2nd Edition

GROUNDED THEORY FOR QUALITATIVE RESEARCH

A Practical Guide

Cathy Urquhart

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This book is respectfully dedicated to Barney Glaser (1930–2022) and Anselm Strauss (1916–1996) for their gift to the world that is grounded theory.

It is also dedicated to Kathy Charmaz (1939–2021) for her transformational contribution of constructivist grounded theory.

Contents

List of Figures

List of Tables

How this book is structured

This book is designed for you to use how you want, and contains three major strands, aimed not only at the first-time user of grounded theory but also the more experienced who wants to delve a bit deeper into GTM. Each chapter covers a particular aspect and ends with exercises, Web resources, further reading and frequently asked questions (FAQs) to extend your knowledge further.

The first strand (Chapters 1, 2 and 3) gives the background and intellectual foundations of GTM. Chapter 3, a new addition for this second edition, discusses the vexed issue of what theory actually is – a key question for those of us interested in generating theories using GTM.

The second strand (Chapters 4, 5, 6 and 7) addresses the practical business of getting started with GTM by first getting started with coding in general (Chapter 4), designing a grounded theory research study (Chapter 5), then open and selective coding (Chapter 6) and theoretical coding (Chapter 7) using extended worked examples.

The final strand goes deeper into the practice of GTM by proffering examples of theoretical sampling in a brand new chapter (Chapter 8), discussing the issues of writing up and presenting a grounded theory study, with examples (Chapter 9), and finally revisits GTM and its contribution to qualitative research, with some speculations on how GTM is evolving (Chapter 10).

Below is a more detailed outline of the contents of each chapter.

- Chapter 1 introduces the purpose of the book, which is to be a clear accessible guide to GTM, and then gives a brief overview of GTM under four headings – Theory, GTM and the Literature, Using GTM in the field and Data Analysis using GTM.
- Chapter 2 gives some further background on grounded theory method and how it has evolved into several different versions. This chapter considers some of the intellectual history of GTM. It also explores some myths about GTM you may also encounter along the way.
- Chapter 3 discusses something crucial, something often taken for granted in academic disciplines, especially newer disciplines such as business and management – the subject of what theory is. This chapter discusses the components

of theory and how explanation is key to theory development. It also discusses theoretical mechanisms and their similarities to theoretical coding families. It covers why causation can be a vexed issue, and abduction in GTM. It discusses what different levels of theory might look like, and how a grounded theory might be positioned against the extant literature.

- Chapter 4 shows how to do coding in the context of GTM. It's important to see how GTM fits within broader approaches to qualitative analysis. This chapter discusses the importance of distinguishing between description and analysis, a vital skill for the grounded theorist. It also discusses how coding builds theory. A brief example of how grounded theory approaches theory building is also provided, in preparation for Chapters 6 and 7 where we look at coding in detail.

- Chapter 5 discusses research design using GTM. In this chapter, we look at key first questions about the use of grounded theory in a research design and how the research philosophy, methodology and method might be considered when designing a grounded theory study. A range of research philosophies are considered, and also how adopting any one of these philosophies might impact on the research design. It also discusses how grounded theory might fit into various research designs. It briefly considers how theoretical sampling might be built into the research design, in preparation for a more detailed discussion in Chapter 8. It also looks at types of data collection, reflexivity and ethics.

- Chapter 6 explains the open coding and selective coding stages in GTM, using examples and exercises. It looks at whether to code at the word, sentence or paragraph level. Through two detailed examples, it also discusses when to 'elevate' an open code and when to decide which are dimensions of other codes. It also considers the option to use gerunds when coding.

- Chapter 7 explains theoretical coding, the all important stage in GTM for creating a theory, building on the examples in Chapter 6. Theoretical memos and their key role in theorising are introduced. Integrative diagrams as a key tool for understanding relationships in the theory are also introduced. Theoretical coding and linking categories are discussed, and the importance of doing so for building theory. Glaser's coding families and other options for building con-ceptual relationships are also covered. How links at lower levels of coding also help the theory is also discussed.

- Chapter 8 discusses theoretical sampling in depth and provides a number of examples of how people have tackled the issue in their dissertations. It first discusses the centrality of theoretical sampling to grounded theory and gives an example of how to apply theoretical sampling using Glaser and Strauss's advice in the 1967 book. After providing some alternative examples in the form of postgraduate approaches to theoretical sampling, the chapter considers what might comprise a slice of data when theoretical sampling.

- Chapter 9 tackles the issues around writing up and presenting a grounded theory study. Whether the theory should be scaled up as part of that process is considered. The chapter discusses why the daily process of writing is important and how we can overcome blocks in writing. The chapter considers how to present the context of the study, how much of the coding procedure should be presented, how to present a chain of evidence, how to present findings and,

finally, how to present the substantive theory. There is also a discussion on how to present the theoretical integration of the nascent theory.

- Chapter 10 concludes the book by revisiting GTM, its contributions and its strengths as a research method. Some key insights are considered as well as some guidelines for grounded theory studies. The future of GTM as a living and evolving qualitative method is our final consideration.

About the author

Cathy Urquhart is Professor Emeritus of Digital Business at Manchester Metropolitan University Business School and Visiting Professor at the Department of Informatics, Lund University, Sweden. Before returning to the UK in 2009, she worked at the Universities of Tasmania, Melbourne and the Sunshine Coast in Australia, and the University of Auckland in New Zealand. She also worked as a systems analyst for eight years in public sector computing in the UK.

Her broad area of research centres round the use of digital innovation for societal good. She is interested in how social media and all forms of ICTs can help us meet societal challenges, such as sustainable development, individual well-being and social justice. She writes regularly on developments in grounded theory and qualitative research methodology in general.

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Preface to the second edition

Dear readers, welcome to the Second Edition. This second edition has come about because, as I continued to teach (and learn) about grounded theory, it became obvious to me that the first edition needed updating.

As I continued to teach grounded theory at MMU Business School, and all over the world, a few things became clear to me. First, that while the declared object of grounded theory method is to produce a theory, there are few discussions about what theory is and what it constitutes. This dearth of discussion seems particularly the case in business and management. Second, as I continued to delve into the intellectual foundations of grounded theory, I became fascinated with Glaser and Strauss's recommendations for theoretical sampling and their suggestions for moving from substantive to formal theory. Third, as I continued to work with my wonderful PhD students, they too made explorations which I wanted to share with you. Fourth, I wanted to accommodate a much broader range of research perspectives than in the previous edition.

Accordingly, this edition is completely revised to include a new chapter on theory (Chapter 3), a new chapter on Theoretical Sampling (Chapter 8). I've also expanded the chapter on Research Design (Chapter 5 in this edition) to include critical realist, feminist, post-colonial, queer and critical race philosophies. Chapter 2 (Grounded Theory Method) and the chapter on Contribution of GTM (Chapter 10 in this edition) have been revised to include recent developments on grounded theory – one of the continued joys of grounded theory is the continuing vigorous intellectual tradition and debate. Finally, the chapter on Writing up a Grounded Theory Study (Chapter 9 in this edition) has been updated with new examples.

Again, my hope is always that you, dear reader, will take this book, enjoy it and allow it to make some independent and creative decisions about your use of grounded theory. As with the previous book, I have aimed to take some of the mystique out of the research process when using grounded theory – the aim is first, to pass on what I have learned (why keep the joy of ground theory to yourself?) and second, to give practical advice wherever possible.

Acknowledgements

1

Introduction

This book aims to provide a simple and practical introduction to grounded theory. I've used grounded theory in research for many years, and I feel there is real need for a book that provides examples and gives as much guidance as possible. This is not to say that this is a prescriptive text – there is no one way to do grounded theory – but the book does aim to be as clear as possible. The idea is to give the reader the basic techniques to be able to do their own grounded theory study, and enough information to then proceed with their own adaptations and exploration in grounded theory. This book:

- Explains the grounded theory analysis process through clearly worked examples
- Explains how the grounded theory process can lead to new theory and new insights about data
- Explains how to engage your findings from your grounded theory study with existing literature
- Gives advice on research design and how to write and present your grounded theory study
- Discusses key grounded theory tenets such as theoretical sensitivity and theoretical sampling
- Provides exercises, web resources, further reading and frequently asked questions for each chapter

This book largely came about through requests from my postgraduate students about the 'how' of grounded theory method (GTM) because a lack of practical guidance and examples in grounded theory. This set me thinking about the best way to explain the 'how', without being prescriptive about the method. Although they were convinced by my passionate advocacy of it as a method of analysing qualitative data, and the grounded theory studies they had read, they still faced a real problem with understanding and applying the method. So this book aims to fill that gap – to explain the 'how', without sacrificing the flexibility of the method in the process. It aims above all else to be an *accessible* guide to GTM for the first time user, and I make no apologies for the straightforward tone of this book. While sometimes precise terms are needed to explain complex concepts, I believe it's also important not to hide behind terms that complicate rather than illuminate!

This book is also a highly personal view of grounded theory – it is very much the product of my own experiences, and those of my wonderful students. The

book aims to be the sum total of the advice I might give a first time user of grounded theory and to distil the experiences of over 25 years of using grounded theory in many contexts. It has become apparent to me how much knowledge about the actual practice of coding remains opaque and not available in either research texts or journal papers. There are probably some good reasons for this. First, it is difficult to explain how the coding process is carried out – the best type of learning in this case is to try it out. So, in this book there are lots of examples and exercises. When I teach grounded theory, I try to get people to apply the method to an example as soon as possible – there is simply no substitute for doing it! Second, journal articles do not afford researchers space to explain how they have analysed their data in detail. The process of analysis is often messy and iterative, and this sort of truth telling does not fit well with the notion of a finished piece of research. So often, researchers do not discuss their processes of analysis, for fear of being criticised for not following the right path. What happens in research is real and often untidy, and any analysis procedure is prone to be affected by the context, how the data was collected, the circumstances of the field, who is carrying out the analysis, and many other factors. So this book aims to show the reflexive nature of the coding process and to encourage readers to embark on the coding process as soon as possible. You'll hear a lot about the 'coding process' in this book. Put simply, the coding process is the process of attaching concepts to data, for the purposes of analysing that data.

My experience with the method in the field of business and management has led me to believe that many researchers use grounded theory as a practical coding method, concentrating on the mechanics of coding, rather than as the theorising device it was designed to be. This is a pity because in doing so researchers are using the first part of the method only and neglecting the unique power of grounded theory. This is rather like an artist deciding to paint pictures, but never frame them, exhibit them or describe what they are doing in the context of current art practice. So throughout the book, the issue of what a theory is, how it might be built, and then engaged with other theories, is discussed. You can read this book to find out about coding procedures in grounded theory and not propose to build any theory yourself, but the examples in this book do show how to build theory.

Throughout the book, you'll see the term grounded theory method (GTM) used, rather than the more common 'grounded theory'. Antony Bryant uses this term in his 2002 paper to make the useful point that grounded theory is a *method* that produces a grounded theory (Bryant 2002).

What this book does not do

This book does not claim to be a definitive book on GTM or stake out particular territory. The method has a history that started in 1967, and there are many views and variants of GTM. It is an evolving method as researchers

increasingly turn to it as a powerful tool in qualitative work. It does aim to share some useful rules of thumb about applying GTM, and it is a personal view. It does not claim to be applying 'pure' grounded theory, as there are many debates about what 'pure' grounded theory might be – it is almost inevitable that I am bound to offend someone in my view of grounded theory because it has a very lively intellectual foundation and tradition.

This book does not spend a lot of time talking about the philosophical position of GTM, interesting and important though that issue is. Students often ask me if GTM is 'valid'. What they mean by this is whether GTM is seen as a scientific method within the positivist paradigm. These issues are further discussed in Chapter 2, but for now suffice it to say that GTM can be used within positivist, interpretivist and critical paradigms of research.

Is grounded theory method difficult to use?

When a research student says they wish to use GTM, often they are told that GTM is difficult to use. This book is written to support those students and also to defend their use of GTM. GTM was a revolutionary method of analysing qualitative data when it was launched in 1967, and it still retains its controversial qualities to this day.

Why should it be controversial, and why do scholars still debate and sometimes criticise GTM? One reason is found in the chequered history of the method itself. From the foundational book *The Discovery of Grounded Theory* published in 1967 (Glaser and Strauss 1967), there have been countless applications of GTM, but also many adaptations and evolutions of the method. With the publication of Strauss and Corbin's book in 1990 (Strauss and Corbin 1990) came a very real disagreement between the co-originators about the very nature of GTM itself. So any student of GTM has to acquaint themselves with the Strauss and Glaser variants of the method and decide which they are using. This book inclines towards the Glaserian strand, for reasons explained later.

A student of the method also has to deal with the fact that many journal articles use the term 'grounded theory' as a blanket term for coding and analysing qualitative data. When we attach a code to the data, we are also attaching a concept to that data, and it is those concepts that help us build theory, as we discuss in Chapter 3. GTM is indeed a method that can be used to analyse qualitative data, using codes attached to data, but it is so much more than that, too. It also builds relationships between concepts informed by the codes, which allows us to build theory. As previously remarked, this is an important, and in my opinion, sadly underutilised aspect of GTM, especially when one considers the original aim of GTM was to build theory.

GTM, in my opinion, is a wonderful method of analysing data and building theory. In this book, I want to share what is for me the excitement and passion of doing analysis in this way. For me, the experience of using grounded theory as a PhD student (Urquhart 2001) was life-changing. The features of the method

mean that you are so close to the data you gain all sorts of rich insights; these insights almost invariably result in excellent research. To me, it is a joyful method – and I hope to be able to convey the thrill and joy of GTM in this book, and I hope that after reading this book, you will share my excitement! I have become an advocate of GTM not so much because I used it in my own PhD but because experience using the method with postgraduate students has led me to see that it produces strong theory grounded in the data. From a postgraduate perspective, I have found that the use of GTM all but guarantees an excellent piece of research, if applied carefully in all its stages.

Of course, GTM is not for everyone. I have two sorts of graduate student – the first sort, when encountering grounded theory, looks as if they wish to run from my office immediately and begs to be able to use a framework or theory from the literature instead. The second sort looks somewhat nervous, asks some questions about how long the analysis will take and generally has some unexpected joys along the way as they build concepts from their data and experience theory building. It is to those students that this book is dedicated, and I hope this book is a useful companion on their journey. I also hope fellow researchers will find this book a useful reference on grounded theory.

What is grounded theory method?

It is perhaps best to start with how the creators of grounded theory defined their method, in their foundational book which launched grounded theory (Glaser and Strauss 1967). They defined it as 'the discovery of theory from data – systematically obtained and analysed in social research'. The key point here is that the theory produced is *grounded* in the data.

The emphasis on theory in the original book is in sharp contrast to the use of grounded theory method today where it is known primarily as a method of qualitative data analysis. So one of the emphases of this book, as well as helping with practical issues of coding and data analysis, is what to do with that coding – how to build the theory from the coding.

For the record, these are the key features of GTM as explained by Cresswell (1998) and Dey (1999). They provide a good starting point, and we'll discuss them in the next sections.

1   The aim of grounded theory is to generate or discover a theory.
2   The researcher has to *set aside theoretical ideas* in order to let the substantive theory emerge.
3   Theory focuses on how individuals interact with the phenomena under study.
4   Theory asserts a plausible relationship between concepts and sets of concepts.
5   Theory is derived from data acquired from fieldwork interviews, observation and documents.
6   Data analysis is systematic and begins as soon as data is available.

7   Data analysis proceeds through identifying categories and connecting them.
8   Further data collection (or sampling) is based on emerging concepts.
9   These concepts are developed through *constant comparison* with additional data.
10 Data collection can stop when no new conceptualisations emerge.
11 Data analysis proceeds from open coding (identifying categories, properties and dimensions) through selective coding (clustering around categories), to theoretical coding.
12 The resulting theory can be reported in a narrative framework or a set of propositions.

Theory

Let's consider first the statements about theory.

> The aim of grounded theory is to generate or discover a theory;
> Theory asserts a plausible relationship between concepts and sets of concepts; and
> The resulting theory can be reported in a narrative framework or a set of propositions

It is important to appreciate then, that GTM is all about theory, even though its procedures are often more commonly used to analyse data than to generate theories. Chapter 1 of the revolutionary book *The Discovery of Grounded Theory* (Glaser and Strauss 1967), which started grounded theory, states that the aim of the book is to generate theory based on data, rather than to verify 'grand theory'. The authors also contended that the classic theories of sociology did not cover all the new areas of social life that needed exploration. They also discussed the idea of qualitative versus quantitative data and concluded that both types of data were needed for both generation and verification of theories. So, the very first book on GTM begins by putting forward two major points – the need to generate new theories rather than to force data into a few existing theories and the idea that qualitative data and quantitative data are *both* useful.

It is worth, at this point, discussing what a theory actually is. We all formulate theories in everyday life – for instance, we might say, based on our experience, that people who are good at maths tend to be more introverted (and my apologies at this point to all those people who are both fine mathematicians and extroverts – this is just an example ☺). This working theory is based on our experience of the world and may not be true. It is after all an individual perception, so not really grounded in the true sense of the word. But it has the key components of a theory – some constructs – 'good at maths' 'introversion' and a *relationship* between the two.

Shirley Gregor in her 2006 paper on theory (Gregor 2006) gives some useful building blocks of a theory. In the table below, I comment on how these theory components appear in GTM.

So, the theory discovered or generated by use of GTM is often represented by a narrative framework, a diagram or a set of hypotheses. In all three cases of representation, it is important that there be a relationship between the constructs, because this is a cornerstone of all theories. So there must be a plausible relationship between the constructs – in GTM, this is not usually causal, because in the majority of cases, GTM uses qualitative data. So the relationships between constructs tend to be more a case of 'A is a part of B', or 'A influences B'. There is also extensive guidance in GTM as to how to formulate these relationships between constructs in Glaser (1978) and Corbin and Strauss (2008). These aspects are also the most controversial aspects of GTM, as we will discuss later. For now, though the important thing to note is that GTM is a method of generating theories, and theories contain relationships between constructs.

GTM and literature

A key feature of GTM is that

> The researcher has to set aside theoretical ideas in order to let the substantive theory emerge.

Of all the features of GTM, this is the one that causes most difficulty for new users. The idea here is that the literature about whatever you are researching is referenced *after*, not before, you build the theory. Glaser and Strauss recommended this because they wanted the data to speak to the researcher, rather than the researcher forcing theories on the data. To me, this is one of the reasons why GTM was revolutionary in its time, and still is tremendously relevant today. The idea that we should seek to see what the data indicates, rather than shoehorning that data into a theory that already exists, means that there is more chance of discovering something new. It also seems to have more integrity as a research process because it does not seek to impose preconceived ideas on the world.

Of course, no one enters the research process as a blank slate – we will all have read something about the phenomena. The founders of GTM ask that we put that aside, so we do not influence the coding of our data. In practice, it's quite possible to do a literature review before we enter the field – on the understanding though that this literature does not influence the coding process. Once the theory is developed, *then* we engage our theory with existing theories and use those existing theories to help the densification of our emergent theory. The literature review we developed initially, then, may change. This is not the barrier to use that people might think – in Chapter 2, I give some more advice and information as to how to deal with the literature, but for now suffice to say that I have seen many students conduct a literature review and do a successful

grounded theory study! It's the use to which the literature is put, not the act of literature searching, that is the key point here.

Using GTM in the field

These aspects all relate to using GTM in the field:

> Theory focuses on how individuals interact with the phenomena under study.
> Theory is derived from data acquired from fieldwork interviews, observation, and documents.
> Further data collection (or sampling) is based on emerging concepts.

It is true to say that many GTM studies do focus on how individuals might interact with the phenomena under study – for instance, how a work group might react to a new information system – but the use of GTM is quite flexible and varied. I have seen it applied to all sorts of phenomena, from analysing citation information, to the design of software. GTM is perfect for studying micro phenomena, because of its close examination of the data, but it's worth considering that GTM can study larger units as well, such as firms. This is consistent with the idea of theory building – where we build larger theories from smaller, substantive ones. So, we'll discuss further in Chapter 5 how the unit of analysis may influence a GTM research design.

As previously stated, GTM builds its theory from data acquired from fieldwork interviews, observation and documents. All these data sources are qualitative, and the use of qualitative data fits well with the inductive process that GTM is. When we say that GTM is inductive, what we mean is that GTM reasons from the ground up – from specific instances in the data, to more general conclusions. How the data is analysed – completely or partially – will again depend on the research design, to be discussed in Chapter 5. As a point of interest, it's worth noting too, that quantitative data can be used in GTM, as part of a mixed-method design, and again, we'll look at this option in Chapter 5.

It's also important to note that the use of GTM implies *overlapping data collection and analysis*. This means that the researcher will be analysing the data in the field and using the emerging concepts from that analysis to decide where to sample from next. This process is known as *theoretical sampling* because the emerging theory directs future data collection. So, for instance, if a particular concept, such as the effects of job losses on remaining staff, arises from an interview, the researcher could decide to interview more individuals who have witnessed such job losses. This strategy may not always be practical depending on the access that the researcher is allowed, of course. Sometimes there may be only a set amount of interviews permitted in an organisation, for instance. So, one good idea for a grounded theory study is to allow for more than one phase of data collection, as Charmaz (2014) suggests. We will return to this issue in Chapter 5 when we discuss research design.

Theoretical sampling does two things: first, it enables the researcher to build up justification for concepts in the theory by finding more instances of a particular concept; and second, it also allows the researcher to follow an emerging storyline suggested by the data.

Data analysis using GTM

> Data analysis is systematic and begins as soon as data is available.
> Data analysis proceeds through identifying categories and connecting them.
> These concepts are developed through constant comparison with additional data.
> Data collection can stop when no new conceptualisations emerge.
> Data analysis proceeds from open coding (identifying categories, properties and dimensions) through selective coding (clustering around categories), to theoretical coding.

The characteristics above are all to do with data analysis, the core of grounded theory method and the aspect most often leveraged independently of theory building. It is certainly true to say that the data analysis procedures are systematic, and this is one reason why the procedures are so frequently leveraged by those who may not be building a theory – these coding procedures are well known and described in the literature, and as such they are seen as a very legitimate way of analysing qualitative data.

In a systematic fashion, often analysing the data line by line, categories are attached to the data. This is 'coding', and we will discuss this extensively in Chapters 5, 6 and 7. A category is generally a low-level concept, attached to a particular piece of data. So, for instance, we might look at a line of text and decide that, in this line, the person is trying to justify a decision. So, we might call this category *justification* and find more instances of this in other parts of the data we are analysing.

The important thing to note here is that the *connecting* of those categories is as important as naming those categories – because, if you recall, in Table 1.1, an important component of a theory is building of relationships between constructs. So, it's helpful to see the data analysis in grounded theory – which concentrates on naming categories and connecting them – as laying the foundation for constructs and relationships. As previously stated, further data collection is ideally based on the emerging concepts from the analysis.

Constant comparison is the process of constantly comparing instances of data labelled as a particular category, with other instances of data in the same category and is often described as the heart of GTM. It is no more than a simple rule of thumb, but it is also a way of thinking – to ask yourself 'how does this instance I have labelled x, compare to all the other instances of x I have labelled?'. It really does work as a method of analysis because it encourages the researcher to consider closely what they are analysing.

Table 1.1   Components of a theory in GTM

Theory component	Definition	In grounded theory
Means of representation	The theory must be represented physically in some way: in words, mathematical terms, symbolic logic, diagrams, tables or graphically.	Theories in GTM are often represented by a narrative framework, diagrams or statements of hypotheses.
Constructs	These refer to the phenomena of interest in the theory (Dubin's 'units'). All of the primary constructs in the theory should be well defined. Many different types of constructs are possible: for example, observational (real) terms, theoretical (nominal) terms and collective terms.	In GTM, the aim is to get to one to two core categories or constructs. This makes for a more coherent theory. All the constructs in a grounded theory are, well, grounded in observations. They come from the data.
Statements of relationship	These show relationships among the constructs. Again, these may be of many types: associative, compositional, unidirectional, bidirectional, conditional or causal. The nature of the relationship specified depends on the purpose of the theory. Very simple relationships can be specified: for example, 'x is a member of class A'.	In GTM, because the theory is often based on qualitative data, relationships are not often causal. There is a lot of guidance in GTM about the sort of relationships that are possible between constructs, in the form of coding families (Glaser 1978) and a coding paradigm (Corbin and Strauss 2008).
Scope	The scope is specified by the degree of generality of the statements of relationships (signified by modal qualifiers such as 'some', 'many', 'all' and 'never') and statements of boundaries showing the limits of generalisations.	GTM aims to produce substantive theories which pertain to the area being investigated. The scope and generalisability can be extended by theoretical sampling (Glaser 1978). The substantive theory can and should be engaged with existing theories – in grounded theory, existing theories can also be seen as slices of data which help build the theory.

Source: Adapted from Gregor (2006).

It is actually quite obvious, in a grounded theory study, when to stop data collection – the researcher finds that no new concepts are emerging from the data, and that all that is happening is more instances of existing categories. In this way, 'theoretical saturation' is reached; the particular category is seen to be 'saturated', i.e. full!

While different versions of grounded theory use slightly different stages of coding, I find it helpful to think of just three – first open coding, second, selective coding, and third, theoretical coding. These are the stages recommended by Glaser (1978), and they have the virtue of simplicity. Open coding

means just that – going through the data, line by line or paragraph by paragraph, and attaching codes to the data, and very much staying open – seeing what the data might be telling you. Second, those codes are grouped into larger categories in the stage of selective coding, on the basis of the key categories that are shaping the theory. Third, in theoretical coding, those categories are related to each other and the relationships between them considered. Attentive readers will again spot that this is the act of building theory – finding constructs, and connecting them, and considering the nature of that relationship.

Why is it useful?

Let me count the ways! In this book, I am an unashamed advocate of grounded theory because of my experience in using it for research and with graduate students. I can honestly say that every time I have experienced grounded theory research, I have experienced new insights. Why should this be so? I think it is because that GTM encourages a close look at the data. Coding line by line or at the paragraph level encourages this close relationship with the data. Of course, critics of the method will tell you that what is produced is a hopelessly detailed theory – but there are, of course, ways you can 'scale up' that theory so it can then be engaged with other theories – and this a vital part of the process to get value from the method.

GTM has an obvious appeal where no previous theory exists – so, for new phenomena, it's an ideal choice. In information systems, my own discipline we are constantly grappling with new technological developments that cause something of a rethink, especially when it comes to how people relate to information technology – social networking web sites are one such example. GTM is also said to be good for studying processes (Glaser 1978), and the concept of a process in research is a very useful one. I have found it particularly useful when analysing interview data probably because close attention to what people say is likely to lead to new concepts. It simply encourages more analytical thought to look at the data line by line as Strauss (1987) suggests. So, while a larger grained thematic analysis of interviews might seem superficially attractive, it does not give the results that GTM does, and I have seen this many times with postgraduate students' projects.

The most innovative and exciting aspects of grounded theory, in my opinion, are twofold: First, the focus on building theory, as opposed to simply trying out existing theories to see if they hold in a particular instance, encourages scholarship and innovation in all disciplines. Second, the fact that the researcher is encouraged not to think about existing theories helps that innovation. It should be noted though that this does not mean that researchers should ignore existing theories – one is under a strict obligation to engage your emergent theory with existing literature (Strauss 1987). The idea is beautifully put by Dey (1999, p. 63), when he says that researchers should have an open mind, as opposed to

an empty head. So the literature review is delayed – in practice most people find a non-committal literature review helpful, but it should be noted that the relevance of that literature review is completely determined by the emergent theory.

It is perhaps best to conclude this section with a comment from an ex PhD student, whom I overheard talking to someone else about his experience with grounded theory. He said he found it hard, and time-consuming, but that it had given him an excellent PhD. So, grounded theory is not for the faint-hearted. But it is for anyone interested in doing academically rigorous and exciting work!

Summary

- This chapter first explains the aim of the book – in short, the aim is to be a clear and accessible introduction to GTM using worked examples to explain the coding and theory-building process.
- The chapter also points out that this is a personal view of GTM, derived from practical experience – GTM has a complicated intellectual history, as we will see in the next chapter, and there are many contesting views of how GTM should be done. I have opted for what in my view is simplest, and most flexible, while remaining true to its original ideas advanced in 1967.
- The chapter then examines the issue of whether GTM is in fact difficult. It is true to say that GTM has its fair share of complexity – but at its heart, it is an elegant and simple method for analysing data and building theory. The type of analysis demanded by GTM does require a patient and optimistic temperament on the part of the researcher – who will then be richly rewarded for their effort.
- We then have a brief foray into the features of GTM. Twelve features, divided into three themes, are discussed – theory, GTM and literature, using GTM in the field and data analysis using GTM.
- When discussing theory and GTM, several points are covered. First, what a theory actually consists of is examined and then discussed in the context of theories produced by GTM.
- The stance that GTM has toward literature is discussed as a feature that sometimes causes difficulty to novice users. The main idea is that the literature about the phenomenon being researched should be referenced after the theory has been built, not before. The main reason for this advice is to avoid concepts being forced on the data, and this advice is probably still as controversial as it was in 1967 when the first book on GTM was published. It is one of the reasons, I think, that GTM as a method continually allows us to discover new things in the data before us. Of course, no one can forget what they have read – but GTM asks that we put this on one side when analysing the data, and keep an open mind. There is actually a real discipline about literature within GTM – it asks of us that we engage our findings with existing literature in a systematic fashion.

- The chapter then briefly discusses some issues around using GTM in the field. One of the major ideas of GTM is the idea that the emerging analysis should dictate future data collection – a process known as theoretical sampling. This of course may not always be possible or practical in all situations, but the fieldwork can be constructed to allow future phases. This issue is further discussed in Chapter 5.
- We then have a brief introduction to data analysis procedures in GTM, where categories are identified in the data and connected to other categories. This process of conceptualising about the data, and connecting those concepts, is of course, theory building. These procedures are also leveraged independently of theory-building purposes because they do provide a systematic and well-known route for analysing data.
- I finally conclude with a section in which I unabashedly put forward the many reasons I think GTM is a wonderful research method. I argue that the theory-building focus of GTM is excellent for scholarship and innovation in all disciplines, and the fact that the scholar is initially asked not to take into account existing theories assists that innovation. Also, the detailed engagement with the data that the coding procedures demand, in my view, increase the chance of finding something new that can then be substantiated in other settings.

EXERCISES

1   Type the words 'Grounded Theory' into a search engine such as Google or Bing. Analyse the first page of results. What academic disciplines do the results come from? Pick any result that has as its subject 'What is grounded theory?'. Name three differences between the description in this chapter and three commonalities.

2   Type the words 'Grounded Theory Method'. Is there any difference in the search results? Name three key differences. For the research papers in the results, identify which academic disciplines from which those papers come. Are they different from the first set of results?

WEB RESOURCES

http://en.wikipedia.org/wiki/Grounded_theory. This Wikipedia entry gives a fairly comprehensive overview of GTM. It is weighted towards the Glaserian view of GTM, but does acknowledge the Straussian and constructivist strands. It also mentions pragmatist and critical realist grounded theory. Further discussion of the differences between the major strands of grounded theory is contained in Chapter 2.

https://methods.sagepub.com/. This is a good compendium of research methods resources, subscribed to by many universities. Even if you are unable

to access a subscription, this resource allows you to see the wide range of possibilities for qualitative research in general and grounded theory in particular.

http://www.mendeley.com/. This is a free citation manager and researchers' social network. New research students can find it effective in helping them organise their literature searches and finding other colleagues with similar interests.

FURTHER READING

From Suddaby (2006), this is an interesting editorial, directed at the management discipline. In the article, Suddaby discusses the characteristics of GTM and tackles the problem of mislabelling grounded theory.
Suddaby, R. (2006). "From the Editors: What Grounded Theory Is Not." *Academy of Management Journal*, **49**: 633–642.

At the same time Suddaby published his article, unbeknown to us, a colleague and I considered the myths of grounded theory in a conference article. This article is a simple introduction to grounded theory – and the myths surrounding it – from the perspective of someone new to grounded theory. We followed it up with a later journal article (Urquhart and Fernandez 2013).
Urquhart, C., and Fernandez, W. (2013). "Using Grounded Theory Method in Information Systems: The Researcher as Blank Slate and Other Myths." *Journal of Information Technology*, **28(3): 224–236.**

FREQUENTLY ASKED QUESTIONS

Grounded theory looks really difficult. Is it more difficult than other qualitative research methods?

Personally, I don't think it's any more difficult than any other method. All methods of analysis require investment in time to learn. GTM does differ in several key respects from other qualitative methods. First, it has a controversial intellectual tradition. This means that the first time user has to make sure that they are across the main issues around the tradition and make sure that they can defend their use of GTM. Second, it is unique in its very detailed examination of data, which can and does result in new insights. This detailed examination requires patience and an analytical eye, and both are skills which can be acquired. Third, it is interested in building theory, which means one has to understand theory and levels of theory. These three aspects mean that the first time user has to be scholarly – no bad thing and no bad foundation for an academic career if just starting out! Generally a piece

of grounded theory work, especially in a PhD thesis, will yield several good journal articles, so the investment in the method is usually worthwhile.

If GTM is so good, why isn't it more used in my academic department? Why isn't it more popular?

The answer to this question lies in the dominance of quantitative approaches in some academic disciplines. Qualitative research is in the minority in many disciplines, and GTM is one method among many. GTM is alone in qualitative research methods, in having an emphasis on building theory. Interestingly, this means that it does actually have the potential to contribute to quantitative research because it should be possible to build a theory using GTM for future testing. As for popularity, the searches you have done in the exercises should have shown you that it is used widely in many disciplines. Most people who have used the method will tell you it works, and I think this is because it is systematic in approach. In Chapter 2, we will talk more about defending your use of GTM from an academic perspective.

2

Grounded theory method

This chapter:

- Explains how grounded theory method (GTM) started in 1967
- Explains the key characteristics of grounded theory method
- Discusses how grounded theory method has evolved into several strands
- Discusses different coding procedures in grounded theory
- Discusses how various myths surround the use of grounded theory

The discovery of grounded theory

Grounded theory started with a revolutionary book in revolutionary times. In 1967, Barney Glaser and Anselm Strauss published a book entitled *The Discovery of Grounded Theory*. This book outlined a research methodology that aimed at systematically deriving theories of human behaviour from empirical data (Glaser and Strauss 1967). It was a reaction against the use of 'armchair' functionalist theories in sociology. Glaser and Strauss claimed that there was a trend afoot in sociology, where was felt that the 'great men' (p. 10) of sociology has generated enough outstanding theories, and all that was left to do was to test them. They further charged that the 'great men' played 'theoretical capitalist' to a mass of 'proletariat' testers where sociologists were trained only to test, not to imitate. The book gives a strong call to generate and ground theory and to refocus on qualitative data rather than quantitative verification of theories. Many people find it difficult to read the original 1967 book, which is a pity – Melia (1996) says it has some 'near mystical passages', and that is true. The book has to be seen in the historical context in which it was written, which was in a decade where many new, groundbreaking ideas emerged and changed society forever. I would highly recommend reading this book at some point during your use of grounded theory – but perhaps not as your first read, as the

text is definitely of its time. It is indeed a classic, and it is always good schol-arship to return to the original source of ideas. I have found myself turning back to it again and again while writing this book. No elaborate procedures are given, and there is a focus on what theory actually is, as well as the means of developing it. It also provides the baseline for understanding the many debates that have arisen around grounded theory method.

Several more books and articles by the co-originators followed, which developed, and later debated, the method. Glaser published *Theoretical Sensitivity* in 1978 (Glaser 1978), which introduced several key concepts that are useful in grounded theory. First, he talked about the role of the literature, and induction. The need to be theoretically sensitive was explained as the need understand theories and how they are constructed, but without then imposing those concepts on the emergent theory. He also introduced the notion of 'coding families' to help with relating concepts in the data.

In 1990, the *Basics of Qualitative Research* was published by Anselm Strauss and Juliet Corbin (Glaser 1978; Strauss and Corbin 1990). A long and bitter dispute erupted between Glaser and Strauss and what was at stake was nothing less than the heart and identity of grounded theory. We shall return to the dispute and why it was so important, later in the chapter.

The evolution of grounded theory

Following the publication of the seminal work in 1967, grounded theory spread fairly quickly as a qualitative research method within the social sciences and many other fields. For example, there was a 30-fold increase in published papers with 'grounded theory' as a keyword in the health field from the 1980s to the 1990s (Benoliel 1996). By the mid-1990s the methodological procedures of grounded theory had permeated qualitative research to such an extent that Miles and Huberman (1994) labelled it a '"common feature" [of qualitative] analytic methods'.

Tony Bryant helpfully lays out the evolution of GTM in his book *Varieties of Grounded Theory* (Bryant 2019). He highlights the work of Jeanne Quint (later Jeanne Quint Benoliel) as a distinct and hitherto unacknowledged contribution to the first generation of grounded theory. She worked with Glaser and Strauss on data collection on the death and dying project, the first grounded theory project, published as *Awareness of Dying* in 1965 (Glaser and Strauss 1965) and published *The Nurse and the Dying Patient* in 1967 (Quint 1967).

The late Kathy Charmaz conceived and popularised constructivist grounded theory (Charmaz 2006, 2014) and it is fair to say she has made grounded theory accessible for a whole new generation of users. She sought to free that generation of what she saw as some outdated epistemological assumptions of positivism in grounded theory, and located herself in the 'interpretive turn' that took place at the beginning of the 21st century, where a growing number of

scholars sought to move grounded theory away from its positivist foundations (see, for instance, Bryant 2002). She states the following in Charmaz (2014):

> Researchers can use grounded theory strategies without endorsing mid-century assumptions of an objective external reality, a passive, neutral observer, or a detached, narrow empiricism. If, instead, we start with the assumption that social reality is multiple, processual, and constructed, then we must take the researcher's position, privileges, perspective, and interactions into account as an inherent part of the research reality. It, too, is a construction.

(p. 12)

She leaves a hugely helpful legacy for a new generation of researchers navigating the intellectual terrain of grounded theory, precisely because she was trained in the method by the co-founders. Her books are also packed with practical examples of coding challenges, and a deep experience of grounded theory – I routinely recommend these books to my students.

It is also important here to mention the work of Adele Clarke (2005), working at the same time as Kathy Charmaz, who extended the Straussian strand of grounded theory by looking closely at how 'context' was conceptualised. She also locates herself in the 'interpretive turn' that took place at the beginning of the 21st century, and makes I think a serious intellectual challenge to the binary notion of context, as for instance, portrayed in the conditional matrix put forward by Strauss and Corbin in 1990. Instead, Clarke suggests that we need to understand not a context but a situation, drawing on influences such as Foucault, Deleuze and Denzin. She also builds on the notion of a 'structural process', the idea first advanced by Glaser and Strauss (1967) of structure and process being more complexly related than previously thought. Moreover, she gives us a tool to understand those situations – situational mapping. The practical application of these ideas have been further extended in Clarke et al. (2017).

As well as the groundbreaking work of Charmaz and Clarke, the turn of the century saw a flurry of books, all representing different takes on grounded theory, many of them taking a pluralistic view. In addition to the Charmaz books, we have seen Birks and Mills (2011, 2015), who take a distinct and very practical approach in the Straussian tradition. Gibson and Hartman (2014) in their book *Rediscovering Grounded Theory* place grounded theory firmly within the sociological debates that were occurring around the time when the 1967 book was published, and is all the better for it. It is a thoughtful book, and also gives people practical advice on coding, theoretical sampling and moving to formal theory. Gibson and Hartman are also firmly of the view that a pluralistic view of grounded theory is needed, but with the proviso that we look at the foundational texts – a position I entirely agree with. In the classic (Glaserian) tradition, Walsh et al. (2020) give some concrete guidance to business and management students, including drawing attention to some important

differences in the Glaserian strand – for instance, transcription of interviews is not encouraged.

Characteristics of grounded theory method

We've already had a detailed overview of the features of grounded theory in Chapter 1. What are the key characteristics that make GTM different? Glaser and Strauss (1967) defined their method as 'the discovery of theory from data – systematically obtained and analysed in social research'. It's interesting to note then that the systematic nature of the method was emphasised from day one – and page one – of the very first book on grounded theory, by the founders themselves. This of course makes it attractive to novice researchers. As a novice researcher myself in 1997, I can remember stating that it offered well signposted procedures for new researchers (Urquhart 1997). The signposting of procedures is most clear in Strauss (1987) and the controversial book by Strauss and Corbin (1990). Of course, this can also be the Achilles heel of the method, in that just simply following the procedures without thought can lead to lack of creativity. One thing I warn my postgrads about with grounded theory is that it is not a failsafe cookbook recipe for research. Even if you do follow all the prescribed steps in grounded theory, you cannot necessarily turn the handle and expect a theory to drop out. Like any methodology of any kind, it requires flexibility, thought and creativity in application.

In Urquhart et al. (2010), we identified four key characteristics of GTM.

1   The main purpose of the GTM method is *theory building*.
2   As a general rule, the researcher should make sure that they have *no preconceived theoretical ideas* before starting the research.
3   Analysis and conceptualisation are engendered through the core process of *constant comparison*, where every slice of data is compared with all existing concepts and constructs, to see if it enriches an existing category (i.e. by adding/enhancing its properties), forms a new one, or points to a new relation.
4   *'Slices of data'* of all kinds are selected by a process of *theoretical sampling*, where the researcher decides on analytical grounds where to sample from next.

The first characteristic implies that researchers who leverage GTM only for coding procedures are ignoring the main purpose of the method – which is to build theory. Theory building is why grounded theory was developed in the first place. Glaser and Strauss make a distinction between substantive theories (pertaining to the phenomena at hand) and formal theories. This distinction is discussed in more detail later in the book. In developing either type of theory, the researcher needs to be capable of *theoretical sensitivity*. Theoretical sensitivity is based on being steeped in the field of investigation and associated general ideas (Glaser 1978) so that a researcher understands the context in which the theory is developed. This concept of theoretical sensitivity is key – how can we build theories ourselves, unless we understand what a theory is?

The second characteristic (of having no preconceived theoretical ideas) is often held (erroneously) to imply that the researcher should not look at the existing literature before doing the empirical research. According to Glaser (1992), the dictum in grounded theory is that there is no need to review the literature in the substantive area under study and that this idea is:

> brought about by the concern that literature might contaminate, stifle or contaminate or otherwise impede the researchers' effort to generate categories.

> (Glaser 1992, p. 31)

He hastens to add though, that this applies only in the beginning, and that when the theory is sufficiently developed, that the researcher needs to review the literature in the substantive field and relate that literature to their own work (Glaser 1992).

From my experience of working with postgraduates, and coding for the first time, it's very hard for those postgraduates *not* to impose what they have read on the data in front of them. Being faced with the task of looking for emergent concepts in the data, without any help from anything other than your own mind, is a scary process – so small wonder that, when looking for patterns in the data, people might want to fall back on what they have read already.

If, however, we privilege other theories, rather than looking at the data, we lose what is for me the key delight – and the key edge of the method – what Glaser (1992) calls 'emergence'. The idea of *emergence*, for me, is that we stay true to our data – that we look for what the data is telling us. Of course, the idea of some inherent truth residing in the data depends on your point of view – I prefer to think of constructing meanings about the data – but the idea that you give the data due consideration, due respect, before imposing other theories on it, makes perfect sense. It makes even more sense when we are dealing with new phenomena, such as information technology, that has permeated most aspects of social life. For instance, if we base our understanding of how people interact with information technology on psychological theories, and those theories are based on large samples of American undergraduate students, how relevant might be the theory we are imposing? Far better then, to allow the data to tell its own story in the first instance, build a theory and then subsequently engage your theory with the theory you thought you might impose, initially. You can then see if your emergent theory confirms or challenges existing theories. So, potentially, GTM has a huge role to play in theory building, in all disciplines.

The third characteristic, *constant comparison*, is a key component of grounded theory. Comparative analysis was a standard method in social research long before 1967, but in GTM, it is a key part of the method. As discussed in Chapter 1, it is the process of constantly comparing instances of data labelled in one category and comparing with other instances of data labelled for that category. It is an incredibly simple, but deceptively powerful, rule of thumb for analysing data. The process of constant comparison, in my view, allows the meaning and construction of concepts to remain under review. Consciously comparing the

instances of each concept allows for a fuller and more nuanced understanding of what that category might consist of. It also, I think, allows the formation of the category to be more provisional – it is only when it is fully filled in, as it were, by many instances, can we say exactly what the meaning of that category is. It is also helpful to constant comparison if there is overlapping data collection and analysis because then the category can be densified using *theoretical sampling*, where the emerging analysis directs more sampling of data – so, if you like, the emerging theoretical storyline is followed.

The fourth characteristic, the term *slices of data* was coined by Glaser and Strauss (1967), to reflect the fact that different kinds of data give the researcher different views from which to understand a category or to develop its properties. This in fact a liberating and interesting idea which is not always understood – the idea that we should be constantly sampling slices of data from the phenomena, in order to build the theory out and upwards. The more diverse those slices are, the better. So one slice of data could be field interviews, and another could be surveys. Although the 1967 book did focus on qualitative data, quantitative data was also seen as a legitimate slice of data. Glaser and Strauss (1967) even go as far as to suggest that a slice of data could be anecdotal, or, for instance, using a national meat consumption report for a particular professional group. When the theory is more fully formed, a conceivable slice of data might even be another theory – but the researcher has be very aware of the dangers of forcing a category down a particular road, lest we compromise that very precious quality of grounded theory – emergence.

