used in designing for service for getting clarity when designing for service under complex conditions. Further investigation into these questions make a methodological contribution to designing for services which will aid the field as it transitions into designing within complex space.

Concluding Thoughts

The systems turn in designing for service discloses the latent potential for defining and refining a new methodological and theoretical intersection between complexity, services, systems, and care. Many authors have attempted to signpost the shared associations between services and systems, yet most have missed explicating the common relational ontology that makes complexity, services, systems, and care fundamentally congruent. This thesis examined the theoretical orientation of complexity, systems theory, and the normative ethical theory an Ethic of Care and discovered their locus is, relationship. This discovery was redefined for a new era in design for services as a requisite search for patterns of relationship within peoples' service experience and the Thick Care Framework was proposed for doing this. The thesis examined the saliency of the framework by using it to probe the system structure underwriting the experience-patterns of older people. In this examination the research discovered that distinct patterns of relationship in system structure contribute to system behaviour leading to an assessed qualitative degree of care experienced by older people. Attention to patterns of relationship within a complex adaptive system surfaced as a primary focus for understanding complexity, systems, and care when designing for service and the Thick Care Framework a useful addition to the design for service tool box. This thesis is useful for researchers, designers, practitioners and students in the services field as well as service providers. It offers another way to discover and articulate the messy, multivalence of services.

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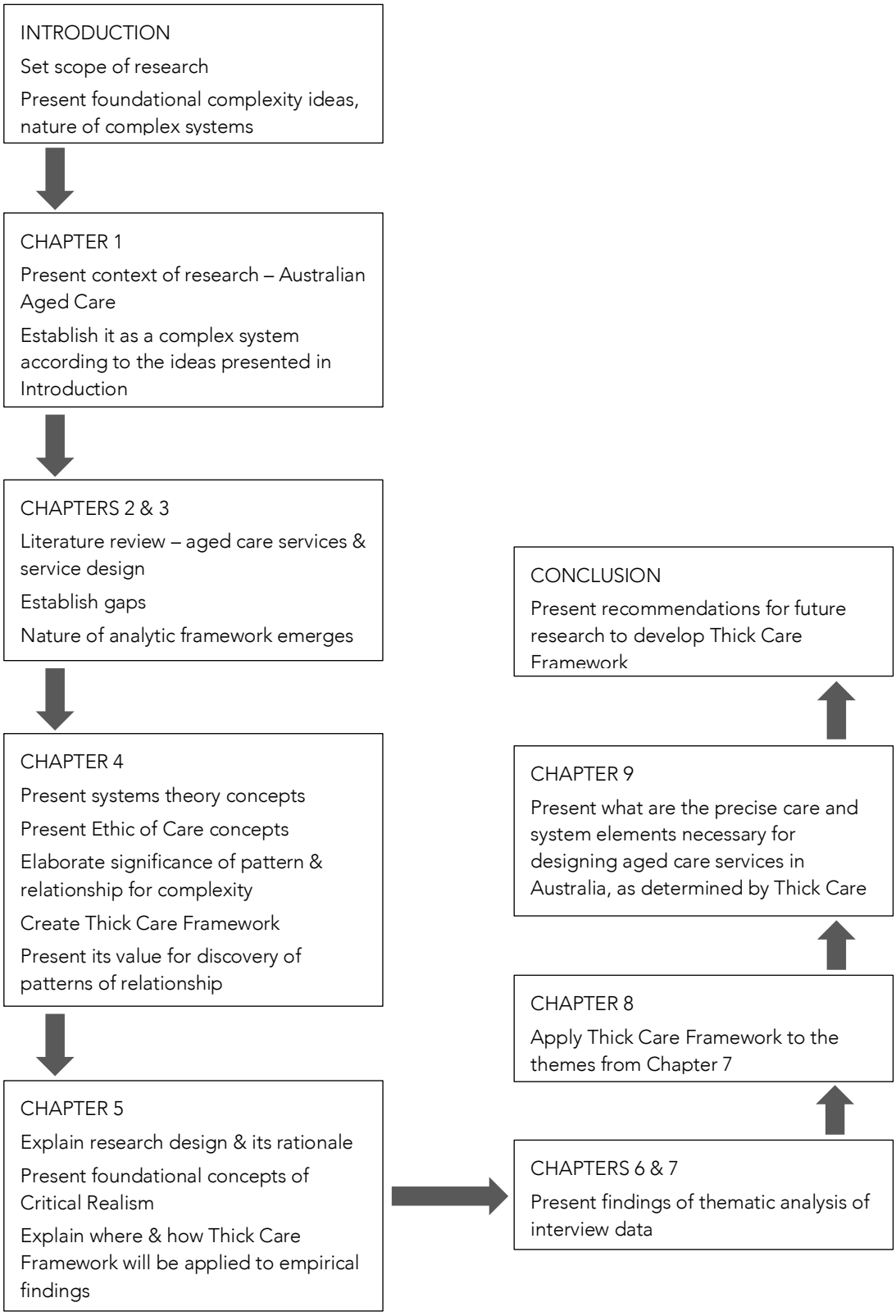
APPENDIX

Methodological steps in this thesis



From: **Astrid Nordmann** anordmann@swin.edu.au
Subject: SHR Project 2015/327 - Ethics clearance
Date: 16 February 2016 at 10:18 am
To: Kurt Seemann kseemann@swin.edu.au
Cc: RES Ethics resethics@swin.edu.au, Anna Lorenzetto alorenzetto@swin.edu.au

AN

To: Assoc Prof Kurt Seemann/Ms Anna Lorenzetto, FHAD

Dear Kurt and Anna

SHR Project 2015/327 - Critical service design for aged care: A systems thinking approach
Assoc Prof Kurt Seemann FHAD; Ms Anna Lorenzetto et al
Approved Duration: 16-02-2016 to 15-03-2017 [adjusted]

I refer to the ethical review of the above project protocol by Swinburne's Human Research Ethics Committee (SUHREC). Your responses to the review, as emailed on 12, 15 and 16 February, accords with the Committee review.

I am pleased to advise that, as submitted to date, the project may proceed in line with standard on-going ethics clearance conditions outlined below.

- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research* and with respect to secure data use, retention and disposal.

- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor requires timely notification and SUHREC endorsement.

- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.

- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring and variations/additions, self-audits and progress reports can be found on the Research Intranet pages.

- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this email should be retained as part of project record-keeping.

Best wishes for the project.

Yours sincerely

Yours sincerely

Astrid Nordmann
Acting Secretary, SUHREC

Ethics
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From: **Kurt Seemann** kseemann@swin.edu.au
Subject: Fw: Acknowledgement of Report for SUHREC Project - 2015/327
Date: 31 May 2019 at 10:19 am
To: Anna Lorenzetto alorenzetto@swin.edu.au
Cc: Carolyn Barnes cbarnes@swin.edu.au

KS

FYI.

From: resethics@swin.edu.au <resethics@swin.edu.au>
Sent: Wednesday, 28 February 2018 2:29 PM
To: Kurt Seemann
Cc: RES Ethics
Subject: Acknowledgement of Report for SUHREC Project - 2015/327

Dear Kurt,

Re: Final Report for the project 2015/327

'Critical service design for aged care: A systems thinking approach' (Report Date: 28-02-2018)

The Final report for the above project has been processed and satisfies the reporting requirements set under the terms of ethics clearance.

Thank you for your attention to this matter.

Regards
Research Ethics Team

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Thematic map of participants' affective- and experience-patterns