These are useful characteristics to bear in mind when using grounded theory, because they sum up what is unique about grounded theory, and give some useful guidance as to how you might use grounded theory in the field. All that said, some users of grounded theory will either not recognise the above characteristics because they come from the original 1967 book, rather than later versions. So we come to the next part of this chapter – the history of grounded theory. This history is fascinating, which is why I include it here. It's also a contested history, which is another reason for discussing it. The researcher using grounded theory has to be aware of the competing versions of grounded theory and, in particular, the well-known split between Glaser and Strauss in 1990. Each strand of grounded theory has its adherents, and this also makes it difficult for the first time user of grounded theory who may not realise what contested territory some of these concepts are. This is especially relevant for postgraduate students who need to position their research towards a particular research community. It is important to understand the contested principles and decide what your own position on those principles might be, as defending the scholarly integrity of our work is something we should all do.

The dispute between the founders

Any user of GTM needs to be aware of the fact that there was a result of a cataclysmic dispute between the co-founders in 1990, which means that users

of GTM have to position that use with care. The dispute was about no less than the heart and soul of grounded theory, and so understanding the dispute is also key to understanding what GTM actually is. The dispute was triggered by the publication of Strauss and Corbin's book in 1990 (Strauss and Corbin 1990). This book was written in response to their students' requests for a 'how to' manual of grounded theory and contains clear guidelines and procedures. It was at this point, perhaps, that the founders of grounded theory realised that their views of what grounded theory actually was might be different.

> students of Glaser and Strauss in the 1960s and 1970s knew that the two had quite different modus operandi, but Glaser only found out when Strauss and Corbin's Basics of Qualitative Research came out in 1990.
>
> (Stern 1994, p. 212, as quoted by Melia 1996)

Glaser reacted badly to the book, and requested it to be pulled from publication, and when it was not, wrote a correctional rejoinder *Emergence vs. Forcing: Basics of Grounded Theory Analysis* (Glaser 1992). For him, the issue was nothing less than the heart and soul of grounded theory: he felt that the 1990 book was far too restrictive in the way it presented grounded theory. He felt strongly that to follow the procedures outlined in the book would strangle any emergent conceptualisations and instead force the concepts into a preconceived mould.

He summed up his critique as follows:

> If you torture the data long enough, it will give up! … [In Strauss & Corbin's method] the data is not allowed to speak for itself as in grounded theory, and to be heard from, infrequently it has to scream. Forcing by preconception constantly derails it from relevance.
>
> (Glaser 1992, p. 123)

Glaser disagreed on two fundamental issues.

First, Strauss and Corbin (1990) suggested breaking down the coding process into four prescriptive steps (open, axial, selective and 'coding for process'), whereas Glaser uses just three: open, selective and theoretical coding, at incremental levels of abstraction.

Second, Glaser objected to the use of a coding paradigm and the 'conditional matrix' which are designed to provide ready-made tools to assist with the conceptualisation process. Glaser felt that to 'force' coding through one paradigm and/or down one conditional path ignored the emergent nature of grounded theory (Glaser 1992). This makes sense, given that Glaser had suggested 18 coding families (or coding paradigms) in his 1978 book.

So this is a disagreement that really cuts to the heart of grounded theory. The 1990 book represented a substantial departure from what had gone before, in its insistence that only one coding paradigm be used. In fact, the 1990 book says

Unless you make use of this model, your grounded theory analysis will lack density and precision….

(p. 99)

The mandatory nature of the paradigm, in retrospect, was quite extraordinary. To claim that there could be only one way of relating categories, and that this was essential, seems in the cold light of day to have been an aberration in the history of grounded theory, and one that was not necessarily heeded by researchers. Interestingly, this advice was modified as early as 1998. Strauss and Corbin (1998) say in their 1998 book 'In actuality, the paradigm is nothing more than a perspective taken toward data, another analytic stance that helps to systematically gather and order data in such a way that structure and process are integrated'.

People did continue to use the axial coding paradigm beyond 1998. An investigation into the use of axial coding in my own discipline over the period 1991–2010 (Seidel and Urquhart 2013) showed that, where it was used, the theories produced were very similar – they bore the fingerprints, as it were, of the axial coding paradigm. That said, we also noted that the use of the axial coding paradigm did also encourage the production of a theory, whereas the use of the Glaserian strand might produce new concepts, but not a full-blown theory. No doubt this was the intention of Strauss and Corbin – to assist people to get to a theory. That said, there is no doubt of its restrictive nature and the fact that not all phenomena will fit into it, and it is, in my opinion, difficult to use.

I can remember vividly a postgraduate student of mine who rushed into my office, waving a copy of the 1990 Strauss and Corbin book, saying 'this is wonderful! I want to try it!'. I did relate my own experiences of trying to use those procedures (Urquhart 1997), where I ended up in despair as I tried to fit the axial coding paradigm to what I was doing. We agreed the student should try it – why not? Two weeks later there was a knock at the office door, and my student said 'it doesn't work!'. One comment I made at the time was that if the coding paradigm recommended by Strauss and Corbin (1990) for connecting categories is a good match for the research phenomena, it might work. Certainly there are some good examples out there of use of this particular paradigm (see, for instance, Galal (2001)), where it seems to be so (see also the provisos given in Seidel and Urquhart (2013), in our investigation of the paradigm).

Still, why not take advantage of the flexibility of selecting many different options for relating categories, as provided in the Glaserian version? That way, surely, you get a better match between your research problem and ways of theorising about it. For me, the Strauss and Corbin paradigm represented, and still represents, a narrow way of thinking about what is being investigated.

In the 2008 edition (Corbin and Strauss 2008), the role of the paradigm is further weakened in favour of emphasising a broader set of tools named context, process, and theoretical integration. The paradigm is presented as only one of a number of 'analytic strategies' or 'tools'. They write that: 'One tool for helping the researcher to identify contextual factors and then to link them with

process is what we call the paradigm. The paradigm is a perspective, a set of questions that can be applied to data to help the analyst draw out the contextual factors and identify relationships between context and process' (Corbin and Strauss 2008). Throughout the book, the author is careful to highlight that researchers must choose among a variety of analytical tools and 'make use of procedures in ways that best suit him or her'.

It is important then to read more than the 1990 book about grounded theory, which is still widely used and read, possibly because Glaser has self-published his books since 1978. It is only when I read the original 1967 book (Glaser and Strauss 1967), and two of the most important Glaser books, Glaser (1978) and Glaser (1992), did I realise how complex the intellectual tradition of grounded theory was. If only the 1990 or 1998 book is used, the novice user runs the danger of encountering peer reviewers for whom the type of grounded theory being used – Glaserian or Straussian – really matters. And it does matter because understanding the dispute helps us to understand the core principles of grounded theory.

Table 2.1 gives what I feel are the key books in grounded theory authored by the founders of grounded theory.

Ultimately which version is used – Glaserian or Straussian – depends on the researcher and their own preferences. Many more researchers are opting for constructivist grounded theory (Charmaz 2014) as the coding procedure proposed offers a middle way – use of axial coding is presented as optional. Certainly my view is that the Glaserian strand offers more flexibility and is closer to the original formulation of grounded theory as put forward in the 1967 book.

Table 2.1   Foundational books on grounded theory method

Book	Description
Glaser, B.G., and Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research.*	Essential reading, despite it not being the most accessible of books. Melia (1996) talks of its 'near mystical passages'. As it was the first book on grounded theory, the principles on which grounded theory is based are obvious, and the book is notable for its concern about building theory, as opposed to the mechanics of coding. It is also very helpful to see the idea of grounded theory in its historical and disciplinary context.
Glaser, B.G. (1978). *Theoretical Sensitivity.*	The first book in the grounded theory canon that gives a lot more detail on how the process of coding might proceed. Introduces the idea of theoretical sensitivity, an important idea about being aware of how theories are built. This book also discusses spacing, sampling, coding, memos, sorting and writing and provides a very important discussion on basic social processes. It introduces 18 'coding families' to assist with theoretical coding.

(Continued)

Table 2.1   (Continued)

Book	Description
Strauss, A.L. (1987). *Qualitative Analysis for Social Scientists.*	Provides advice for the first time user of GTM, especially around relating efforts to the technical literature, and the process of coding in a group. This book also marks the first divergence between the two strands of grounded theory as only one coding paradigm is proposed in this book.
Strauss, A.L., and Corbin, J.M. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques.*	Probably the most widely read book on GTM, but also the most controversial. Gives very clear procedures for GTM, but at the same time offers a narrower view of the method.
Glaser, B.G. (1992). *Emergence vs. Forcing: Basics of Grounded Theory Analysis.*	This book is the response to Strauss and Corbin (1990). Helps to understand the divergent views held by Glaser and by Strauss and Corbin. It discusses in detail the significance of the issue of 'forcing' in GTM.
Glaser, B.G. (1998). *Doing Grounded Theory: Issues and Discussions.*	Covers practical areas of doing GTM research, such as motivation, reading of the literature, forcing, generating concepts and more on theoretical sampling, theoretical coding, memoing, sorting and writing.
Glaser, B.G. (2005). *Grounded Theory Perspective III: Theoretical Coding.*	This book breaks new ground in thinking about theoretical coding and the process of relating categories. It introduces 23 new 'coding families' to complement the original 18 coding families in the 1978 book.

Let's look more closely at these different stages of coding. This section should help you be aware of the particular differences between the two strands and the difference between these two strands and the Charmazian version which renames the stages.

Evolving coding procedures in grounded theory

Table 2.2, for the sake of comparison, gives a number of different coding procedures as they have been represented in different books about grounded theory, starting with the foundational text. I'll then discuss them, in the hope that you, dear reader, will then have enough information on them to be able to choose the coding procedure that works for you.

Comparing incidents applicable to each category

What is first important to note from the table is that the original book did not set out procedures as such. The original book focused more on the process, than actual stages, and introduced a number of important ideas in the course of

Table 2.2   Different grounded theory coding procedures

Book	Suggested coding procedure
Glaser and Strauss (1967)	Comparing incidents applicable to each category (includes open coding), integrating categories and their properties (selective coding and theoretical coding), delimiting the theory (selective coding and theoretical coding) and writing the theory
Glaser (1978)	Open coding, selective coding and theoretical coding
Strauss (1987)	Open coding, axial coding and selective coding
Strauss and Corbin (1990)	Open coding, axial coding and selective coding
Glaser (1992)	Open coding, selective coding and theoretical coding
Strauss and Corbin (1998)	Open coding, axial coding and selective coding
Charmaz (2006, 2014)	Initial coding, focused coding, axial coding and theoretical coding
Corbin and Strauss (2008)	Open coding, axial coding and theoretical coding as distinct stages no longer appear, though open coding and axial coding appear as terms in one chapter. The emphasis is on a broader set of tools named Context, Process and Theoretical Integration. Two coding paradigms are used as a foundation for Context

explaining the coding process. We can see 'comparing incidents applicable to each category' as introducing one of the most important ideas in grounded theory, constant comparison. Open coding, the initial allocation of ideas to data chunks, is only implied. It is the idea of constant comparison, so deceptively simple, that gives grounded theorists the edge, in my opinion. Constant comparison has been described as the heart of the GTM. To make constant comparisons between the data you are coding right now, to the data you have just coded, and to ask 'to what category does this incident or property relate?' is the guideline that prevents inconsistent coding, where you find one data chunk coded as one thing and another very similar data chunk coded as something else. While the advent of data analysis software helps you compare the coding, and manage the data, in my opinion, this guideline is as important as ever. This guideline ensures that the researcher is making their allocation of concepts to data explicit to themselves, and more importantly, the allocation of that concept is compared to the data as a whole. Thus we can see hermeneutic principles of analysis also being applied to the data.

Open coding

Open coding was first explicitly mentioned in Glaser's 1978 book. It surprises me to this day that many people don't refer to this book[1] – yet in many ways it is the most important of his books, as it elaborates on many key ideas of the

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[1]It is likely that one reason for this is that Glaser has self-published his books since 1978 – thus these books do not have the distribution networks of other larger publishers. That said, his books can be found in many university libraries, but not with the frequency of the Strauss and Corbin book.

1967 book. Open coding is described by Glaser as 'coding the data everyway (sic) possible' (p. 56). Open coding is the first step of coding, and is deliberately 'open' so as not to close down any directions a future theory might take. As such it is, along with constant comparison, a foundational technique of GTM. The act of open coding is about attaching initial labels to your data. These initial codes are subsequently grouped into larger codes, as the aim is to build a theory based on these codes. What the open codes do is flesh out what is important and also point to directions in the analysis you may not have thought of, suggested by the data.

Glaser (1978) recommends coding line by line, as does Strauss, for very good reasons. Charmaz (2006, 2014) is also uncompromising in her advice about this (note that her term for open coding is 'initial coding'). I can only say that the discipline of coding line by line, that detailed consideration of the text in front of us, helps free us of our preconceptions. For example, when I first applied grounded theory to my own PhD work into analysts and clients, I discovered that the analyst very often attempted to frame the problem straight away. This was a unique insight for my discipline, as was the conceptualisation of the strategies and props they used to help their clients. I firmly believe that my work would not be as original as it was, had I used any other method than grounded theory for analysis. Line-by-line coding also forces a real intimacy with your data – this means that your findings are easy to defend because you really *know* your data. That said, Glaser does say in his 1992 book (Glaser 1992) that coding need not necessarily be line by line – that there are circumstances where it may not be appropriate. I do agree with his advice, because all datasets are not created equal. Some whole paragraphs may not be relevant, or the data secondary data, rather than primary data. Even so, the benefits of looking at the data line by line, in my view, cannot be overstated.

Selective coding

Selective coding is where the two strands of grounded theory, Glaserian and Straussian, sharply diverge. The Straussian version requires axial coding to occur first, and axial coding is explained in the next section. In my view, the Glaserian version is simpler. Glaser defines selective coding as the stage where coding is limited to only those categories that relate to the core category (Glaser 1978). Future theoretical sampling also is directed by that core category. In my experience, the point at which selective coding becomes fairly obvious, because there are no new open codes emerging, and definite themes are emerging. Categories become 'saturated' – i.e. with plenty of instances – at this point. One point that is not often discussed is the fact that, at this stage, the coder often ends up with many multiple categories. This is not surprising, when one considers the detailed level – line by line – that open coding starts with. So some grouping of categories can take place at this stage, and this helps develop the abstraction of the theory Charmaz (2014) makes the valuable point that the selective coding stage (which she calls 'focused' coding) may often prompt a

return to open coding, as some interesting avenues are almost bound to occur when we consider and group the themes that are emerging in the data.

Axial coding

Strauss (1987) and Strauss and Corbin (1990) recommend a stage of *axial coding*, following open coding. Charmaz (2006, 2014) represents axial coding in her book as an optional stage, and I think this is helpful. As previously discussed, it might work for the phenomena you are studying, or it may not!

The way I tend to think about axial coding is that it combines selective coding with the use of a coding paradigm – 'Causal Conditions, Context, Intervening Conditions, Action/Interaction Strategies and Consequences'. Strauss says that first the codes need to be dimensionalised by laying out the properties. We can see this as similar to the process of selective coding where we figure out what might be the important categories and which of our open codes need to be elevated or otherwise combined to form those categories and which of our open codes might be properties of other categories.

Strauss (1987) then says that second element of axial coding is to hypothesise about conditions, consequences, interactions, strategies and consequences' We can see this as relating the categories theoretically or theoretical coding, which is explained in the next section. My feeling is that it is hard to both simultaneously figure out the properties of a category and how it might relate to other categories, and this is possibly why students in particular get unstuck at this point. My own experience of using axial coding was disappointing (Urquhart 2001), but this does not mean it is unsuitable for everyone. I would not dismiss it as a viable coding option, especially if the researcher considers it in two stages, to simplify the process. There are some examples of successful use of axial coding where the paradigm is used, such as Galal (2001), and the interested reader is referred to these and other examples cited in Seidel and Urquhart (2013).

There is also an extensive description of axial coding in Strauss (1987), which in my opinion is a better description than that contained in Strauss and Corbin (1990). Strauss and Corbin (1998) define axial coding as the act of 'relating categories to subcategories along the lines of their properties and dimensions'. Again, this is a clear indication that subcategories are involved and its resemblance to Glaser's selective coding. The coding paradigm is further elaborated on and is put forward as conditions (causal, intervening and contextual), actions/interactions (strategies are now put under this heading) and consequences (immediate, cumulative, reversible, foreseen and unseen) (see Table 2.3).

What is interesting is that, in the 2008 book, the coding paradigm loses its prominence. Juliet Corbin says 'the paradigm is only a tool and not a set of directives'. This represents a considerable departure from the previous books, and it is an important departure, given the paradigm's role in the split between Glaser and Strauss. That said, the book gives a great deal of emphasis to the 'Conditional/Consequential Matrix' to consider larger issues of context and

Table 2.3   The evolving nature of the Strauss and Corbin paradigm

Coding paradigm	Comment on evolving use of paradigm
Conditions, consequences, interactions, strategies and consequences (Strauss 1987)	In the 1987 book, it is clear that the coding paradigm is not an optional part of coding. Researchers are told to 'follow the coding paradigm' (p. 81).
Causal Conditions, Context, Intervening Conditions, Action/Interaction, Strategies and Consequences (Strauss and Corbin 1990)	In the 1990 book, the paradigm is modified to include different types of conditions and actions.
Conditions (causal, intervening and contextual), Actions/Interactions (strategic or routine tactics) and Consequences (immediate, cumulative, reversible, foreseen or unseen) (Strauss and Corbin 1998)	In the 1998 book, conditions are clustered together, strategies are clustered under actions and consequences elaborated on.
Conditions, interactions and emotions, consequences (Corbin and Strauss 2008)	In the 2008 book, the paradigm loses its prominence and is presented as an optional analytic tool for novice researchers. That said, the conditional/consequence matrix, used in previous editions to think about relationships between micro and macro conditions, now has a more central place in coding.

macro conditions. In both cases, she suggests that their use should be confined to novice researchers as opposed to experienced researchers.

Theoretical coding

Glaser (1978) describes theoretical coding as how substantive codes (the codes we have generated thus far pertaining to the area under investigation) are then related to each other. This makes complete sense if we understand that theories are constructs and relationships. So theoretical coding is where we relate codes to each other and the decide the nature of the relationship between those codes. This is what builds the theory. Charmaz (2014) says the following about theoretical codes:

> Theoretical codes are meant to be integrative; they lend form to the focused codes you have collected. These codes may help you tell an analytic story that has coherence. Hence, theoretical codes not only conceptualize how your substantive codes are related, but also may move your analytic story in a theoretical direction. Theoretical codes underlie your substantive codes and show relationships between them, rather than replace the substantive codes with ones constituting your theory.

(Charmaz 2014, p. 150)

In my own research work, I found that writing theoretical memos during this stage, where I pondered on, for instance, the relationship of an analyst's *inclusion check* – what was included in the boundary of a system – to the idea

of *problem framing* and *agenda setting*, invaluable for theorising. We discuss theoretical memos in detail in Chapter 7. A surprising (or perhaps not surprising) number of these theoretical memos ended up being cut and pasted into my PhD thesis, as of course I was explaining the evolving theory to myself. Glaser's coding paradigms give ample food for thought as to how the categories might relate, and some example paradigms are given in Table 2.4.

One helpful way to think about Glaser's theoretical codes is that some of these are theoretical patterns lifted from extant theories. In other words, Glaser is using his 'theoretical sensitivity' to existing theories and how they are constructed, to offer different ways of relating categories and framing your analysis. Of course, you can, and I think should, be able to generate your own theoretical codes. Grounded theory, in my view, is above all about being faithful to what your analysis of the data suggests, rather than shoehorning the data into some preconceived analytical framework. So it would go against the spirit of grounded theory to suggest that only Glaser's coding families should be used. Given that Glaser introduced 23 more coding families in 2005 (Glaser

Table 2.4   A selection of coding families from Glaser (1978) and Glaser (2005)

Family	Comment
The 6 C's – Causes, Contexts, Contingencies, Consequences, Covariances and Conditions	This basic coding family, together with family 5, the Strategy Family, was adapted by Strauss and Corbin (1990) as their coding paradigm of 'Causal Conditions, Context, Intervening Conditions, Action/Interaction Strategies and Consequences'.
Process – Stages, staging, phases, phasing, progresssions, passages, gradations, transitition, steps, ranks, careers, ordering, trajectories, chains, sequencings, etc.	Glaser remarks that a process should have at least two stages. This family is similar to Spradley's 'a stage of'.
The Dimension Family – Dimensions, elements, division, piece of, properties of, facet, slice, sector, portion, segment, part, aspect, and section	As Glaser says, the more we learn of a category, the more we see of its dimensions. Of all theoretical codes, this is one that all researchers are likely to use. It is of course very similar to Spradley's 'is a part of'. It's also important to realise that, when theorising, that we can privilege one dimension over another – it can become a full-blown category.
The Type Family – Type, form, kinds, styles, classes, and genre	Glaser says while dimensions divide up the whole, types show variation in the whole. So, for instance, you might have a number of styles of introducing a problem in a conversation.
The Strategy Family – Strategies, tactics, mechanisms, managed, way, manipulation, manoeuvrings, dealing with, handling, techniques, ploys, means, goals, arrangements, dominating and positioning	As previously remarked, the Strauss and Corbin coding paradigm seems to be a mixture of this family and the first family.

(Continued)

Table 2.4   (Continued)

Family	Comment
Moment capture, when a quick intervention is critical to causing an optimal outcome, for example closing a deal	This is a new theoretical code introduced in the 2005 book.
Frames, which are excavated through discourse patterns and are sociocultural in nature	Also in the 2005 book. I used this idea in my own dissertation work in 1999.
Causal family, a relative of the 6 C's family. This includes several aspects (1) bias random walk (2) amplifying causal looping (3) conjectural causation (4) repetitive causal reproductions (5) equifinality (6) reciprocal causation (7) triggers (8) causal paths and (9) perpetual causal looping	Glaser (2005) gives some wonderful nuances of causation in this theoretical code.
	Bias random walk is where all variables are in a flux, 'then on the introduction of a crucial variable.. then of a sudden all of the variables fall into organisation'.
	Amplifying causal looping, 'where consequences become causes, and one sees either worsening or improving progressions or escalating severity'.
	Conjectural causation, where it is not always easy to identify decisive causal combinations.
	Repetitive causal reproductions, when a repeated action keeps producing the same consequences.
	Equifinality, where no matter what the causes and paths, the same consequence will occur.
	Reciprocal causation, where there is a similar interaction of effects or amplified causal looping.
	Triggers, which are sudden causes that set off a consequence or set of consequences
	Causal paths, used to intervene in changing or stopping a consequence.
	Perpetual causal looping, a mathematical model, an ordered calculated growth of increased size based on a set temporal path.

2005), we can only assume that he, too, recognises the need to be very flexible about how categories relate. That said, I find the coding families very useful jumping off points to think about relationships in your data, and they are in themselves educational about theorising. It's very important to understand what theories are and how they work, so you recognise that you are building a theory, rather than just describing an interesting data analysis. Charmaz (2006, 2014) puts it well when she cautions us not to use theoretical codes to impose frameworks on the data, and to be beware of a possible aura of objectivity around those theoretical codes, as scholars would almost certainly disagree about which of those to apply. It's important to be reflective when theoretical coding.

Myths in grounded theory

Sometimes the first time user of grounded theory encounters certain myths about its use. There are many reasons for this, but we've already seen in the previous sections that it is a somewhat contested intellectual tradition with different interpretations. Hirschheim and Newman (1991), when talking about information systems development, use the definition of myth from Trice and Beyer (1984) – 'A dramatic narrative of imagined events, usually used to explain origins or transformations of something. Also, an unquestioned belief about the practical benefits of certain techniques and behaviors which is not supported by the demonstrated facts'. Roland Barthes in his book *Mythologies* (Barthes 1972) argued that (cultural) myths develop not through lies or distortion, but through a deceptive simplicity. So the myths I discuss here may indeed have a kernel of truth – but their very simplicity hides a more complex truth.

One sunny day in 2005 I was sitting with a colleague, Walter Fernández, in a Brisbane café. As GTM enthusiasts, who have both had successful postgraduate projects using GTM, we were bemoaning the fact that some of our colleagues clung most tenaciously to what Walter said were 'myths' of grounded theory and discouraged postgraduate students from using grounded theory because of those myths. This phenomenon – of academic departments favouring particular methods of research, and discouraging other methods – is of course not confined to grounded theory. Grounded theory has spread far and wide from its home discipline of sociology, and not all disciplines are equally welcoming of qualitative methods. There is also the fact that grounded theory is still not widely used in some disciplines – so there is sometimes a lack of knowledge about grounded theory and an unwillingness to supervise a student who would like to use grounded theory. So Walter and I wrote a paper (Urquhart and Fernández 2013) to help our postgraduates defend their use of GTM in an informed way. Below I give a summary of the myths that we identified, so that if you encounter them, you too can find ways of defending your particular use of GTM.

Myth #1 researcher as blank slate

If there is one issue that most academics are aware of about grounded theory, it is the idea that grounded theory is a controversial method, because it ignores the literature, and is perceived as somehow unacademic. The idea that the grounded theory researcher is a 'blank slate', who launches into data collection without first looking at the literature, is a particularly pervasive misconception (McCallin 2003; Andrew 2006). This despite the fact that in a footnote in the original 1967 book, Glaser and Strauss (1967, p. 3) state that the researcher does not approach reality as a *tabula rasa* (blank slate) but must have a perspective that will help them abstract significant categories from the data. We need to be

mindful of the difference between an open mind and an empty head (Dey 1999, p. 251) – both he and we suggest in the paper that the founders of grounded theory inclined to the former position.

According to Glaser (1992), the dictum in grounded theory is that there is no need to review the literature in the substantive area under study, first stated in the Glaser and Strauss book of 1967, 'is brought about by the concern that literature might contaminate, stifle or contaminate or otherwise impede the researchers effort to generate categories…' (Glaser 1992). Strauss (1987) says that the advice about delaying the scrutiny of related literature applies less so to experienced researchers, as they are more practised at subjecting theoretical statements to comparative analysis.

Like most myths, the idea of the researcher as blank slate has at its base a kernel of truth. However, it is more accurate to say that grounded theory research does not *start* with a theory to prove or disprove. It is more helpful to think of the literature review being delayed, rather than not happening at all. In fact the grounded theorist has an obligation, once the theory has emerged, to engage the emergent theory with the existing literature

So, how might a typical PhD student deal with the injunction not to examine the literature before coding? A PhD student in particular may need to review the literature for many good reasons, including passing the research committee review. Thus, among many grounded theorists it is generally accepted that a pre-study literature has to be conducted to find the problem; however, this should be done in such a way that the extant theories do not 'derail the emerging theory' (Nathaniel 2006). Martin (2006) suggests that appropriate use of the literature in GTM is a question of *phasing*. The first phase is *non-committal* in which the researcher develops sensitivity and finds the problem. The second phase is *integrative*, in which the researcher integrates the emergent theory with extant theories to render the new theory in the context of existing knowledge and thus making the theory more valuable.

In my experience, the tactic of a preliminary (non-committal) literature review works well when using grounded theory. The preliminary literature review examines what theory exists in the area and how other people may have addressed aspects of a research problem, but does not then impose a framework on future data collection. Importantly, this preliminary literature review is conducted *on the understanding that it is the generated theory that will determine the relevance of the literature*. The literature review is revisited, and extended, once the theory has been generated from the data.

Myth #2 GTM is inflexible

The second myth follows on somewhat from the first. The dictum about literature is erroneously seen as an inflexibility associated with GTM that makes it difficult to use. For instance, Allan (2003) talks of both the difficulty of putting aside preconceptions and coding at a micro level. Allan then concludes that both these difficulties were satisfactorily resolved. As GTM has developed, so

have the procedures. Strauss (1987) and Strauss and Corbin (1990) do provide detailed guidelines for coding data. Some of these notions of inflexibility may have come from applying these guidelines. For instance, Melia (1996), Kendall (1999) and Hansen and Kautz (2005) all report difficulties in using the Strauss and Corbin paradigm.

The notion that GTM is inflexible is not borne out when one considers its widespread use in all disciplines. It is also important to note that the procedures are commonly leveraged for the purposes of coding and building concepts, as opposed to full blown theory-building efforts. Disciplines such as health have reported that many researchers adopt GTM for a purpose other than developing theory, generally data analysis (Benoliel 1996). A common use for GTM in the health field, for instance, is the generation of questionnaire constructs.

GTM has great strengths as a standalone coding method, since the stages are well signposted for the novice researcher (Urquhart 2001). So GTM is flexible rather than inflexible, despite the many texts that have been written about its use that might sometimes suggest otherwise. It can also be used from any philosophical standpoint, something discussed in Myth #4.

Myth #3 GTM produces low-level theories which don't do much

Like any myth, this myth has in it a kernel of truth. Because GTM is grounded in the data and starts the coding process at the word or sentence level, the theory produced tends to be rich and detailed. The general impression of GTM is that it produces low-level theories that are difficult to 'scale up'(Urquhart 2001). However, because a low-level theory is produced, does not mean that there is no possibility of scaling that theory up, and indeed GTM places an obligation on the researcher to do so.

Layder, a prominent sociologist, has repeatedly said that GTM needed to break away from focusing on micro phenomena, as this prevented researchers from enriching the research with macro structures (Layder 1998). This has tended to reinforce the myth that GTM was about low level theories. In fact, Glaser and Strauss (1967) acknowledged from the beginning that substantive theory development can and should shade into formal theories. They devoted a whole chapter in their original book to this issue. Glaser and Strauss never saw GTM as only a micro theory. They both worked at organisational levels, and Strauss's interest in social arenas and social worlds led him beyond the micro level to the 'meso' level (Charmaz 2006). Strauss (1987) talks about the obligation, having produced a substantive theory, to wrestle with other theories. Glaser (1978) suggests several routes to extending and scaling up the theory, including considering similar theories and data in similar substantive areas and how the substantive theory relates to formal models and processes.

In practical terms, we have found it useful to 'scale up' substantive theories by considering whether the core categories that are generated can be grouped

into further concepts or themes. The important point here is that generating a theory using GTM does not exclude researchers from the obligation of engaging their theories with the current theories in the field and that this is an important element of the method.

Myth #4 GTM is positivist/interpretivist

In 2002, I had a most enjoyable debate with Antony Bryant about whether GTM carries with it philosophical baggage in the shape of interpretivism or positivism inherent in the method (Bryant 2002; Urquhart 2002). You can find a thoughtful update of these considerations in Bryant (2017). The concern here is that if a myth exists about the inherent philosophical position of GTM, it may prevent its use if the researcher happens to be coming from the (supposedly) opposing paradigm. Luckily, this myth is not supported by the demonstrated facts.

A qualitative method, depending on its underlying epistemology, can be seen as positivist, interpretivist or critical (Klein and Myers 1999). Therefore, GTM 'in use' can be influenced by different underlying epistemologies. The fathers of GTM made no claim about *correct* epistemology. Thus, we suggest in our paper that GTM as a research method is orthogonal not only to the type of data used, but it can be appropriated by researchers with different assumptions about knowledge and how it can be obtained. This property of the method allows researchers with dissimilar epistemological stances to succeed in using the method.

In fact, GTM has been characterised both as positivist and interpretivist by various commentators. Annells (1996) points to statements by Glaser (1992) about GTM focusing on 'concepts of reality' (p. 14) and searching for 'true meaning' (p. 55) as evidence of a critical realist position, inherently positivist. Madill et al. (2000) argue convincingly that the philosophical position adopted when using grounded theory depends on the extent to which the findings are considered to be discovered within the data, or as the result of construction of inter-subjective meanings. They locate the former view as Glaser's (1992) position and the latter as Strauss and Corbin's (1998).

Charmaz's (2014, 2006) view is that GTM is in many ways neutral and can be seen as a container into which any content can be poured. This would seem to be the most helpful position – simply to concentrate on GTMs undoubted strengths for coding and theory building, rather than to seek an inherent philosophical bias, which may, or may not be, present in the method.

Myth #5 GTM takes a long time

This myth is perhaps less pervasive, but new PhD students will still come across it. It has its root in the idea that qualitative research takes longer than quantitative research, because of the nature of data collected. I have even come across PhD students who have been advised to do a statistical PhD because it is quicker and save their qualitative yearnings for later, once they have their PhD! So, is there any truth in the myth that a grounded theory PhD might take a long

time to do? Certainly Walter Fernández and I have had students who have done grounded theory PhDs and it seems to have taken no longer than other PhDs. One advantage of doing a grounded theory PhD, we have observed, is that there is a wealth of material in that PhD for subsequent publication. It provides a rich platform for a future academic career. Perhaps it is not a question of time, given that all the students I have supervised doing grounded theory have finished on time. One possibility is that the systematic analysis required by GTM does indeed take longer, but that the depth of analysis (and the accompanying theoretical memos) makes the writing-up process quicker. One student of mine (now an esteemed colleague) described the process as difficult, a lot of hard work, but ultimately worthwhile. So, while grounded theory takes no longer than other methods of analysis, it is perhaps more challenging – and I would add, more rewarding!

Summary

- This chapter has discussed the inception of grounded theory in 1967 (Glaser and Strauss 1967), how it all started and what the key characteristics of grounded theory are.
- I then spend some time talking about the fact that GTM evolved into two major strands, the Glaserian and Straussian, due to a split between the founders in 1990. It is important to understand the split because this dispute was about the heart and soul of grounded theory – I would go as far to say that, if you understand the split and its ramifications, you understand what grounded theory is about.
- It is important to understand that GTM has not stood still since that dispute. Tony Bryant helpfully lays out the evolution of GTM in his book *Varieties of Grounded Theory* (Bryant 2019). Kathy Charmaz conceived and popularised constructivist grounded theory (Charmaz 2006, 2014), and it is fair to say that her legacy has made grounded theory accessible for a whole new generation of users. As such, constructivist grounded theory can be seen as a third strand in addition to the Straussian and Glaserian.
- I also trace the key books of grounded theory. While not wanting to be prescriptive about what people should read, it does seem to me that the grounded theory canon needs to be engaged with properly. It has such an extensive intellectual tradition that just reading one book by the founders is not sufficient.
- The two books I think that are worth starting with are Glaser (1978) and Strauss (1987). These two books will give you a good sense of the two strands of grounded theory. Then, once you feel you have a good understanding of grounded theory, it is worth engaging with the 1967 book (Glaser and Strauss 1967), despite the fact that some people find it difficult to read. It is in fact the definitive, classic, foundational text and gives a good sense of the original intent and form of grounded theory method. It also helps by giving a foundation from which to understand how grounded theory method has evolved since 1967. From there, you can explore the later works of Glaser, such as the 2005 book (Glaser 2005), which is a personal favourite of mine, simply because of the joy

and energy with which Glaser explores theory building and theoretical codes. Charmaz's books are also, in my view, essential reading (Charmaz 2006, 2014).

- The chapter then goes on to explore the different coding stages in GTM, depending on which strand is used. Axial coding, as part of the Straussian strand, is, for me, challenging because it seems to demand that the researcher group and relate codes simultaneously, all the while referring to a coding paradigm. So, for that reason, I suggest following the Glaserian version of coding steps (open, selective, theoretical) – they have the virtue of simplicity. Certainly in my own discipline of information systems, traditional axial coding, with full use of the coding paradigm, as outlined in the (Strauss and Corbin 1990) book, is not widely used (Seidel and Urquhart 2013), and I have not found much evidence of it in other disciplines either. The use of that paradigm is now advisory in any case (Corbin and Strauss 2008), so, in a sense, the two strands of grounded theory are more equal than before now the Straussian strand has returned to some flexibility. The Charmazian version of coding – initial coding (open coding), focused coding (selective coding) and theoretical coding, follow the Glaserian method, with the proviso that axial coding is an optional stage.

- Finally, I conclude by discussing some myths about grounded theory that the first-time user can encounter. These myths are not necessarily malevolent in character, but they can prevent people using what I think is an incredibly useful method. As grounded theory is not always well known in all departments in all universities, this section is also written to help the postgraduate user defend their use of the method. The major barrier to grounded theory use from a postgraduate perspective is the positioning of a literature review when grounded theory suggests that literature searching is delayed. A non-committal literature review can help a postgraduate square the circle in this situation.

- This chapter is quite a theoretical chapter, but that is because grounded theory is a non-trivial intellectual method of theory generation that has been debated for over 50 years. I hope that this chapter will enable the reader to have a good understanding of the evolution of grounded theory and so be able to justify their adoption of grounded theory – and the particular strand they are using – to anyone. As grounded theory is a living tradition, many adaptations and further debates are both possible and inevitable – this chapter aims to give you a good basis for understanding the foundations of GTM.

EXERCISES

1   Do a literature search in your own discipline to find out how grounded theory has been used to date. Can you identify which strand is being used and which intellectual traditions are being referred to? Have there been any debates in your discipline about the use of grounded theory, and what do those debates tell you?

2   If you are working in a group, set up a role play where one of you role play a sceptical senior colleague who talks about the barriers in using grounded theory, and the other plays a new researcher who wants to use grounded

theory in their PhD research. What issues might come up? Can you think of any more myths about grounded theory you might encounter?

WEB RESOURCES

This is Dr. Barney Glasers official site. http://www.groundedtheory.com/. The emphasis here is on what Glaser calls 'classic grounded theory'. As Glaser was still writing and speaking about GTM until very recently, there is a very real sense of this website representing a living and evolving method.

FURTHER READING

This article, by Kath Melia, Professor of Nursing Studies at Edinburgh University and one of the early pioneers of grounded theory in nursing, is the best I have ever read about the split between the founders.
Melia, K.M. (1996). "Rediscovering Glaser." *Qualitative Health Research* **6**: **368–373.**

This helpful article discusses the differences between coding procedures in the Glaserian and Straussian strands in detail.
Walker, D., and Myrick, F. (2006). "Grounded Theory: An Exploration of Process and Procedure." *Qualitative Health Research* **16: 547–559.** https://doi.org/10.1177/1049732305285972

This article examines the choices between Glaserian, Straussian and constructivist grounded theory and has some interesting case studies and reflection on experiences.
Alammar, F.M., Intezari, A., Cardow, A., and Pauleen, D.J. (2019). "Grounded Theory in Practice: Novice Researchers' Choice Between Straussian and Glaserian." *Journal of Management Inquiry* **28(2): 228–245.**

FREQUENTLY ASKED QUESTIONS

Does ignoring the literature not carry the risk of reinventing the wheel? If we investigate an area where there is a lot of literature, is there a danger that we will just come up with a similar theory and find nothing new?

This is an excellent question, which I will choose to answer in several ways. First, while the grounded theory dictum is to leave the literature review until later, there is indeed a big difference between an open mind and an empty head! I would suggest that it is unlikely, in an established discipline, that you would not have some idea of prevailing theories and issues. Second, if you do choose to do a non-committal literature review, you provide yourself a safety net in this instance. Third, if you then theoretically integrate your emergent, substantive, theory with larger theories in your discipline, there is a good chance that the insights you come up with will extend those theories or challenge the prevailing orthodoxy. In my many years of working with grounded theory, I have never come across an application of grounded theory that does not either contribute new concepts or theory of its own, or extend existing theory in some way – often both. I think this is because grounded theory, by dint of its systematic coding process, necessitates a very close look at the data, and because of this, something new is invariably discovered.

Which strand of GTM is best to use, the Straussian or Glaserian? Or should I opt for constructivist grounded theory?

My own preference is for the Glaserian because I see it as more flexible and also closer to the original ideas of grounded theory as advanced in the 1967 book. That said, I have seen successful applications of the Straussian version, and it is also important to remember that the Corbin and Strauss (2008) book is much more flexible about procedures. If you are a postgraduate student, you'll also have to consider which strand is more popular in your discipline and any previous work done by your supervisor in grounded theory. Many more graduate students of mine have now opted to go for constructivist grounded theory (Charmaz 2014) because it chimes more with their ontological view of the world, and it neatly sidesteps some of the debates. Because all varieties of GTM have their passionate adherents, it is sometimes useful to claim to be using 'adapted' or 'modified' grounded theory, especially if you have departed from the coding procedures in any way.

3

What is theory?

This chapter:

- Discusses what theory is – its components and purpose
- Describes how explanation is key to theory development and discusses the types of explanations available
- Discusses how mechanisms can assist us with grounded theory development
- Discusses causation in theory development – and why it can be a vexed issue, depending on academic discipline
- Described the key role of abduction in grounded theory development
- Discusses levels of theory and why this is important to grounded theorists
- Discusses how a grounded theory might be positioned against the extant literature

This chapter discusses something crucial, something often taken for granted in academic disciplines, especially newer disciplines such as business and management – the subject of what theory is. The *Discovery* book claimed that the field of sociology had concentrated too much on theory testing, and had neglected the important task of 'discovering concepts and hypotheses that are relevant for the area one wishes to research' (p. 2). Glaser and Strauss also emphasised the role of underpinning data as well as inspiration and ideas in theory because otherwise *there is great danger that theory and empirical world will mismatch* (1967, p. 6, author's). Many times I've met postgraduate students who are struggling to apply a theory that their PhD supervisor has selected for their project, only to find that it is not explaining their experience in the field.

Glaser and Strauss were also, in my opinion, pointing to a central contradiction about theory held in most disciplines. Theories do indeed, in the most part, stem from empirical observation (Kelle 2019). If the origin of most theories is derived directly from empirical observation, then why should people be discouraged from inferring something new from the data? Presumably that is exactly what the existing theory must have done, at some point. So why then would we discourage people from building theories as opposed to simply

applying them or testing them? Then of course we have to be aware that phenomena in the social world are shifting all the time, and that large, generalised abstractions in the form of formal theory may or may not hold true, precisely because those founding observations are now different. For me, using GTM instead of applying a theory is a true joy and liberation because the concepts generated are a reflection of the data – you are listening to what the data is telling you! As Swedberg (2016), says that 'before theory, comes theorising' (p. 6), and this is often forgotten.

As a first timer to GTM, you'll be told that the aim of GTM is to generate or discover a theory, but often in discussions about GTM the details of what a theory might look like is assumed. As I often say to my students, 'would you know what a theory looked like if you fell over it in the dark?' Glaser (1978) in his book *Theoretical Sensitivity* talks about the need to know what a theory looks like, in order to build one. As Charmaz (2014) says, the notion of what a theory actually is, is slippery at best. She also points out that there are epistemological differences between interpretive and positivist theory, and this also makes it more difficult for the beginning researcher (Charmaz 2014).

In established disciplines like sociology, exposure to theories is a matter of course. That said, Abend (2008) identifies no less than seven different meanings that can be ascribed to theory in sociology. In newer disciplines, the confusion seems even worse – there are allusions to 'literature', and 'theory', and the terms often seem interchangeable. This chapter is aimed at those of you who feel that you have had not much exposure to theories and how they are constructed, particularly those of you, like me, who are in newer academic disciplines such as business and management. As scholars, and particularly as PhD students, we are aiming to build a theoretical contribution. This means, generally, extending existing theories, putting forward a new theory, and possibly also challenging existing theories. Our work as researchers then requires that we know what a theory is, and it is doubly important that as grounded theory scholars that we are familiar with how those theories are constructed.

What is a theory? Components of a theory

One of the challenges, then, of generating a grounded theory is understanding what a theory is, and generating a theory that is accepted as such. As humans, we theorise all the time. We might ponder the relationship between a person's good mood and a recent event; we know that dark clouds in the sky might result in rain. In academic disciplines of course, theories are more formally represented.

You've already seen components of a theory represented in Chapter 1 (Gregor 2006) where we said that a theory consists of means of representation, constructs, statements of relationship, and, crucially, scope. At a very basic

level with a theory, we are postulating that construct A is related to B somehow. A might cause B or merely influence B.

Whetten (1989) gives us some useful building blocks of theory, shown in Table 3.1. The important thing about these building blocks is that they have an emphasis on explanation of the theory, something that is shared in common with grounded theory. In grounded theory, we are careful to explain how concepts are related and are able to ground them in instances of the data.

Whetten starts off by saying that comprehensiveness and parsimony are important. If a theory is to make a contribution, it needs to explain, and explain simply. Parsimony means having the minimum numbers of constructs in the theory. This point is worth emphasising in grounded theory. Glaser (1978) recommends just one core category, and Strauss and Corbin suggest an ideal of just 1–2. This is a lot harder than it sounds because the inductive nature of grounded theory means that the grounded theorist is confronted with many codes. In my own postgraduate work using grounded theory, I ended up with a grand total of six 'core' categories! These days I would work much harder to integrate those categories into one key concern, and there is more advice on how to do this in Chapter 6.

That said, how parsimonious a theory is depends entirely on one's epistemological perspective. Charmaz (2014) expresses the tension around parsimony beautifully when she says that a parsimonious theory may offer clarity, accompanied by limited scope. She contrasts this with the idea that an imaginative diffuse theory may spark insight but offer frames of understanding with porous borders.

It is important to note, then, as always, that frameworks such as Whetten's carry with them some philosophical baggage. It is fair to say that at the time Whetten was writing, it was important for the business and management disciplines to establish themselves as 'scientific'. One problem that most postgraduates

Table 3.1   Whetten's building blocks of theory (Whetten 1989)

Whetten's (1989) building blocks of theory
What factors should be considered as part of the explanation of the phenomena of interest? Comprehensiveness and parsimony are important.
How are the factors related? This introduces the relationships (often embracing causality) between the *what* objects; objects and relationships form the 'domain' or 'subject' of the theory.
Why and What. What justifies the selection of factors and the proposed (causal) relationships. What are the underlying psychological, economic or social dynamics? Why should colleagues give credence to this particular representation of the phenomena? *Why* are the factors behaving like they do? This aspect of a theory supplies the plausible, cogent explanation for 'why we should expect certain relationships in the *what* and *how* data' (Whetten 1989, p. 491). Weick (1989) refers to this as *relevance*, and Glaser (1978, p. 93) adds an element of urgency when he points out that theory should 'account for…which is relevant *and problematic* for those involved'.
Who, where, and when are the temporal and contextual factors that set the limit on the theory's range, i.e. determine how generalisable it is. Bacharach (1989) adds 'values' (which he defines as the theorist's *assumptions*, especially those of a paradigmatic nature) as another set of *who*-variables that bound a theory.

have, in my experience, is navigating the epistemological vocabulary of their particular discipline, and the view of reality their research is taking (for further information on this vocabulary, please see Chapter 5 on Research Design). Once that new vocabulary is learned, and the student is able to know what constitutes theory in their particular discipline, it becomes much easier. So I would urge the beginning researcher to carefully learn and navigate that vocabulary. Whetten talks about 'objects' and 'relationships'. Objects and relationships, taken together, make up the theory. In GTM, those objects will be categories. Relationships do not have to be causal. When using qualitative data, it is much harder to prove that A causes B because we cannot demonstrate this using mathematical relationships. We could say instead that A is a part of B, is a way to, is a reason for, is a stage of – these are some of the relationships suggested by Spradley (1979), and these are discussed later in our example of theory building in Chapters 4 and 7. Causation in theory is a large topic, and in the next section I attempt to set it out in a simple way. As important as causation is explanation – the Why that Whetten refers to. A good theory *explains*. In grounded theory, the routine use of theoretical memos, which allow us to muse on the developing theory, helps us to provide a very good explanation of the theory.

Glaser (1978) introduced the idea of 'coding families' that help us understand the relationship between constructs and added more of these families in 2005 (Glaser 2005). You first saw these coding families in Chapter 2. One way of thinking about coding families is that they provide patterns, often lifted from other theories, to help us relate categories. For instance, the coding family named Frames in Glaser's 2005 book, which 'are excavated through discourse patterns and are socio cultural in nature' (p. 28), comes from theories such as Bateson (1972) and Tannen (1993).

In business and management, there still is not a great deal of consensus on what theory actually is. In organisation studies, theory can range from concepts, to metaphors, to paradigms (Vorre Hansen and Madsen 2020). Debates about the value of theory still abound. For instance, Hambrick (2007) contends that there is an 'idolisation' of theory that stems from the need to gain legitimacy for the new disciplines of marketing, accounting, finance and management in the 1970s. At that point, these new disciplines routinely incorporated theories from reference disciplines such as economics, psychology and sociology.

Early debates in management did establish some clarity around what theory consists of. Sutton and Staw (1995) do a useful job by explaining that references, data, variables, diagrams and hypotheses do not on their own constitute theory. For instance, it is easy to refer to various studies and state some of their findings or concepts, without providing the accompanying logic or explanation. The same goes for data. Having a weight of data is not enough, and this can be seen no more clearly in big data, where patterns on their own are not enough to explain what might be going on. Sutton and Staw put it beautifully 'Data *describe* which empirical patterns were observed and theory *explains* why empirical patterns were observed or are expected to be observed' (author's

italics). When it comes to variables, as seen in quantitative representations of theory, Sutton and Staw again make the same point – explanation is key, a mere list of variables is not a theory.

As we saw in Chapter 1, a diagram can indeed represent a theory. Sutton and Staw say they can be useful, helping readers see a causal chain of events or a process. In grounded theory, what are known as 'integrative diagrams' (Strauss 1987) are a key tool for helping grounded theorists bring together different strands or storylines of the emerging theory. All that said, Sutton and Staw still point out that the underlying logic for the relationships in the diagram need to be explained. In grounded theory, the tool for this is theoretical memoing, where the grounded theorist ponders relationships and records their 'eureka' moments when building the theory. We will discuss theoretical memoing in Chapter 7, but suffice it to say that it is a powerful tool that ensures any grounded theory is well explained.

It is perhaps more unusual to state that hypotheses are not theory, as Sutton and Staw do. They say while hypotheses can be part of a well-crafted conceptual argument, 'hypotheses are concise statements about *what* is expected to occur, not *why* it is expected to occur' (ibid, authors' italics). In grounded theory, one is *building* a theory, not testing a theory. That said, I have seen some grounded theory theses that culminate in future propositions that can be tested, and, if the theorist is working within the positivist paradigm, there is no reason why the outputs of a grounded theory cannot be represented in this way (see Chapter 5 on Research Design).

The overall message of Sutton and Staw's argument is simply this – good theory has good *explanation*, where the reasoning of how concepts relate to other concepts is carefully explained. Thankfully, grounded theory gives us ample tools to really assist with explaining how the theory works. One of the most pleasing aspects for me as someone who supervises PhDs using grounded theory is that I have yet to see any of these PhDs fail or have major revisions. This is because the close tie between the concepts built and the underpinning data makes for a robust theory – the reader can see where the concepts come from. More importantly, the process of relating concepts using theoretical memos and coding families means that consideration of explanation is built in.

In my own discipline, information systems, there has been some extensive debate both on the value of theory and what it actually constitutes (Avison and Malaurent 2014; Gregor 2014; Markus 2014). Markus (2014) suggested that an alternative explanation to theory laden but uninteresting research articles might be 'conflicting or overly narrow definitions of theory and theoretical contribution' (p. 342).

Markus cited her experience of the *MISQ* Special Issue on ICT and Societal Consequences in 2013, where the types of theoretical contributions we use in the information systems discipline were inadequate to explain the very real consequences of ICT addiction, IT enabled health, and IT impacts on employment. Markus said that it became clear that neither theories of provenance (too narrow) nor grand theories (needing too much elaboration and

refinement) were helpful for explaining the phenomena. To that end, she proposes two new types of theory, the *theory of the problem* and the *theory of the solution* (Majchrzak and Markus 2013). *Theories of the problem* are those that 'deal with important and specific real-world problems or situations that have not yet achieved the status of an IS term of art or that cannot easily be fitted into the shared meaning of a generally accepted IS term of art' (p. 343). *Theories of the solution*, by contrast, are usually grounded in theory and present an argument about what it would take to improve a problematic situation (Markus 2014). From a grounded theory perspective, it is clear that a grounded theory will likely be a *theory of the problem* because we are starting from the lived experience of the participant.

This section has concentrated on the debates in business and management disciplines, but it is also worth mentioning that these discussions continue in sociology too. Abend (2008) makes a helpful contribution when he cites Alexander (1982) as stating that there is a continuum of theory and data (see Figure 3.1).

Abend (2008) says that Alexander claims that whatever point on the continuum is selected, 'theory' can be seen as being on the left, and 'data', everything to the right. This is a very helpful visualisation – one can easily see how different researchers, with different training and from different ontological positions, could position themselves at different points in the continuum. So, as we proceed to the next section and delve deeply into the construction of theory, two key points remain. First, that all good theory concerns itself with explanation. Second, that what constitutes a theory is not fixed and will vary by discipline and world view.

Explanation in theory development

As Sutton and Staw (1995) emphasise, explanation is key in bringing together the components of a theory. What then is explanation? Seidel and Watson (2020),
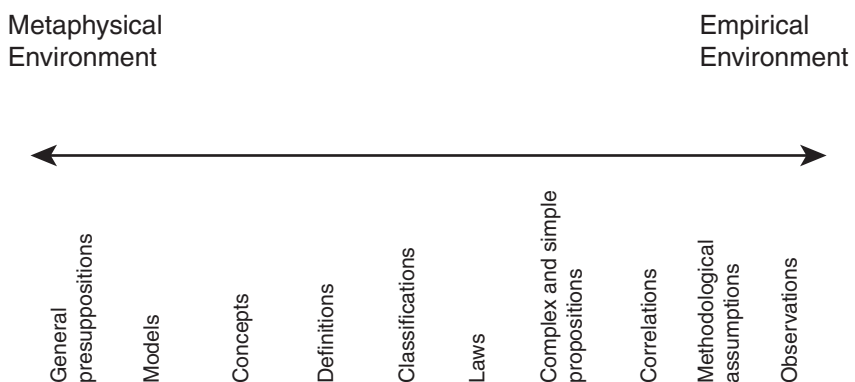
Figure 3.1   Theory and data and the scientific continuum (Alexander 1982, in Abend 2008)

drawing on Gregor (2006), say that explanation aids understanding by 'inducing a state of subjective understanding in an individual' (Gregor 2006, p. 617). Swedberg (2016) says that explanation is the last stage of theorising and requires not only logical reasoning but also imagination and intuition. In grounded theory, the creation of a theoretical memo at the theoretical coding stage allows us to exercise our imagination as well as logic and conduct various thought experiments about our data – what if we thought about the data this way? Importantly, theoretical memos help us to rehearse our explanations, and see if they stand up. It is no coincidence then that theoretical memos find their way into dissertations, chapters and journal articles, as they provide important explanation about core categories. In grounded theory, we also use theoretical codes (Glaser 1978, 2005) to help us explain the relationship between substantive categories.

Keil (2006) says there are at least three types of explanation – patterns of causation, explanatory stances, and explanatory domains (see Table 3.2).

Table 3.2   Types of explanations (Keil 2006)

Type of explanation	
	Common Cause, where a single cause is seen as having a branching set of consequences (Sober 1984). The outbreak of COVID-19 around the world is a very good example of this.
	Common-effect explanations involve cases where causes converge to create an event. For instance, the outbreak of World War I was triggered by the assassination of the Archduke Ferdinand in Sarajevo, but there were multiple causes including Germany's reaction to the Triple Entente between France, Britain and Russia, and the Imperialism of France and Britain all combining to make a tense situation where an event would trigger war.
	Linear chain explanations, where there is a single initial cause, triggering a unique serial chain of steps resulting in a single effect. As in the old nursery rhyme that talks about 'for the want of a nail' in a horse's shoe a kingdom was lost. Keil says these are quite rare in real life. The effects of the chain at some point start to have multiple effects of their own, and other causes enter the process downstream, violating the notion of a single cause.
	Causal homeostatic explanations seek to account for why sets of things seem to endure as stable sets of properties and help explain the natural world. For instance, it seeks to explain why feathers, hollow bones, nest building, flight and a high metabolic rate might all reinforce the presence of each other in birds. A causal homeostatic explanation seeks to explain how an interlocking set of causes and effects results in a set of properties enduring together as a stable set over time (Keil 1989; Boyd 1999).

(Continued)

Table 3.2   (Continued)

Type of explanation	
Explanatory stances, where people may adopt a stance or mode of construal that frames an explanation. Each of the stances results in a quite different explanation. Keil gives the example of a diver whose actions can be explained in terms of physics (mechanical stance), the purpose of pulling the limbs towards the body (design stance), and the thoughts and beliefs of the diver (intentional stance).	*The mechanical stance* where the explanation is construed as simple physical objects and their interactions.
	The *design stance* is where the explanation sees entities as having purposes and functions that occur above and beyond mechanical interactions (Lombrozo 2004).
	The *intentional stance* is where entities are considered to have beliefs and desires that govern their behaviour. These mental representations are held to have causal consequences.
Explanatory domains, where different types of explanations correspond to different disciplines.	Keil (2006) gives the example of evolutionary biologists who might use functional arguments far more than physicists or chemists. Psychologists might not see relations between inputs and outputs as unchanging and consistent, as in the physical sciences. They may expect probabilistic relations usually to obtain between causes and effects (Lehman, Lempert et al. 1988).
Social and emotion-laden explanations, which have a different character to other explanations.	For example, in social attributions, motivational factors influence how explanations are constructed and accepted. A particular explanation can influence the emotional experience of events.

So, how might grounded theorists use these types of explanations? Glaser (2005) explains that in theoretical coding stage of grounded theory, we have the option to use Theoretical Coding Families – this was discussed in Chapter 2. We can see some clear resonances between the Causal Family of theoretical codes presented in Table 2.4 of Chapter 2 with the patterns of causation outlined by Keil These commonalities are outlined below.

The Causal family is extensive and includes (1) Bias random walk is where all variables are in a flux, 'then on the introduction of a crucial variable... then of a sudden all of the variables fall into organisation'; (2) Amplifying causal looping, 'where consequences become causes, and one sees either worsening or improving progressions or escalating severity'; (3) Conjectural causation, where it is not always easy to identify decisive causal combinations; (4) Repetitive causal reproductions, when a repeated action keeps producing the same consequences; (5) Equifinality, where no matter what the causes and paths, the same consequence will occur; (6) Reciprocal causation, where there is a similar interaction of

effects or amplified causal looping; (7) Triggers, which are sudden causes that set off a consequence or set of consequences; (8) Causal paths, used to intervene in changing or stopping a consequence; and (9) Perpetual causal looping, a mathematical model, an ordered calculated growth of increased size based on a set temporal path. We can also see that, for instance, bias random walk, which comes from biochemistry, could be seen as coming from a particular explanatory domain. Different explanatory stances and domains can also be seen in the Casual Family and the range of causal patterns in the Causal Family.

This makes perfect sense when Glaser describes the process of coming up with theoretical codes – 'One reads theories in any field and tries to figure out the theoretical models being used' (Glaser 2005, p. 8). Consider for instance, the Social Worlds theoretical code, where 'examples of social worlds are opera, baseball, surfing, stamp collecting…some small, some large, some international, some local, some inseparable from given spaces…some highly public… others barely visible' (p. 23). The Social Worlds framework has its historical roots in the Chicago School of Sociology and is a useful 'sensitising concept' for further analysis (Clarke and Star 2008).

It follows then that the explanations offered in grounded theory, often in the form of theoretical codes, will exceed the taxonomy offered by Keil (2006) because theoretical codes are essentially patterns of explanation lifted from extant theories, and there are many extant theories. Nevertheless, the taxonomy above helps us think more deeply about the range of explanations in knowledge and what we might be trying to achieve when we generate a theory that explains.

Mechanisms for theory development

If the grounded theorist reads widely in order to be theoretically sensitive, and able to spot such patterns of explanation from extant theories, it is all but inevitable that they will come across theoretical *mechanisms* at some point in their journey.

So, what is a mechanism? Mechanisms have been central to theory development across many disciplines, from science and engineering to sociology and psychology. They have also been the cause of much hand-wringing, as writers in these fields bemoan the growing tendency to give short shrift to mechanisms in favour of theory framed either as covering laws or as structural equation models (Hedström and Swedberg 1998).

Fundamentally, mechanisms *explain*. Swedberg (2016) says that, in sociology, mechanisms have explanation at their centre. Mechanisms are also tremendously useful for helping us abstract. For instance, we might put forward a mechanism for a knee joint – and describe in detail how that knee joint works, from the firing of neurons causing movement in muscles and sinews. We might then come up with a slightly less detailed mechanism that covers all joints in the human body. Consider how, in the original version of grounded theory, we are encouraged to abstract to one or two core categories and how all those categories are underpinned by empirical observation and slices of data.

My favourite definition of a mechanism comes from Stinchcombe (1991) who says:

> Mechanisms are bits of sometimes true theory, or models that represent a causal process, that have some actual or possible empirical support separate from the larger theory in which it is a mechanism, and that generate increased precision, power, or elegance in the large-scale theories.
>
> (p. 267)

From a grounded theory point of view, the 'bits of sometimes true theory' has a real resonance, for, as previously discussed, theoretical codes are patterns lifted from extant theories.

As indicated above, mechanisms can come in a bewildering array of shapes and sizes. A much used typology of mechanisms is put forward by Hedström and Swedberg (1998) and is commonly known as the macro-micro-macro view of mechanisms. This typology itself is based on the concept of collective social action of Coleman (1986), a fact that will immediately alert us grounded theorists to the fact that mechanisms too can represent theoretical patterns lifted from extant theory, as do theoretical codes. A mechanism, as a vehicle for explanation, can also take an explanatory stance, have an explanation that is domain-dependent, or explain causal patterns, in Keil's (2006) parlance. Figure 3.2 shows Hedström and Swedberg's typology.

While empirical approaches to understanding various social phenomena tend to stay at the macro level (e.g. associating one higher level social concept to another in a statistical relationship), the mechanism-based approach identifies three types of mechanisms possible for social phenomena. Situational mechanisms explain how social structures constrain individuals' action and cultural environments shape their desires and beliefs (macro→micro). Action-formation mechanisms link individuals' desires and beliefs to their actions (micro→ micro). Finally, transformational mechanisms explain how individuals, through their actions and interactions, generate various intended and unintended social outcomes (micro→macro).
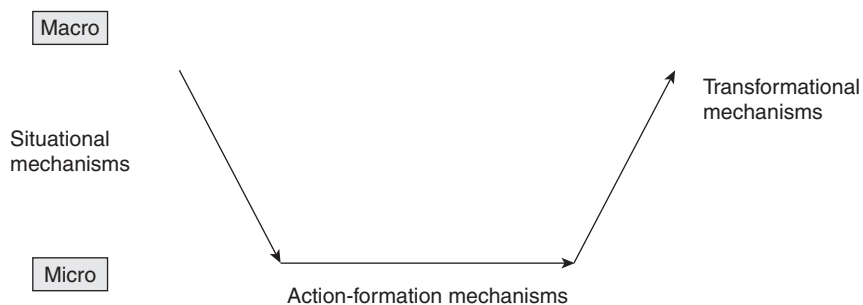
Figure 3.2   Hedström and Swedberg's typology of mechanisms (1998)

From a grounded theory perspective however, mechanisms are of interest to us because they expand our thinking much in the same way that theoretical coding families do. Of interest is how mechanisms *explain* and the options they may offer to us. Philosophical positioning of a study is important, especially when one is building a theory. To return to critical realist mechanisms for a moment, perhaps one of the most famous definitions of a mechanism is given as follows:

> Mechanisms consist of entities (with their properties) and the activities that these entities engage in, either by themselves or in concert with other entities. These activities bring about change, and the type of change brought about depends on the properties of the entities and how the entities are organized spatially and temporally.

> (Hedström 2005, p. 25)

Charles Tilly gives us a further elaboration of this idea when he discusses three key aspects of social mechanisms (2004). First, social mechanisms involve 'similar transfers of energy between stipulated social elements' (Tilly 2004, p. 7). Those social elements can be people, but also aspects of people, such as jobs and recreations, transactions among people, and configurations of inter-action such as friendship networks (ibid). Tilly also says that in his view, social mechanisms can be divided into cognitive, relational or environmental events and that often they are a combination of cognitive and relational components. This view is not a million miles away from Keil (2006), when he talks about emotion-laden explanations or explanatory domains, where explanations are framed from the viewpoint of a particular academic discipline.

Aviles and Reed (2017) take things further when they examine the role of mechanisms for explanation in sociology. To me this is a very important point – what is of interest here is the way mechanisms help us explain and the standard of explanation those mechanisms provide. Aviles and Reed say that in the *substantial* category, mechanisms are causal processes made up of real entities, and correspond to the critical realist philosophy. They then say that the *formal* category of mechanisms, where mechanisms are intervening causal pathways hypothesised relative to a well-defined research question, involving indepen-dent and dependent variables, are equivalent to the positivist view. There is an emphasis on abstraction. The *metaphorical* category of mechanisms (completely separate from Markus and Rowe's positivist category of causality above) is simultaneously a sensitising and explanatory concept. For instance, the meta-phor of a machine as for the regular and efficient ordering of the social world. This category is less concerned about ontology and more about the rhetoric of the mechanism and how it shapes our perception of the phenomena being explained. From a grounded theory point of view, Glaser's coding families seem to fit most into this metaphorical category of a mechanism.

In Urquhart and Volkoff (2019) we considered how a grounded theory study might also uncover a theoretical mechanism. We took a published study (Hekkala

and Urquhart 2013) and used the Hedström and Ylikoski (2010) shared elements of mechanisms to analyse it. Alert readers will instantly recognise in these shared elements what Aviles and Reed (2017) would call a substantial mechanism, in the critical realist philosophy. The shared elements are as follows:

1   A mechanism is identified by the kind of effect or phenomenon it produces. A mechanism is always a mechanism for something.
2   A mechanism is an irreducibly causal notion. It refers to the entities of a causal process that produces the effect of interest.
3   The mechanism has a structure….[It] makes visible how the participating entities and their properties, activities, and relations produce the effect of interest.
4   Mechanisms form a hierarchy. While a mechanism at one level presupposes or takes for granted the existence of certain entities with characteristic properties and activities, it is expected that there are lower level mechanisms that explain them.

While not everyone would agree with these common features, especially the idea that a mechanism is irreducibly causal, they were useful for analysing the study and demonstrating that a grounded theory does indeed explain in a similar way to theoretical mechanisms. In Hekkala and Urquhart's (2013) interpretivist grounded theory study of the everyday use of power in projects, a theory was advanced about the everyday use of power in a complex Inter Organisational Information System project. The theory consisted of four constructs – Power as Exercised, Power as Resistance, Sources of Power, and Reasons for the Power Struggle. The relationships between those constructs was explained as follows. Power as Exercised – the everyday use of power in the project – drew upon Sources of Power such as legitimate power, political power and expert power. Power as Resistance – instances of people taking control of decision-making, and exploiting ambiguity of project plans to win an argument, also drew upon Sources of Power. At the same time, Power as Exercised exacerbated Reasons for the Power Struggle, which in turn led to further Power as Resistance. Here we can see how a sequence of casually linked events arise from a set of initial conditions.

Using Hedström and Ylikoski's (2010) key elements of a mechanism, we can unpack the theory advanced as follows. The kind of effect or phenomenon the theory produces is dysfunction in the project management of an IOIS project. The causal process that produces the effect of interest is cyclical rather than linear. The initial conditions – a set of actors, their characteristics (e.g. their knowledge) and the relevant entities such as organisational structures and relationships that are the sources of power (expert, legitimate and political) – enable a set of actions (exercise of power, resistance) and result in outcomes that may in turn be the reasons for further struggle, whereby the cycle begins again.

Each participating entity has properties, activities and relations that produce the effect of interest. In grounded theory, these emerge through the process of identifying categories. Furthermore, as these categories are identified inductively

from the data, initial categories may be very concrete and only after further analysis be abstracted to higher level categories. For example, the category 'Power as Exercised' included three subcategories, Final Authority, Veto Power, and Forged Power. These lower level categories that underpin the higher level categories support the nesting of mechanisms that provide explanations for phenomena of interest at different levels.

If I have given the impression in the preceding text that mechanisms are overwhelmingly causal (whatever your view of causality), I would like to finish this section with an example (Hernes 1998, as described in Urquhart and Volkoff 2019) of a completely different view of mechanisms.

This example in my view illustrates why mechanisms (a) are closely related to theoretical coding families in grounded theory and (b) show us a really interesting theorising process at work that results in a mechanism. One can imagine such an example also being the output of a grounded theory study, such as its creativity. Aviles and Reed (2017) would no doubt call this a metaphorical mechanism.

Hernes (1998) formulates a social mechanism using the ideas of actors and staging. From this perspective, explicating a social mechanism starts by specifying the actors (the 'casting') and the structures (the 'staging'). From there the challenge is to work out the systemic effects (the 'plot'), i.e. what happens to actors or structures as a result of their interaction. Hernes suggests various questions that can be asked to identify the salient aspects of the actors and structures. For actors he asks 'what do they want?' (their preferences and purposes), 'what do they know?' (their knowledge and beliefs), 'what can they do?' (their capacities and abilities) and 'what are their attributes?' (both those that are innate and unchanging and those that evolve over time.)

As a sociologist, the structures that interest Hernes are those that the actors are embedded in, so the questions he asks are: 'what states are the actors in?' which can include their positions or roles, number of other actors and relations, and the options, constraints, rules, etc. they face. Second, 'what are the structural correlates of these states?', i.e. the rewards, responsibilities, rights, and burdens. Finally, 'what are the distributional characteristics of actors?', i.e. distributions of characteristics across populations.

In unravelling the 'plot', Hernes then categorises mechanisms by looking at the possibilities for change. Thus, as shown in Table 3.3, he develops a matrix of four mechanism types, depending on whether the actors, the structures or both change. When neither change (the 'aggregate effects' quadrant), the phenomenon of interest occurs through a mechanism that occurs simply because of the existing attributes of the actor and structure. Factor-based models that describe a single point of time are more likely to be of this type.

The other three quadrants represent more dynamic mechanisms. As an example of actoral effects, we might consider a learning mechanism: attributes of the actors change (in this case their level of knowledge), to explain how a phenomenon (possibly their acceptance of a new system) emerges over time.

Table 3.3   Types of mechanisms of social change

		Does the structure change?	
		No	Yes
Do the actors change?	No	Aggregate effects	Structural effects
	Yes	Actoral effects	Dialectical effects

Source: From Hernes (1998, p. 99).

Mechanisms of the structural effects type could include those explaining phenomena arising from network effects. For example, winners emerge due to such structural changes as growth in the number of apps developed for a given product. At the time of writing, Zoom has been a clear winner in the era of COVID-19. An example for the final quadrant, mechanisms based on dialectical effects, can be seen in the Hekkala and Urquhart (2013) theory of how dysfunction in an IOIS project emerged through a feedback loop that spiralled between changes in actor intentions (reasons for the power struggles) and changes in the structure of power itself, such as the sources of power.

So, what can the grounded theorist hope to gain from a detailed examination of mechanisms? In short, mechanisms give us a way to think about how to explain a phenomenon, and the better the explanation, the better the theory we produce. Increased sensitivity to mechanisms, coupled with devices in grounded theory such as coding families, which lift theoretical patterns from extant theories, give us a huge array of options to help think about our data and build good theories.

Causality in theory development

Given that mechanisms describe something happening in a theory, there is often an accompanying discussion about causality. Of course, causation in theory depends on the philosophy of reality adopted by the researcher. Markus and Rowe (2018) give us a very useful and philosophically based understanding of causation. They examine a range of contrasting views on causality to generate an analytical framework that theorists can use to understand causal structure. Causal ontology, the theorist's views about the reality and meaning of causation, can take one of three positions. The first is that *causality is a metaphor*, the second is that *causality implies a real mechanism* and the third, *constitutive causality*, reflects how people dynamically construct or enact meanings through interaction (Markus and Rowe 2018). These three positions correspond to positivism, critical realism, and interpretivism, and these three positions are discussed further in Chapter 5 where we talk more about research design.

The first position, *causality as a metaphor*, relies on the three Humean principles of attribution if a causal relationship is to be considered logically sound.

First, there is contiguity in place and time of events, second the cause precedes the effect temporally, and third, a regular association between hypothesised causes and effects (Markus and Rowe 2018). So, this position is most illustrated by statistical relevance and regular associations among hypothetical or observed conditions (ibid). Positivist researchers very frequently test for these types of associations.

The second position, *causality implies a real mechanism*, where there are physical, psychological, and/or social processes that connect inputs and outputs under certain conditions. This applies to both general (population) and singular (case) causation (Markus and Rowe 2018). Mechanisms are seen as indelibly real even if they cannot be observed. This position corresponds to that of critical realism. From a grounded theory perspective, theoretical coding and the building of theory may well provide a mechanism or several mechanisms, regardless of whether the researcher regards them as 'real' or not.

The third position, *constitutive causality*, takes the view that causality is a human belief about how meanings are enacted in highly situated social interactions (e.g. practices) and how people dynamically construct such interactions and that those beliefs have consequences (Markus and Rowe 2018). This view of causation, based in the philosophy of Wittgenstein, applies to case specific causation only and is equivalent to an interpretivist position (ibid).

Grounded theory is said to be somewhat philosophically agnostic – Charmaz (2014) points out that grounded theory strategies 'are in many ways transportable across epistemological and ontological gulfs' (p. 12) although she quite rightly caveats that remark with the injunction that we need to be aware of the assumptions we bring to those strategies, as how we use them reveals our epistemological and ontological stances. Thus the single most useful thing a postgraduate can do for their research is to settle on their ontological and epistemological stance – and this implies coming to a view about causality. We discuss these stances and what they might mean for your research design in Chapter 5.

Abduction

No chapter on theory would be complete without a consideration of abduction. While grounded theory is sometimes held to be an inductive method of theory discovery, abduction is essential for theory building. While the notion of abduction has been around for a very long time, it has only really gained prominence in business and management in recent times (Van de Ven et al. 2014). What then is abduction? Put simply, it is that creative leap we all make when coding as grounded theorists. It is that leap that inspires us to write that theoretical memo, to link the categories we have in a new creative way or to use or come up with a coding family we had not considered before.

Van de Ven (2016) describes it as 'recognizing an anomaly … in our understanding of phenomena and … creating a hunch or a conjecture that dissolves

the puzzle by providing a coherent resolution to the problem' (p. 223). Locke et al. (2008) quote Charles S. Peirce as saying 'deduction proves that something *must* be; induction shows that something *actually is* operative; abduction merely suggests that something *may be*' (p. 907). So abduction is very important to grounded theorists – without that creative leap that proposes a new category or mechanism, we would never generate anything new.

Bamberger (2018) usefully sets out the difference between induction, deduction and abduction in the table below (see Table 3.4).

Timmermans and Tavory (2012) contend that it is abduction, rather than induction, that should be the guiding principle of empirically grounded theory building and that it is abduction that leads to theoretical innovation. They say that while Charmaz (2009) suggests that abduction is part of the process of

Table 3.4 Differences between deduction, induction and abduction (Bamberger 2018)

	Deductive reasoning	Inductive reasoning	Abductive reasoning
Objective	To demonstrate that if premises are true, it is impossible for the conclusion to be false To demonstrate the situational validity of a generalisable rule or claim	To generate a knowledge claim where it is improbable that the conclusion is false if the premises are true To demonstrate the probable generalisability of a situational reality	To generate plausible, conjecturable explanations Discovery
Strength of knowledge claim	Strongest (certain)	Strong (probable)	Weak (plausible)
Role of theory	Provides a priori explanations (hypotheses) to be challenged empirically	Provides a guiding framework and systematic approach to generate a generalisable explanation from the data	Provides assumptions to be challenged, frames anomalies to be explored, and suggests the variables on which to sample
How data is used	To disconfirm the null To disconfirm alternatives	To confirm a generalisable outcome when premises are met	To describe phenomena To elicit tentative claims To narrow range of possible explanations
Type of reasoning and how used	Necessary reasoning Used to test falsifiability of presumed means-end linkages	Probabilistic reasoning Used to demonstrate generalisable means-ends linkages or processes	Contrastive reasoning Used to identify patterns indicative of alternative dynamics, processes, mechanisms or means-ends linkages

imaginative thinking only once some inductive analyses are made, abduction should instead be privileged in grounded theory from the beginning. They also suggest that the ability to find a finding surprising presumes a familiarity with existing theories – the very requirement of theoretical sensitivity laid down by Glaser in his book *Theoretical Sensitivity* in 1978.

Levels of theory

I've found that it's tremendously helpful in my postgraduate teaching to differentiate between levels of theory. An important thing for the grounded theorist to understand is that, when we use grounded theory to generate a theory, it is essentially a low-level theory. The nature of the detailed, rich data used to generate a grounded theory means that it will be necessarily detailed. The intention of GTM is to build a substantive theory, i.e. a theory that pertains to the substantive phenomena you are researching. So, as a grounded theorist you have to be ready to engage your generated theory with other larger theories. In the 1967 book, Glaser and Strauss devoted a whole chapter on how to abstract your grounded theory into a formal one. If grounded theories are low-level theories, what is a high-level theory? The highest level of abstraction in grounded theory is called a 'formal theory'. Formal theories focus on conceptual entities (Strauss 1987), such as organisational knowledge, organisational learning or collaborative work. Other examples of formal theories would be theories on social capital, actor network theory and structuration theory. Figure 3.3 shows levels of theory from a grounded theory perspective (Urquhart 2019) and has two axes, Theory Scope and Conceptual Level.
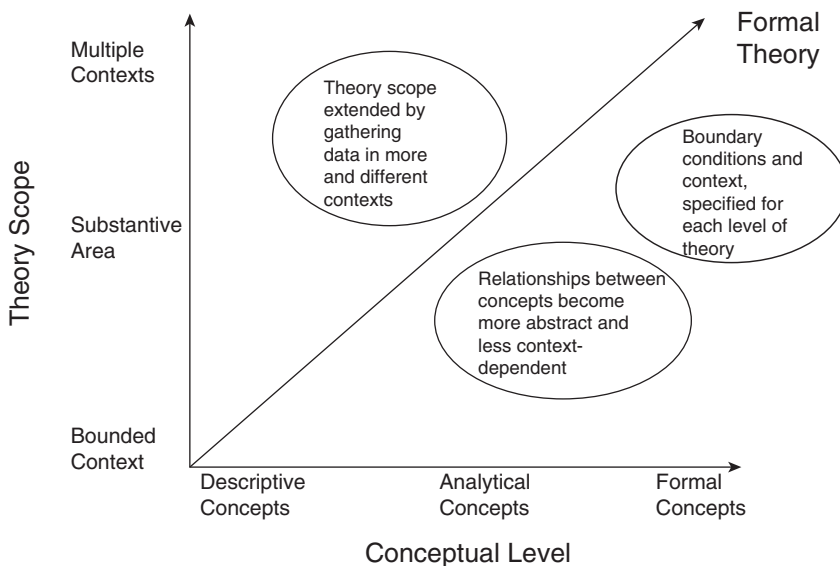
Figure 3.3   Levels of theory (Urquhart 2019)

The starting point for theory building is a bounded context, where seed concepts are generated. These seed concepts might not even be empirically grounded and little more than hunches (Urquhart et al. 2010). For instance, a researcher might have a hunch, founded in her experience of work with homeless clients, that the process of looking for paid employment is seen differently by those clients. She might then gather data on that substantive phenomena, the phenomena of how paid employment is sought and perceived by homeless people. Many grounded theories are at the level of substantive phenomena – a substantive theory pertains to the specific area being investigated. The concepts generated in that substantive theory exist independently of that data. The final level is that of formal theories with formal concepts. Formal theories focus on conceptual entities. Obviously, these levels of theory shade into one another, as the theory becomes more and more abstracted and progresses from a substantive theory to a formal one.

The scope of a grounded theory is extended by sampling like and unlike groups, guided by concepts in the data, and you can read more about this in Chapter 8. The suggestion here too is that boundary conditions are specified for each level of theory. In grounded theory terms, these boundary conditions are represented by theoretical codes and the categories. The suggestion of this figure is that these conditions and contexts should be clearly specified when a theory is published.

This figure also suggests that there is a relationship between theory scope and its conceptual level. When we first begin to code data, we inevitably code descriptively as it is necessary to explain the data to ourselves. As we begin to theorise about the data, and write theoretical memos, our concepts become more analytic and less context-dependent. The same applies to the relationships between concepts, where we have the challenge described by Stinchcombe (1991) of making sure the relationships we posit between concepts at the lower level also reside at the higher level.

Positioning a grounded theory against the extant literature

Given that theories exist at different levels, and that the grounded theory process produces a low-level theory, how do we then position our nascent theory against other theories and literature? How do we approach the literature review? As stated in Chapter 2, the researcher using grounded theory has to take care not to impose ideas from the literature on the data during the coding process, and a non-committal literature review should help with this process. Once the theory emerges, it might be that we see extant large formal theories as a useful theoretical lens or framing device for our study. As Strauss (1987, p. 282) says, once your theory has begun to integrate and densify, then conflicting and complementary analyses need to be grappled with.

As a general rule, 'literature' might range from anything from a bounded to a substantive context, whereas formal theories have a much larger general scope.

That said, in the business and management field especially, research literature is often inspired by formal theories from reference disciplines. Colquitt and Zapata-Phelan (2007) reflect on five decades of theory building and theory testing in management. They divide articles published in a 50-year period in the Academy of Management Review into five categories, based on the extent of theory building and theory testing. These categories are Reporters, Testers, Qualifiers, Builders and Expanders; Reporters are defined as those articles that have low levels of theory building and testing; Testers, low levels of theory building but high levels of theory testing; Qualifiers, moderate levels of theory testing and theory building; Builders, relatively high in theory building but low in theory testing and Expanders, a high level of both theory building and theory testing. Across the management journals they sampled, they found an increasing proportion of authors engaging in theory building, and I think it's fair to say that grounded theory's increasing popularity in business and management is because of that opportunity to be a Builder rather than a Tester.

Strauss (ibid) also says that it makes sense to fit your own study into the larger framework of preceding studies, though of course you will often find yours is the first exploration of the phenomena. There is more information about this process in Chapter 7, Theoretical Coding. In grounded theory, there is also the option to move a substantive theory (pertaining to the phenomenon being studied) to the level of formal theory, using theoretical sampling. We will discuss this further in Chapter 8 on Theoretical Sampling.

It's also helpful to consider, when you are considering literature, how theory is used in the newer disciplines of business and management, if you happen to be located there. Again, different disciplines view theory differently.

As a long time supervisor of grounded theory dissertations, I find that students sometimes struggle with the inductive theory building aim of grounded theory, when they are having to fit it into more conventional views of literature. From my perspective, it helps to take the view that a grounded theory thesis is no less rigorous than any other – it's just that the sequencing is different. Once the theory is produced, there is an absolute obligation to engage your emergent theory with the existing literature in a systematic way.

While not a classic grounded theory (CGT) approach, I find it helps my students to produce a 'sensitising device' for their research as recommended by Klein and Myers (1999). This helps the student identify possible streams of literature for the non-committal literature review (see Chapter 2). The clue though is in the name, and it is meant to sensitise the researcher to the area of study, rather than impose a view.

There are two possible routes for such a sensitising device. The first is perhaps more in line with a grounded theory approach, where a framework can be drawn up that decomposes the research problem.

The figure below takes the broad research problem 'How do analysts and clients approach early requirements gathering?' as a starting point. The phenomena being studied, therefore, are that of analyst–client communication. In

this example, the non-committal literature review was broken down to the concepts that were relevant to the research problem. This approach also has an advantage in that it can help synthesise literature across discipline areas. Often we are in unchartered territory when applying grounded theory to a phenomena – that is why we want to use grounded theory. Figure 3.4 gives a decomposition of a general research problem I used in my own PhD research. This was used to create a synthesised, non-committal literature review.

The second option is to build an overarching theoretical framework as a sensitising device that helps to frame the problem. In this case, the framework can indicate a possible theoretical lens or frame for the study, which can be seen as a high-level formal theory to which our emergent theory can be integrated back into later. It might even combine a number of perspectives, as in Figure 3.5 below from Díaz Andrade (2007). I can hear a number of you say, yes, but grounded theory requires that we do not impose our view on the data – is this not prejudging the data? I would rather see it as an example of the need to
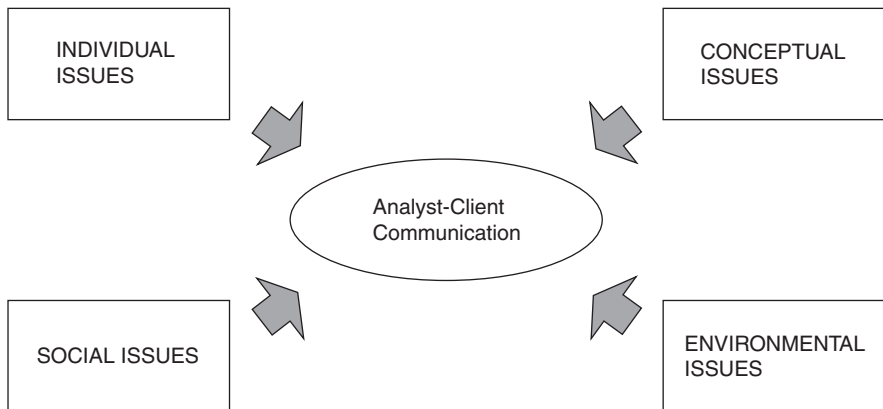
Figure 3.4　Example of a sensitising device that decomposes the research problem
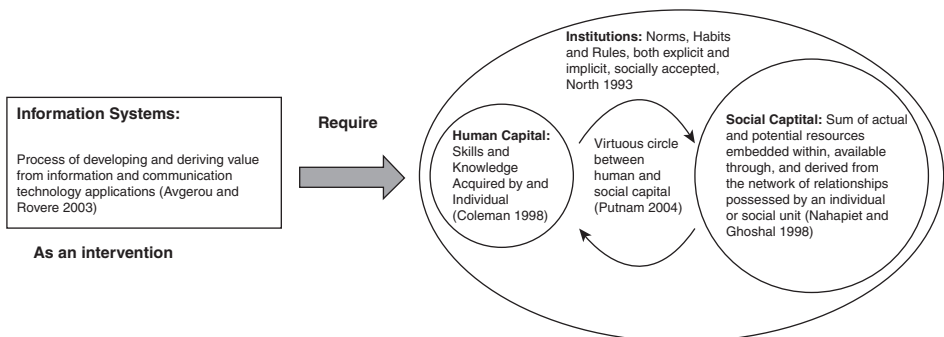
Figure 3.5　Example of an overarching theoretical framework used in a grounded theory study (Díaz Andrade 2007)

be theoretically sensitive but also to get to grips with the research problem in a multidisciplinary area.

For newer disciplines such as information systems, it is perhaps more important to understand the landscape of theory in other disciplines. Some of those theories in the initial framework may indeed be relevant, but only subsequently so. The proof of the framework is its subsequent relevance in light of the emergent theory. Interestingly, in this particular piece of dissertation work, the subsequent discussion not only included a systematic theoretical integration with the initial framework but also a clear departure and challenge to that literature in some aspects. For instance, Díaz Andrade was able to successfully challenge the idea of a virtuous circle between human and social capital by pointing to instances in the data where high human capital did not result in social capital.

The purpose of these examples is to illustrate a practical way of engaging with the literature that does not violate, in my view, the grounded theory perspective of an 'open mind, not an empty head' (Dey 1999, p. 251). Often, we will be producing a lower level theory that can be systematically engaged with the literature, often producing new concepts that allow larger theories to be extended, or challenging those larger theories.

Of course, this approach assumes that we do not take the approach espoused in the 1967 book, where, by dint of theoretical sampling, we can take our theory and help it shade from substantive to a formal theory. In any case, this process would take far longer than the time allowed in a typical dissertation or research project.

The idea of a theoretical framework, or indeed, a sensitising device which is designed to help map the non-committal literature review, will not appeal to classic grounded theorists. The use of a theoretical framework in particular can be seen as going against the idea of emergence and identifying the main concern from the data, as expressed beautifully here by Glaser and Holton (2004) when they say that the researcher

> …listens to participants venting issues rather than encouraging them to talk about a subject of little interest. **The mandate is to remain open to what is actually happening** and not to start filtering data through pre-conceived hypotheses and biases to listen and observe and thereby discover the main concern of the participants in the field and how they resolve this concern.
>
> (Glaser and Holton 2004, p. 11)

So from the CGT view, the research problem emerges from the main concern of the participants. For a complete account of this view, please see Glaser (2018) where he is very emphatic of the need to start with an area of research interest rather than a research problem – it is said that the core category will emerge if study participants are allowed to divulge their main concern as they perceive it. Of course, it may not be possible to adopt this approach if one is

funded to investigate a particular research problem. A relevant critique from Charmaz (2014) is worth repeating here – that if we focus on a 'theory of resolving a concern' (Glaser 2005), we are always focusing on how the participants deal with the issue. This would potentially restrict the ability of the method to research socially important issues, such as racism, where structural issues affect the participants and limit their power to deal with those issues.

That said, I recommend starting out with a broad as research problem as possible, precisely because we need the data to speak to us. The dimensions of the research problem do emerge from further analysis (Dey 1993), and the beauty of grounded theory is that we do discover previously unconsidered dimensions because of the close engagement with the data that grounded theory demands. So the CGT view encourages to trust that emergence of those key dimensions. The main difference between my view and that of CGT is the emphasis placed on the main concern of the participants – while I think this an important value for research, in general, the researcher's own interests and life experience should play a part in what they research. Glaser (2018) also reminds us of something important about the emergence of core categories – that 'the researcher must restrain herself until sure if it is core and will account for most of the variation of action in the substantive area under study'.

It's also important to note that, CGT, a dissertation or journal article will look very different, in that any consideration of the literature will wait until the end. An interesting example is Bush Welch (2018), where the grounded theory of parents navigating an expected infant death is presented in the following manner. First, the introduction is a standard one in that it locates the research area in the literature, then states that there is a dearth of research on the research issue of expected infant death where the infant has a congenital abnormality. Second, the method of sampling and non-structured interviews is described. Generally, non-structured interviews are a hallmark of CGT because they allow the participant to present their concerns, rather than the interviewer pressing for their views on a particular subject. Third, the theory is presented – a theory that has three stages and two cutting points. Alert readers will know then that this author is drawing on the Process Theoretical Coding Family and the Cutting Point Family, both outlined in Glaser (1978). Of most interest to me is the sixth section, headed Comparison to Existing Literature, which is helpfully divided into two sub-sections – 'Research', i.e. existing literature and 'Theories'. Again, alert readers might think back to the beginning of the section where I distinguish literature (generally a bounded or substantive context) from formal theories. So, with CGT, as with other types of grounded studies, the trick is to read widely to see how your fellow authors have approached the challenges of presentation. It is always useful for PhD students to download grounded theory theses (the British Library collection of digital theses, ETHOS, is one good source) to see all the variants that are there. For readers interested in the issues of how a novice researcher might approach the literature in grounded theory, Yarwood-Ross and Jack (2015) offer some helpful insights as

to how the three main strands of grounded theory (CGT, Straussian and constructivist) approach the literature review.

Summary

- This chapter had the aim of discussing what theory actually is – a sometimes neglected consideration in newer disciplines in business and management. In order to build theory, we need to understand what a theory looks like.
- We first discussed what a theory is – its components and purpose. We examined Whetten's (1989) components of theory and then discussed the seminal paper by Sutton and Staw (1995) where we realise that the whole goal of a theory is to explain.
- We then discuss explanation in theory development. We started with Keil's (2006) types of explanation: patterns of causation, explanatory stances and explanatory domains. This taxonomy is then discussed in relation to Glaser's coding families, to help us see how theoretical coding in grounded theory helps us with the goal of explanation.
- We then discuss what a mechanism is, a much debated term in all disciplines, and how mechanisms might aid theory development. We then review different types of mechanisms from the perspective of grounded theory and consider the idea that theoretical coding families afford to us a metaphorical standard of explanation (Aviles and Reed 2017). By means of a grounded theory example, we see how grounded theory studies can indeed uncover mechanisms and how coding families can be seen as sample mechanisms.
- Once mechanisms have been defined, we have a brief discussion on causality. When developing a theory, we are generally saying that something is happening and trying to explain that happening. However, that is not say that A necessarily causes B in a linear fashion, this very much depends on your ontological and philosophical view of the world. The suggestion here is that causality is a term that can be used comfortably from positivist, critical realist and interpretive perspectives, as long as we are clear on what causality means within that perspective.
- The chapter then turns its attention to levels of theory. Understanding that a grounded theory shades from substantive into formal theory helps us realise the all-important need for abstraction. If we don't abstract by trying for one or two core categories, it is more difficult to relate our emergent theory to the literature. That said, a balance needs to be struck between a rich theory and abstraction, and this will largely depend on the discipline you are working in.
- We conclude with some practical advice on positioning a grounded theory against the extant literature, and this includes two further suggestions about the non-committal literature review. The first is the idea of a sensitising device to help synthesise the non-committal literature review. The second is a more formal theoretical framework that nonetheless will be challenged by the emergent theory. In both cases, the relevance of the non-committal literature review is determined by the emergent theory. Finally, we then contrast those ideas with how both the formulation of the research problem and engagement with literature are conducted within CGT.

EXERCISES

1 Access the top journals in your field. If you don't know what those journals are, have a discussion with a senior colleague and/or your dissertation supervisor. Lists of journal rankings are often available too – see the suggested links in web resources. Do a keyword search on theory to find articles that mention theory – what do you find? How does the standard of explanation comply with Sutton and Staw (1995), or Keil (2006)? What other insights have you gained about your discipline and its engagement with theory by doing this exercise?

2 Again, access the top journals in your field – this time, do a keyword search for articles that mention mechanisms. What do you find? Is there a particular view of causality in the mechanisms you find? Does the use of a mechanism make for a good theoretical contribution by building new concepts and explaining the phenomena?

3 Examine some journal articles that are relevant to your study topic. Is there a theory produced? Can you ascertain at what level is the theory produced? Is the theory related to any other theory, and at what level is that other theory?

4 Experiment with drawing your research problem in the middle of a diagram and breaking the research problem down into different aspects. Does this action help give you an insight into literature areas that might be relevant?

5 If you are doing a dissertation topic, discuss with your supervisor what theories they think might be applicable to your topic. Do your own investigation into those theories. Are they high-level formal theories that might be useful to wrestle your grounded theory against? Are they reference theories from another discipline? Have you looked at the original sources of those theories? What does that exploration tell you?

WEB RESOURCES

https://warwick.ac.uk/fac/soc/ces/research/current/socialtheory/maps/what/
This webpage attempts to answer the same question addressed by this chapter – 'What is Theory?' It gives some good examples of a wide range of theories and makes interesting points about explanation and generalisation.

https://www.scribbr.co.uk/thesis-dissertation/theoretical-framework/
This gives a basic but nevertheless helpful guide to developing a theoretical framework. Using simple language, it gives the student a broad view of the possible roles of theory in a dissertation.

https://charteredabs.org/academic-journal-guide-2021-available-now/
This link is for those reading from the disciplines of business and management – the Chartered Association of Business Schools (CABS) academic journal guide rankings are widely used in Business Schools in the United Kingdom and in Europe.

https://www.scimagojr.com/journalrank.php?category=3312
This link is for those from sociology and some associated disciplines and gives a ranking of journals in Sociology and Political Science (lots of other discipline categories are available). Scimago is a great resource if you want to check the quality of a journal (but also be guided by colleagues' assessment of that journal – metrics only give part of the story).

FURTHER READING

Sutton, R.I., and Staw, B. (1995). "What Theory is Not." *Administrative Science Quarterly* 40(3): 371–384. This foundational paper set out for business and management some key tenets about the nature of theory. It is interesting reading this paper over 25 years later – many of the key points made about what is erroneously seen as 'theory' in business and management still stand.

Abend, G. (2008). "The Meaning of 'Theory'." *Sociological Theory* 26(2): 173–199. This is a thoughtful reflection on debates in sociology about theory and warrants a thorough read, especially if your discipline is sociology. Figure 3.2 in the chapter comes from this article and shows how our definitions of theory are influenced by our ontology and standpoint.

Nixon, J. (2004). "What Is Theory." *Educar* 34: 27–37. This is an accessible reflection on how we might use theory in practice and how those theories can be applied to professional practice. Recommended for those of us who are researching professional contexts and those for whom concrete examples of how to apply theory in a given situation might be useful.

Collins, C.S., and Stockton, C.B. (2018). "The Central Role of Theory in Qualitative Research." *International Journal of Qualitative Methods* 17: 1–10. https://doi.org/10.1177/1609406918797475 This is a good quality article on how qualitative researchers approach theory. It is especially helpful because it distinguishes between a conceptual framework (concepts being used in the study from the literature) and a theoretical framework (somewhat broader).

FREQUENTLY ASKED QUESTIONS

Do I have to produce a mechanism as part of my grounded theory study?

The answer to this question is a categorical no! I have used mechanisms in this chapter to show how that they are useful for explanation and also to illuminate how grounded theory coding families are theoretical patterns. The aim of a grounded theory is to explain, and mechanisms are one possibility for doing that. The value of mechanisms is that they give us a structure for explaining – in the same way a theoretical coding family might. It is entirely up to you if you decide to produce a mechanism or something else that constitutes a contribution to theory in your

discipline. That said, I do think mechanisms, and especially the act of diagramming of your theory (which mechanisms do), can be a valuable tool for theory development in grounded theory.

I'm confused, even after reading your chapter. What is a theoretical framework?

The short answer is that you are not alone in your confusion. Dissertation supervisors will use the words theory, literature and theoretical framework in their discussions with you, and the meanings of those words do vary by academic discipline. Overall, it is safe to say that a theoretical framework is somewhat broader than a conceptual framework (which I might also call a sensitising device) which helps you develop the concepts that you'll use for your research problem. The theoretical frameworks my students use in their grounded theory work tend to utilise high-level theories to frame the study.

4

Understanding coding and theory building

This chapter:

- Helps the first timer get started with the process of coding
- Explains the crucial difference between analysis and description when generating codes
- Explains how coding builds theory
- Explains the differences between various coding approaches and grounded theory method
- Introduces the coding procedures of grounded theory method

This chapter helps the first timer get started with the process of coding. As a first timer to GTM you'll be confronted with endless references to codes and coding, and this chapter aims to demystify the process, and explain how codes build theory. This chapter also aims to place the coding process of grounded theory method in the larger context of other coding approaches in qualitative research.

We then need to understand what coding is. Coding is the term for attaching conceptual labels to the data. When we attach a particular label to a particular chunk of data, we start to analyse that data. If we start to link together codes in relationships, we can start to theorise about the data.

Coding as a qualitative analysis technique is not confined to GTM, but procedures for coding are at the heart of the method. This chapter spends some time considering different approaches to coding and where GTM fits within those approaches. This is an important distinction. *GTM uses coding, but not all coding is GTM*. This chapter gives examples of both general ways to approach coding, and the GTM way of doing things.

In my view, it's very important to understand *how* to do coding, so this chapter contains examples and some exercises. There is no substitute for actually doing the analysis. I find that often my students only really understand the process of grounded theory when they try it – all the books and articles in

the world cannot give you the skills in qualitative analysis, only examples. The first experience of detailed coding can be daunting, but one that quickly turns into a delight when one realises the insights possible from the data.

We then need to understand the role of coding in theory building. Simply put, a theory is a relationship between constructs. So, if coding helps us build those constructs, then it is also vital to consider the relationships between those constructs.

I then give a brief introduction to grounded theory stages of coding. We go into these stages much more deeply in Chapters 5 and 6.

Coding – a first example

One of the hardest things to do when we first code a piece of data is not simply to describe the data, but to go beyond that initial description and *analyse* it. So, ideally, we do not want a descriptive code, but an analytical one. By coding I mean the act of attaching a concept to a piece of data, and this of course is the heart of grounded theory method, and is how we analyse the data. Schwandt (1997) says that coding is 'a procedure that disaggregates the data, breaks it down into manageable segments, and identifies or names those segments.'

So, let us consider the coding of following lines of data from an interview, to help us understand the difference between a descriptive code and an analytical one, and how coding might proceed. The interview is between a systems analyst and his client, for whom he is endeavouring to solve a computer related problem. This is their second meeting (see Figure 4.1).

The first thing to do is to read the whole excerpt, to try and get the feel of the exchange. The second thing to do is to describe it to yourself, then to see if you can get behind the lines, as it were, to find out what is really happening – this is the analysis. As a whole, we can see that the analyst is recounting what happened with the last meeting. We can also see that the client is not saying much, and perhaps if we had more than an excerpt, we could speculate on reasons for this.

Let's examine the first line: '*What I've done, Jane, is draw up a couple of points from when we talked last*'. At a superficial level, we could simply label this an 'historical reference'. This is how I started out coding. This would of course be a *descriptive* code. It does summarise neatly the words '*from when we talked last*', but, it does not add understanding at this point.

Analyst:	"What I've done, Jane, I've drawn up a couple of points from when we talked last …"
Client:	"Yes."
Analyst:	"… when you gave me an overview of the system …"
Client:	"Yes."
Analyst:	"… umm and basically what I've got down here is the database is about keeping statistics of approved and non-approved applicants, or students, for a Student Assistance Scheme."

Figure 4.1   Transcript excerpt for coding

I also coded the analyst's use of the client's name as 'use of name'. Again, this is a pretty *descriptive* code, but I felt it was significant, and so it proved to be. I subsequently coded this use of her name as 'rapport building' – this can be seen as an *analytical* code. Once we reach this sort of analytical code, we can ask larger questions about his intentions. Why is he saying what he is saying? We can try and look behind the words. He is recounting what happened last time, attempting to build rapport, and stating what he thinks the problem is, based on their last conversation.

Ultimately, I coded this whole excerpt as 'agenda setting'. This is an *analytic* code, and goes beyond simply summarising what he is doing – instead it is a code that helps us to start theorise what might be happening and what strategies the analyst might be using. How problems are framed are a key part of professional activity (Schön 1983).

I realised that who defines the problem at the outset, controls the conversation and possibly the outcome. One key thing to note here is that I may not have realised that this was his strategy unless I had first coded his reference to the past (why was it important?), and his use of her name (why was he doing that?). So, often, a descriptive code is a necessary first stage of an analytic code which helps us theorise.

Different approaches to coding – what is and isn't GTM?

It's important to realise that coding occurs outside grounded theory method, too, and how coding as a method is applied. It's worth taking a moment or two to consider different approaches to coding in general, and how grounded theory fits within those approaches. This is all the more important when one considers that other coding approaches are frequently mislabelled as GTM, which can be very confusing to the first time user.

There are two key issues to be resolved when embarking on coding, and you can decide pretty quickly if what you are proposing is indeed GTM. The first is whether to use concepts from the literature – if you do, this is clearly *not* GTM. The second is, at what level should the coding be applied? What size should be your data chunk that you apply your code to? If you are not applying your coding at a detailed level, again, you are probably not using GTM in the accepted sense.

So let's look at the possible ways of doing coding, of which GTM is only one. There are possibly four ways of thinking about how people apply coding in general to qualitative data.

Bottom-up coding (GTM)

Bottom up coding is where codes are suggested by the *data*, not by the literature. Grounded theory method is a good example of this approach. The importance of an open mind, as opposed to an empty head (Dey 1999) cannot be

overemphasised. Grounded theory requires that the researcher very consciously puts their knowledge of the literature aside, so that preconceptions are not imposed on the data. Typically coding occurs at the word and sentence level, and this is said to be a strength of grounded theory. Judith Holton (2007) says that line by line coding minimises the chance of missing an important category, amongst other things. I would go much further; coding at this level invariably gives new insights, one of the reasons why I think grounded theory is so rewarding.

In the previous example of coding in this chapter – which is bottom up and GTM – I simply would not have arrived at the code of agenda setting without closely examining the use of language by the analyst and seeing how the original problem as coded was subtly changed during the course of the conversation. Similarly, I realised, after coding several interviews, that analysts were overwhelmingly data focused, and clients process focused. Clients wanted to tell the story of their processes and problems, and analysts wanted to structure the data in their client's systems into a solution. Again, these kinds of insights would not have been possible without bottom up coding.

Top-down coding

This is where codes from the literature are applied to the data. Generally a coding scheme is generated from the literature. An example might be applying codes about conversation. In the example given previously, we could draw upon the concepts used by Guinan and Bostrom (1986) when analysing systems analysts conversation with their clients. These concepts from the literature include 'as-if frames', 'outcome frames' and 'back track frames', where the analyst would variously discuss the problem as if it were solved, possible outcomes of that solution, and revisit the problem. It is not uncommon, however, to see researchers use top down coding and also add some bottom up categories, those suggested by the data. Sometimes incidences of codes are counted and this is known as 'content analysis'.

Middle-range coding

Dey (1993) suggests that coding can also be middle range. In this approach, some distinctions are made in the data around common sense categories. Dey says that the analysis can either proceed to more detailed categories, or those common sense categories can be linked together in larger categories. Categories can come from *both* the data, and literature. Clearly this approach is a mixture of the previous two – whether codes come from data or literature is flexible. If the categories become quite large, they become themes, and we discuss this in the next section.

Thematic coding

Often you will hear people say they are doing 'thematic analysis', but, with the honourable exception of Braun and Clarke (2006), little is written about how to

do thematic analysis. It helps to think of a theme, in coding terms, as a large category, applied to a larger chunk of data than in top down or bottom up coding approaches. It can be quite 'quick and dirty', where someone has simply picked out themes from, say, a set of interviews, based on the questions asked, or it can be much more systematic and underpinned by smaller categories.

There are two options for thematic coding, which echo bottom up and top down approaches to coding, at a higher level of analysis.

- First, you can build a thematic framework from themes suggested by the data. If following this option, you can underpin these themes with smaller codes, as suggested by Braun and Clarke (2006). One could argue that this is similar to GTM, because in GTM the aim is also to have just a few large categories underpinned by smaller ones. But there is a key difference here – thematic frameworks built in this manner rarely if ever attempt to relate those themes, and build theory – the aim is to find patterns in the data, not build a theory.
- Second, a thematic framework can be built from relevant literature and applied to the data. Obviously, this echoes top down coding, but at a higher level. Of course, a thematic framework can be built both from the literature and themes from the data itself. It's quite common, incidentally, to see this sort of theory building using thematic frameworks, in PhD theses. A thematic framework is constructed from the literature, applied to a phenomenon, then presented – often with some revisions after its application, as a theory building contribution. Sometimes relationships are suggested between the themes, especially if those relationships come from the literature. Again this is different from GTM, which would use theoretical sampling to build the theory, and also code at a very detailed level, and would not use constructs from the literature as a starting point.

The figure below summarises the possible variations in coding approaches we've discussed. As previously mentioned, there are two key decisions – whether the codes come from the data or literature itself, and at what level of detail the data is coded at. If the codes are large and apply to large chunks of data, they become themes (see Figure 4.2 below).
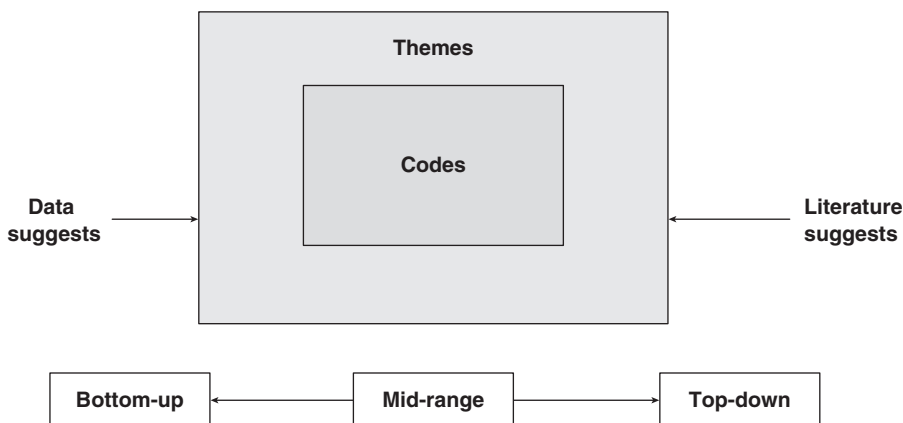
Figure 4.2   Approaches to coding

Coding as theory building – not just concepts but relationships, too

We have already established that coding is the act of attaching a conceptual label to a piece of data, and examined different ways in which it might be approached. So far so good. But *why* do we code? We code to build concepts, or find concepts. Those concepts, however, are of little use if they are not *related* to each other – if they are not related, all we are doing is labelling a phenomenon, not building a theory. We are indulging in what Glaser (1992) calls 'conceptual description'.

What is very obvious is that sometimes people using GTM do the coding (attaching labels) but then fail to link them, using relationships, for the purpose of theory building. In my own discipline of information systems, the term 'grounded theory' itself has almost become a blanket term for a way of coding data. It's almost if people want to attach an imprimatur to their coding, to attach it to a respected method such as grounded theory, as if they wish to borrow the reputation. This particular usage of GTM is not limited to the field of information systems. Scholars in other fields have highlighted exactly the same issue, of grounded theory method being viewed primarily as a way of coding data rather than a method for generating theory (Jones and Noble 2007). So it's important to be clear how the method is being used in your research. While I don't have a problem with people leveraging the very well set out procedures in GTM, I think it's important to take that one step further, to link the concepts you have, to build some theory.

Let's use an example inspired by Dey (1993), who uses personal ads to illustrate coding issues, to look at this issue of linking categories. Supposing we analyse the profiles on dating web sites, where single people advertise for prospective partners. Such profiles generally contain what individuals see as their personal qualities, and their interests. They also state if they are looking for a casual relationship, or a long term relationship. During coding, we might identify a category of person who is over 40, who has not had a serious relationship, and is not interested in such a relationship in the future. We might call this category of person 'permanently uncommitted'. We might then turn to the way they describe themselves, and note that they describe themselves as 'fun loving' or 'fond of travelling'. We might call this category 'Novelty orientated' (remember, this is just an example!). We might 'saturate' these two categories, that is, we find many instances in the data of these two categories. We might then speculate on the nature of the relationship between these two categories, and develop some propositions around it. Are people that are novelty orientated more likely to be anti long term relationships? How might they differ from people who describe themselves in the same way but say they are interested in long term relationships? What other qualities might come into play? For instance, it might be that people are interested in alternative models of
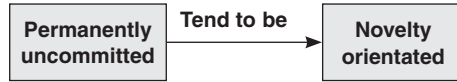
Figure 4.3   Relating categories to build a theory

relationships that are not available on the profiles for them to express. It might be also that there is a link with political views, or it might be that there is no connection (see Figure 4.3 above).

So the relationship between these two categories could be 'tend to be', or it could be something else. What if the relationship tends the other way? That permanently uncommitted individuals tend to end up as such because they are so novelty orientated that they never have the chance to form serious relationships? How would we investigate this? Perhaps we could look at what they say about the jobs they have performed. Perhaps we could interview them on this very subject. If we did, we would be using 'theoretical sampling' which is used by GTM – *deciding on analytic grounds where to sample from next*. Once we have built our theory a little more, we could engage it with other theories – this is what GTM does. For instance, it may be that our uncommitted individuals didn't start out that way – it's just that lack of opportunities to form relationships in earlier years have now led them to espouse a commitment free lifestyle. We might want to look at psychological theories of post hoc rationalisation, or any number of formal theories about individuals and how they narrate their social identities to themselves and others. Strauss (1987) talks about the absolute obligation on the grounded theorist's part, to wrestle with other theories in this way.

I also like the way Dey (1993) talks about building walls, in the analysis, rather than palaces – this fits well with the GTM approach of literally building a theory from the ground up. I like the idea of building a 'wall' of theory, and I see the connections between concepts as the mortar. Without those connections, the wall can be kicked down quite easily! (see Figure 4.4).
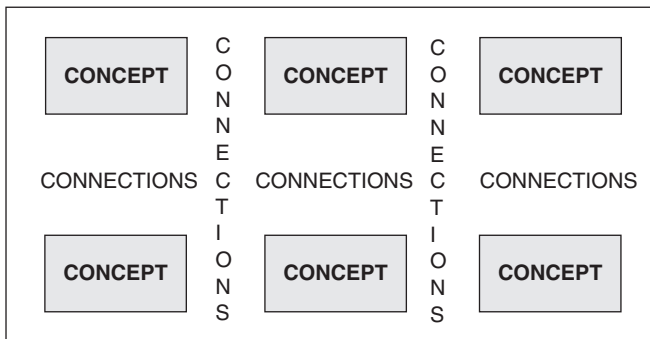
Figure 4.4   The wall of theory

We've already established that coding can take many different forms besides grounded theory method. It should come as no surprise that, outside GTM, there is also advice on how to link categories. Spradley (1979), in his book on ethnographic analysis, suggests that domains – roughly equivalent to a core category in grounded theory – can contain 'folk' terms, used by the members of the social setting (these are called 'in vivo' codes in grounded theory), analytic terms, generated by the researcher and the literature (so a mixture of bottom up and top down coding). Importantly, he also suggests nine *relationships* that can exist between domains. These nine semantic relationships vary from strong causal relationships to those that specify characteristics (see Figure 4.5).

These relationships are quite comprehensive, and have the added benefit of simplicity. It is almost certain that you will find categories that are, in fact, characteristics of others. The relationships '*is a characteristic of*' and '*is a kind of*' enables the researcher to decide which of their codes, are in fact, aspects of others. The other relationships in the figure help us theorise, and you should be able to see that they progress from quite weak e.g. '*is a way to*' to '*is a result/cause of*'. Personally, I shy away from identifying causal relationships, as in the social world most of us are applying GTM to, it is very difficult to be certain about causes. That said, you may have a 'saturated' (many many instances) category linked to another saturated category, in which case you might feel it is a causal relationship.

From the body of GTM literature, as we have seen in Chapter 2, there is extensive discussion and advice on how to relate categories through the discussion of theoretical coding and the Strauss and Corbin paradigm. This is part of the beauty of a qualitative method that has lasted many decades, and grounded theory method does give many more suggestions for relating categories – at the last count, Glaser (1978, 2005) had proposed 38 coding 'families' in total which give many suggestions for relating categories (you can see some of these in the previous chapter).

To conclude this section, let's review general coding approaches and their key characteristics in Table 4.1, and compare those approaches to grounded theory method (see Table 4.1).

Having now looked at coding procedures generally and established where GTM fits within those approaches, let us look now more closely at GTM coding procedures.

> - Is a kind of
> - Is a part of/a place in
> - Is a way to
> - Is used for
> - Is a reason for, is a stage of
> - Is a result/cause of, is a place for
> - Is a characteristic of

Figure 4.5   Spradley's (1979) semantic relationships

Table 4.1   Different coding approaches in the context of GTM

Coding approach	Level	Role of literature	Relationships between categories	Comment
Bottom Up (GTM)	Detailed, line by line coding	**None**. The concepts come from the data.	Unlikely to be causal. Could use Spradley's semantic relationships for ideas on how categories relate. If doing GTM, then coding families and other tools are available to help with relationships.	GTM is **bottom up** coding. However, some people use this approach and do not go on to build theory.
Top Down	Detailed, line by line coding	Extensive. A coding scheme is applied that comes from the literature.	Likely to use existing ideas from theories to help relate categories. May also use quantitative measures of codes to assess causal relationships between categories.	This type of coding can be used to subsequently build theory. Options include building statistical models of relationships between categories.
Mid Range	Level is mid range. A catch all description for making initial distinctions in the data, then either using codes from the literature, or the data, or both	The use of literature depends on whether codes are taken from the literature or generated from the data.	All options for relationships can be considered.	This coding description really illustrates how varied coding approaches can be, and that they can be mixed in both categorisation and size of data chunk.
Thematic coding	A high level categorisation of data. Essentially, themes can be seen as large categories. They can come from the literature or the data itself.	Often thematic frameworks do come from the literature. Sometimes they come from the data.	Most thematic coding concentrates on patterns as opposed to finding relationships. That said, thematic frameworks from the literature can and do include relationships.	The 1–2 core categories for a theory, suggested by GTM, can also be seen as themes – they are after all large categories. However, core categories arise inductively from following a particular theoretical storyline in the data, and are well grounded in coding. They are also related to each other. In a thematic framework, there may not be relationships and they are only sometimes grounded by smaller codes.

Coding procedures in grounded theory method

The next sections give a brief introduction to GTM coding procedures. Chapters 6 and 7 go into much more detail, and give fully worked examples. The purpose of these sections is to give an overview as to how GTM coding might work. As noted in the previous chapter, the Glaserian version of GTM has three stages – *open coding*, *selective coding*, and *theoretical coding*. The Straussian strand also has three – *open coding*, *axial coding*, and *selective coding*What also makes it interesting (and confusing) is that the selective coding stage in the Straussian version is substantially different. For now, though, let's just get the essence of the steps in grounded theory, following the simpler steps of Glaserian grounded theory. Charmaz (2006, 2014) also suggests three coding stages; open coding, focused coding (selective coding), and theoretical coding, with axial coding as an optional stage.

Open coding

All versions of GTM start with *open coding*. Open coding is the process of assigning codes to a piece of data, line by line, and sometimes word by word. It is arguably the key gift of GTM to researchers – the act of closely examining the data, without preconceptions, almost always reveals something new, something unexpected.

Let's revisit the excerpt of the transcript shown earlier in Figure 4.1 (reproduced as Figure 4.6 below, with the addition of line numbers), when we were discussing the difference between analysis and description. This study, described in Urquhart (1999), examined how systems analysts interacted with their clients when talking to them about problems in the clients' information systems. I observed analysts and clients talking together about those problems.

In Figure 4.7, I show how this excerpt was originally open coded. The open codes in boxes show first the descriptive open codes, which then morphed into other more analytical codes on reflection. By illustrating multiple open codes, I hope to be able to demonstrate to you that analysis is an iterative process, and that the open coding phase acts as a foundation for larger codes as the analyst decides what is important and moves from initial description to analytical priorities.

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1 *Analyst:* "What I've done, Jane, I've drawn up a couple of points from when we talked last …"
2 *Client:*   "Yes."
3 *Analyst:* "… when you gave me an overview of the system …"
4 *Client:*   "Yes."
5 *Analyst:* "… umm and basically what I've got down here is the database is about keeping statistics of approved and non-approved applicants, or students, for a Student Assistance Scheme."

Figure 4.6   Lines of a transcript for open coding

Analyst: "What I've done, Jane, I've drawn up a couple of points from when we talked last …"

| 1. Use of name/rapport building | 2. Record of meeting/agenda setting | 3. Historical reference/ legitimation |

Client: "Yes."

4. Prompt

Analyst: "… when you gave me an overview of the system"

5. Historical reference/legitimation

Client: "Yes."

6. Prompt

Analyst: "… umm and basically what I've got down here is the database

7. Computer term/jargon

is about keeping statistics of approved and non-approved applicants or students for a Student Assistance Scheme."

8. System function/ scoping/agenda setting

Figure 4.7   Example of open coding

   Also, this is just a fragment of the transcript – as I coded the whole transcript, I was able to see some of my initially descriptive codes in a more analytical way, as I reviewed the whole interview.
   So, how did the coding proceed? Below I give my thinking about the coding of each line.

   Line 1: I initially noticed the analyst's use of the name of the client, and coded this as **use of name**. This was a descriptive code, and a good place to start. Then I asked myself, why was the analyst using the client's name? It seemed to me that he was trying to build rapport, so then my open code became **rapport building**. I first coded this as writing down of a 'few points' as **record of**

meeting. As **I** read through the transcript, and my interest in how the boundaries of the problem were defined, this became the much more analytical code of **agenda setting**. As is illustrated in the table in the following section, it became a selective code which then became a subcategory of Conversational Strategies. The reference to the previous meeting ('when we talked last') I coded as an **historical reference**. On further reflection and with consideration of line 3, it seemed to me that he was legitimating his actions by saying that the points were based on their meeting last week (or his perception of same), so I coded it as **legitimation**.

Line 2: The client merely says 'yes' at this point. When I looked at the video of the interview, it seemed to me that the client was, her facial expressions accompanying the yes, encouraging the analyst to go on. So I coded it as a **prompt**.

Line 3: Again, the reference to last week ('when you gave me an overview' I simply coded as **historical reference**. But given the statement was almost identical to that in 3, I eventually coded it as **legitimation**.

Line 4: The client said 'yes' again at this point. Although she was starting to look somewhat sceptical on the video, she still seemed to be encouraging the analyst to continue. So again, I coded it as a **prompt**.

Line 5: What I noticed here was that the analyst used the term 'database' which I coded as a **computer term**. This was later changed to **jargon**, as I realised that many analysts tended to use computer terms which baffled their clients.

I also initially coded this section as **system function** – the analyst was describing what he saw the system function as. However, as I grew more familiar with how analysts went about their interviews, I realised in fact he was also **scoping.** You can see this selective code, which ended up as a subcategory in Systems Analyst Strategies, in the next section. It was also coded as **agenda setting**, as it represented a conversational strategy too.

The above example shows, I hope, that open coding is both an iterative and reflective process. The alert reader will notice that again we are moving from descriptive to analytic codes, discussed earlier in the chapter. Sometimes it is necessary to categorise something descriptively – for instance, the use of the client's name – and then to reflect on why it might be happening. As we code, analytical possibilities arise – this is what Dey (1993) means when he says that dimensions of the research problem emerge from coding.

The idea of coding line by line seems to be a major stumbling block for some students. Frankly, some of my students are appalled at this point in the process – how long does such an open coding exercise take? This concern is particularly relevant I think for PhD students who are often under pressure to finish their dissertation within a given time frame. There are a number of answers to this question of 'how long?'. First, I draw on my own experience – I know, for instance, that it took me 60 hours to open code my very first transcript for my PhD work. I was also able to use that transcript as the basis for a coding scheme

for subsequent transcripts. Second, I point out that a detailed grounded theory analysis in a PhD thesis provides a future foundation for a research career in the form of many papers from the PhD. Third, I point out that, in my experience, the amount of time it takes to do grounded theory analysis tends to be exaggerated by some academics who may, for reasons of ignorance or malice, wish to show grounded theory in a bad light. The real truth, I think, is that the analysis stage does take a little longer than other methods, but the write up of the work is much quicker, because the analysis is so extensive.

Also, the advice about line by line coding, like most advice in grounded theory, can be modified according to circumstances. For instance, if you have a very large data set – one student of mine had all the documents relating to information technology in an organisation over ten years – it's impossible to code all of these sources. That said, sections of certain key documents were coded line by line – otherwise particular insights and concepts would not have been possible.

Selective coding

What happens in selective coding is that the open codes are organised into selective codes that will eventually contribute to core categories of your theory. Strictly speaking, in the Glaserian version of grounded theory Glaser (1978), the selective coding stage is also where you are looking to code around a 'core variable' (p. 61). Strauss (1987) also recommends one or two core categories of a theory. Users of the Charmazian strand of grounded theory should also note that this stricture does not hold in the constructivist strand – Charmaz (2014) points at the value of a diffuse theory versus one of limited scope. That said, I personally find the process of selective coding helps me work out what is the focus of the theory and what avenues might be fruitful to follow.

Put simply, selective coding is a process of scaling up your codes into those categories that are important for your research problem. In practice, while some key concepts emerge, most researchers find that, because of the bottom up nature of the coding, there is quite a lot of grouping to do at this stage. In this example, I used subcategories to help me with this grouping process. What you will find is that some open codes, or variants of them, become larger categories. Other open codes become properties or dimensions of these larger codes.

For instance, in my own work on conversations between systems analysts and clients, open codes of 'we', 'joint ownership' and 'personal disclosures' ended up as dimensions of a subcategory called 'rapport building'. 'Rapport building' had in fact been an open code, but I recognised it as a strategy that a systems analyst might use with a client, and that ploys such as 'joint ownership' were a dimension of that strategy (see Table 4.2).

You should be able to see from this example that how you organise your selective codes is very much related to your research problem itself. What should be happening at this stage is that specific themes are emerging, and, indeed, a core category or two that will comprise the eventual theory.

Table 4.2   Example of selective coding

Category	Subcategory	Open codes
Conversational strategies	Negotiation	posits, future action, forward reframe, problem identification
	Agenda setting	conversation topic, issues
	Rapport building	'we', joint ownership, personal disclosures
Systems analysis strategies	Key searching	posits
	Information Identification	information type, exemplification
	Process identification	posits, process rule, process exception, problem identification
	Scoping	posits, information typing
	Imagining	metaphors, vivid description, dialoguing, exemplification
	Reframing	metaphors, forward reframe

Ideally, you will have started out with a general research problem – Glaser (1978) advises that you should stay within the confines of your discipline area when coding, and this is excellent advice – there is no point in being charmed by what might be interesting but pointless dimensions of your data that take you outside your discipline area and research problem! For instance, in my PhD work I started out with a general research problem, about how analysts and their clients approached the discussion of what was needed in a new information system. I noticed, for instance, clear gender politics at work in the interaction between some analysts and their clients, but considering these issues would have been beyond the disciplinary scope of my PhD. I ended up with a research question 'What strategies and tactics do analysts and clients employ during the process of early requirements gathering?' – this research question is clearly related to the categories in the above table. Again the broad research problem is dependent on the strand you are using, in classic grounded theory the tradition is not to start with a research problem, as discussed in Chapter 3.

As previously remarked, coding allows us to discover dimensions of that research problem (Dey 1993). So the selective phase is where more specific research questions could be suggesting themselves, and also where you should be breaking off from coding to write *theoretical memos* to help you theorise about categories (see Chapter 7 for this most important topic). Theoretical memos help you think about the relationships between categories and what might be an important and novel finding. You can think of theoretical memos of a way to allow you to muse on important ideas that occur to you during coding, and they are a vital and important part of the coding process, in my view. Sometimes these ideas can even start in the open coding phase.

With any luck, you should be able to organise the codes into what Glaser calls 'core variables'. For instance, in my own PhD work, I was able to organise the open codes into two categories, conversational strategies, and systems analysis strategies (which I subsequently organised into a core category of strategies in early requirements gathering).

Charmaz (2014) calls this stage focused coding, and defines this as the stage where, once some strong analytic directions have been defined, decisions need to be taken about which open codes make the most analytic sense to categorise your data completely.

Theoretical coding

Theoretical coding is the stage where codes are related to each other. This is where the theory starts to be filled out, given that any theory consists of not only constructs (categories in grounded theory terms), but relationships too. Glaser (1978) puts it well when he says 'theoretical coding, in establishing new connections (however recognisable) relevant, is so often the 'new' and 'original' about theory' (p. 72). It is an incredibly important stage in theory building, but surprisingly often neglected by those who use grounded theory. It as is if all the new concepts generated by the open coding and selective coding stages might be enough – they are not! If we do not relate the categories, then we do not have a theory. There are three possible sources of connections between categories:

* other categories,
* ideas about relationships from literature (such as Spradley 1979), and
* *theoretical codes*, as introduced by Glaser (1978).

Other categories can often represent relationships – when examining our categories in the selective coding stage, it can sometime become obvious that a category stands as a relationship between two other categories. For instance, in the previous example of selective codes in Table 4.2 it could be said that 'rapport building' is in fact the mechanism that relates conversational strategies with systems analysis strategies. We could theorise that, without rapport building, those systems analysis strategies are not effectively enabled. We would then make sure that this relationship was backed up by many different instances in the data, and examine those instances to further define the relationship.

We can also get ideas for relationships from the literature. We might be inspired by something we have read in another literature stream. Glaser (1978) talks about the concept of 'theoretical sensitivity', where the researcher is sensitive to theories, and has read widely. This wide reading, often not in the researchers own domain, helps us understand how theorising works, and gives us the opportunity to think about different relationships in our data.

The relationships advanced by Spradley (1979), discussed earlier in the chapter, such as 'is a way to, is a part of' and so on, is a good example of this. In our theoretical coding, we could connect the two categories of conversational strategies and systems analysis, using such a relationship as 'conversational strategies **are used for** systems analysis strategies'. Again, to theorise about such a relationship would require plenty of instantiation from the data, and perhaps could be argued against, in that some conversational strategies used by systems analysts could possibly impede systems analysis strategies!

Finally, Glaser's theoretical codes (Glaser 1978), first introduced in Chapter 2, are extremely useful when thinking about relationships between categories. The coding family *The Strategy Family* (Strategies, Tactics, mechanisms, managed, way, manipulation, manoeuvrings, dealing with, handling, techniques, ploys, means, goals, arrangements, dominating, positioning) – provided me with a clear way of understanding that the phenomenon I was dealing with. When systems analysts talked to their clients, they were in fact using an array of strategies and tactics. One option here would be to reorganise the selective codes using the strategy as the relationship e.g. Imagining is a strategy to…Information Identification is a tactic to…and so on. We will explore the issue of theoretical coding much more in Chapter 6, but I hope the brief example above gives you an idea of how to go about relating categories in order to build grounded theory.

Summary

- This chapter had two aims. First, to place GTM coding procedures in the larger context of coding approaches in qualitative research. Second, to give an introduction to GTM coding procedures.
- The chapter first gives an example of coding. From my point of view, it's important to start coding, and practicing coding, as soon as possible. There is simply no substitute for practice. This first example of coding in the chapter gives insight into the critical difference between description and analysis when coding. When we first start to code, it often seems that all we are doing is summarising, describing, what is going on, by producing descriptive codes. In fact, engaging in this first step of describing helps us to then go further, to look behind the data, to come up with *analytic* codes – one of the building blocks of theory.
- The next part of the chapter describes four types of coding approaches for qualitative data – bottom-up (which is GTM), top-down, mid-range and thematic coding. The key difference with GTM is that it does not use codes from the literature, and it proceeds bottom up using line-by-line coding. Themes tend to be very large categories.
- We then go on to discuss the importance of relationships and connecting categories in coding, so theory building can proceed. Using an example of online dating, this section describes how we might build a relationship between

two categories, and subsequently how that emergent theory might be engaged with larger theories.

- The chapter then summarises the key differences between the four coding approaches, and how they approach relationships for the purposes of theory building.
- The chapter concludes with a worked example of GTM coding. The three phases of Glaserian coding, open coding, selective coding and theoretical coding, are introduced and discussed.

EXERCISES

1 Take a paragraph from a news story in a newspaper or magazine. Try open coding it. Have a look at your codes. Can you tell which are descriptive, and which are analytical?

2 Discuss your analysis with someone else, and see what you learn from discussing it together.

3 Examine some journal articles that say they are engaging in qualitative analysis. Can you tell if they are doing top-down, mid-range or bottom-up coding? Are they applying a thematic framework? If so, does that framework come from the literature, or from the data?

4 Take some profiles from a dating website. Apply the stages of open, selective and theoretical coding to them. Start with a general research problem. Draw some diagrams, make a few theoretical notes. Generate some research questions based on your theoretical coding phase. Can you come up with a theory about dating?

WEB RESOURCES

This video by Nicole Kipar of the University of Glasgow gives a helpful and no nonsense introduction to the business coding, leaning heavily on Saldana (2016) https://www.youtube.com/watch?v=YP3yAX5w6x8

FURTHER READING

Saldana, J. (2016). *The Coding Manual For Qualitative Researchers*. Thousand Oaks, CA: SAGE. This book has received very good reviews and gives 29 different coding approaches, plus advice on analytic memos and writing up.

Miles, M.B., and Huberman, A.M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks, CA: SAGE. This book is an enduring classic – it is a great compendium of dozens of options for analysing qualitative data. It is also quite positivist in tone, which is probably a reflection of the time in which it was written. It is still a good resource for general qualitative data analysis.

FREQUENTLY ASKED QUESTIONS

When I am coding, can I use concepts from the literature? Can I mix these concepts from the literature with some concepts I find in the data?

Of course. As long as you know that this is not GTM, but top down coding (if you are using concepts from the literature) or a mid range approach (if you are mixing these concepts with those that come from the data. It would even be possible to build a theory or model using this approach, if you looked at relationships linking concepts. That said, in my opinion, you would not be doing the detailed analysis that comes with the GTM approach, and missing out on the systematic theory building of GTM.

Is it really possible to code in a bottom-up fashion without referencing the literature?

Yes! No one is asking you to forget what you have read, but simply to put it to one side while you code the data. You'll see many more possibilities and patterns if you examine the data step by step, rather than rushing to impose ideas on it. While the process seems strange to newcomers to GTM, it's also worth pointing out that countless researchers have followed the method with very rewarding results.

How can I be sure that the codes I generate are correct? Would anyone agree with my codes?

Many students new to coding worry about this. Whether you should worry about this depends largely on whether you are doing positivist research or interpretivist research. If you take an objectivist view, then, yes, you will need to organise a way of checking and debating your codes with another colleague at minimum, because you could be challenged on issues of validity. If you are more subjective in approach and not worried about validity issues, I still recommend trying out your codes with colleagues, supervisors, friends – debating the codes will help refine their meaning and your analysis.

5

Research design using GTM

This chapter:

- Discusses some key first questions about grounded theory in research designs
- Discusses how the research philosophy, methodology and method might be considered when designing a grounded theory study
- Explains how grounded theory might fit into various research designs
- Discusses how theoretical sampling might be built into the research design
- Discusses types of data collection and ethics
- Discusses the 'breadth vs depth' issue with regard to data collection

Introduction

A good research design for a study is essential, as it will determine the success or failure of that research. During my work as a journal editor, I've noticed that the one thing that makes work unpublishable is a flawed research design – almost everything else is retrievable, in that deficiencies in literature or analysis can be remedied. But if the design itself is flawed, this can be very difficult to remedy. The problem of research design is more marked in PhD dissertation work where the candidate is (of necessity) inexperienced, and the size of the study confers complexity. Again, issues of literature and analysis can be subject to amendments, whereas a weak research design can seriously undermine a PhD.

So, how might one approach research design when using grounded theory? What are the major issues the grounded theorist will encounter when seeking to design a grounded theory study?

The first decision to take is to determine what *role* you would like grounded theory to take in your research. Are you building a theory, or are you planning to use the procedures for analysis only? Grounded theory is good in areas

where no previous theory exists, and in this fast changing world, new domains crop up more often than we think. It is also said to be good for studying processes (Orlikowski 1993). Essentially then, there is a decision to be made about whether the study is focused on building theory, or whether the study just uses grounded theory methods as a systematic way of analysing qualitative data. This decision then needs to be considered in the light of what is normal for your particular discipline – is there an emphasis on qualitative theory building work in your discipline or will your work be seen as unusual? This question is relevant because all academic disciplines use peer review, and the eventual acceptance of your dissertation or published article depends on the norms of that discipline. One question I like to ask of PhD candidates, quite early on in the process, is who do they think might be prospective examiners for their PhD? In the United States, of course, this is already known, because of the existence of an advisory committee. But in other parts of the world, this decision is taken much later, but, if the type of examiner can be anticipated, if not the actual examiner, this tells us a lot about the *audience* for the research. The research community that the research addresses itself to will have certain norms around its view of grounded theory method. While it's possible to challenge those norms by doing excellent research, it's really important to couch your positioning of the theory building process with knowledge to those norms.

The discussion above shows I think how many disciplinary norms might intrude when considering a research design using grounded theory. In some disciplines, grounded theory method is often leveraged to build concepts for questionnaires, as part of a theory testing design. Personally I think this is entirely reasonable – the coding procedures of grounded theory work well, in their own right, for building concepts. Because grounded theory has such a well-respected intellectual history, it also confers respectability to the research design – by referencing such a well-known method that uses such systematic procedures, the researcher can demonstrate rigour. What 'rigour' might mean in a particular discipline can vary, but connects us to a most important point – what is the philosophy of the research? Again, from a peer review perspective, it's very important that the research method chosen, and how that method is used, is consistent with the philosophy of the research. So, in the next section, we'll discuss how your view of reality, in the form of your philosophical position of the research, influences how grounded theory method is used in the research design.

Philosophical position

One key issue with any research design is the philosophical position of the research. Most of us are familiar with positivism, and the scientific method, but there are other views of the nature of research and knowledge, and, given that most pieces of research are peer reviewed, it's important that the philosophical

position is consistent with the method chosen. New researchers embarking on their first piece of major research come in with ideas generally based on popular notions of science – they tend to assume that proper, rigorous research needs to have numbers in it, and that validity is very important. In one philosophical position – positivism – this perception is correct, but there are other views and philosophies of research. I have also noted that, with dissertation students, the more they read and discover about the philosophy of research, the more likely it is that their position will change over time. This has important ramifications for the research design – depending on the philosophy, different steps will need to be taken. While there can be flexibility in research design and data collection, it is important that the design and philosophy are consistent.

Depending on the academic discipline you come from, terms will vary widely with regard to research philosophy, and it may well be called something entirely different. The bottom line is that your *perception of reality*, how the world is constructed, and also *how knowledge is constructed* in your discipline, will hugely influence your research design. Orlikowski and Baroudi (1991) define the first as *ontology*, and the second as *epistemology*. Some definitions are given in Table 5.1, and you can see how different authors define the terms differently. In my experience, research students struggle with these terms, but at issue here is how reality itself is perceived. Fundamentally, people tend to divide into those who believe that there is a reality that can be apprehended (a realist ontology), albeit imperfectly, and those who believe that our world and what we see is socially constructed (subjective ontology).

In many academic disciplines in the 1980s and 1990s, discussions of ontology and epistemology marked a fight for the acceptance of qualitative research, and more subjective approaches to research. In each discipline, this dispute has taken a different form. In many academic departments around the world, various research methods are preferred to others, and generally this preference has its root in particular view of phenomena. In the past, I have encountered departments in Business Schools that would not countenance qualitative research, or at the very least, viewed it as low quality. Fortunately, those times

Table 5.1 Epistemology and ontology definitions

	Epistemology	Ontology
Crotty (1998)	Objectivism, constructivism and subjectivism	
Orlikowski and Baroudi (1991)	Criteria for constructing and evaluating knowledge	Whether social and physical worlds are objective and exist independently of humans, or subjective and exist only through human action

Source: Adapted from Crotty (1998) and Orlikowski and Baroudi (1991).

are largely past, but you will see still the dominance of quantitative research in many disciplines.

If the previous few paragraphs have left you somewhat confused, help is at hand in the form of many useful research methods textbooks aimed at postgraduates such as Bryman (2015), Clark et al. (2021) in the social sciences, and in business and management, books such as Myers (2019) and Saunders et al. (2019). These books are extremely helpful to help navigate what is, fundamentally, a whole new vocabulary for many postgraduate students. The good news is that once you have this new vocabulary, you are on much safer ground when it comes to defending your research design to reviewers. It's important to note that the vocabulary varies from discipline to discipline and often book to book. Once you've settled on the terms you are using for the philosophy of your research design, it is wise to refer from only one or two sources, and be consistent in your definitions.

There are five basic research philosophies commonly used in business and management – positivism, interpretivism, pragmatism, critical realism and postmodernism (Saunders et al. 2019). The goal of postmodernism is to fundamentally challenge established ways of thinking and knowing, and to give voice to the marginalised (ibid). In this category also belong critical (Myers 2019), feminist and queer perspectives on research.

Clark et al. (2021) suggest that there are three ways to think about the role of values, what Saunders et al. (2019) call axiology. First, there is the *value free* approach (ibid), associated not only with positivism, but also phenomenology, in its urging of researchers to put their values aside. However, it is generally recognised that, even in these realist approaches, reality can only be imperfectly apprehended and that the researcher's values will play a role, despite the researcher's best efforts. Second, there is the *reflexive* approach, where the researcher identifies and recognises that their age, gender, sexual orientation, education, background and so on will have an impact on the data produced and analysed in the research process (ibid). Finally, there is *conscious partiality*, where the researcher is knowingly and even deliberately influenced by values (ibid). In the postmodern perspective advanced by Saunders et al. (2019), the researcher actively brings their values to the research and makes them explicit. So for instance, Clark et al. (2021) suggest that for feminist research, the research process and findings would highlight the disadvantages experienced by women and other marginalised groups as a result of the patriarchy. Similarly, they suggest that a Marxist approach (also known as a Critical approach) the impact of class division and capitalism on socioeconomic inequality would be important (ibid). Finally, the postcolonial approach would be critical of the way knowledge has been shaped by value laden Western-centric and ethnocentric approaches (ibid). Dadas (2016) describes queer approaches to research as not only challenging established power relations but also traditional research methods. Again, we can see this as a research approach informed by a particular set of values.

Table 5.2 gives a summary of the positions above, from philosophical, ontological and axiological perspectives. What Saunders et al. (2019) describe as

Table 5.2   Research philosophies (Orlikowski and Baroudi 1991; Brooks and Hesse-Biber 2007; Iwowo 2014; Browne and Nash 2016; Delgado and Stefancic 2017; Gillborn and Ladson-Billings 2019; Myers 2019; Saunders et al. 2019; Weston and Imas 2019; Clark et al. 2021)

Research philosophy	Ontology	Epistemology	Axiology (role of values)
Positivism	Researchers assume an objective and social world that exists independently of humans, that can be apprehended, characterised and measured.	Positivist researchers work in a deductive to discover unilateral, causal relationships. There is a concern with the empirical testability of theories. Hypotheses, based on theory, are tested in the research for verification or falsification.	The aim is value free research. Research design aims to minimise or eliminate the influence of the researcher.
Interpretivism	Researchers have a presumption of social constructivism – that reality is a social construction and cannot be understood independent of the actors who make that reality.	Interpretive researchers study phenomena within its social setting. Constructs are generally derived from the field by in depth examination of that field. Researchers aim to construct interpretations of practices and meanings.	Value-bound research as researchers are part of what is researched. Researchers adopt a reflexive position where they reflect on and acknowledge how their position may have impacted on the data collected and analysed.
Pragmatism	Researchers acknowledge a complex and rich external reality. Reality is a practical consequence of ideas. Flux of processes, experiences and practices.	Focus on problem-solving and relevance. Knowledge is practical and embedded in specific contexts. 'True' theories and knowledge are those that enable successful action.	Value-driven research. Researchers adopt a reflexive position, and place a value on practicality. Research is initiated and sustained by researchers doubts and beliefs.
Critical Realism	Reality is stratified into the real, actual and empirical and as described by Bhaskar (2008). The idea is that causal mechanisms and structures underpin reality in the form of the 'Real'. 'Actual' consists of events generated by those underlying structures, whether observed or not. Empirical are events observed or experienced. Characterised as a mildly subjective position by Saunders et al (2019).	An understanding that facts are social constructions, and that knowledge is historically situated. Epistemological relativism i.e. understanding that knowledge is context dependent and influenced by specific cultures and society. Causal explanation as a contribution.	Value-laden research. Researcher acknowledges bias from culture, world view and upbringing, and takes steps to minimise bias where possible.

Table 5.2   (Continued)

Research philosophy	Ontology	Epistemology	Axiology (role of values)
Postmodernism – of which Feminist, Critical, Queer Postcolonial and Critical Race approaches are distinct examples		What counts as truth and knowledge is decided by dominant ideologies. Focus on absences and silences. Exposure of power relations and challenge of dominant views the contribution.	Value constituted research. Researcher is radically reflexive. Understanding that researchers and participants are themselves embedded in power relations.
Critical	Researchers have the view that social reality is historically constituted, and that people have the ability to change their social and material circumstances. That said, their capacity to change is constrained by systems of social domination. Social reality is produced by humans, but also possesses objective realities which dominate human experience. Focus on absences and silences, and oppressed/repressed meanings.	With respect to knowledge, the epistemological belief of the critical perspective is that knowledge is grounded in social and historical practices. There can be no theory-independent collection and interpretation of evidence to conclusively prove or disprove a theory. Because of the commitment to a processual view of phenomena, critical studies tend to be longitudinal.	
Feminist (Brooks and Hesse-Biber 2007)	Some feminists reject the notion of objectivity altogether. Some hold to 'strong objectivity', the idea that research directed by certain social values can be more objective than 'value free' research. Positivist research comes from a particular white male culture, so it fails to look outside its own conceptual frameworks. So what are seen as objective accounts are ethnocentric. We need more objective accounts of how our bodies work, environmental destruction, how international politics work. Strong objectivity is a way of learning to see ourselves as others see us (Hirsch et al. 1995).	Feminists exposed the dominance of the positivist paradigm as stemming not from its objectivity or its universality, but from its privileged location within a historical, material, and social set of patriarchal power relations. In short, despite all claims to the contrary, knowledge building was never value-free, social reality was not static, and positivism or social scientific inquiry in general did not exist outside of the social world. Feminist research documents women's lives and experiences that have been previously marginalized or left out of dominant knowledge canons altogether.	

Queer (Browne and Nash 2016)	Seemingly fixed attributes of the self, such as sexuality and gender, are re-imagined as social constructs rather than biological certainties and their contingent appearance and interconnection taken as a matter of analysis and investigation (Jackson 2001).	'Queer research' can be any form of research positioned within conceptual frameworks that highlight the instability of taken-for-granted meanings and resulting power relations. Queer theory has a rich tradition of interrogating the public and the private (Dadas 2016).
Postcolonialism and Decolonialism	Postcolonialism critiques the dynamics of knowledge creation and argues for an ontological deconstruction of mainstream knowledge formations (Iwowo 2014). Decolonisation responds to the critique that postcolonialism only applies to post-independence contexts, and extends to the struggles of Indigenous communities (Weston and Imas 2019).	Postcolonialism challenges Western intellectualism and knowledge hegemony as both unduly privileged and holding ethnocentric assumptions underpinning 'mainstream' disciplines which are fundamentally unrecognizing of the values and practices of other non-Western cultures.
Critical Race Theory	This approach views race as a socially constructed identity that plays a hugely important role in society. Critical race theory explores the social structuring of racism as a complex, changing and often subtle aspect of society that operates to the benefit of White people, especially White elites (Gillborn and Ladson-Billings 2019).	CRT began in the law discipline in the United States, focusing on the legal rights of black people. It has since spread to other disciplines such as sociology, political science and education. CRT concepts such as intersectionality, voting strategies and educational disadvantage are widely used and it also has a strong activist streak (Delgado and Stefancic 2017).

postmodern research is broken down into five example categories in this table: Critical, feminist, queer, postcolonial and decolonising, and critical race philosophies. You'll notice that the axiology is deliberately left blank as it's sufficient to say for all these perspectives that the researcher is aware that they themselves are embedded in power relations and are radically reflexive (Saunders et al. 2019). A caveat about those perspectives – the literature on these perspectives is complex and varied, and only a summary can be given here, for you to follow up if you wish. That said, it's important to indicate the wide range of philosophies available to the beginning researcher. If doing a PhD, the conversation with your supervisor about the research philosophy is the most important one you will have, as it frames the research and the research design flows from the philosophy you choose.

Depending on your discipline, you will find other variations of these positions in writings about research methods. It is also important to note that qualitative research is not necessarily interpretive research, though sometimes the term can be used as a lazy shorthand for it. Qualitative research focuses on qualitative data; but it can be carried out within interpretive, positivist and critical philosophies.

The next sections take the positivist, interpretivist, pragmatist, critical realist and postmodern philosophies in turn, and discuss the consequences of adopting each for use of grounded theory. It is important to note at this point, too, that grounded theory itself does not have an identifiable inherent philosophy of its own, though people have debated this very point (see, for instance, Annells 1996 and Madill et al. 2000) and come up with different conclusions. Because it is a method, it does not carry much philosophical baggage – this means, as Charmaz (2014) states, that it can be used safely in any paradigm. That said, how it is used in each paradigm will differ, and these considerations need to be built into the research design.

Using grounded theory in a positivist paradigm

If using grounded theory in a positivist paradigm, where an objective social world is assumed to exist independently, then obviously, issues of validity around coding will arise. The debate I had with Antony Bryant in 2002 described in Urquhart (2002) was in part about whether 'emergence' as put forward by Glaser in 1992, implies that there is some objective truth waiting to be discovered in the data. This of course depends on your point of view. Bryant (2017) contains an excellent elaboration on this discussion, in the context of pragmatist philosophy.

Madill et al. (2000) do a great job in contrasting realist (i.e. positivist) contextualist, and radical constructivist epistemologies when coding using grounded theory. An interesting finding of the Madill, Jordan and Shirley paper is that, regardless of the epistemology of the coder and whether extra coders are used, the major categories that emerge are very similar. I think it could be

legitimately argued that, indeed, coding using grounded theory will uncover some basic structures in the data. This sits well with the idea put forward by Bhaskar (1998) that mechanisms are important, and that human agency is made possible by certain social structures that themselves require certain actions and conditions, and this will be discussed further in the section about critical realist grounded theory.

From a research design point of view, then, anyone reading the research results of a study conducted within a positivist paradigm will want to know how it has been ensured that the interpretations made while coding are not purely subjective, and the view of one person. One common solution here is to consider using more than one coder, to achieve inter coder reliability. It helps in the write up of the research if this process is properly described. For instance, the coding of a transcript could be initially done by one coder then cross checked by others, or the same transcript could be coded by more than one person. It's also possible to apply semantic space modelling techniques such as HAL (hyperspace analogue to language) to coding such as used by Burgess et al. (1998), where frequently occurring word pairs from the analysis can be used to verify the coding, or at least supply another means of triangulation. Triangulation is a well-known idea in research – put simply, it is the idea that you use more than one research method to collect data on a particular phenomenon (Jick 1979). In the positivist paradigm, this makes sense – either findings can be verified by two or more views on the same phenomenon, or differences can be explored. Another way of triangulating is to use more than one researcher in a single study, as suggested by Myers (2019).

Another issue that might come up when building a grounded theory in the positivist paradigm is the extent of the generalisability of that theory. One phrase that comes to mind here, oft repeated to my students, is that in qualitative research, *we generalise to a theory, not a population*. Generally the theory produced is of a substantive area, and applies only to that area. Theoretical sampling, which will be discussed later in this chapter, and in depth in Chapter 8, gives the option of sampling other substantive areas, to increase the scope of the theory. The substantive theory produced by the study can also be integrated with other, larger, more formal theories. Working within a positivist paradigm, it's important to make the point in the write up that further theory building and testing would be (usually) required.

Using grounded theory in an interpretivist paradigm

Generally, using grounded theory in an interpretivist paradigm, where researchers construct interpretations of social practices, is easier because there is more commensurability between the notion of coding (generally subjective) and the idea of constructing interpretations. So, generally, verification of the coding is not required, but it is still useful to show how the coding proceeded and the steps taken, as this is part of a chain of evidence that can illustrate that

this is an excellent piece of research. We will discuss the write up of a grounded theory study further in Chapter 9, but one of the strengths of grounded theory is that it provides a chain of evidence that is irrefutable – for every concept produced, the researcher can point to many instances of it.

In an interpretive design, the extent to which triangulation is used is a moot point – as Orlikowski and Baroudi (1991) point out, for the 'strong' constructivist, no triangulation is possible because it is impossible for this view of the world to accommodate positivistic beliefs, and the researcher is presumed to 'enact' the phenomena they are studying. There is no point of reality on which to triangulate. That said, Orlikowski and Baroudi (1991) also talk about the notion of 'weak' constructivism, where the researcher tries to understand, through various data collection techniques, to understand existing meaning systems shared by actors. The idea is that 'weak constructivism' complements positivist research by suggesting hypotheses for further investigation. From this perspective, triangulation is logical. Myers (2019) sounds a cautionary note about triangulation that interpretive researchers would do well to heed – if different methods for data collection are to be used, they need to be commensurable. If the methods are substantially different – for instance qualitative methods combined with quantitative methods, it can be challenging if the underlying philosophies of those methods are different.

My own view of triangulation is that, for interpretive researchers, it needs to be replaced with a gentler and kinder, but equally important word – corroboration. The idea that more than one method can be used to collect data on a phenomenon is too useful to be skewered on arguments about the nature of reality. Most of the time, if more data, using different methods, is collected about a phenomenon, this will contribute to the credibility of the research. For instance, in my own PhD research about systems analysts and their clients, I collected data about a central interaction between analyst and client from several perspectives. The design was as follows: the analyst and the client were both interviewed about the upcoming interaction with each other. The analyst and client were then videoed talking to each other about the problem, and then subsequently interviewed about the interaction. They were also asked to rate the interaction on a scale between 1 and 5. So there were multiple viewpoints on the central interaction.

Using grounded theory in a pragmatist paradigm

For those who are attracted to the idea of using grounded theory in a pragmatist paradigm, it's worth knowing that one of the co-originators, Anselm Strauss, comes from the pragmatist tradition. In his book *Grounded Theory and Grounded Theorizing: Pragmatism in Research Practice*, Tony Bryant (2017) gives a fascinating insight into the philosophical and ontological implications for use of grounded theory in the pragmatist paradigm. I agree with him entirely that the practical orientation of pragmatism – where theories are judged for their utility (ibid) is an excellent fit with grounded theory, where Glaser (1978) talks about

'grab' and 'fit' of the emergent theory, for instance. Bryant (2017) also draws our attention to the uniquely practice based early origins of grounded theory in the form of early work by Jeanne Quint, and again, this is a good match with a pragmatism. Finally, for those who want to delve further into the intellectual history of pragmatism and grounded theory in the form of Anselm Strauss, I can do no more than recommend Jörg Strubing's excellent chapter in *The Sage Handbook of Current Developments in Grounded Theory*, where he discusses Strauss's pragmatist roots, his intellectual contribution to sociology, and how those roots influenced the operationalisation of grounded theory method (Strubing 2019).

Using grounded theory in a critical realist paradigm

Those of you who have read Chapter 3 carefully will already be alert to the parallels between mechanisms as used by critical realists, and grounded theories in general. A grounded theory sets out to explain something, and a mechanism is, by definition, explaining how something happens. So I see no real contradiction between grounded theory and critical realism, and indeed, the aim of abstracting to 1–2 core categories (Glaser 1978) sits well with the aims of critical realism. Kempster and Parry (2011) identify the following overlaps between critical realism and grounded theory: substantive theory building as a core goal; a contextualised focus; a hierarchy of theory abstraction; and use of metaphors and concepts to aid substantive theory development.

So how might you blend the two? Personally, instead of building successive nested mechanisms, I would build a substantive theory and call it that. I would also use grounded theory coding techniques to help me build that theory. There's the potential to use mechanisms as an inspiration for your theoretical codes. But the degree of blending depends on whether you take this as a grounded theory study in the critical realist paradigm, or a critical realist study. If the latter, you could choose to simply leverage the coding procedures in the service of the study. Given the undoubted overlaps, I think that would be a shame, and it should be possible to blend the two. Given that critical realism is seen as a post-positivist method, one might expect concerns about validity, and efforts to ensure that validity. The focus however should be on internal validity, as opposed to external validity, given critical realism's position that facts are socially constructed (Saunders et al. 2019). An interesting example of how this is tackled in a PhD dissertation is found in Piggott (2008). Another example is found in Bunt's study of adoption of disabled children (Bunt 2018), where critical realism overlays grounded theory.

Using grounded theory in a postmodern paradigm

Again, how you use grounded theory in a postmodern paradigm (critical, queer, feminist, critical race theory and postcolonial were the examples given in

Table 5.2) will be driven by your ontology. As we can see in the table, those ontologies vary, and a number of them incline to the idea that there is a reality, but imperfectly apprehendable. Hesse-Biber and Flowers (2019) give some good examples of mixed method designs in feminist grounded theory research, using a strong objectivity approach where the researcher reflects on their situated location (ibid). Hadley (2019) gives a fascinating example of a critical grounded theory study, and shows how it might depart from a conventional grounded theory study due to its overt consideration of power. Bainbridge et al. (2019) give an interesting example of decolonizing research using systems science and constructivist grounded theory. There are less published examples of postmodernist grounded theory, but this does not mean that it is not happening or that it is not possible. A quick search of British Library Digital Theses reveals plenty of research using these approaches, but grounded theories are still scarce at the time of writing. One example of queer thesis research at least leveraging grounded theory coding practices can be found in Turner (2016).

Methodology

Once the philosophical position has been settled, considering the methodology becomes easier. As previously mentioned, I find that PhD students may shift their philosophical position as they think more deeply about it. The methodology, and methods, should be consistent with the philosophical position. I have come across dissertations where a particular position, for example, interpretivism, is espoused, then quantitative methods have been applied to check the veracity of grounded theory coding. Checking the validity of the coding is entirely legitimate, but should be consistent with the espoused philosophy. So the aim is commensurability, regardless of whether the philosophical position shifts during the research or not.

Myers (2019) identifies three major methodologies for qualitative research, in addition to 'pure' grounded theory studies themselves – Ethnographic Research, Case Study Research and Action Research.[1] It is possible to use grounded theory within all these methodologies, but one issue is key:

> Is grounded theory being used to build theory in the study?

As previously remarked, generally, grounded theory is used in one of two ways in research. First, to build a theory. Second, as a coding technique. When

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[1] Of course there are still other methodologies available to the researcher, such as discourse analysis, phenomenology, narrative enquiry and so on. These methodologies often bring with them a distinct philosophy which may need to be separated from the methodology for engaging with the research problem. As long as the researcher is clear as to their ontology and axiology, and have a good idea if the methodology fits with the research problem, many methodologies are available. Qualitative research has a plethora of methodologies, so this chapter covers the most common ones in business and management.

used as a coding technique, the concepts that emerge can be used for various purposes, such as building questionnaires or question items. This implies that there are two basic research designs available. The first is what I would call a *theory building design*, the second is a *general design* leveraging grounded theory.

The next section will consider theory building designs, along with the issue of theoretical sampling. Theoretical sampling is a critical element of grounded theory, and is something that needs to be considered for a theory building design. We then briefly discuss the implications of theoretical sampling for theory building research designs using pure grounded theory, ethnography, case study and action research methodologies.

Theory building designs

If you have made a decision to build theory, then certain decisions flow from that decision. Probably the most important is if you are going to follow a key tenet of grounded theory which is *theoretical sampling* – deciding on analytic grounds where to sample from next. The purpose of theoretical sampling is to end up with a better theory – by following this strategy, you can extend the scope of your theory by sampling more slices of data. Theoretical sampling implies *overlapping* data collection and analysis, which has implications for time spent in the field and your research design. Theoretical sampling is dealt with in depth in Chapter 8, so we will not spend time on it here, except to say there are some obvious implications for your research design. First, it implies that a sampling strategy needs to exist, and that there is a field environment where 'slices' of data can be gained on the basis of categories as yet undeveloped. This might not fit too well into a dissertation proposal format where all details of data collection need to be specified. Charmaz (2014) gives some good practical advice here, when she suggests that the researcher seeks approval for a second and possibly third phase of data collection, and that the planned data collection include observations as well as interviews. She also suggests that these successive phases can also be constructed as 'member checking', and that interviewees can be asked to elaborate on preliminary categories. Generally, when planning the research design, it does help to consider whether the theory is going to be built out using successive cases, and whether those subsequent cases will differ from the first case or not. Second, the basis for theoretical sampling can be, if needed, outlined in a systematic fashion, and there are many examples from postgraduate dissertations given in Chapter 8.

Theoretical sampling is possible within ethnographic, case study and action research designs as well as pure grounded theory designs, though sometimes there are practical constraints imposed by, for instance, time limited access to the research setting.

Myers (2019) defines the purpose of *ethnographic* research as gaining a deep understanding of people and their culture. The focus is *learning* from people,

rather than *studying* people as in case study research. The data collected in the field will be supplemented by participant observation, and generally there will be an extended amount of time is spent in the field. In this research methodology, enacting theoretical sampling by overlapping data collection and analysis should be possible. You can start analysing the data as soon as the first interview or document. You can then sample future interviewees or documents. There is plenty of time to overlap the data collection and analysis, and to direct the data collection based on the emerging storyline of the analysis. A thesis on ICTs in the rural Andes, written by my colleague, Antonio Díaz Andrade (2007), is a good example of using an ethnographic methodology with grounded theory. The thesis does a masterly job of conveying the rugged rural setting of the study, complete with photographs. It is clear that, by living with participants, Antonio gained a deep understanding of their world and their relationship with ICTs. In this case, because of field conditions, Antonio was unable to carry out overlapping data collection and analysis while in the field. However, he was able to use his many field notes to help him further develop interview questions and start thinking about the data. This can be seen as a light form of theoretical sampling, in my view.

Case study research, as outlined by Yin (2018) (in a positivist paradigm), and Stake (2005) (in an interpretive paradigm), generally involves collecting data on phenomena within its context, and is a very common methodology in qualitative research. Myers (2019) suggests that, in business and management at least, even in depth case study research does not normally involve participant observation or fieldwork, and that the evidence in case studies normally comes from interviews and documents. Eisenhardt (1989), in her classic paper, talks specifically about the role of case studies in theory building. Her account of theoretical sampling is somewhat different, as this paper draws upon grounded theory, as opposed to following it slavishly. Eisenhardt suggests that theoretical sampling can either replicate or extend the emerging theory, and that researchers can purposefully decide to select diverse cases. (Again, please have a look at Chapter 8 to see all the possibilities for theoretical sampling in grounded theory.) This paper is based within a positivist framework, so gives helpful advice on the number of cases that might be required, etc. for those working who have adopted a positivist or critical realist paradigm.

I also have found it helpful to suggest to students (regardless of whether they are working in a positivist framework or not) that they discuss their research design in their dissertation under the headings suggested by Eisenhardt. These headings are: Getting Started, Selecting Cases, Crafting Instruments and Protocols, Entering the Field, Analysing the Data, Shaping Hypotheses or Theory, Enfolding Literature, and Reaching Closure. Considering each of these in turn leaves no methodological stone unturned! For the interpretive researcher, Walsham (1995) gives some excellent advice on the shape of an interpretive case study, and the sort of analytic generalisations that might be possible. He outlines these as (1) development of concepts; (2) generation of theory;

(3) drawing of specific implications (for particular domains of action, which may provide useful for other related contexts); and (4) contribution to rich insight. A grounded theory study, usually, would contribute in all of these areas.

To do an *action research* study using grounded theory is complex, but not impossible. My colleague Karen Day at the University of Auckland successfully used grounded theory method to help her build a theory of change within a public healthcare organisation (Day 2007). As she points out, theoretical sampling in grounded theory assists with successive action research cycles. There is, in fact, a natural synergy between the idea of theoretical sampling, and action research. That said, I would question whether it is possible to do an action research study that builds a whole theory of the intervention, simply because, when combining methods, one method generally takes primacy. The scope of an action research is generally quite wide and with many different data sources, and various interventions/actions. The question then becomes whether all data sources are analysed in the quest for a grounded theory, and whether the primary objective of the study is in fact to study the interventions and their consequences, rather than producing a theory. The section on further reading provides some examples of action research theses which also use grounded theory.

General designs using grounded theory

The number of potential research designs using grounded theory is probably unlimited. What is more interesting is why a researcher would choose to leverage the strengths of grounded theory to build concepts that are then are used in some other way.

I can think of a number of reasons:

First, the research design is directed at an emerging phenomena, where little theory exists. GTM is perfect for situations where little or no theory exists. So the researcher may wish to build concepts for a survey, which can also be combined with existing literature, which can then be tested in the field. So in this way, grounded theory becomes a tool for (extended) theory testing.

Second, the coding procedures of GTM are well known and easily available. Thus, if a researcher is looking for a reliable method of coding data, then the *imprimatur* of grounded theory is quite attractive. Unfortunately, this does also lead to mislabelling of coding procedures as GTM, when in fact they may not be purely inductive. For instance, the researcher may have also used concepts from the literature. This is legitimate, but the problem is that it is not GTM.

This leads to the third category, where GTM procedures are consciously and deliberately mixed and otherwise leveraged with other methods. For instance, researchers can decide to use open coding, and axial coding using the Strauss and Corbin paradigm, without proceeding to build a theory. They may also bring in other concepts from the literature. Examples of this are Lings and

Lundell (2005) and Baskerville and Pries-Heje (1999) who mix GTM coding with action research cycles.

Data collection methods

It is true to say that once the basic methodology has been sorted out, then the methods are straightforward. Myers (2019) identifies three broad categories – interviews, participant observation and fieldwork, and documents. I like to remind postgraduates at this point to keep in their mind the clear distinction between the research philosophy (one's view of reality), methodology (case study, for instance), and data collection methods, *upon which those methodologies draw.*

In grounded theory terms, data collection tends to focus not exclusively but mainly on interviews, and the idea of 'slices of data', that are many and varied and can come from many other sources such as documents. As previously mentioned, key to data collection is the idea that theoretical sampling should direct where to sample from next. As well as interviews, grounded theory coding can be applied to documents, focus groups – pretty much anything that is a text can be coded. One problem of course, is that a text – for instance a transcribed interview – loses context once we cannot see the video, or hear the tone of voice that the person used. So as when coding, it is advisable to refer back to this context as it influences the meaning of the data. This then has an implication for our methods; if we are interested in coding as much of the rich context as possible, then we need to consider video, recordings and also photographs. Photographs are so important in conveying context, but it seems in many academic disciplines, we still don't consider presenting them as part of the story.

Some interesting questions arise when we consider visual materials – can they also be coded? I've worked on coding photos with colleagues using grounded theory procedures and that coding has yielded useful results (Diaz Andrade et al. 2015). In the digital age, the importance of visual images, as opposed to text, cannot be denied. So it is interesting to consider how grounded theory in particular, and qualitative methods in general, can be applied to visual images, occurring on websites for instance. In my view there is no reason why grounded theory method cannot be applied to visual images. There is of course a strong argument for supplying and analysing visual images in qualitative research because they supply much needed context to the analysis. A picture is indeed worth a thousand words.

Ethics

Once the philosophy, methodology and data collection methods are established, most researchers working in an institutional context, like a university,

will have to apply for ethics approval. Often, I suggest to postgraduate students that they work on an ethics application relatively early in the process, because the questions asked on the form mean that issues of philosophy, methodology and data collection are considered, as well as issues of access to the field. The ethics approval process varies widely in universities. Mostly it is seen as a bureaucratic hurdle to overcome, and I agree with Myers (2019) that this is misguided! I urge my postgraduates to see it as an opportunity to resolve key research design issues, and to use the peer review process that is used in most universities to see if their research design will fly.

Myers (2019) quotes three ethical issues identified by Maylor and Blackmon (2005). These are, first, maintaining privacy; second, reporting and analysing your data honestly; and third, taking responsibility for findings. Qualitative research often uncovers sensitive data, by its very nature. For instance, even an investigation into, for instance, a failed information systems project, may raise sensitive information about the interviewee's relationship with other colleagues. For this reason, informed consent should be always be sought, and the participant given the right to withdraw their data at any time (sometimes an end date is given). From my point of view, if a research participant is allowing you to enter their world, this is an act of trust on behalf of the participant, and we should honour that trust. This honouring should also include informing them as to how the data will be used, and how published. It may be important, in some situations, to anonymise organisations and informants in the final write up. I have found it very helpful to use a Participant Information Sheet which summarises all these issues for the participant, and which the participant can keep as a record of their participation. A link to an example is included in the Web Resources at the end of this chapter.

Reflexivity

No chapter on research design would be complete without a consideration of reflexivity in the research process. Put simply, reflexivity is the process of reflecting on one's own process, and values, as a researcher, and how this has impacted on the research outcome. Alvesson and Sköldberg (2017) suggest that it is a reflexive researchers' responsibility to make evident the assumptions they made for the conduct of their qualitative (interpretative) studies, and say there is a lack of clarity in management studies on this issue. It is the 'incarnation' of epistemology in which the constant presence of the researcher (i.e. knower) is traceable (Probst 2015). As you will have observed in our discussion of research philosophy earlier, reflexivity is key in many research philosophies. I would also argue that an increased use of social media data sources, with an accompanying lack of context and situatedness, only makes it more urgent to reflect on our own position as a researcher, and this is discussed in Pousti et al. (2021). Given the likely use of slices of data from the Internet in theoretical sampling by researchers using grounded theory, this seems to me a sensible

consideration. In a changing world, we all need to think about representation – who is included, and who is not, in our research designs. Ideally, a research design should provide means to reflect a community's multiple voices including marginalised groups (Christians 2011).

Breadth versus depth in research design

One common problem encountered with grounded theory is the issue of how much data to collect. Given that coding starts at the word and sentence level, a great deal of richness can be gained from only a few interviews. But it is necessary to reach theoretical saturation, and for this the sampling needs to be adequate. If a theory is to be built, it needs to be at a sufficient level of abstraction. This has some implications; from a research point of view, what needs to be done is a balancing of the rich insights afforded by the detailed nature of grounded theory coding, with the need to have sampled sufficiently across the substantive area of investigation. An example of this dilemma is a PhD study done by a student of mine, Mariyam Adam (2008), of the tourism sector of the Maldives. She felt that, in order to properly represent the sector, she needed to sample small, medium and large hotels and resorts, as well as interview people from government agencies. This ended up being a total of 49 interviews. This meant a lot of coding. Was it a better study because the sampling was representative? Almost certainly. Was it more challenging to manage as a PhD project because of the volume of analysis required. Definitely. That said, the project was completed pretty much on time, and in my experience, dissertation studies using grounded theory method take about the same time as other dissertations. The lesson is in consciously considering the scale of the data collection and balancing the time taken for analysis, versus the need to sample the substantive area appropriately.

Summary

- This chapter has considered how grounded theory method might be incorporated in a research design. It covered issues of use of GTM in the research design, the philosophical position of the research and its implications for GTM use, issues of methodology and how to incorporate GTM into different methodologies. It also discussed theoretical sampling, and the implications of theoretical sampling for research design. It then discussed data collection methods and the ethics of data collection. Finally, it considers the issues of breadth versus depth in research design.
- The first issue to consider is how precisely grounded theory is going to be used in the research – as a theory building tool as it was intended or as an analysis method supporting other research objectives? Both uses are legitimate, and common. They also vary from discipline to discipline, and how frequently theory

building work is done in your discipline. There may, or may not be, norms of using grounded theory method in your discipline.

- The second issue is that of research philosophy (the world view of the research), and how the research philosophy influences our use of grounded theory. One issue for grounded theorists is that subjectivity in coding, and one's attitude to that subjectivity, need to be considered. This issue is discussed in the context of positivist, interpretivist, pragmatist, critical realist and postmodern philosophies. Depending on the ontology used, issues of generalisability of theory may also come up, and it may be helpful to think about whether one is generalising to a theory or a population.

- Moving onto methodology, the chapter considered how the purpose for which grounded theory method was being used generally resulted in two major types of designs. First, theory building designs; and second, more general designs. One issue in theory building designs was the degree of theoretical sampling that could be carried out, especially if the opportunity to carry out overlapping data collection and analysis was limited. How theoretical sampling might be carried out was considered within four methodologies – a pure grounded theory study, ethnography, case study and action research. Reasons for general research designs using grounded theory were then discussed.

- Data collection methods were then discussed and particularly the types of data collection. Grounded theory coding can be applied to pretty much any type of text. The conversation then becomes about whether transcription of an interview, or a meeting, or a focus group, takes us one step away from the all-important context of the phenomenon. So one consideration is the use of video or voice recordings to assist with coding, in conjunction with the transcript. It was also suggested that GTM can be used for coding photographs, along with some general observations about the increasing importance of images in qualitative research. Ethics of data collection were also considered, along with the role of reflexivity.

- Finally the chapter concludes with a discussion of the need to balance depth of data analysis with width of data collection. This is a particular issue with dissertation studies, estimating the amount of time needed to analyse the data, balanced against issues of sampling the substantive area.

EXERCISES

1   Undertake a search of the top journals in your discipline area. Use the keywords 'Glaser and Strauss' or 'Strauss and Corbin' or 'constructivist grounded theory' or 'open coding'. See if you can then sort the research designs in those papers to theory building designs and general designs. Are there any other categories of research designs? How is the use of grounded theory justified?

2   Look at the papers you have from the search in the previous question. How many different research philosophies are in evidence? Do the research designs seem consistent with the research philosophies?

3   In the set of papers you have found, examine the methodology. Are the data collection methods used explained and justified? Is the coding procedure

explained? How much context is evident in the data sources? Were transcripts used? How much of the data sources was coded? In some papers, there will be little documentation of methodology. Does this matter? Why? Why might there not be much documentation in some cases? How does the style of the journal impact on how grounded theory is represented?

4   Consider the following research problem. How do university students manage their social identities when using Instagram? Come up with two research designs to investigate this problem. The first, a theory building research design that incorporates theoretical sampling. The second, a research design that uses grounded theory to build concepts that then combined with literature to create a survey instrument. Be sure in both cases to outline your philosophy, methodology and methods. Justify all of these.

WEB RESOURCES

When you are considering your research design, especially for a dissertation, it's always hugely helpful to see how other people have resolved issues in their grounded theory designs. The British Library repository of electronic theses, http:// ethos.bl.uk, contains over 500000 theses. Generally free for download, this link is a great resource for all researchers. It is immensely reassuring for the postgraduate to realise that PhD theses come in all shapes and sizes, and that they all have flaws, and yet they somehow passed examination!

This link gives extensive advice on Ethics procedures at the University of Auckland. The Applicants Reference Manual, downloadable from here, gives some very good advice and applies very high ethical standards. While the approach is very extensive and detailed, and not needed for all projects, it does allow researchers to ensure that all risks are more than catered for. Essential elements to be included in a Participant Information Sheet (PIS), contained in the manual, gives a good guide to contacting participants and giving them a good level of information on the project, and there is an example included https://www.auckland.ac.nz/en/research/ about-our-research/human-ethics/human-participants-ethics-committee-uah- pec/essential-reading.html

FURTHER READING

Eisenhardt, K.M. (1989). "Building Theories From Case Study Research." *Academy of Management Review* **14: 532–550.** This classic article discusses theory building within a case study. It is grounded theory inspired in that it talks about coding. A further update exists in the form of Eisenhardt and Graebner (2007), where they also consider the issue of theorising and generalisation from case studies in a positivist framework (*Academy of Management Journal* 50(1): 25–32).

Fernandez, W., and Lehmann, H. (2011). "Case Studies and Grounded Theory Method in Information Systems Research: Issues and Use." *Journal of*

Information Technology Case and Application Research **13(1)**. This is a fascinating paper by my colleagues Walter Fernandez and Hans Lehmann. It's an extremely helpful paper, because it contains a comparison of Yin's criteria for case studies and gives a grounded theory equivalent.

Another classic paper, this time in the interpretive paradigm, that gives highly practical advice on the theoretical generalisations possible from an interpretive perspective, is **Walsham, G. (1995). "Interpretive Case Studies in IS Research: Nature and Method."** *European Journal of Information Systems* **4(2): 74–81**. Included here because the generalisations that Walsham mentions are easily achieved by a grounded theory case study, and provide a good way of proving theoretical contribution of a study.

A more recent paper on theorising from case studies in business and management is **Welch et al. (2011). "Theorising From Case Studies: Towards a Pluralist Future for International Business Research."** *Journal of International Business Studies* **42(5): 740–762**. This paper is helpful because of its treatment of positivist, interpretivist and critical realist case studies.

Finally, **Cassell, C., Cunliffe, A.L., and Grandy, G. (2018). The SAGE Handbook of Qualitative Business and Management Research Methods: History and Traditions**, give a wide range of perspective on research paradigms, including feminist and decolonising research (Cassell et al. 2018).

FREQUENTLY ASKED QUESTIONS

I suggested using grounded theory to my supervisor, as I feel it is suitable for my research question, but they said it was a high risk research strategy, and that no one from my department has the knowledge to supervise me. What should I do?

If grounded theory method is perceived as a high risk strategy in your department, it may be because qualitative research in general is perceived as high risk, or grounded theory in particular is perceived as high risk. The latter is easier to deal with than the former. If your department sees qualitative research as high risk, they are probably referring to the difficulty of getting such work accepted in your department or discipline. In some quarters, quantitative research is seen as 'easier' for students doing a PhD as the problem is more bounded. Given that doing a PhD is as much a social process of credentialling, as it is a piece of research, it would pay to tread carefully at this point. If there is someone in your department that champions qualitative research, then it would be a good idea to talk to that person. If no such person exists, then this may not be the right place to do a PhD, or you will have to reconcile yourself to doing quantitative research.

If it is a case of your supervisor not being familiar with grounded theory, but they are familiar with qualitative research, then the answer is more straightforward. Remember that PhDs themselves are of necessity narrow, and that your supervisor will be expert in one method, the one they themselves used in their PhD. You can

show your supervisor a number of papers and books on grounded theory, and also defend it as suitable for your research problem. It will also help if you can point to other examples of people in your discipline who have used grounded theory. Finding people in your local university who use grounded theory, is also helpful. If appropriate, you can suggest to your supervisor a co-supervisor (or addition to your committee) who is expert on grounded theory.

> **While I was employed at my previous organisation, I collected a huge amount of data about the introduction of the new student enrolment system. I'm now at a different university and about to embark on my PhD, using the data I collected. I'd like to do a grounded theory study and employ theoretical sampling. Is this possible?**

If you have a large enough data set, possibly covering a number of years, and a number of different groups of people, it should be possible to employ theoretical sampling, by building a theory around one group/dataset, then extending your sampling to other groups, looking to saturate categories that are currently unsaturated. It would also be interesting, if possible, to return to the field and do a further round of interviews. These interviews would be based on the theory you have built, and would constitute further theoretical sampling.

> **My initial research design, agreed with my supervisor, was within the positivist paradigm. My problem is that now, after having done a lot of reading on the issue, I am more of an interpretivist. What do I do? My data collection is well advanced and has lots of positivist assumptions.**

This problem is more common than you might think – it's not unusual for a research student to change their views on more reading and reflection, and is generally a mark of a thoughtful and able student! The thing here is to remember that a PhD or Masters dissertation is essentially a *retrospective* write up of your research, not every deviation in your journey can or should be reported. It should be possible to write up your research from an interpretive perspective. More of a concern is whether your change of view will affect your relationship with your supervisor, and how interpretive research is assessed within your discipline. These questions need to be considered carefully.

Should I have a theoretical model?

Students are told that they need a literature review, often culminating in a theoretical model, for their thesis research. This is at direct odds with the injunction that the literature should not influence the analysis process, but is not at odds with (Glaser 1978) notion of theoretical sensitivity. The idea here is that, in order to build theory, we need more than a passing acquaintance with what theory actually is like. The solution of a draft or non committal literature review, where the relevance of the review is determined by the emergent theory, gets round the institutional requirement, as long as you remember that future coding be done with 'an open mind not an empty head' (Dey 1999, p. 251). The issue of a theoretical model is more vexed. A theoretical model that is open to interpretation, and

augmentation and possible abandonment is a possibility. One thing a theoretical model may do is encourage you as a student to look at larger, more formal theories, that can be used as a lens through which to view the emergent findings. So, a theoretical model, which aids theoretical sensitivity, and gives you a sense of formal theories in your discipline area, is no bad thing in my opinion. It can help you decide what formal theories are important to engage with. However, if you force your findings through that model, or impose concepts from the model on your findings, in no sense can your findings be called grounded theory. So there is a balance to be found here, where the quest is theoretical sensitivity and engaging your emergent theory, rather than determining the outcome of the study. Chapter 3 gives some practical suggestions about positioning your study against the extant literature, and the advice includes setting up a 'sensitising device' which could double as a theoretical framework. Charmaz (2014) is also very helpful on how to handle the literature.

6

Open and selective coding

This chapter:

- Gives an extended example of open and selective coding
- Gives examples of 'elevating' open codes to selective codes
- Shows how some codes end up as dimensions of other codes
- Gives some exercises to try on open and selective coding

This chapter provides an extended example(s) of open and selective coding. One of the main stumbling blocks for any first-time user of GTM is a dearth of examples. This lack of examples makes sense when one considers that there is simply not the space in a journal article to provide extensive findings *and* how those concepts were arrived at. One piece of advice I give to postgraduate students and colleagues who want to know how grounded theory works is to look at PhD dissertations because, in such a document, the author is under an obligation to show how they arrived at that point! That said, PhD theses vary tremendously and can be quite idiosyncratic, depending on what is being investigated.

It is at this point, too, that you can consider using a computer software package such as NVivo© or Atlas Ti ©. These packages are tremendously helpful from two perspectives. First, they help you manage all the data sources; second, they allow you to retrieve quickly all instances of a given code. Note though that I think the advantages of software packages lie primarily in *data management*, rather than *data analysis* per se. The reason for this point of view is that, after many years in IT, I have noticed that the difficulties of mastering any software package can get in the way of the basic concepts. There is in effect a double cognitive load – first of familiarisation of the software and the second of mastering analysis. Of the two, analysis is of course the most important – no software package is going to *do* the analysis for you. There is an old saying in IT – garbage in, garbage out (GIGO) – the point being that the software is only

as good as the inputs you put into it. Another problem is that a software package may have embedded in it a particular view of how you should do that analysis, depending on the background of the authors of that software. So I strongly advise that you familiarise yourself with the basic concepts of coding, and try it by hand, *before* using a software package. There is a list of software packages at the end of this chapter, but do bear in mind that software packages are updated on a regular basis and that there may be many more available than what is available at the time of writing.

This chapter gives two extended examples. The first example is from Barack Obama's inaugural presidential address, and the second is an example from a Masters project. The reason for giving two extended examples is to demonstrate how versatile grounded theory is, and also that, given the wide range of readership of this book, people may find one example more sympathetic to their background, than the other!

Open coding – Example 1

As demonstrated in the previous example in Chapter 4, open coding is the vital first step of grounded theory. In many ways, open coding is the primary strength of grounded theory – from a detailed and 'open' analysis of the data, unique insights are possible. This is not to say that there should not be some kind of overarching research problem. The key thing here is that the emerging analysis helps us develop the dimensions of that research problem.

The excerpt I've chosen for this first example is from Barack Obama's inaugural address in 2009. The election of the first black man to the US Whitehouse was an historic event, and Barack Obama already has the reputation of being a fine orator. Let's see what this data excerpt can tell us. Let's start with a very open research problem 'What are the major themes of the inaugural address, and how are those themes put forward?' Let's examine this excerpt paragraph by paragraph and code the sentences within (see Figure 6.1).

Let's look at the first chunk in detail (see Figure 6.2).

How to begin open coding? I can well remember my terror when faced with the challenge of coding my very first transcript using grounded theory, and I observe it in classes when I ask students to begin a practical coding exercise! In my experience, its best to first 'get' how to do the analysis in an old fashioned, pen and paper sort of way – by annotating the transcript in front of you. Using software for analysis can come later. Students of mine have also used different colour shading to indicate certain types of code (and there is nothing to stop you doing this in a word processing package, for instance).

In Chapter 4, I talked about the difference between a descriptive code and an analytic code. The aim is always to get to an analytic code – one that analyses the data rather than simply describes it. That said, I find that, with open coding, to break open the data to begin with, it often pays simply to summarise the data in a descriptive fashion. So, in the first code, 'patchwork' becomes diversity, so

For we know that our patchwork heritage is a strength, not a weakness. We are a nation of Christians and Muslims, Jews and Hindus, and non-believers. We are shaped by every language and culture, drawn from every end of this Earth; and because we have tasted the bitter swill of civil war and segregation, and emerged from that dark chapter stronger and more united, we cannot help but believe that the old hatreds shall someday pass; that the lines of tribe shall soon dissolve; that as the world grows smaller, our common humanity shall reveal itself; and that America must play its role in ushering in a new era of peace.

To the Muslim world, we seek a new way forward, based on mutual interest and mutual respect. To those leaders around the globe who seek to sow conflict, or blame their society's ills on the West, know that your people will judge you on what you can build, not what you destroy. *(Applause.)*

To those who cling to power through corruption and deceit and the silencing of dissent, know that you are on the wrong side of history, but that we will extend a hand if you are willing to unclench your fist. *(Applause.)*

To the people of poor nations, we pledge to work alongside you to make your farms flourish and let clean waters flow; to nourish starved bodies and feed hungry minds. And to those nations like ours that enjoy relative plenty, we say we can no longer afford indifference to the suffering outside our borders, nor can we consume the world's resources without regard to effect. For the world has changed, and we must change with it.

As we consider the role that unfolds before us, we remember with humble gratitude those brave Americans who at this very hour patrol far-off deserts and distant mountains. They have something to tell us, just as the fallen heroes who lie in Arlington whisper through the ages.

We honor them not only because they are the guardians of our liberty, but because they embody the spirit of service – a willingness to find meaning in something greater than themselves.

And yet at this moment, a moment that will define a generation, it is precisely this spirit that must inhabit us all. For as much as government can do, and must do, it is ultimately the faith and determination of the American people upon which this nation relies. It is the kindness to take in a stranger when the levees break, the selflessness of workers who would rather cut their hours than see a friend lose their job which sees us through our darkest hours. It is the firefighter's courage to storm a stairway filled with smoke, but also a parent's willingness to nurture a child that finally decides our fate.

Figure 6.1   Excerpt from President Obama's inauguration speech, 20 January 2009

we have the code 'diversity as strength'. However, he also talks about heritage, so I put in the code 'diversity as history'. Finally, this is as close as I can get to an analytic code to begin with, I put in 'defence of diversity', as my analysis using the first two codes leads me to think that this is what he may be attempting to do in that first sentence. The second group of codes is somewhat similar, in that I summarise as 'nation of different religions' and 'non-believers', then add a more analytic code 'inclusiveness'. The third group of codes are also somewhat descriptive – 'different languages', 'different cultures' and 'from every place'. Again I add the more analytic code, 'inclusiveness'. The rest of the codes follow a similar pattern; generally summarising, with the occasional analytic insight. I also make no claim for these codes being 'correct' because I come from an interpretivist perspective – rather, the insight here is, when actually doing open coding, it's helpful to follow a policy of summarising the data in an open code, and also that more analytic codes do emerge.

   There are some intriguing themes emerging from this short excerpt, as well as some puzzles. Clearly there is a theme of diversity coupled with

For we know that our patchwork heritage is a strength, not a weakness.

> **Diversity as strength**
> **Diversity as history**
> **Defence of diversity**

We are a nation of Christians and Muslims, Jews and Hindus, and non-believers.

> **Nation of different religions**
> **Non-believers**
> **Inclusiveness**

We are shaped by every language and culture, drawn from every end of this Earth;

> **Different languages**
> **Different cultures**
> **From every place**
> **Inclusiveness**

and because we have tasted the bitter swill of civil war and segregation,

> **History of civil war Segregation**

and emerged from that dark chapter stronger and more united,

> **Overcoming prejudice Being united**

we cannot help but believe that the old hatreds shall someday pass;

> **Hatred as a thing of the past**

that the lines of tribe shall soon dissolve;

> **Tribalism as a thing of the past**

that as the world grows smaller,

> **A more connected world**

our common humanity shall reveal itself;

> **Humanism the dominant force**

and that America must play its role in ushering in a new era of peace.

> **America's new role as peacemaker**
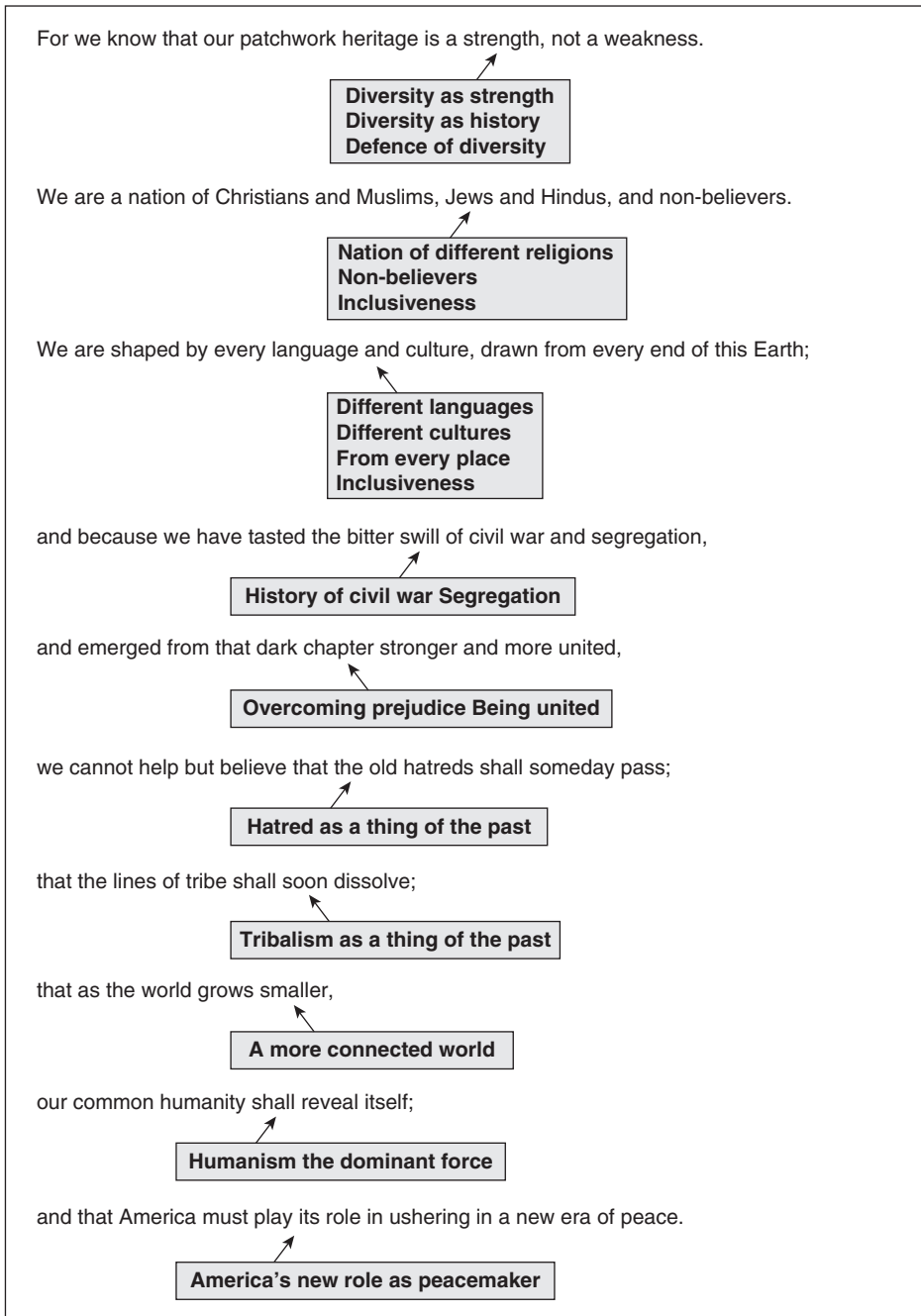
Figure 6.2   Open coding of first section of excerpt

inclusiveness. This theme is also anchored in history and hope for the future. A 'smaller world' is possibly a shorthand reference for increased communication using technology, giving a more global outlook. But this is only my interpretation – would this be interpreted this way by most people? Let us look at the next chunk (see Figure 6.3).

To the Muslim world, we seek a new way forward, based on mutual interest and mutual respect.

Appeal to Muslim world

Mutual respect and interests

To those leaders around the globe who seek to sow conflict,

Appeal to enemies

Balancing statement

or blame their society's ills on the West,

know that your people will judge you on what you can build, not what you destroy.

Appeal for constructiveness

Warning of judgement

(*Applause.*) To those who cling to power through corruption and deceit and the silencing of dissent,

Anonymous naming and shaming

Balancing statement

know that you are on the wrong side of history,

Anonymous naming and shaming

Use of metaphor

but that we will extend a hand if you are willing to unclench your fist (*Applause.*)
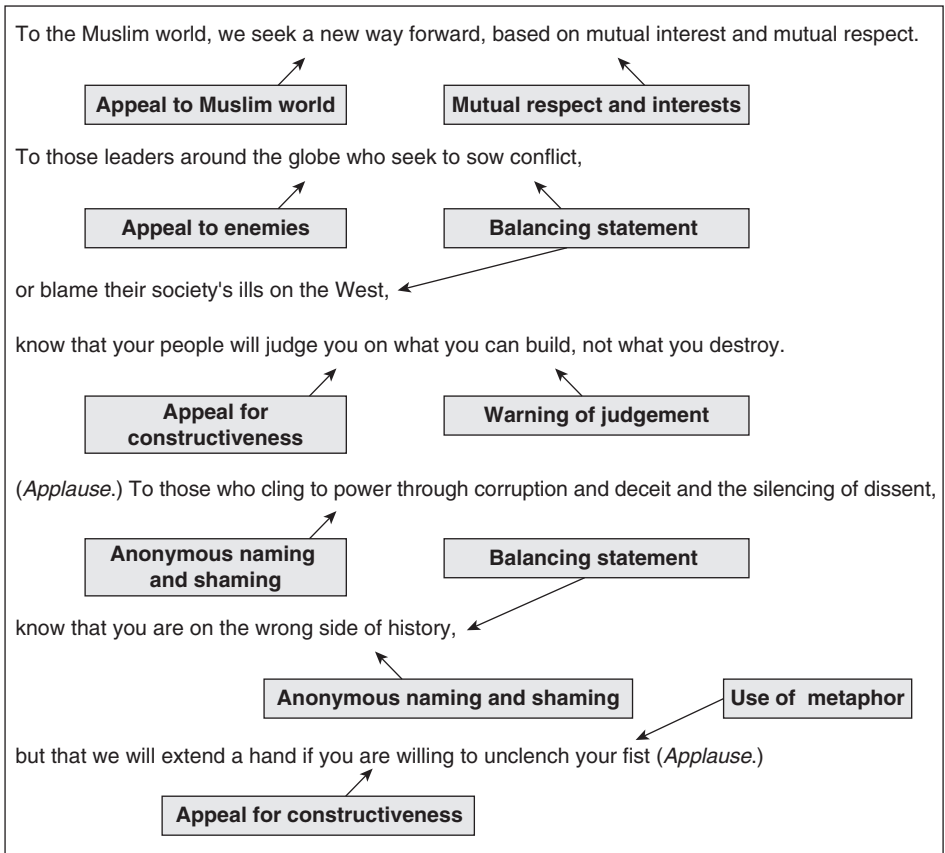
Appeal for constructiveness

Figure 6.3   Open coding of second section of excerpt

In this chunk, a specific appeal is made to the Muslim world, coded as 'appeal to Muslim world'. This statement is swiftly followed by what I coded as a 'balancing statement' where it is acknowledged that some of those leaders may seek conflict. This is then followed by two more balancing statements that seem to say that the United States is aware of despotic governments and is under no illusion of the nature of some governments. This chunk both begins and ends with appeals for constructiveness. A 'balancing statement' can be seen as an analytic code and raises the issue of whether multiple audiences catered for in this speech and whether balancing statements are a device for doing just that. So one possible emerging research question is how Obama caters for multiple audiences, both domestic and international. Another analytical code is 'use of metaphors'. Given Obama's reputation as an orator, another emerging research question might be how Barack Obama uses metaphors to convince. Let's look at the next chunk of this speech, addressed to poorer nations (see Figure 6.4).

This section of the speech is addressed to developing nations. The open code 'message to poor nations' shows that this part is explicitly labelled as such. As we have seen in our analysis so far, the speech has sections in it addressed to different audiences. Sometimes those audiences are addressed separately and

To the people of poor nations,

Message to poorer nations

we pledge to work alongside you

Solidarity and help

to make your farms flourish and let clean waters flow;

Help with agriculture and clean water

Use of metaphor

to nourish starved bodies and feed hungry minds.

Intellectual development as well as basic aid

Use of metaphor

And to those nations like ours that enjoy relative plenty

Message to developed nations

we say we can no longer afford indifference to the suffering outside our borders,

Developed nations need to give aid

nor can we consume the world's resources without regard to effect.

Developed nations need to consume less resources

For the world has changed, and we must change with it.
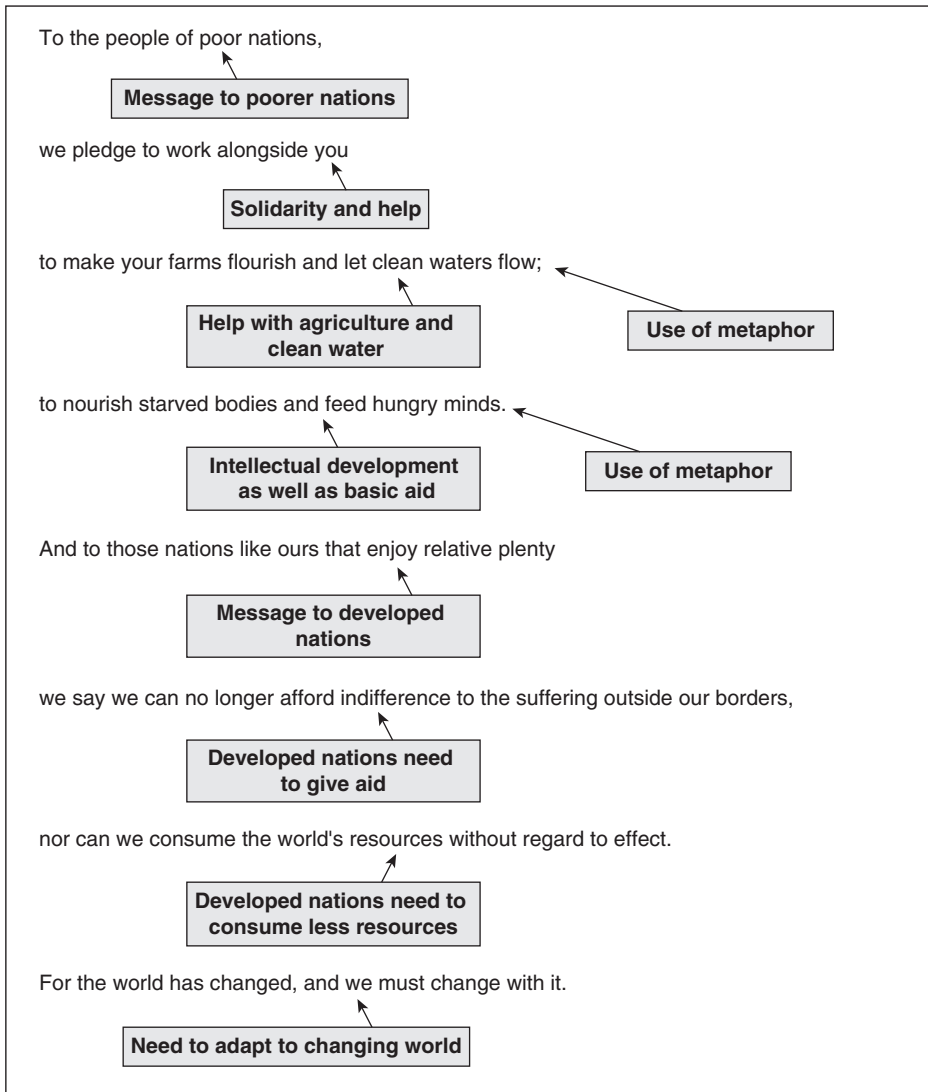
Need to adapt to changing world

Figure 6.4   Open coding of third section of excerpt

sometimes simultaneously (witness the 'balancing statements' in the previous section).

In this part of the speech, Barack Obama promises aid to developing countries, in terms of agriculture and clean water, and I have just summarised this in the open code 'help with agriculture and clean water'. Again there is a metaphor, and I have coded this as 'use of metaphor', and there is another one shortly after (these instances are certainly mounting up). His reference to clean water shows that he understands development issues – an option would be coding this somehow, e.g. 'knowledge of development', but, because this is open coding, and my overall research problem is not about his understanding of

world issues, I chose not to. He then puts out a clear message to developed nations that they can no longer afford to ignore developing nations and the differences in resources between nations ('message to developed nations', 'developed nations need to give aid' and 'developed nations need to consume less resources'). Again, most of my codes are summarising. That said, there would be scope to introduce a more analytic code which would be something like 'multiple audience', where he shifts, sometimes explicitly, from one audience to the other. So, some new questions are emerging – is the speech constructed for multiple audiences and if so how? What is the role of metaphors, which seem to be quite consistent in the speech? Let's look at the next section (see Figure 6.5).
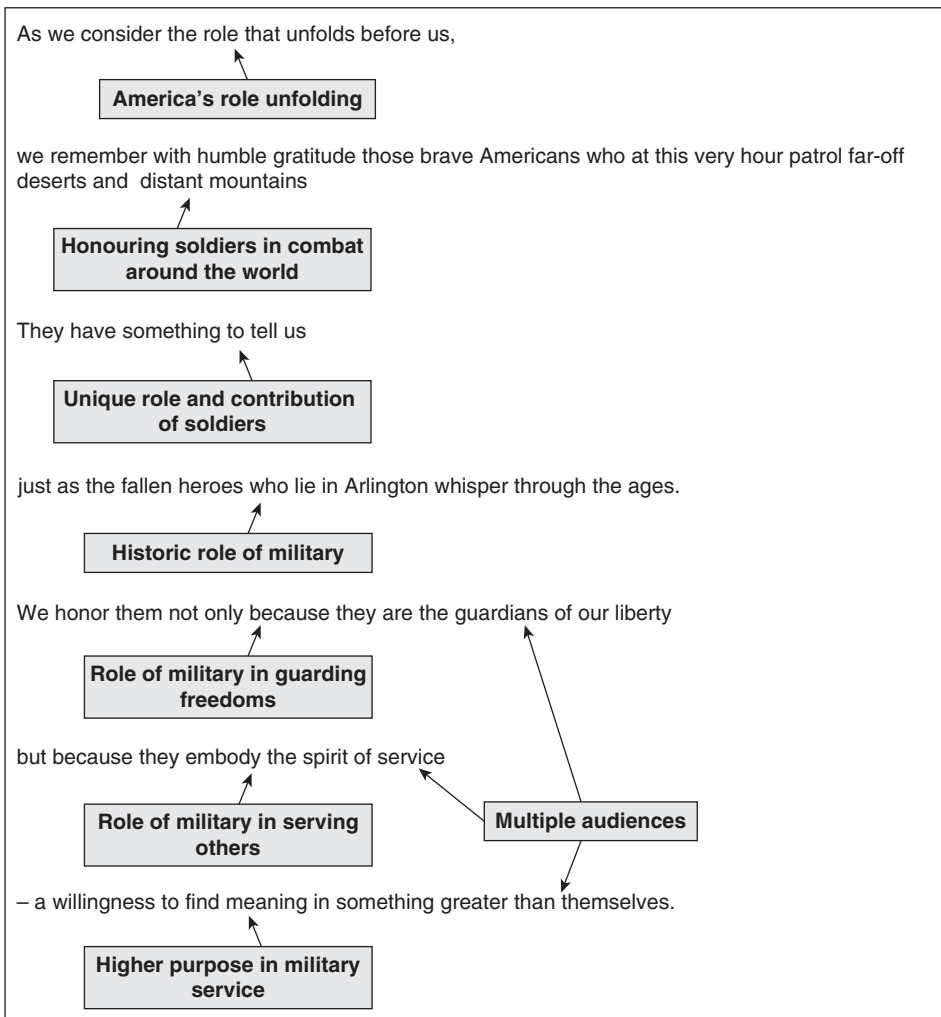

Figure 6.5   Open coding of fourth section of excerpt

This section is fascinating. Obama makes reference to the role that America will take (coded as 'America's role unfolding') then goes on to discuss the role of the military ('honouring soldiers in combat around the world'). In talking about the role of the military (summarised in the code 'unique role and contribution of soldiers'), he again invokes history when talking about the military cemetery at Arlington (coded as 'historic role of military'). At the same time, he effectively redefines the role of the military, stressing their role in upholding freedoms and serving others (coded as 'role of military in guarding freedoms' and 'role of military in serving others'). He also invokes a higher purpose in military service ('higher purpose in military service'). Coding the data at this detailed level helps us see the redefinition, but also the references to history, and higher purpose (which could also be interpreted by religious Americans and non-religious people, differently).

So, who is the audience here? It seems that this section might be for multiple audiences – the global audience, for whom the role of the American military is often viewed in a less than positive light. I have, at this point, put in a more analytic code mentioned earlier, 'multiple audience', especially as these shifts seem to be occurring quite frequently. This is a code that seems to have a number of instances; it is also an analytic code, so it could be significant later on. Let us now look at the next part of the speech (see Figure 6.6).

One of the things I noticed about the experience of coding this speech is I found that sometimes I created open codes that were larger and consisted of more words, than the actual data chunk I was coding. I think this is because Barack Obama is known to be an effective orator and manages to evoke meanings and certain emotions in just a few key phrases. In order to unpack them, sometimes the codes are longer! As previously mentioned, there are layers of meaning in this speech, several different audiences and a number of rhetorical devices to make the speech more effective. In this section, he talks of a defining moment, and I code it as such ('a defining moment'). Again, he talks about higher purpose, and here I have coded it as 'appeal for higher purpose'. We could also relate this back to the open code about 'higher purpose in military service', in the previous section, and consider whether we should just simply decide on an open code called 'higher purpose'. At this stage of open coding though, I'd be interested in coding all aspects of higher purpose, all possible attributes, rather than narrowing options down. He talks about the role of the individual and the fact that government can only do so much ('government can only go so far', and 'nation also relies on individuals'). We could speculate about whom this section of the speech is aimed at – the United States is well known for its individualistic culture, so maybe this is aimed at the home audience. He also defines (or attempts to redefine) the role of individuality by giving examples of individuals – 'individuals who were kind during Katrina' and 'individuals who cut hours to save jobs'. He talks about those people who we generally think of heroes in society – firefighters – and also those we might not think of immediately in this way, such as parents ('unsung heroes in

And yet at this moment, a moment that will define a generation,

A defining moment

it is precisely this spirit that must inhabit us all.

Appeal for higher purpose

For as much as government can do, and must do,

Government can only go so far

it is ultimately the faith and determination of the American people upon which this nation relies.

Nation also relies on individuals

It is the kindness to take in a stranger when the levees break,

Individuals who were kind during Katrina

the selflessness of workers who would rather cut their hours than see a friend lose their job

Individuals who cut hours to save jobs

which sees us through our darkest hours.

Importance of individual acts in dark times

It is the firefighter's courage to storm a stairway filled with smoke,

Heroes in society – firefighters

Choice of examples

but also a parent's willingness to nurture a child that finally decides our fate

Unsung heroes in society – parents
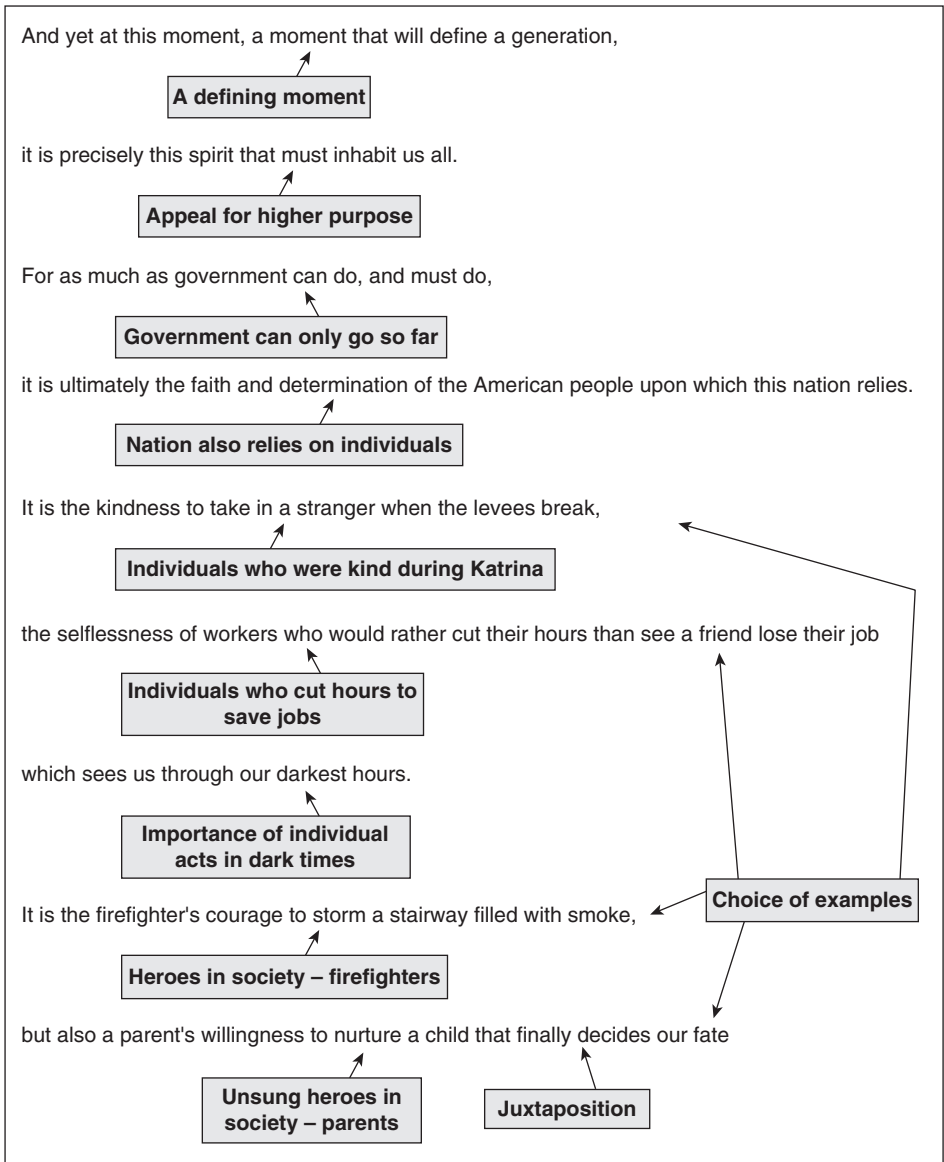
Juxtaposition

Figure 6.6   Open coding of fifth section of excerpt

society – parents'). The choice of examples seems deliberate, so I coded that as 'choice of examples'. For instance, he uses Hurricane Katrina, which hit an overwhelmingly Black population in New Orleans in 2006 and was seen as a disaster for Bush in how it was handled. While he does not mention the firefighters' role in 9/11, I would be prepared to suggest that they have become a metaphor in the United States for all that is brave and noble. Again then, there is a theme of inclusiveness in this section of the speech and higher purpose which can also be read as spirituality or faith by some sections of his audience.

He also uses juxtaposition, contrasting examples – I coded this as 'juxtaposition' because I was interested in whether he used this device in his speeches.

Now is the time to put all these open codes together, abstract a little and come up with some selective codes.

Selective coding – Example 1

At this point, let's remind ourselves of the research question we started out with 'What are the major themes of the inaugural address, and how are those themes put forward?' The process of coding raised some further questions. First, this address is aimed at several audiences, the worldwide audience and the domestic audience. Second, it is clear that Obama uses a number of techniques to balance those very different audiences. Given that coding enables us to identify dimensions of the research problem, we can see that our broader research question can be broken down into more specific research questions.

- What are the major themes of the speech?
- Who are the key audiences of the speech?
- What techniques does Obama use to reconcile different audiences?

If we look at the possible selective codes suggested in Table 6.1, one thing becomes clear: the selective codes have provided us, through the open codes, with much richer dimensions of the research problem which now are expressed in the research questions above.

Table 6.1   Initial selective codes

Possible selective codes	Open codes
Diversity	Diversity as a strength, as history, different religions, non-believers, inclusiveness, from every place
Historicity	Civil War, segregation, historic role of military, a defining moment
Peacemaking	Hatred as a thing of the past, tribalism as a thing of the past, humanism the dominant force, appeal to enemies, appeal for constructiveness
Higher purpose	Higher purpose in military service, appeal for higher purpose
America's role	A more connected world, America's new role of peacemaker, mutual respect and interests, anonymous naming and shaming, need to adapt to a changing world, America's role unfolding
Different audiences	Appeal to Muslim world, appeal for constructiveness, honouring soldiers in combat, unique role of soldiers, role of military in guarding freedoms, serving others
Rhetorical devices	Use of metaphor, choice of examples, balancing statements
American identity	Nation relies on individuals, individuals who were kind during Katrina, individuals who save others jobs, importance of individuals, heroes and unsung heroes

The first thing we can ask ourselves about this table is, do we have the right selective codes? Glaser (1978) recommends 1–2 core categories for a theory. Table 6.1 gives eight selective codes, and we have only coded a segment of Obama's speech. Here we come to what can sometimes be a major issue with grounded theory – the issue of abstraction. To be workable, and elegant, a theory needs only a few constructs or core categories. Yet grounded theory throws up many codes because of the nature of the coding technique. The coding starts 'bottom up' and at a very detailed level because of the injunction to grounded theorists to code line by line. This is the foundation of one criticism of grounded theory (Layder 1993, 1998) that it needs to break away from its examination of micro phenomena. Certainly there does seem to be a view in some quarters that grounded theory produces interesting rich descriptions, but not much in the way of theory. This is a reflection, perhaps, of the fact that grounded theory has often been used as much for the integrity of its coding procedures, rather than for theory building per se.

So, what can the grounded theorist do when confronted with several selective codes? The first thing to do is to realise that coding is of necessity an iterative and reflective process. Part of theorising involves looking at codes and debating their meanings and relationships. You may choose to do a number of things during selective coding:

- Group selective codes together
- Consider if one selective code is an attribute of another
- Consider if a selective code is in fact a relationship
- Consider if any of the open codes in a selective code are a better name for that selective code
- Consider if the name you have given to the selective code is truly representative

So let's apply some of these ideas to the selective codes in Table 6.1. An obvious merging could occur between historicity and American identity, with historicity being part of American identity. Depending on the research question, this is then a grouping of the codes, or a decision that historicity is slightly subordinate to American identity, and is an attribute of American identity. Either option would not prevent the researcher from talking about how historicity is an aspect of American identity and from using the open codes to direct him/her to quotes that illustrate that historicity. However, when we look at the open codes for historicity, we can see that we have an open code 'defining moment' – this is not about the past, but this is about the future. He also talks about a new role for America, and a more connected world, in the selective category of America's role. What if we put these open codes into a selective code of a changing world?

We could also merge higher purpose with peacemaking, especially as Obama specifically identifies a higher purpose in military service. That said, if our research focus was on religious aspects of the American identity as exemplified by speeches by American presidents, this would be a selective

code of its own. It is hard to find selective codes that might be relationships in this table, but what if higher purpose was the connection Obama sees between America's role and peacemaking? What if he is redefining the reasons for America's role in the world in a more spiritual way? We could develop this idea using a theoretical memo – Glaser (1978) and Strauss (1987) both give the very good advice that, if you have a thought like this about the data, and the nature of the category, then, you should break off and write a *theoretical memo* about it. Chapter 6 elaborates on theoretical memos as part of the theoretical coding process.

While the selective codes names seem okay, I did wonder if one of the open codes, balancing statements, could be used as the name for different audiences. Balancing statements are the device used to cater for different audiences, and the open codes in the selective code of different audiences are effectively examples of balancing statements. Again, these decisions are very linked to our research questions. We might decide that it is important to keep a selective code of different audiences as it answers a specific research question. So we can see in this example how the coding interacts with the formation of the research questions and that the coding helps us understand deeper aspects of the research problem.

Table 6.2 gives some revised selective codes – at this stage, though, they are still subject to change, and not all the changes I have suggested in the table are included, as the theoretical coding process may reveal further issues. For now, I have added a new selective category, a changing world, and merged American identity with historicity.

Table 6.2   Second pass of selective coding

Possible selective codes	Open codes
Diversity	Diversity as a strength, as history, different religions, non-believers, inclusiveness, from every place
A changing world	A defining moment, need to adapt to a changing world, a more connected world
Peacemaking	Hatred as a thing of the past, tribalism as a thing of the past, humanism the dominant force, appeal to enemies, appeal for constructiveness
Higher purpose	Higher purpose in military service, appeal for higher purpose
America's role	America's new role of peacemaker, mutual respect and interests, anonymous naming and shaming, America's role unfolding
Different audiences	Appeal to Muslim world, appeal for constructiveness, honouring soldiers in combat, unique role of soldiers, role of military in guarding freedoms, serving others
Rhetorical devices	Use of metaphor, choice of examples, balancing statements
American identity	Nation relies on individuals, individuals who were kind during Katrina, individuals who save others jobs, importance of individuals, heroes and unsung heroes, historicity, Civil War, segregation, historic role of military,

We will return to this example in Chapter 7, and look at the final stage of coding, theoretical coding, where relationships are considered and the theory is built.

Open coding – Example 2

The second example is from an excerpt of an interview about evaluation of projects in developing countries (see Figure 6.7). It comes from a masters project I supervised at the University of Auckland. The overarching research problem for the study is 'What are the major issues in IT skills training projects in developing countries?

The person being interviewed is talking about IT skills and training projects, and how they are evaluated. When faced with a block of data like this, it's a good idea to divide it into chunks for analysis. Often we can see these chunks as naturally occurring topics in the data. Indeed, these topics will often correspond to particular questions asked by the interviewer. However, if we simply

OK let me tell you about three different kinds of ways of using IT skills training.
[…] There are organisations who provide generic IT skills.
[For example] learn to use Word, learn to browse the Internet, learn to use e-mail […]. Those are the easiest ones to measure because you can have them [the people] a test […] you can issue a certification based on that.
Now, we have also found that it is the one that has the least retention and maybe the least usefulness for people to actually solve their everyday problems. It's maybe is the easiest one to implement but not the most productive one.
Another type of training that takes place is within an industry. Industry-specific training in IT skills. […] the training is tailored to certain people and training them in the specific skills that are needed in that industry.
[…] that tends to work best especially when the intent is to help people get a job in that industry.
[…] one measure of success there is that people actually get jobs in that industry (Brad).
[…] the third area for training that we identified is when organisations are providing training that is helping people solve local problems in a way that is locally relevant. […] [Citizens] solving their own problems with the help of IT […] that is more in the area of community empowerment, of civic participation, of becoming more engaged citizens, of better networking with others […]
[The training] it needs to be very customised and locally relevant, it's not just taking people and teaching them how to use Excel, but understanding what their situation is and what their problems that they are facing and how IT skills can help them better solve their problems.
That kind of training is the most difficult but the most pervasive and the one that has the deepest impact of all the training in the community, but it is also the most difficult to measure in a standard way across the board.
[…] I have designed and set up an evaluation and monitoring system for […] and it covers programmes in one hundred countries around the world, since 2003.
[…] it's a combination of multiple approaches to evaluation. One of them is very quantitative […] One of them is very qualitative […]
They are not separate they compliment each other so they, so together they gave us a better picture than each one of them by themselves.

Figure 6.7   Excerpt of interview about evaluation of projects in developing countries

stopped at topics (or themes) as some researchers do, and putting quotes under those headings in our findings, we would not be doing grounded theory.[1]

So, let's see how the excerpt breaks down into data chunks. Sometimes, when I find it hard to find my way into some data, I split it into chunks. This is especially useful when looking at interviews because generally interviews have questions based around various themes which can usefully be seen as data chunks (see Figure 6.8).

OK let me tell you about three different kinds of ways of using IT skills training.

Generic IT skills

[…] There are organisations who provide generic IT skills.

[For example] learn to use Word, learn to browse the Internet, learn to use e-mail […]. Those are the easiest ones to measure because you can have them [the people] a test […] you can issue a certification based on that.

Now, we have also found that it is the one that has the least retention and maybe the least usefulness for people to actually solve their everyday problems. It maybe is the easiest one to implement but not the most productive one.

Industry-specific IT skills

Another type of training that takes place is within an industry. Industry-specific training in IT skills. […] the training is tailored to certain people and training them in the specific skills that are needed in that industry.

[…] that tends to work best especially when the intent is to help people get a job in that industry.

[…] one measure of success there is that people actually get jobs in that industry.

Locally relevant IT skills

[…] the third area for training that we identified is when organisations are providing training that is helping people solve local problems in a way that is locally relevant. […] [Citizens] solving their own problems with the help of IT […] that is more in the area of community empowerment, of civic participation, of becoming more engaged citizens, of better networking with others […]

[The training] it needs to be very customised and locally relevant, it's not just taking people and teaching them how to use Excel, but understanding what their situation is and what their problems that they are facing and how IT skills can help them better solve their problems.

That kind of training is the most difficult but the most pervasive and the one that has the deepest impact of all the training in the community, but it is also the most difficult to measure in a standard way across the board.

Evaluation and monitoring

[…] I have designed and set up an evaluation and monitoring system for […] and it covers programmes in one hundred countries around the world, since 2003.

[…] it's a combination of multiple approaches to evaluation. One of them is very quantitative […] One of them is very qualitative […]

They are not separate they compliment each other so they, so together they gave us a better picture than each one of them by themselves.

Figure 6.8   Excerpt split into data chunks

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[1]See Chapter 4 for a description of this somewhat broader grained qualitative analysis.

So let us take chunk by chunk. The first chunk can be open coded as follows: (see Figure 6.9)

Again, as in the previous example, you can see that my open coding consists, in the main, of summarising (what I would call a largely descriptive code). Examples of such codes are 'agencies providing generic skills'. I note that the speaker talks of 'some organisations' which provide these generic skills, the implication being that some do and some don't. However, we don't have the available context in this paragraph to decide whether it is significant that he says this. In a situation where we were viewing the whole transcript, we would look back to see if it was. The point being that, in line by line coding, we should, initially, anyway, treat everything as being of significance and use the principle of constant comparison to help us evaluate that significance.

Generic IT skills
[…] There are organisations who provide generic IT skills.

Agencies providing generic skills

[For example] learn to use Word, learn to browse the Internet, learn to use e-mail […].

Word-processing skills, Web browsing skills, e-mail skills

Those are the easiest ones to measure   **Ease of measurement of generic skills**

because you can have them [the people] a test […] you can issue a certification based on that.

Testing of generic skills   **Certification as outcome of generic skills**

Now, we have also found that it is the one that has the least retention

Lack of retention of generic skills

and maybe the least usefulness for people to actually solve their everyday problems.

Lack of everyday usefulness of generic skills

It maybe is the easiest one to implement but not the most productive one.

Ease of implementation versus eventual value of skills

Figure 6.9 Open coding of first chunk of interview excerpt

The interviewee then goes on to outline what those generic skills are ('word processing skill, web browsing skills, email skills') and how they might be measured. He says that generic skills are easily measured by testing ('ease of measurement of generic skills') and how certification of those skills can take place ('certification as an outcome of generic skills'), leading to a qualification. His reflection on ease of measurement gives us what is probably an analytic code and a possible way into a research question He then goes on to say that these skills are not easily retained ('lack of retention of generic skills') and are of limited use in helping with everyday problems ('lack of everyday usefulness of generic skills'). What are these everyday problems? Why do these generic skills not assist? Surely certification would help an individual to attain a job. Perhaps the interviewer should have asked at the time. Certainly in future interviews, the researcher could pick up this issue. Grounded theory does recommend overlapping data collection and analysis, and here's a good example of why. The analysis here and the questions the coder is asking at this point provide the basis for theoretical sampling – deciding on analytic grounds where to sample from next.

The interviewee also raises another issue that of usefulness of generic skills training. He then follows that up with a paradox – that although generic skills are easy to teach, they may be the least useful. This is slightly difficult to code. The fact that it is difficult to code should alert us to the fact that it may be important. The initial code I have put here is quite descriptive 'Ease of implementation versus eventual value of skills'. The interviewee, in their reflection on such issues, may have given us the beginning of an analytic code. Already his statement had me thinking about the concept of implementation difficulty, or implementation tradeoffs, and other tradeoffs that might exist in the arena of skills training in developing countries. So, it is a possibility that a future selective code might involve this notion of tradeoffs.

Let us now examine the second chunk (see Figure 6.10).

In this chunk then, we can see the open code of 'industry specific training' as is 'job targeted IT training' – again, both these codes are pretty descriptive. 'Job gain as a success measure' is a more analytic code and leads us to think of what other success measures there may be.

In the third excerpt, the interviewee discusses what he sees as locally relevant IT skills training. Here is an opportunity, immediately, to generate what Strauss (1987) calls an 'in vivo' code, where the naming of the code is suggested by the respondent themselves. In vivo codes are very attractive from the researcher perspective, for, in naming that code from the respondent's point of view, the point of view of that respondent is incorporated into the data interpretation. They can also give important analytic clues. Charmaz (2014) identifies four types of in vivo code. First, they are terms everyone 'knows' that flag condensed but significant meanings. Second, (and this primarily how I see it), an in vivo code can be a participant's innovative term that captures meanings or experience. A further variation on this that Charmaz suggests is an insider shorthand term, such as those used in organisational settings. For instance, in some organisations there
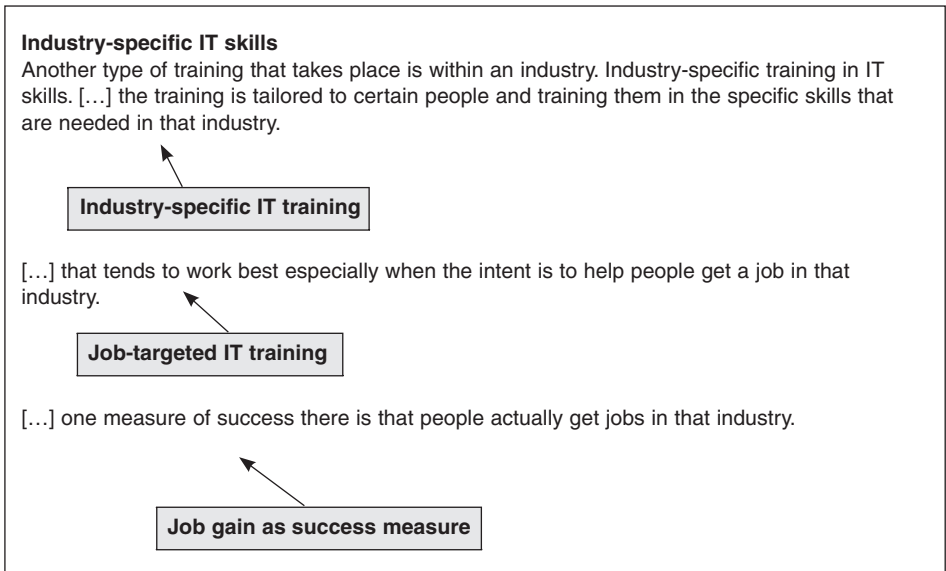
Industry-specific IT skills
Another type of training that takes place is within an industry. Industry-specific training in IT skills. […] the training is tailored to certain people and training them in the specific skills that are needed in that industry.

Industry-specific IT training

[…] that tends to work best especially when the intent is to help people get a job in that industry.

Job-targeted IT training

[…] one measure of success there is that people actually get jobs in that industry.

Job gain as success measure

Figure 6.10　Open coding of second chunk of interview excerpt

might be references to 'firefighting' as a daily part of work life; Fourth, statements that crystallise participants' actions or concerns (ibid).

The key thing with all these types of in vivo code, in my opinion, is that they deserve special attention precisely because they do come directly from the participant and may suggest something significant analytically. Certainly in my experience, these codes are significant. For instance, in my research about systems analysts and their clients, I ended up with an in vivo code of 'imagining', after some instances of analysts saying they were 'imagining' a particular process that the client was telling them. This was an important analytic insight because through the analyst's words I realised that the analyst, did, literally 'imagine' himself in the client's shoes and processes. This was an important insight, as at the time there was very little literature about how analysts might successfully conceptualise their client's needs.

Some researchers, such as myself, would argue that coding is a very subjective process and that the selection of an in vivo code is similarly subjective. That said, it provides some corroboration for a particular view of the data, from the respondent themselves. For other researchers coming from the critical realist position, the use of an in vivo code strengthens the authenticity of data interpretation as it is seen to come from the data itself. Let us now look at the open coding for the third chunk (see Figure 6.11).

This excerpt is very rich in open codes, which should alert us to the possibility of finding something significant in the data. After naming 'locally relevant IT training' as an open code which is also an in vivo code, we hit a problem – what organisations is the interviewee talking about? Do they have to be local? Again, this is something that could have been followed up during the interview,

Locally relevant IT Skills
[…] the third area for training that we identified is when organisations are providing training that is helping people solve local problems in a way that is locally relevant. […]

Locally relevant IT training

Local training by (local?) organisations

[Citizens] solving their own problems with the help of IT […]

Participant problem solving with IT

that is more in the area of community empowerment, of civic participation,

Community empowerment

of becoming more engaged citizens, of better networking with others […]

Benefits of local training

[The training] it needs to be very customised and locally relevant,

Need to customise

it's not just taking people and teaching them how to use Excel, but understanding what their situation is

Need to understand local context

and what their problems that they are facing

Need to understand local problem

and how IT skills can help them better solve their problems

Applicability of IT to problem

That kind of training is the most difficult

Difficulty of locally relevant IT training

but the most pervasive and the one that has the deepest impact of all the training

Deep impact of locally relevant IT training

in the community, but it is also the most difficult to measure in a standard way across the board

Difficulty of measuring locally relevant IT training

Figure 6.11   Open coding of third chunk of interview excerpt

but could also have been asked as a follow up. So, here is a compelling argument for overlapping data collection and analysis, enabling theoretical sampling – deciding on analytic grounds where to sample from next. In this case, we would have been able to find out more about the organisations in question. That said, theoretical sampling is not without its dangers – it very much depends on the framing of the research question. With a very open research question, the danger might be a following of an analytical line of thought that later turns out not to have been that rewarding.

Moving on, we can see that he then mentions a key characteristic of locally relevant IT training – that it involves 'participant problem solving with IT'. So, thinking ahead, we can wonder whether this open code is an attribute of a category of locally relevant IT training or whether it merely helps us to understand what may well be an important category. Similarly, we can see that 'community empowerment' as an open code could be a characteristic or attribute of locally relevant IT training. The participant then goes on to outline a number of requirements that have to be fulfilled in order to do this type of training – the open codes 'need to customise', 'need to understand the local context' and 'need to understand local problem'. He also talks about the applicability of IT to the problem, so this also generates an open code. To my mind, he is pointing out that not only does the problem have to be understood but that it also has to be amenable to solving by IT. As previously mentioned, theorising in the form of theoretical memos will generally occur during selective coding. But, as the example here shows, open coding and selective coding are not necessarily discrete stages – it is quite possible to be already anticipating selective coding while doing open coding and writing memos about key concepts.

The participant then talks about the difficulty of providing what I code as 'locally relevant IT training' – this is quite an analytical code. He also talks about the 'deep impact' that is possible with such training. He then finishes by mentioning the difficulty of measuring such impacts ('difficulty of measuring locally relevant IT training'). From the point of view of selective coding, this is clearly of interest. Should we couple the difficulty of providing locally relevant IT training with the difficulty of measurement? Or is this simply that the more complex the training offering is, the more customised, the harder it is to measure? These sort of thoughts about the data underline, to my mind, the usefulness of carrying out overlapping collection and analysis. It would have been very useful to press the interviewee further on this issue of difficulty versus benefit.

Selective coding – Example 2

So, we have completed an initial open coding stage on the second excerpt. As we have attached the open codes, we have had some thoughts about the data and also made efforts not only to have descriptive open codes but, where possible, some codes that are more analytic. The number of questions raised

about the data have demonstrated that, in this particular case, it might have been useful to have overlapping collection and analysis and to have asked the interviewee some further questions.

Let's group the open codes in a table, with some tentative selective codes (see Table 6.3).

Note that there are many decisions that can be taken about this particular grouping of codes and that those decisions are related to the research. For instance, we may decide that locally relevant skills training is the most significant finding so far. If that is the case (and these early decisions are subject to much revision), we might decide it is worthy of a dedicated selective code, locally relevant skills training. Alternatively, we might decide that we want to group all the types of training into one selective code, types of IT training. If we did this, we could also put forward a selective code of measurement of IT training. This might suit our purposes better, if our research interest is particularly how different types of IT training might be measured. From the point of view of building a theory, types of IT training might be a better, larger code at a higher level of abstraction. This is why, often, in my opinion, we need subcategories, and more groupings than we might think, to get to the desired level of abstraction. This is particularly difficult for beginners who tend to view their categories as more static rather than flexible. Grouping categories, then grouping them again, can be a useful device to help us see what the core issues – and eventually – the core categories might be.

How we group our categories also depends on our research problem. We can see here, for instance, that the issue of ease of implementation versus eventual impact is perhaps the most significant issue that the interviewee has

Table 6.3   Possible selective codes for second example

Possible selective codes	Open codes
Generic skills training	Agencies providing generic skills, word processing skills, web browsing skills, email skills, ease of measurement of generic skills, testing of generic skills, certification as outcome of generic skills, lack of retention of generic skills, lack of everyday usefulness of generic skills, ease of implementation versus eventual value of skills
Industry-specific IT skills training	Job-targeted IT training, Job gain as success measure
locally relevant skills training	Local training by (local?) organisations, Participant problem-solving with IT, community empowerment, benefits of local training, need to customise, need to understand local context
	Need to understand local problem, applicability of IT to problem, difficulty of locally relevant IT training, deep impact of locally relevant IT training, difficulty of measuring locally relevant IT training

Table 6.4   Possible selective codes for second example – second pass

Possible selective codes	Open codes
Types of skills training	Industry-specific IT training, job-targeted IT training, agencies providing generic skills, word processing skills, web browsing skills, email skills, lack of everyday usefulness of generic skills, ease of implementation versus eventual value of skills, local training by (local?) organisations, participant problem-solving with IT, difficulty of locally relevant IT training
Benefits of skills training	Job gain as success measure, community empowerment, benefits of local training, certification as outcome of generic skills
Context of training	Need to understand local context, need to customise, need to understand local problem, applicability of IT to problem
Measurement of impact of skills training	Deep impact of locally relevant IT training, difficulty of measuring locally relevant IT training, ease of measurement of generic skills, testing of generic skills, lack of retention of generic skills

raised. The issue of measurement is also worthy of focus. So let's try another grouping that is less of a taxonomy of types of training and more reflective of our thoughts about benefit and measurement of types of training (see Table 6.4).

In this grouping, we can see that the focus is much more on the measurement and benefits of training, rather than the individual types of training which have been grouped into a category of types of skills training. Because I think it is potentially an important issue, I have also created a category called the context of training. This comes from the open codes associated with locally relevant IT training. One question I am asking myself at this stage – is whether the impact of training is related to how contextualised it is. This could be a fruitful subject of a theoretical memo. We could also ponder the relationship between measurement of impact of skills training and benefits of IT training. When we start to ponder the relationships between selective codes, we have effectively moved to the stage of theoretical coding. This example will be revisited in Chapter 7, theoretical coding, along with the first example. We will start to think about relationships between selective codes and theorising about those relationships.

Tips for first time coders

Below are a few tips for first-time coders, based on a lot of observation of coding in the classroom! (see Figure 6.12).

1. Open coding is daunting to begin with, but, take heart and start by summarising the words in a descriptive open code. As you proceed you'll find yourself coming up with more analytic open codes, where you get at possible analytic interpretations of those words.

2. Proceed slowly, line by line. Sometimes this seems tedious and it is tempting to skip lines. Only skip lines if they are not relevant to your (hopefully very broad) research problem. There is real insight to be gained by this detailed examination – it is one of the strengths of GTM and not something to be rushed – it is here you will find the unique contributions to your research.

3. Start with pen and paper or at least a simple word-processing package, as opposed to qualitative analysis software. It's important to first concentrate on learning the process of coding, rather than be distracted by the cognitive load of learning what the software does. It's best to separate these processes and you can certainly use the software later. You can use coloured pens or highlight words on your screen.

4. Pay attention to 'in vivo' codes, which is when the naming of the code is suggested by the participant. These codes can be potentially important, for two reasons – first, they provide instant authenticity because the naming comes from the participant; and second, they can be the source of important analytic insights about the world of the participant.

5. Naming of categories, too, is all important. The name of a category gives meaning to the concept and so it should be chosen carefully. It is quite easy to pick a name for a category that is significant for you, the researcher, but has less meaning for the research audience at large. This is important because the naming will influence how people see and make sense of your emerging concepts and theory, so, it's worth checking how others perceive them and being flexible about naming.

6. As you code, ideas about selective coding – how to group categories and possible research questions – are bound to emerge. You can break off and write about your ideas in a 'theoretical memo' (discussed in more detail in the next chapter).

7. While coding, it is important to be comfortable with what seems like a lot of ambiguity and maintain a flexible mindset. Staying with the process and patiently coding line by line does bring its own rewards. During the analysis, try to stay as open-minded as possible about the data and your interpretation of it.

Figure 6.12 Tips for first-time coders

A word about gerunds

You will have noticed that occasionally, but only occasionally, in these coding examples, have I used gerunds, where the verb functions as a noun. So a gerund from Example 1 is *Overcoming Prejudice*, and a gerund from Example 2 is *Participant Problem-solving*. Both Glaser (1978) and Charmaz (2014) recommend open coding with gerunds. Why? Charmaz says gerunds give us a strong sense of action and sequence, whereas nouns turn action into topics. In this way, we can stay close to the words and actions of the participants (ibid). My suggestion is to try it, and see if it works for you. You may prefer the outsider perspective that nouns rather than gerunds give (I think I do, overall), but on the other hand, the more you incline to the classic approach, the more useful gerunds will be.

Summary

- This chapter has examined, in detail, the process of open coding and selective coding through the use of two examples.
- If we look at the original book it states that the problem should 'emerge' (Glaser and Strauss 1967: 45). This does not necessarily work in practice, as it depends on the context of the research. A PhD student will not be able to say that the 'research problem will emerge' when faced with a demand for a 30-page proposal as the first stage of their PhD (as discussed in Chapter 3, the student will probably end up doing a 'non-committal' literature review). Also, in practice, most research, especially funded research, will have a broad problem in mind. So, while the classic version of grounded theory demands that we start with an area of research interest rather than a research problem (Glaser 2018), this may not be possible. Also, bear in mind that the notion of emergence is itself contested and will depend your ontology – see Bryant (2017) for a lively discussion of this.
- What I hope this chapter has demonstrated is that the coding helps shape that research problem, and that aspects of the research problem do emerge when coding. Often this is hard for a PhD student to accept – that detailed answers will emerge during coding, and that the research problem does not remain static. To me this is also the continual delight of grounded theory that there is always something to discover. It is very rare that something does not 'emerge'.
- If no research problem does emerge, then one has to conclude that the research design is somehow flawed, or the overarching research problem is ill-founded. Even in that situation, the detailed coding procedures of grounded theory generally unmask some interesting aspects.
- This chapter has also attempted to give an honest insight into the coding process for first-time researchers embarking on grounded theory. You may also want to use gerunds in your open coding to see how they work for you.
- The other thing to note from this chapter is how permeable the boundaries are between selective and theoretical coding. Theoretical coding – relating selective categories to each other – is theory building. In the examples given in this chapter, theoretical memos – where the researcher breaks off and writes a memo theorising about the concepts – have already been mentioned.
- In practice, researchers do start writing, thinking and theorising about the categories at the selective coding stage. As has previously been remarked, one problem that occurs in some applications of grounded theory is that the stage of theoretical coding is missed out altogether. While the richness and originality of the emergent categories is exciting, if we stop here, without considering how the constructs relate, we are not building theory.
- The next chapter, Chapter 7, Theoretical Coding, considers how we might build initial theories using the examples stated in this chapter.

EXERCISES

1 Find an interview transcript to analyse and follow the steps suggested in this chapter. Try and start with a broad research problem. Analyse the first page or any part that seems interesting to you. If you don't have access to an interview transcript, try the following sources; Masters and PhD dissertations often have excerpts which you can analyse. Alternatively, try analysing a speech such as Obama's or an interview in a newspaper.

2 Try coding first with nouns, then with gerunds. Which work best for you? Do they give different insights into the data?

3 Find a colleague to talk to about your codes – do they understand your codes and, in particular, the naming of those codes? Do they agree with how you have grouped the categories?

4 Reflect on the research problem you started with. Has it changed? Do you now have research questions that the coding process has suggested?

5 See if you can find examples of how other researchers have documented and described their coding procedures in journal papers and theses. Are the steps different? What adaptations have researchers made to these steps? Are you able to critique those procedures, based on what you have read in both Chapters 4 and 6?

WEB RESOURCES

This is a nice tutorial from Graham R. Gibbs from Huddersfield University on open coding. He does a nice job of distinguishing between descriptive and analytic codes. https://www.youtube.com/watch?v=Dfd_U-24egg

NVivo is an extremely well-known and established qualitative data analysis (QDA) software package. See https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home for an overview and a chance to try it out. It contains key features for relating categories and for managing the data.

Atlas Ti is also a very well-known and established QDA package. It has a lot of flexibility and interesting ways of viewing the data. Again, you can trial the software. http://www.atlasti.com/

FURTHER READING

Charmaz, K. (2014). *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis* (2nd ed.). Thousand Oaks, CA: SAGE. This book gives very clear and helpful advice on coding. It describes the stages of initial coding (open coding), focused coding (selective coding) and theoretical coding very well. It also gives the option of axial coding (from Strauss and Corbin).

Glaser, B.G. (1978). *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory*. **Mill Valley, CA: The Sociology Press**. This book is a very significant book in the GTM canon, and I think, a must if you are to understand the Glaserian approach to coding. This book contains the very first advice given on open, selective and theoretical coding, and it is an interesting and informative read.

FREQUENTLY ASKED QUESTIONS

How do I do open coding?

The answer is to do it! I can still remember how daunting it was to open code my first transcript. I'd advise doing it by hand to begin with, rather than experiencing the double cognitive burden of setting up qualitative software and thinking about how to analyse. Start with groups of words and proceed line by line. Give yourself plenty of time. You may find to begin with that your codes seem very descriptive and that you are simply labelling and/or summarising. With time though, you'll be able to move from description to analysis, to get behind the face value of the words to the meaning behind. It is also helpful to talk to your supervisor, friend or colleague about the coding and have a session coding jointly – this gives you an idea of whether your analysis is intelligible to other people.

Should I open code all my data first before proceeding on to selective coding?

In my experience it's best to go through the first two stages – open coding, then selective coding, on one text such as a transcript, to get an understanding of the coding process. When grouping the open codes together in selective codes, some analytical dimensions should emerge and even some questions about how those selective codes might relate to each other. Then you can proceed with coding the next set of texts, using the existing open codes, but also being open to new open codes suggested by the text. Having a tentative set of selective codes in the background helps sharpen the analysis.

I have conducted my interviews in another language – should I translate them all?

Many of my students have conducted fieldwork in their native language. So what happens when there is a burden of translation? First things first. It's better to code in the language of the text and then translate those codes from the original language to English, for the purposes of writing up. Why? The most pressing reason for doing it this way is that meanings are easier to appreciate in the native language than in translation. You can debate the English labels for those codes with another person, to check that the English label coincides with the meaning you are trying to convey. The second reason is simply that translation of transcripts and documents takes time – thus it makes sense only to translate the sections needed for the write-up of findings. Of course, it is still important to try out the coding with your supervisor or a colleague, so you will need to do some translation early on in the process.

7

Theoretical coding

This chapter:

- Gives two examples of theoretical coding, building on the examples in Chapter 6
- Shows how relationships between categories at a lower level can be elevated
- Shows how theoretical memos help us theorise
- Shows how diagrams help us understand relationships between categories
- Shows how we start relating the emergent theory to the literature

This chapter looks at theoretical coding, which is the process of relating categories. It is the third step of grounded theory method (GTM) – Chapter 6 covered the first two stages, open coding and selective coding. Theoretical coding is the third and most critical stage – actually thinking about how the categories *relate* to each other. We examine this in some detail, using the extended examples we have just seen in Chapter 6. Without these statements of relationships, we are not theorising.

We briefly discussed theoretical coding in Chapter 2, where a small example of grounded theory coding was given and in Chapter 4 where we discussed evolution of coding procedures grounded theory. Here I hope to show the process of theoretical coding in more detail.

Theoretical coding is the process of relating categories and the process of theorising about those categories. Interestingly, it is a stage quite often missed by researchers using grounded theory. I have lost count of the 'grounded theory' studies I have seen that, for some reason, produce fascinating categories and accounts of social worlds, with some fantastic insights, but do not culminate in a theory. They produce what Glaser called conceptual description, fully leveraging grounded theory's capacity to describe and build concepts, without going onto the next stage. I am not sure why this is – perhaps the researcher feels that they have produced some compelling findings that stand on their own, but I also wonder if the aim has not been to produce a theory. This is not to say that grounded theory is not useful when co-opted for purposes other than building theory – it has a long history of a very useful qualitative analysis

method. I can't help feeling though, that sometimes, the lack of moving to that next step, *relating* the categories, constitutes a missed opportunity, especially when so much care has already been taken with the first steps of the analysis.

This chapter then concentrates on the third step of grounded theory as described by Glaser (1978). This classic book elaborated – quite brilliantly in my opinion – on the procedures outlined in the 1967 book (Glaser and Strauss 1967). Reading this book is a revelation for the grounded theorist simply because it contains some sympathetic and practical advice. Those who have read the earlier books of Strauss and Corbin (1990, 1998) will also point out that this process of relating categories occurs in a different stage in the Straussian version – the axial coding stage and is related to a particular coding paradigm, a particular way of relating categories. There is more information about the differences between the two strands in Chapter 2 and in Chapter 4.

It is altogether simpler to follow the Glaserian stages of open, selective and theoretical coding, in my opinion, as they have the virtue of being separate and easy to understand. It is also the preferred sequence of the constructivist strand of grounded theory, though Charmaz (2014) does say that axial coding might be an option for researchers, in that it helps them to apply an analytical frame. That said, she also points out that axial coding can restrict the codes a researcher can apply, and that it is difficult to apply. I thoroughly agree, which is why this chapter concentrates on theoretical coding.

This chapter also discusses two key tools that really help us in this stage of theory building – theoretical memos and integrative diagrams. We also look at how to relate our emergent theory to the literature because once our theory starts to take shape, we need to grapple with the extant literature. First, though, we need to ask the question – what is a theoretical code?

What is a theoretical code?

Glaser (1978) puts it simply – there are two types of code to generate – substantive codes and theoretical codes. Substantive codes 'conceptualise the empirical substance of the area of research'. Theoretical codes, on the other hand, 'conceptualise how the substantive codes may relate to each other'. Glaser points out that theoretical codes have to earn their way in the analysis, like any other code – as patterns start to emerge substantively, this narrows down the options for relating substantive codes. If we have read widely, we may already have some theoretical patterns in our heads – but Glaser warns us against 'forcing' a theoretical code on the data simply because they have 'grab' (Glaser 2005). So here's an interesting paradox about grounded theory – grounded theory is an inductive method that stresses emergence, but we could, potentially, derail that emergence by using a theoretical code that forces the theory down a particular route.

We have already seen Glaser's coding families in Chapters 3 and 4 (Glaser 1978, 2005), but here they are again, for information. What is fascinating about

these codes are the options they offer. You can see echoes of many theories in these codes – what they do is abstract how elements of theories relate to each other (see Table 7.1).

Table 7.1   A selection of open codes from Glaser (1978) and Glaser (2005)

Family	Comment
The 6 C's – Causes, Contexts, Contingencies, Consequences, Co-variances and Conditions	This basic coding family, together with family 5, the Strategy Family, was adapted by Strauss and Corbin (1990) as their coding paradigm of 'Causal Conditions, Context, Intervening Conditions, Action/ Interaction Strategies and Consequences'
Process – Stages, staging, phases, phasing, progressions, passages, gradations, transitions, steps, ranks, careers, ordering, trajectories, chains, sequencings, etc.	Glaser remarks that a process should have at least two stages. This family is similar to Spradley's 'a stage of'
The Dimension Family – Dimensions, elements, division, piece of, properties of, facet, slice, sector, portion, segment, part, aspect, section	As Glaser says, the more we learn of a category, the more we see of its dimensions. Of all theoretical codes, this is one that all researchers are likely to use. It is of course very similar to Spradley's 'is a part of'. It's also important to realise that, when theorising, we can privilege one dimension over another – it can become a full blown category
The Type Family – Type, form, kinds, styles, classes, genre	Glaser says while dimensions divide up the whole, types show variation in the whole. So, for instance, you might have a number of styles of introducing a problem in a conversation between the systems analyst and client in the example in Figure 4.1.
The Strategy Family – Strategies, tactics, mechanisms, managed, way, manipulation, manoeuvrings, dealing with, handling, techniques, ploys, means, goals, arrangements, dominating, positioning	As previously remarked, the Strauss and Corbin coding paradigm seems to be a mixture of this family and the first family.
Moment capture, when a quick intervention is critical to causing an optimal outcome, e.g. closing a deal	This is a new theoretical code introduced in the 2005 book.
Frames, which are excavated through discourse patterns and are sociocultural in nature	Also in the 2005 book, I used this idea in my own dissertation work in 1999.
Causal family, a relative of the 6 C's family. This includes several aspects such as (1) bias random walk, (2) amplifying causal looping, (3) conjectural causation, (4) repetitive causal reproductions, (5) equifinality, (6) reciprocal causation, (7) triggers, (8) causal paths and (9) perpetual causal looping	Glaser (2005) gives some wonderful nuances of causation in this theoretical code. Bias random walk is where all variables are in a flux, 'then on the introduction of a crucial variable... then of a sudden all of the variables fall into organisation' Amplifying causal looping, 'where consequences become causes, and one sees either worsening or improving progressions or escalating severity'

(Continued)

Table 7.1   (Continued)

Family	Comment
	Conjectural causation, where it is not always easy to identify decisive causal combinations
	Repetitive causal reproductions, when a repeated action keeps producing the same consequences
	Equifinality, where no matter what the causes and paths, the same consequence will occur
	Reciprocal causation, where there is a similar interaction of effects or amplified causal looping
	Triggers, which are sudden causes that set off a consequence or set of consequences
	Causal paths, used to intervene in changing or stopping a consequence
	Perpetual causal looping, a mathematical model, an ordered calculated growth of increased size based on a set temporal path

So these theoretical codes give many different options for relating categories, and they are quite sophisticated – they give inspiration as to how we might build a theory. Yet Glaser (2005) stresses that it is better to have no theoretical code than a forced one. It has to fit the data and assist in building the theory. It follows, of course, that the grounded theorist is not confined to Glaser's coding families. There are 18 coding families in the 1978 book and a further 23 in the 2005 book. I love the fact that Glaser (2005) says the goal of a GT researcher is 'to develop a repertoire of as many theoretical codes as possible' (p. 11) and that there could be hundreds! The point being that existing theoretical codes are there to inspire you while theorising, but because theory building is a creative endeavour, we can always develop our own.

You may remember that in Chapter 2, I offered a very simple set of theoretical codes for relating categories (Spradley 1979), which I used in my dissertation work. Spradley's book offered a coding scheme for analysing ethnographic data – he defined a 'domain' as an organising idea or concept – akin to a core category in grounded theory. The domains also contained 'folk' terms, terms used by the participants, equivalent to in vivo codes in grounded theory, and 'analytic terms' generated by the researcher and relevant theories. Spradley's work is interesting, because it illustrates however we approach the work of theory building, we need both concepts and relationships. Spradley's 'semantic relationships' are reproduced below. So I think it's quite possible to borrow ways of relating, from theories in your particular discipline and beyond and also from other qualitative analysis methodologies (see Figure 7.1).

It's important to mention at this point, too, that an existing category can become a theoretical code. It may be that a category is in fact a relationship between two categories rather than a category in its own right. For instance, in my work on systems analysts and clients (Urquhart 1999), I had a category of
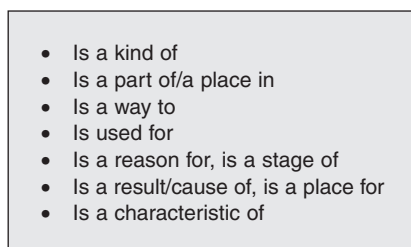
- Is a kind of
- Is a part of/a place in
- Is a way to
- Is used for
- Is a reason for, is a stage of
- Is a result/cause of, is a place for
- Is a characteristic of

Figure 7.1   Spradley's semantic relationships (Spradley 1979)

'Rapport Building'. I could have considered this as a relationship between the categories of 'Agenda Setting' and 'Mutual Understanding' and theorised that, with appropriate rapport building by the systems analyst during agenda setting, more mutual understanding of the system problem would occur.

So, to conclude this section, we can say that a theoretical code inspires us to think about different ways to relate categories. Theoretical codes can be inspired by existing theories, as with some of Glaser's 'coding families', or by other qualitative data analysis methods. Strauss (1987) and Strauss and Corbin (1990) offer a coding paradigm each, which also comprise theoretical codes, albeit a restricted option. Two key points resonate for me when it comes to theoretical codes. First, we are by no means limited by existing coding families proposed by Glaser – we can lift our own theoretical patterns from theories we have read. Second, we need to strike a balance – we cannot force our data into preconceived theoretical frames, or we are not doing grounded theory.

Theoretical memos

Theoretical memos were first suggested by Glaser (1978) in *Theoretical Sensitivity*, and the practice has spread to qualitative data analysis in general. He describes memoing as the 'bedrock of theory generation', and I agree wholeheartedly. They allow creative freedom for the researcher to muse upon the page about what might be going on in their data. During my own PhD thesis writing, I found that a large percentage of the theoretical memoing I had done found its way into the findings and discussion sections of the thesis. This in itself I think should give you an idea of the value of memoing – that valuable and creative ideas about the findings, and relationships between categories, are written down during the process of analysis. They capture the 'lightbulb' moments we have about the data. The idea is that, when coding, the researcher should break off whenever a good idea occurs to them and write it down in a theoretical memo. Glaser (1978) gives some useful rules for generating memos, expressed in Figure 7.2.

My own experience of theoretical memoing was a tremendously exciting and fruitful one, and to a large extent I did follow the rules above. Where possible, I did 'ground' my memos with examples from the data. It really did help though, to have a process where one could step back from the data and abstract, and let one's mind run free through various possibilities. The process helps with abstraction because we clearly distinguish the (sometimes mundane)

1. Keep memos and data separate – this helps the process of abstraction. You can, though, put individual examples of data instances in a memo if necessary.
2. Always interrupt coding for the writing of a memo, so the idea is not lost.
3. You can begin a memo by choosing to write about a code, but, if it is not flowing, don't force the process.
4. Don't be afraid to amend earlier memos.
5. Keep a list of emergent codes handy.
6. If too many memos on different codes are the same, think about whether or not those codes need to be merged or if you need to compare their dimensions for differences.
7. Follow through problematic digressions conceptually, but don't forget to 'ground' those digressions in data.
8. Keep on memoing for as long as resources allow.
9. When memoing, talk conceptually; do not talk about people.
10. If you have two burning ideas, write one up at a time, so you don't lose either of them.
11. Indicate in the memo if you think the category is now saturated.
12. Always be flexible with your memoing – if new ways of doing memos occur, follow them if they are worthwhile.

Figure 7.2   Rules for theoretical memos

Source: Adapted from Glaser (1978).

process of coding and the creative process of theorising. In Figure 7.3, I give an example of a theoretical memo I wrote for my dissertation.

As I hope you can see in the example above, my efforts to define 'agenda setting' as a category led to some deep considerations about the consequences of an analyst setting the agenda in a conversation with their client and how they might conceptualise the information systems problem. I was also interested in how this category might relate to existing bodies of literature such as communications research. I hope you can also see that, once the meaning of a category has been discussed in a theoretical memo like this, it is easy to literally 'cut and paste' some of these memos into the final write-up. I would go as far to say that time spent writing theoretical memos is never wasted because it beats staring out of the window, wondering about your data – it allows you to *productively* explore issues around your analysis. It has often been said that writing is thinking. I encourage all my postgraduate students to start writing as soon as possible and especially during the analysis. The nature of theorising in grounded theory makes it very difficult to separate out the (sometimes mechanical, sometimes not) analysis process, from the theorising write-up. Therefore it's a disaster for the postgraduate student using grounded theory to take the traditional attitude that they will first code the data and then write the findings up later. The overlapping processes of coding and theoretical memoing are what build the theory and also have the added advantage of productivity – the findings are already, in a sense, being written up through the theoretical memos, even if not all are used in the final write-up.

Glaser (1978) talks about the importance of 'sorting' what can be termed a 'fund' of memos. Why is this? Well, memos are usually written in succession, over a long period of time, and so are not likely to occur in a perfectly analytic order. So, sorting the memos gives rise to new analytic insights as memos are

Agenda Setting as a key to both Conceptualisation and Tactics   ID 5297

The purpose of this memo is to try and clarify a few thoughts on *agenda setting*. Agenda setting has many elements, both conceptual and tactical. It could be defined as the process by which a participant (generally the analyst) sets out the topic for discussion, and sometimes the process for managing that topic. Another way of viewing agenda setting is that it comprises a framework for conceptualisation and negotiation (which is a tactical element). Who actually sets the agenda for discussion gives some indicators as to the type of relationship between the analyst and client (cf Hirscheims four models). There is evidence in negotiation literature thatwhoever sets up the framework for discussion is at a tactical advantage.

The way the topic is introduced gives many clues as to how the participant is conceptualising the problem. Therefore by looking at how the analyst defines the problem, we can gain insight into the conceptual schema the analyst is using. What is also of interest is if this conceptual schema influences the solution proffered in the conversation. More broadly, the notion of a conceptual schema that the analyst employs can be seen to be important in the design of information systems. For instance, if the problem is narrowly defined by virtue of the conceptual schema, then the resultant design may be similarly narrow in scope. As the design of information systems rests purely on concepts, then the conceptual schema used becomes very important.

In addition, by examining how the client presents the problem, one can judge if differing schemas are bridged in a joint conceptualisation. If analysts recognise the schemas they are applying to an information system, then they can perhaps apply one or a number of schemas that are appropriate for the problem. It may be that bringing in a too rigid conceptual schema limits the solution, and that broader schemas are appropriate. It may also be that a tactic of information gathering, without bringing in a particular schema, might be more successful.

Agenda setting can be seen as a mediating process between tactics and concepts. As such it could be construed as a relationship. It also provides a bridge between structure of the text and the social processes evidenced by the text, thus helping to resolve the structural/processual dichotomy encountered when analysing discourse. As agenda setting contains both conceptual and tactical elements, one can deduce from the text: the concepts that are informing tactics; how the problem is formulated influences tactics; how the tactics used by both participants influence joint conceptualisation.

Possibly agenda setting is the core category of the study - that process of *how* analysts and clients reach agreement (which after all is the research question). Although the term agenda setting implies a starting point, communications research has put forward the notion of topic as a chain of subtopics - this also fits in neatly with the idea of evolving conceptualisation. The rest of this memo will give instances of agenda setting and its elements, and will discuss how it might play a role in linking concepts and tactics.

Agenda Setting and its elements

In both Cases 1 and 4, the analyst outlines the purpose of the discussion and this can be seen as setting the agenda for the subsequent discussion.

Case 1

1 "What I've done Sue I've drawn up..a couple of points from when we talked last...when you gave me an overview of the system"

Apart from using a number of personal references in as a tactic construed as joint ownership, this can be seen as putting forward a general *conversation topic* (a couple of points) using a *prop* (I've drawn up). This can be seen as a tactic.

5 "Basically what I've..got down here is the data base is about keeping statistics ..for a Student Assistance Scheme."

The analyst refers to a *computer term* - the database almost immediately. One could deduce then that then he sees the database of primary importance in solving the problem. Not surprising as presumably he is in the role of someone whose role it is to provide computer expertise. He then outlines the *system purpose* - a student assistant scheme, and the *system function* – keeping statistics.

These codes can be seen as referring to conceptualisation.

Figure 7.3   Example of a theoretical memo (Urquhart 1999)

- Defining each code or category by its analytic properties.
- Detailing processes subsumed by codes or categories.
- Making comparisons between data and data, data and codes, codes and codes, codes and categories, categories and categories.
- Bringing in raw data.
- Providing enough empirical evidence to support your claims about the category.
- Offering some conjectures to check in the field.
- Identifying gaps in the analysis.
- Interrogating a code or category by asking questions of it.

Figure 7.4   Possibilities for memos (Charmaz 2014)

grouped together. Glaser also points out that a memo fund is the source of all writings from a grounded theory study. Certainly I found it to be so.

Charmaz (2014) offers the following possibilities for memos, outlined in the Figure 7.4.

Note that here Charmaz is expanding the possibilities for theoretical memos implied by Glaser's initial rules, by suggesting that memos can be used for comparing data with data and bringing in raw data. This list illustrates, too, how memos can be used to refine the coding process in quite a structured way and couples them with the coding process even more tightly than suggested by Glaser. I would also add another possibility to this list – using a memo not only to develop the definition of a category but also to use it to explore what bodies of theory or literature might be relevant to that category. I've also used memos to take stock of the analysis and plan future theoretical sampling on the basis of that analysis. In short, theoretical memos are a wonderful, flexible tool that can be used to support theorising in multiple ways. They could even contain diagrams because diagrams can help us theorise too. The next section looks how they can support the theorising process.

Integrative diagrams

Something interesting happens when we put categories into a diagram. Strauss (1987) calls them '**integrative diagrams**', and I think this is a good term. He defines them as a visual device which furthers cumulative integration and gives the following rules of thumb for such diagrams (see Figure 7.5).

Many years ago, I can remember trying to make sense of my grounded theory categories in the write-up of my PhD thesis. Armed with a large glass of red wine, with piles of transcripts around me, I kept on drawing until, finally, I had integrated my categories into one diagram. It goes without saying that the thinking behind such integration triggered a lot of writing, too. Strauss (1987) makes an important point in his book that these diagrams build on each other, that there may be many versions of those diagrams and that the diagrams build on each other through a process of testing and questioning. That was

1. An integrative diagram gives a clear picture of where you have come from after data collection, coding and memoing. It puts together in a larger (albeit provisional) form a lot of otherwise scattered materials.
2. An integrative diagram gives direction to the research. Just as with operational (ongoing) diagrams, black boxes will need to be opened up and relationships between them specified and clarified.
3. Integrative diagrams need to be related to the separate analytic clusters provided by ongoing diagrams and memo sorting.
4. There should not be *one* integrative diagram but a succession of them – each diagram incorporating the preceding one.
5. The number of such diagrams should not be numerous – it's important to not be obsessive about such diagrams at every point in the project. You are ready to draw another diagram if you look at it and it fails to incorporate what you now know.

Figure 7.5   Rules of thumb for integrative diagrams
Source: Adapted from Strauss (1987).

certainly my experience at the time and has been my experience since with postgraduate students – the first diagram is by no means the final one. The figure on the next page is an example of a final diagram. It helped me see how my categories might relate and also which categories might be subsidiary to others (see Figure 7.6).

The key thing about such diagrams, if done carefully, is that they force us into thinking about the categories not as static textual concepts, but conceptual objects that *relate* to each other. I cannot stress enough how important relating the categories is. Without thinking about relationships, we cannot claim to be building theory. Often with grounded theory work, I come across diagrams of the categories that do not show relationships between them. Until we have related our categories, our thinking is not done. This is actually the most rewarding, and intellectually demanding, stage of grounded theory.

It is obvious then that the theoretical coding stage is as much about the relationships between categories, as the categories themselves – where we theorise about the data. Let's now return to our extended examples of coding, started in Chapter 5, and apply the theoretical coding stage to our examples. In these extended examples you will see the application of both theoretical memos and diagrams.

Theoretical coding – Example 1

We left off the example of the Obama inauguration speech with some unresolved questions about relationships between codes, and three emerging possible questions:

What are the major themes of the speech?
Who are the key audiences of the speech?
What techniques does Obama use to reconcile different audiences?
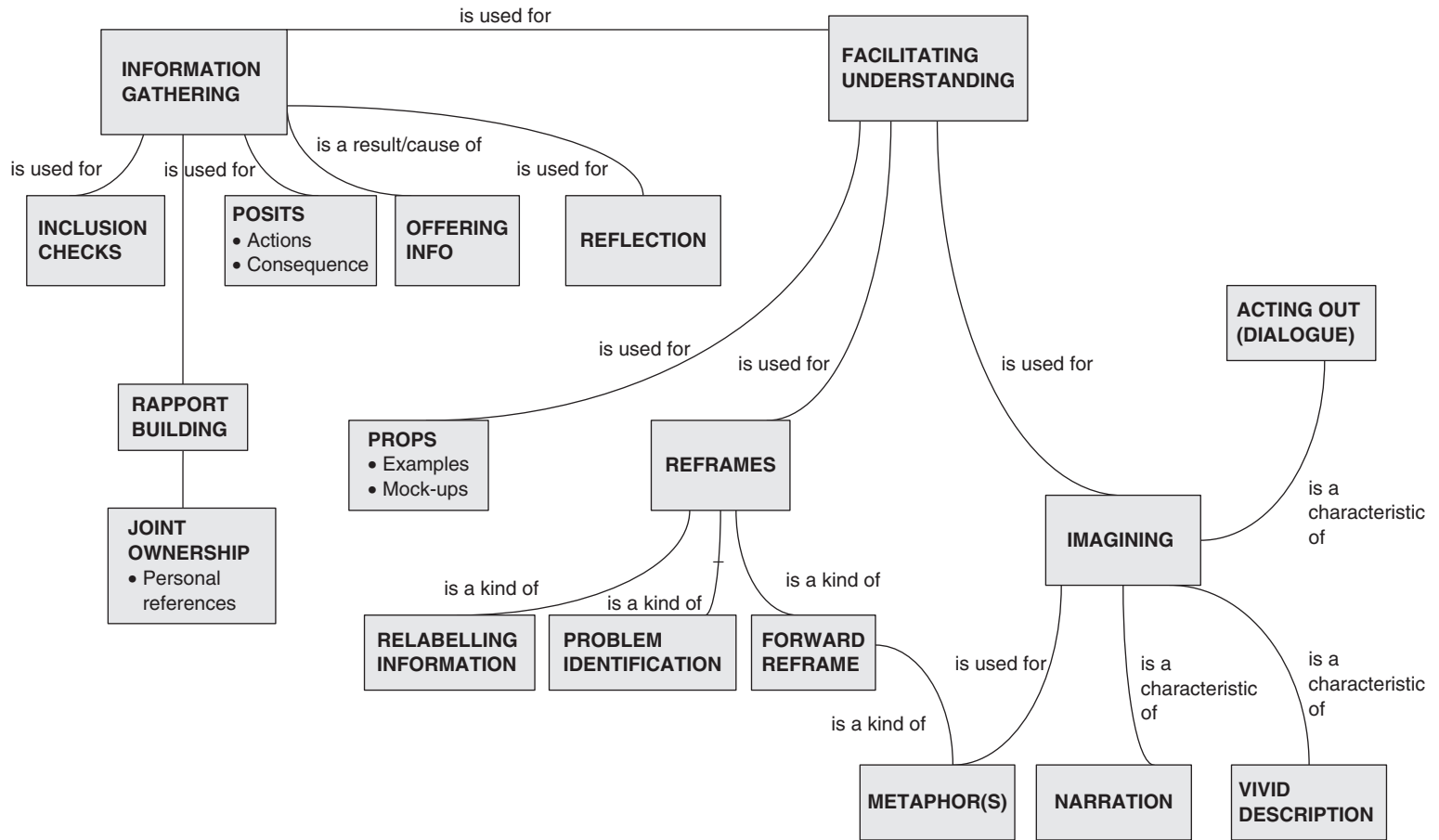
Figure 7.6   An example of an integrative diagram

We also realised that some selective codes could be merged, so historicity was merged with American identity to produce the codes in Table 7.2.

The emergent research questions give us a clue as to how we might organise our selective codes. For a parsimonious theory, where we trade off some explanatory power for the sake of simplicity, both Glaser (1978) and Strauss (1987) recommend 1–2 core categories. Three also seems reasonable in this case. What if we were to have three major categories that corresponded to the research issues that have emerged? Let's put these into an **integrative diagram** and group the selective codes into them (see Figure 7.7).

This of course is not the only potential grouping, and this is both the delight and occasional curse of grounded theory. For instance, the selective code of higher purpose is intriguing. It is possibly related to American identity, in that religion plays a prominent role in the history of the country. For some researchers, this would be an emerging research question of interest. The stress on individuals, shown in the open codes in Table 7.2 as part of American identity, would also be of interest to those interested in American culture.

So, at the theoretical coding stage, it is very clear that there will be some to and fro-ing between this stage and the previous stage. There can, and should, be reflexivity between the two stages. As the research questions, which are dimensions of the initial research problem, emerge, then there is bound to be

Table 7.2   Selective codes for Example 1

Possible selective codes	Open codes
Diversity	Diversity as a strength, as history, different religions, non-believers, inclusiveness, from every place
A changing world	A defining moment, need to adapt to a changing world, A more connected world,
Peacemaking	Hatred as a thing of the past, tribalism as a thing of the past, humanism the dominant force, appeal to enemies, appeal for constructiveness
Higher purpose	Higher purpose in military service, appeal for higher purpose
America's role	America's new role of peacemaker, mutual respect and interests, anonymous naming and shaming, America's role unfolding
Different audiences	Appeal to Muslim world, appeal for constructiveness, honouring soldiers in combat, unique role of soldiers, role of military in guarding freedoms, serving others
Rhetorical devices	Use of metaphor, choice of examples, balancing statements
American identity	Nation relies on individuals, individuals who were kind during Katrina, individuals who save others jobs, importance of individuals, heroes and unsung heroes, historicity, Civil War, segregation, historic role of military

Figure 7.7   Potential selective codes for Example 1

some reflection on the selective codes. Aspects that can influence reorganisation of selective codes and the theoretical coding stage include:

- Open codes that are in themselves so interesting that they suggest a research question all of their own – for instance, in this case the role of the individual in the selective code American identity
- Open codes that suggest a relationship between selective codes. For instance, the open code of 'balancing statements' suggests the need to reconcile different audiences by use of same.

At this stage, it is important to consider relationships in detail because, by doing so, we start to build theory. So, let's attempt to relate the three selective codes we have.

- We can come up with a relationship of 'reconcile' between the 'Rhetorical devices' and 'Key audiences', as it is clear that we can say that these are the devices used to help reach – and reconcile – different audiences.
- When considering the relationship between 'Speech themes' and 'Key audiences', we can see that certain themes relate to certain audiences, for instance, the emphasis on diversity will resonate with the world audience. So, for this relationship, I chose 'resonate with'.
- When considering the relationship between 'Speech themes' and 'Rhetorical devices', we can see that the 'Rhetorical devices' are used 'to convey' those 'Speech themes', and we could speculate about which devices might be used to convey which themes.

These are my own, self-generated, theoretical codes, for relating these categories. Once we have arrived at a relationship or theoretical code, it's also important to make sure we have instances of that theoretical code. So, for instance, we could point to the statement *'To those who cling to power through corruption and deceit and the silencing of dissent know that you are on the wrong side of history but that we will extend a hand if you are willing to unclench your fist.'* is an instance of this relationship.

So, why use a coding family, or the Strauss and Corbin coding paradigm, instead of your own theoretical codes? Simply because they help us think about theory in general and how theory might be constructed. Coding families can provide a useful jumping off point to consider the theory we are developing. For instance, let's consider a few coding families from Glaser (1978) that might be relevant to our example:

- The Strategy Family: strategies, tactics, mechanisms, managed, way, manipulation, manoeuvrings, dealing with, handling, techniques, ploys, means, goals, arrangements, dominating, positioning.
- Process: Stages, staging, phases, phasing, progressions, passages, gradations, transitions, steps, ranks, careers, ordering, chains, sequencings.

The first family is directly relevant to our research problem. It might be that we can identify further techniques and ploys in the speech and consider how Obama positions the themes in the speech.

The second family also gives pause for thought. Is there a sequence to the speech? Can particular stages be identified? Particular transitions in the speech, for instance, where Obama moves from one audience to the other?

We could also take a simpler option for relating categories, one mentioned in Chapter 4 – using Spradley's (1979) relationships, mentioned in his book *The Ethnographic Interview*.

They are reproduced below for easy reference. If you are finding it hard to relate categories, these relationships provide an easy way to start thinking about those relationships (see Figure 7.8).

At this point, we can start writing theoretical memos about the codes, if we have not already written one. As previously discussed in this chapter, theoretical memos are a method used within grounded theory (but not confined to grounded theory) that help us elaborate on ideas. A theoretical memo can be written at any stage in the coding, but is more commonly written in the selective and theoretical coding stages. The idea is that the coder can break off at any point to simply write down the ideas that occur. This is a wonderful aspect of grounded theory – one that allows for inspiration and creativity as it occurs. Usually, a grounded theory study can be relied upon to produce some unique insights, and usually, that researcher has used theoretical memos to aid
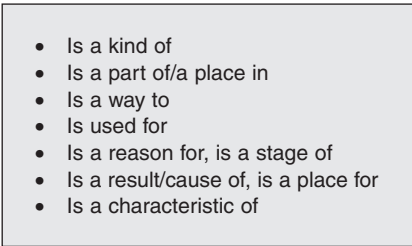
- Is a kind of
- Is a part of/a place in
- Is a way to
- Is used for
- Is a reason for, is a stage of
- Is a result/cause of, is a place for
- Is a characteristic of

Figure 7.8   Spradley's semantic relationships (Spradley 1979)

Rhetorical Devices

So how might rhetorical devices assist with reconciling different audiences? The most obvious instance of this is by the use of balancing statements. An example of a statement like this is *To those who cling to power through corruption and deceit and the silencing of dissent know that you are on the wrong side of history but that we will extend a hand if you are willing to unclench your fist.* This statement faces both ways, in that the first part of it, about being on the wrong side of history, is directed at the domestic audience, and the second part is addressed at the international audience. This issue of different audiences has been picked up by political commentators such as (Feaver 2010) where it is pointed out that people from both home and abroad will be listening very carefully to what Obama says about Iraq, and that those audiences will interpret the same remarks very differently.

The speech also uses 'antithesis' where the audience is invited to contrast two different outcomes (Gorton 2010). It seems that, in this case, the speech uses the device of antithesis to help it make balancing statements. The speech also uses imagery in the form of metaphor to evoke an emotional response–apparently a speech is much more memorable if accompanied with visual images.

Figure 7.9   Example fragment of a theoretical memo

them in that process of insight. Below I give an example of a fragment of a possible theoretical memo for Example 1 (see Figure 7.9).

This theoretical memo also helps us think about *theoretical sampling* – thinking about where to sample from next, based on emerging concepts from the data. For instance, are the concepts emerging from Obama's speech unique and peculiar to his style of oratory, or are they more general, and do all great political speechmakers have these techniques? How might we expand and densify the theory by sampling other speeches?

In the next chapter, we'll return to this example, to consider the issue of how we might use theoretical sampling to build the theory further. One of the major criticisms of grounded theory in the past has been that it tends to produce low-level theories. How can we best respond to this challenge? By first abstracting the theory, as we are doing in these examples, and then by using theoretical sampling to build the theory further. In Chapter 8, there is a detailed discussion of theoretical sampling, based on Glaser and Strauss's original 1967 recommendations.

Theoretical coding – Example 2

Let's now turn to the second extended example. You will recall that, in Example 2, in Chapter 6, we had suggested two different options for selective coding. The first simply selectively coded along different types of training. The second pass looked a bit deeper and tried to surface issues about impact of training and measurement of that impact. So, let's have a look at those selective codes again (see Table 7.3).

At this point, we should be aware that there is an interaction between our emerging analysis and the research questions. One of the most interesting aspects of the interview is the idea that impact of IT skills training is hard to

Table 7.3 Selective codes for Example 2

Possible selective codes	Open codes
Types of skills training	Industry-specific IT training, job-targeted IT training, agencies providing generic skills, word processing skills, web browsing skills, email skills, lack of every day usefulness of generic skills, ease of implementation versus eventual value of skills, local training by (local?) organisations, participant problem-solving with IT, difficulty of locally relevant IT training
Benefits of skills training	Job gain as success measure, community empowerment, benefits of local training, certification as outcome of generic skills
Context of training	Need to understand local context, need to customise, need to understand local problem, applicability of IT to problem
Measurement of impact of skills training	Deep impact of locally relevant IT training, difficulty of measuring locally relevant IT training, ease of measurement of generic skills, testing of generic skills, lack of retention of generic skills

measure and that the most impact is made by locally relevant training. So one emerging research question might be:

- How can we measure the impact of IT skills training?

Another might be:

- How important is the context of IT skills training?

What happens if we put our selective codes into an integrative diagram and try and relate the selective codes? A number of things become clear when we examine the integrative diagram.

First, we can re-examine the status of the 'Context' category. The open codes in that box are all associated with locally relevant IT training. Does this matter? Again, it is a matter of emphasis and what research questions emerge. As a researcher working on this example, I took the decision that context was important and possibly a dimension of the research problem. Ideally, we could use this as a basis for theoretical sampling (deciding on analytic grounds where to sample from next), by asking future interviewees what role they felt context or the environment might play in IT skills training. Having a selective code of context has allowed us to think about the relationship of context with all types of training, and this in fact may help us theorise about the role of context in all training (see Figure 7.10).

Note too that the theoretical codes in this example, as in the previous example, are researcher-generated. We could also see if there are any existing theoretical codes to help us theorise – for instance, Glaser's (2005) 'Cross
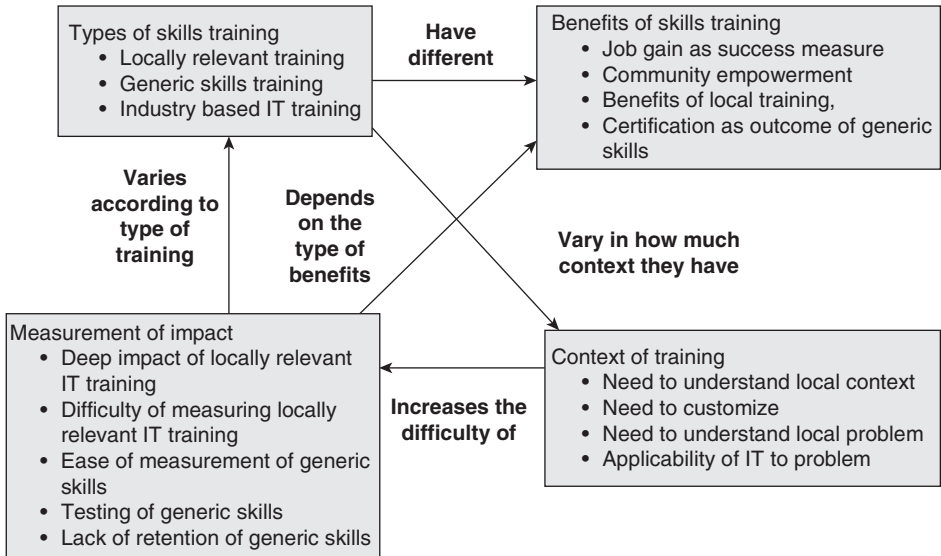
Figure 7.10   Relating categories in Example 2

Pressures' theoretical code, where people are subject to diverse external pressures, could apply to the relationship between ease of measurement and benefits. As soon as we think about relationships in this example, we are in interesting creative territory and it makes for some clear theoretical possibilities. For instance, it is clear that the more intangible the benefit, the harder it is to measure the impact. And yet, the intangible benefits of such training may make more impact. So here is fertile ground for a **theoretical memo.** As shown in the Figure 7.11, I give an example of a theoretical memo about measurement of impact.

   Another important point to raise here is the importance of discussing your selective codes with a colleague. It is good to try out the codes, their meanings and relationships, with a 'critical friend' such as a colleague or dissertation supervisor. As you theorise, it's really important that people understand the components in your theory and what is meant by a particular concept. If the emerging theory is not immediately understandable by a colleague once you have given them a careful explanation, then this points to problems of conceptualisation, or how you justify that conceptualisation. In grounded theory, a researcher can usually point to a saturated category as justification – so the issue is much more likely to be how you have conceptualised that particular category and what role that category plays in your emerging theory. It may also be around how you are using your theoretical codes to relate those categories.

   If you are working within a positivist framework, this issue of inter-coder reliability is important, and the process you follow needs to be carefully documented. Generally, it's useful to get other coders to code the same transcript, or ideally a broad sample of transcripts, and to agree on the selective codes. For instance, in Levina and Vaast (2005), coding interpretations were

> **Measurement of Impact**
>
> One of the major issues surfaced in this interview was that the IT Skills training with the most impact – locally relevant IT skills training – was also the most difficult to measure. What are we to make of this statement? It's certainly true to say that it is easier to measure certification or a job gained, as these are quantitative measures. What is intriguing is the role of context in all of this. The interviewee is very insistent that locally relevant training has impact. How might we measure the impact of locally relevant training? Clearly what might be deemed successful by the participants in that particular context. So, how would that be measured? The first thing that occurs is that this measurement would be qualitative, and might include such things as people feeling that their lives had been improved by locally relevant IT training. A broader implication of this is that qualitative measures might not be taken as seriously by policy makers, despite this interviewee's view that this type of training has impact. And what is exactly meant by impact? We assume that, from the interviewees perspective, impact is linked to development, and that this impact is also long lasting. At this point, it's worth thinking about how we might develop such measures of impact. For instance, the open codes tell us that the problem with generic skills testing is that it is not easily retained. So,one dimension of impact could be that the change that occurs lasts over a period of time. There are a number of literatures that we could look at this point. For instance, evaluation theories. There are many ways to evaluate development projects, but historically IT projects are less well evaluated. Why? For complex reasons such as the difficulty of measurement we are talking about now, but also possibly because IT projects have an element 'of build it and they will come', ie almost magical properties are assigned to IT (Ramiller 2001). If we look at development theories, why not evaluate an IT skills program using the five freedoms proposed by Amartya Sen (Sen 1999).

Figure 7.11   Example of a theoretical memo for Example 2

actively challenged by dint of each author writing up their analysis of the case. Interpretations were also checked with participants to ensure their rigour.

Tips for theoretical coding

Hopefully, the preceding two examples will have given you an idea of how to go about the business of theoretical coding. The examples will also have illustrated, I hope, the creative and somewhat messy business of theorising. Please see Figure 7.12 overleaf for some tips for theoretical coding.

Relating the emergent theory to the literature

In this section, we are concerned with how we might relate the theory we have built with existing literature. Our theory at this point is not tested or proven – but we can improve what is known as analytic generalisability by relating the theory to other theories in the literature. This stage is referred to as 'theoretical integration' in Urquhart et al. (2010), and we have also discussed the need to set our emerging theory against the literature in Chapter 3. To me, this is an essential component of good scholarship – if we only come up with new concepts but fail to set those against the literature, we are, in my opinion, doing only half the job. It is much easier to assess the contribution of a new theory if we can see how it might extend or challenge other literature.

1. Theoretical coding is an incredibly important point in coding; it builds theory, and adds immeasurably to your findings. Without the theoretical coding stage, we are not doing grounded theory.

2. It's an exciting stage of grounded theory because this is where the theorising happens. Theoretical memos are a vital tool to help this theorising.

3. There is a balance to be found between the concept of theoretical sensitivity (Glaser 1978), where we find inspiration for theoretical codes from existing theories, and making sure we don't impose those theoretical codes on the data in our enthusiasm.

4. The stage of theoretical coding inevitably brings a reconsideration of categories, so be prepared to regroup and reconsider your categories.

5. The stage of theoretical coding does bring into focus the research question, and suggests also new routes for theoretical sampling.

6. When you have come up with a relationship, revisit your data – does the relationship properly express what is in the data?

7. It's important to discuss the naming of categories, and how they relate to each other, with colleagues. This is because the meaning of the theory is expressed through that naming.

Figure 7.12   Tips on theoretical coding

Generally, that existing literature falls into two categories – theories at the same level or slightly higher than the one we are developing (hence the need to abstract a grounded theory, so we can relate it sufficiently), or meta-theories. By a meta-theory, I mean the 'grand' or 'formal' theories that Glaser and Strauss (1967) referred to. These theories tend to have a very wide scope and apply to almost all aspects of organisational or social life; good examples would be structuration theory or actor-network theory, or theories of social capital. Meta-theories can often form an interesting lens through which to view an emergent theory – for instance, Levina and Vaast (2005) use a practice lens through which to view their theory on boundary spanning individuals in organisations.

Having established that it is both necessary and desirable to relate the emergent theory to the literature, how might one go about it? Depending on the grounded theory strand being used, the researcher may already have done a non-committal literature review as suggested by Urquhart and Fernandez (2013). The first thing to note, then, is that the developing theory determines the relevance of that literature review. In practice, most people end up looking for some more literature once their theory has developed. Where this literature comes from depends largely on the discipline area of the work being done. Postgraduates doing dissertations probably need to keep one eye on examiners who also know the discipline area. More experienced researchers might want to look outside their discipline area as well as within it. My experience is that, because grounded theory does often lead to new discoveries, researchers need to keep an open mind about what literature might be useful. I think this is also why Barney Glaser stresses *theoretical sensitivity* – the need to read widely and to be sensitive to what theory actually is. This can be quite demanding, in that

not only does the emergent theory need to be engaged with different sets of literature, those different sets of literature also need to be integrated too.

As has been previously stated, it helps if the theory you have developed is of a sufficient level of abstraction, as this helps in the process of theoretical integration. I find it helpful, too, to think of how the emergent theory relates to the literature in one of three ways.

First, does the emergent theory confirm the existing literature? Hopefully, that is not all the emergent theory does – if that is all it does, then this is not a very interesting piece of work! Your emergent theory should contribute in an important second way – by *extending* the existing literature. It helps, at this point, to explain exactly what new concepts are contributed to the literature and how it extends the existing literature, and there is more information on how to present your theoretical integration in Chapter 9. Third, does the emergent theory contradict the existing literature? This can be exciting, and interesting, and suggest new avenues for future research. In any case, how the emergent theory relates to the existing literature needs to be carefully explicated. This is necessary, I think, for several reasons. First, while grounded theory remains a minority pursuit in academia (however well done), it is necessary to explain that grounded theory, is, well, about building theory. Second, it is much easier to demonstrate scholarly contribution if the role of the new theory can be demonstrated in the context of existing theory.

Let's revisit our extended examples and see how we might proceed integrating our findings with the literature.

Relating the emergent theory to the literature – Example 1

In Example 1, where we analysed President Obama's inauguration speech, we ended up with three emergent core categories – speech themes, rhetorical devices and key audiences, reproduced in the Figure 7.13:
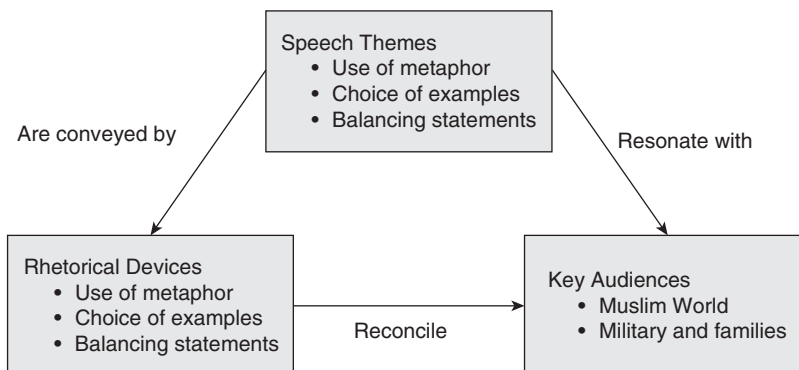
Figure 7.13   Emergent categories in Example 1

What might be the options here for relating to theory? There are several bodies of theory we could choose to relate to. Rhetoric studies might be a fruitful avenue. Presidential inaugural speeches have been studied quite extensively, as they provide a freely available cache of secondary data for communications scholars, and this might be helpful for future theoretical sampling, if we wanted to extend our emergent theory to all inauguration speeches, or all US presidents. There has been some work on how metaphors operate within political speeches, and we can examine this literature to see if our findings show whether Obama does something different with metaphors from other speechmakers. Literature on leadership may also have something to say (Table 7.4).

It is interesting to note that, while the international audience is considered in Dudash (2007) the issue as to how the messages to this audience are reconciled with the domestic audience are not, so our findings can be seen an extension of how international audiences are dealt with, in the form of 'balancing statements'. There is also the question of how multiple domestic audiences might be reconciled in our category of 'Key Audiences'. Rowland (2002) points to the issue of reassuring allies and warning enemies, and it is possible that the 'balancing statements' identified in the emerging theory are key to this. Many of the 'balancing statements' identified were in the form of metaphors, so another possible contribution of the emergent theory is how metaphors might be used in this way. We could also link metaphors to the use of images and reconsider in our coding whether we wish to examine images further.

In the analysis we also have 'Higher Purpose' coded under speech themes, and Frank (2009) has examined religious themes in Obama's speeches. Coe and

Table 7.4   Relating the literature to Example 1 in Chapters 5 and 6

Category	Relevant literature
Rhetorical Devices	Mio et al. (2005) suggests that highly charismatic presidents use twice as many metaphors than non-charismatic presidents. Some use root metaphors, which extend over the whole speech.
	Seyranian and Bligh (2008) suggest that charismatic leaders use more inclusive language, that they use more imagery, and also appeal more to higher values.
	Emrich et al. (2001) also suggest that those US presidents who use imagery in their speeches are considered more charismatic, whereas those who use 'concept words', appealing to logic, are not.
Speech Themes	Dudash (2007) Inaugural speeches generally contain themes of American ideals and American identity (Beasley 2001)
	Rowland (2002) says the address needs to be formal, commit to values, place the nation in the context of history and be ceremonial.
	Coe and Reitzes (2010) identify hope and change as major themes in Obama's early speeches. They also identify appeals to policy, thematic appeals, morality appeals and factious appeals. They also consider the context of those speeches.
Key Audiences	Rowland (2002) says that inaugurals 'reassure the allies and warn enemies'.

Reitzes (2010) also identify that Obama's speeches have 'morality appeals', where key values, religion, patriotism and family are covered. So one interesting future direction of this research might be how Obama explores morality and if his explorations in his speeches are different from other presidents.

We had three emerging research questions identified in Chapter 6;

1   What are the major themes of the speech
2   Who are the key audiences of the speech and
3   What techniques does Obama use to reconcile different audiences?

Of these three, we can see plenty of supporting evidence in the literature for 1, some supporting evidence for 2. It looks as if we may be able to extend the literature in our third research question and relate it to how metaphors and images are used to reconcile audiences.

Note too that the literature here comes from various disciplines. This range of disciplinarity may just reflect that I am an information systems academic, and so not rooted in communication studies, linguistics or related fields, but it also illustrates the brilliance of the idea of theoretical sensitivity; the principle that, by being sensitive to theories in general, in all fields, we can enrich our categories and emergent theory from many different sources.

Relating the emergent theory to the literature – Example 2

In the second example in Chapter 6, where we analysed an interview about IT skills training in developing countries, we ended up with four emergent categories, shown in the Figure 7.14.
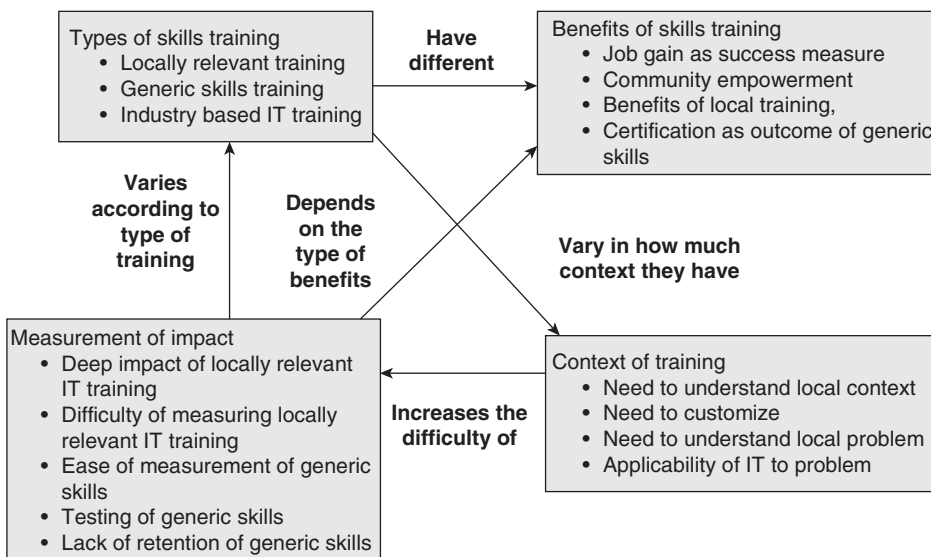
Figure 7.14   Emergent Categories in Example 2

One clear finding here is that the evaluation of skills training will vary by type, and also that, possibly, the more difficult to measure skills might be the most relevant. So, what literature might be relevant here? Again, as in the previous example, literature was drawn from different fields. These sources come from development studies literature, the Information and Communication Technology (ICT) for development literature (a niche area of the information systems, with its own journals) and the evaluation literature (see Table 7.5).

Table 7.5   Relating literature to categories in Example 2

Category	Relevant literature
Types of Skills Training	Lockheed (2009) suggests that adult learners need (1) content relevant to issues facing the participants in their country, (2) a pedagogical approach involving having participants develop 'action plans' specifying how participants will apply the skills and knowledge from the course, (3) a longer course with fewer participants (but with diminishing returns) and (4) a course that was professionally designed. Course 'tailoring' to fit the participants is also positively associated with outcomes: alignment of the course to the participant's job, homogeneity of participants in terms of occupation and responsibilities, and specific country focus
	Brunello (2010) suggests that the majority of training and education using ICTs has a mechanistic focus, and that the context of development projects on the ground, and donor requirements, mean that beneficiaries are sometimes ignored.
Benefits of Skills Training	Badshah (2010) suggests that a focus on community empowerment, strong and effective intermediary organisations, local ownership and impact, and local leadership must be in place for IT skills programs – IT alone does not confer the benefit.
Measurement of Impact	Heeks and Molla (2009) suggest that impact of ICT4D projects consists of outputs, outcomes and development, occur after the deliverables of a project, and are connected with adoption and sustainability. They also classify impact assessment frameworks as generic, discipline-based, issue-specific and application-specific.
	Jeffrey et al. (2005) put forward a means of evaluation of educational achievement using social capital theories such as Bourdieu (1986).
	White (2010) discusses what impact means in development circles and suggests that evaluators and donors have different definitions of impact. Evaluators see impact as occurring after the project and as long-term effects, whereas funders see impact as the difference between the intervention and non-intervention.
	Ruth (2000) suggests that ICT training in the developing world is typically only measured immediately after training and proposes a longer term model, the Kirkpatrick model, which treats the training event as a first step in a process that ultimately changes in attitudes, behaviours and even life styles.
	Lockheed (2009) suggests that mixed-methods evaluation is now more common but that this increases the cost of evaluation.

Table 7.5   (Continued)

Category	Relevant literature
Context of Training	Badshah (2010) also gives several examples from the field where the context makes a difference between success and failure.
	Kuruvilla et al. (2002) suggest that the Singapore model of skills training might be transferable to other developing countries – elements include training institutions, an alignment with the economic strategy and industry partners.

With regard to the types of IT skills training, Lockheed (2009) gives some very useful insights into the extent of customisation that might be possible on such courses, and this indicates that the types of IT skills training might even be finer grained. It also suggests that perhaps the research question could be defined to focus only on customised IT skills training, especially as Badshah (2010) also talks about the context of training as being vital. Brunello (2010), in a view from the field, says that most types of IT skills training tend to be generic and mechanistic.

One striking thing about the search is that there was little available on the benefits of IT training – it is almost as if these benefits are assumed. These benefits are opposed by views such as Brunello (2010) who feels that the tangible nature of ICTs tends to lead to a very mechanistic evaluation. That said, Badshah (2010) mounts a strong argument for the benefits of such training, as long as they are implemented in a way that focuses on empowerment. Both views, interestingly, come from practitioners. Badshah is talking about the same skills development program as the interviewee in the data excerpt, so the mutual emphasis on community empowerment is perhaps not surprising.

With regard to measurement of impact, Heeks and Molla (2009) give a very useful taxonomy of available ways to evaluate the impact of an ICT4D project. What would be interesting here is to consider the available options to see what might be most appropriate. For instance, we could consider whether our measurement could be discipline-based or application-based, i.e. tailored for ICT skills training specifically. Because ICT skills training builds the person's capacity, perhaps a social capital theory approach to evaluation would be appropriate (Jeffrey et al. 2005). Certainly the lack of literature on ICT skills evaluation indicates that we would be extending the theory in this area.

Our brief exploration of the literature also indicates the importance of context of the training, and the discussion in Badshah (2010) gives examples of how varying contexts make a difference to the success of such training. Kuruvilla et al. (2002) take a broader view of IT skills training and poses the question of whether a nationwide program such as Singapore's is transferable to other contexts.

Our emergent research question is 'How can we measure the impact of skills training', and so far, there is some literature on impact and options for evaluation, and also how that skills training might be characterised. Looking at the literature above, it might be that we could be more specific about the nature of skills training we hope to measure the impact of, or at least opt for a more nuanced classification than we have at present, which implies more theoretical sampling along these lines. Similarly, we can see that the context is important, and this raises some important questions for the direction of the research – do we explore many different contexts, or just one, say, program in one country, or several countries? We could opt for the approach of Heeks and Molla (2009) and consider a taxonomy of approaches for evaluating IT training, depending on type of context, benefits and type of training.

Summary

- This chapter examined the act of theoretical coding through two extended examples that commenced in Chapter 6. It also discussed the role of theoretical memos and integrative diagrams in supporting theoretical coding.
- What exactly a theoretical code might compose of was discussed. A theoretical code is a code which defines the relationship between two substantive codes. Different options for theoretical codes were discussed, such as Glaser's theoretical codes and ways of naming relationships. It was also pointed out that theoretical codes are very often researcher generated rather than previously existing. To try and impose a theoretical code on your data would be tantamount to 'forcing' the theory down a certain path.
- Coding families as suggested by Glaser (1978, 2005) and the coding paradigm as suggested by Strauss (1987) and Strauss and Corbin (1990) can give ideas for relationships between codes. The nine semantic relationships (is a way to, is a part of, etc.), proposed by Spradley (1979), can also provide a simple and helpful starting point for thinking about relationships.
- Theoretical memos are key tools at this stage and are highly recommended. They can also be used during the selective coding stage. Theoretical memos are designed to help us capture that 'aha' moment when we are coding the data and to help us capture key ideas about the data. Theoretical memos provide us with some creative space to muse aloud on the page and theorise about the data. They tend to find their way into the final write up of the research because they often contain creative insights about the emerging theory. Theoretical memos also provide an opportunity to start relating the emergent theory to the extant literature, again, useful for the final write-up.
- Similarly, integrative diagrams are highly recommended. Integrative diagrams help us think about relationships between categories and grouping of categories. It is likely too, that the first integrative diagram you draw will not be your last – these diagrams tend to build on each other, reflecting the theory-building process.

- The processes of selective coding and theoretical coding are reflexive rather than sequential. Although the phases are presented sequentially for the purposes of the book, the examples show how there is considerable overlap between the stages. What tends to happen is that aspects of the research problem emerge at this stage, which then prompt a reconsideration of the selective codes and sometimes also the open codes. For instance, an open code may be so interesting on reflection that it suggests a research question. This means that the open code needs to be elevated and the codes regrouped. Another possibility is that an open code suggests a relationship between selective codes. Overall then, we should expect and welcome changes in our codes in this phase, and it means that some creative theorising is happening.
- This chapter also related the emergent theories of both examples to the literature. This can be done quite systematically, in the sense that you can take your built concepts and search for them in the literature. My experience for each example was different. In the Obama example, the literature came mainly, but not exclusively, from communications scholars. This was in part a function of the research problem, in that we were interested in rhetorical devices, but we could equally have searched in political studies and perhaps revised our research question, or focused more on literature about the language leaders use. In the second example about evaluation of IT training, the absence of literature about evaluation of IT training gives a clue to the potential contribution of the emerging theory.

EXERCISES

1 Continue to analyse the interview transcript or paragraph you sourced when you did the first exercise in Chapter 6. Apply theoretical coding to your selective coding. Try applying a theoretical coding family or paradigm, as well as generating your own theoretical codes. Which works better for your example?

2 Write a theoretical memo. Use the writing of the theoretical memo to help you explore literature that might be relevant. Where possible, reflect on your data, as can help the eventual write-up of the research.

3 Reflect on your experience of theoretical coding. Did you regroup codes? Has the research problem changed? What difficulties did you encounter?

WEB RESOURCES

It's hard to find good web resources about the process of theoretical coding, as they all come from a certain viewpoint. Instead, I offer you this lovely interview by Graham R. Gibbs with the late Kathy Charmaz – some good pointers about coding

and clarification of some important questions. https://www.youtube.com/watch?v=D5AHmHQS6WQ&t=145s

FURTHER READING

Glaser, B.J. (2005). *The Grounded Theory Perspective III: Theoretical Coding.* **Mill Valley: CA, Sociology Press**. This book gives an inspired and honest account of the issues around theoretical coding.

Levina, N., and Vaast, E. (2005). 'The Emergence of Boundary Spanning Competence in Practice: Implications for Implementation and Use of Information Systems'. *MIS Quarterly* 29(2): 335–363. This paper gives an interesting account of grounded theory generation from a largely positivist perspective. It is notable for two reasons: first, it is very clear that its aim is to generate a formal theory; second, it shows clearly through its explanation of its coding methodology how rigour was ensured.

FREQUENTLY ASKED QUESTIONS

I have too many core categories, what do I do?

I have lost count of how many times this issue comes up, and it is almost bound to, given that the analysis starts with line-by-line coding. The simple answer is to regroup the categories into larger ones. So, even if you feel you have gone through all three stages of open coding, selective coding and theoretical coding, reconsider those selective codes and see if you can group them again. Consider that the founders of grounded theory suggested 1–2 core categories. If you can get to this level of abstraction, it is much, much, easier to engage your theory with higher level theories. You can still report the richness of your findings via the lower level categories, but the more abstracted your categories are, the more likely you are able to make a clear theoretical contribution.

I have lots of relationships between lower level categories, but it's hard to think of relationships between my core categories – what do I do?

Consider carefully those relationships between the lower level categories. It may be that you can elevate one of those relationships to be a major relationship. Given that there may be competing relationships among subcategories, it takes a lot of thinking and theorising to decide what might be the most important and possibly a reconsideration of the major category itself. Obviously it is helpful to write a theoretical memo about possible relationships. Another possibility is to come up with an entirely new relationship, inspired by your own thinking, existing theoretical codes you know of and theories you have come across. Once you have a relationship, consider it is justified by the data.

Surely, if I find a theoretical family and fit my data to it, this is forcing! I don't understand how we are encouraged not to let theories interfere with our coding, and then there are all these theoretical codes, which look like, well, theories.

Letting the analytical storyline emerge in the open coding and selective stages is an important tenet of grounded theory. Examining the data closely, and without preconceptions, enables new discoveries. If we impose theories at this stage, we are going against the major strength of grounded theory – its ability to come up with something new. If you look closely at the theoretical families suggested by Glaser, you can see that they are inspired by theories, rather than theories themselves. They focus on the different types of relationships that are possible in a theory, rather than impose a theory. You can do this yourself, by looking at existing theories in your area and abstracting various relationships from them. Glaser, in his 2005 book (Glaser 2005) devotes a whole chapter to the issue of 'forcing' theoretical codes. He points out that sometimes forcing occurs because it is an excellent way of resolving personal confusion. I do agree with this, sometimes people find it hard to live with what might seem like an ambiguous analysis and they want resolution. Glaser's advice here is very helpful – better no theoretical code than a forced one! Remember that the number of theoretical codes are not limited to the suggestions in front of you. They can, and often do, come from your own creativity when coding the data.

8

Theoretical sampling – Deeper and Wider

This chapter:

- Discusses the centrality of theoretical sampling to grounded theory
- Gives an example of how to apply theoretical sampling using Glaser and Strauss's advice in the 1967 book
- Provides examples of how dissertation students have approached theoretical sampling
- Considers what a slice of data can comprise

This chapter delves into theoretical sampling and explains why it is so central to grounded theory, and also gives some examples on how we might approach it. While the previous edition of the book discussed theoretical sampling in the Research Design chapter, this is a new chapter designed to give a substantial elaboration on the subject.

The *Discovery* book (Glaser and Strauss 1967) had a whole chapter devoted to theoretical sampling, and it is indeed central to grounded theory. It is very clear that Glaser and Strauss were engaged from the outset with practical considerations for building theory – for them, the key issue of what data to collect next was always controlled by the emerging theory.

Possibly the best comment I've seen about theoretical sampling belongs to my colleague Walter Fernandez when he said '*Anyone who has actually studied GT will agree that you can do it with any kind of data. Indeed, a key dictum of GT is: ''All is data.'' It's true that it doesn't really matter what type of data you are using, but you do need to understand that the data are gathered for a reason – that is, to allow the process of theoretical sampling to occur. In other words, you collect slices of data, analyse the data, and – based on that analysis – decide on the next wave of data gathering*' (Walsh et al. 2015, p. 586, author's emphasis).

If you do a literature search on the topic of theoretical sampling, you'll find a plethora of terms used. Breckenridge and Jones (2009) point out that theoretical sampling is often confused with purposeful sampling, and that Hood (2007) has suggested that 'all theoretical sampling is purposeful, but not all purposeful sampling is theoretical' (p. 158). Morse (2007) gives us a useful breakdown of different sampling types, shown with my own additions in Table 8.1.

It is important to realise then, that all sampling is not theoretical sampling. Morse (2007) suggests that convenience sampling is a very good way to scope out the phenomena in a grounded theory study, and sets out a sequence of sampling to follow. I think to start with convenience sampling is excellent advice – often I ask students to just go and have a chat with a potential participant or two, to help them step outside their preconceptions and what they might have read. Morse also suggests 'snowball' sampling in this stage, where participants can nominate other people who might be useful to interview. You can also think of this process as setting up a pilot before the main study – this is precisely what you will see later in the chapter with an example from a dissertation by Anand Sheombar (see Figure 8.2). Once you have an overview of the participants, you can then move on to purposeful sampling, where the participants are selected on the basis of your initial analysis of that convenience sample. *Theoretical* sampling commences only once key categories start to emerge. Morse also suggests another sampling phase – theoretical group interviews. This is where findings are taken back to the participants for discussion – this is something you can choose to build into your research design.

Of course, there may be very practical reasons why it is difficult to enact theoretical sampling in a particular study – for instance, doing a one shot case study at an organisation, or doing fieldwork in difficult conditions where there is little opportunity for overlapping analysis and data collection. I don't think that the lack of opportunity to do theoretical sampling should deter people from doing grounded theory. In Chapter 5, I suggested two potential light forms of theoretical sampling. First, you can set up the research so that you have more than one phase (Charmaz 2014 also suggests this, in the form of a member checking phase), so that you can use the emergent concepts to

Table 8.1   Sampling types

Type of sampling	Definition
Convenience Sampling	Where participants are selected on the basis of accessibility
Purposeful Sampling	Sampling is based on initial analysis of interviews
Theoretical Sampling	The next slice of data is selected based on emerging concepts
Theoretical Group Interviews	Where preliminary findings are checked with the participants in a group – Charmaz (2014) suggests a member checking phase in your research design

Source: Adapted from Morse (2007).

shape the next phase. Second, you can use emerging themes from interviews to shape the questions in further interviews, even if you have not had time to seriously code your transcript. This could be interpreted as purposeful sampling as per Morse's (2007) definition, but I prefer to think of it as a limited form of theoretical sampling, and it's easy to see here how the two definitions might overlap.

The rest of this chapter is designed to give you a deeper insight into theoretical sampling, so you know what the options might be in your research design. Given that it is at the core of the method, knowing that core will give you a better theory, and importantly, the means to assist that theory expansion by going deeper and wider.

Glaser and Strauss's recommendations for theoretical sampling

The great contribution of their chapter on theoretical sampling in the 1967 book was their assertion that the selection of comparison groups gave control over two aspects of the developing theory – first, conceptual level; and second, population scope. This is expressed in a table on p. 58 of the chapter, reproduced in this section, that shows the consequences of minimizing and maximizing differences in groups, and considering the variations *within the data* of those groups. Thinking about this for a moment, we realise that 'variations in the data' are expressed by variations in categories. So we can build the theory *wider* by extending the population scope, and *deeper*, by looking at the conceptual level as expressed by variations in the categories.

For Glaser and Strauss, the purpose of selecting groups is not about comparisons between and inside substantive groups, useful though that may be. Their criteria are 'theoretical purpose and relevance – not of structural circumstance' (p. 48). Again, this is a reminder that theoretical sampling is all about the developing theory, not the samples you may have come across that were convenient to sample in the research setting.

Glaser and Strauss also lay great stress on either maximising or minimising differences between groups to control 'theoretical relevance' (p. 55) of data collection. They also point out that this then has a bearing on categories. For instance, if a similar group is chosen, many more instances of a category will be collected, while important differences might be spotted that were not noticed in earlier data collection. This is important for establishing the properties of a particular category, and Glaser and Strauss suggest that these properties are established *before* differences in groups are maximised.

When maximising differences between groups, data in a particular category will vary. This allows the researcher to think about the 'strategic similarities' between groups, which give the uniformities of scope within the theory. They state that maximising differences in groups *'brings out the widest possible coverage on ranges, continua, degrees, types, uniformities, variations, causes, conditions,*

consequences, probabilities of relationships, strategies, process, structural mechanisms, and so forth, all necessary for elaboration of the theory' (p. 57). We can see here too an early reference to theoretical coding (Glaser 1978) and a recognition that a widening of scope means that relationships between constructs have to be reconsidered. They summarise their recommendations in Table 8.2.

Another way of thinking about this table is that its key contribution falls into two areas. First, it helps us see that *maximising differences between groups helps us extend the scope of the theory* we are working on. Second, *we can raise the conceptual level of our substantive theory by considering the categories themselves*. In particular, we can consider the unsaturated categories in our analysis as a promising avenue to raise the conceptual level of the theory, by guiding us to more interesting groups. The fascinating thing about this table is that it draws attention not only to issues of scope but also to issues of the data, as expressed by the categories themselves, and how considering categories can improve the quality and conceptual level of the theory.

While Eisenhardt (1989) popularised theoretical sampling for group differences, she did not consider theoretical sampling of concepts, in the same way as suggested above. She however talked about within case comparison based on categories, which can be seen as a variation of sampling for concepts in the data. The differences in strategy between grounded theorists and mainstream qualitative researchers can perhaps be seen as a consequence of different methodologies for theory building – Eisenhardt (1989) used cases, while grounded theory methodology relies upon slices of data. So, how might these recommendations for theoretical sampling, as suggested by Glaser and Strauss, be carried out? What happens if we try and follow what the table suggests?

Table 8.2 Consequences of minimizing and maximizing differences in comparison groups for generation of theory (Glaser and Strauss 1967, p. 58)

	Data on category	
Group differences	**Similar**	**Diverse**
Minimized	Maximum similarity in data leads to: Verifying usefulness of category; Generating basic properties; Establishing a set of conditions for a degree of category. These can be used for prediction.	Identifying/developing fundamental differences under which category and hypothesis vary
Maximized	Identifying/developing fundamental uniformities of greatest scope.	Maximum diversity in data quickly forces: dense developing of properties of categories; integrating of categories and properties; delimiting scope of theory

Enacting Glaser and Strauss's recommendations for theoretical sampling

In Vaast and Urquhart (2017), we briefly discuss what Glaser and Strauss's advice on theoretical sampling might mean in practice for generation of social media theory, and use the example of Facebook statuses. In this section, I expand in detail on that example, and the steps of theory building that I believe are implied by the table. The example I give below is a constructed one, in order to explore each recommendation in turn. Later in the chapter, you'll see some examples from PhD dissertations.

Glaser and Strauss state that, at the beginning of generating a substantive theory, differences should be minimised in comparative groups. We can choose to minimise or maximise differences in groups along several dimensions, such as age, country, language, political affiliation and so on. Maximising those differences helps use theorise on relationships, conditions, patterns and mechanisms (Glaser and Strauss 1967, p. 57).

In our Facebook example explained below, we may wish to look at slices of data from other online sources, such as personal blogs, Twitter feeds, or how a person responds to other comments from people below the line (BTL) when commenting on a news article. The theoretical sampling and choice of data slices depends on how the theory develops. It is important to realise that the motivations for theoretical sampling are theoretically motivated; it is not a question of simply verifying the category in various populations. How might we operationalise the advice from Glaser and Strauss on theoretical sampling, and how does it help the development of a theory? Each step in the example is cross referenced to Table 8.3.

Step 0

Let us imagine we are trying to understand how people use Facebook. Suppose we start with a group of individuals aged 18–25, based in the United Kingdom, who use Facebook. By coding their Facebook statuses, we can see that there are many instances of people actively managing their Facebook statuses. Those statuses are chosen, or curated, to give the best possible impression of that person's life and circumstances. We draw this conclusion from the data because there are very few statuses that do not portray the status owner as someone who is successful, surrounded by friends and enjoying travel. We decide to call this concept or code 'curating'. At the same time, we notice another interesting, minority use of Facebook status – a very personalised status that seems to be aimed at only a few people who might understand it. This concept we choose to call 'personalising'. At this point then, we have a choice whether to pursue the theory development via saturated or unsaturated concepts (Lehmann 2010). What should we do next?

Table 8.3   Example of theory building using Glaser and Strauss's recommendations for comparison groups (Urquhart 2019)

Group differences	Concepts in the data	
	Similar	Diverse
Minimized	Maximum similarity in data leads to: Verifying usefulness of category; generating basic properties; and establishing a set of conditions for a degree of category. These can be used for prediction.	Identifying/developing fundamental differences under which category and hypothesis vary
Example – Sampling Facebook population of similar age and in same country	**Self-presentation through status message** ('Curating') **First stage of theory building** **STEP 0** **Improve the theory by theoretical sampling for unsaturated concepts in similar populations**	**Communicating to a few people through highly personal status message ('Personalizing')** **Self-presentation through status message. ('Curating')** **STEP 1** **These identified as aspects of a broader category called Impression Management** **Extend the scope of the theory further by sampling a different group for 'Impression Management'**
Maximized	Identifying/developing fundamental uniformities of greatest scope	Maximum diversity in data quickly forces: dense developing of properties of categories; integrating of categories and properties; delimiting scope of theory
Example – Sampling diverse Facebook population – different ages, different countries	**Managing of Facebook Status. ('Impression Management' consisting of 'Curating', 'Personalising' and other properties discovered)** **STEP 2** **Extend the scope of the theory further by considering new unsaturated concepts that emerge**	**Sample for unsaturated concepts discovered in previous phase, to further extend the theory scope and deepen the category of Impression Management** **STEP 3**

We can base our theoretical sampling on either 'curation' – what we could call maximum similarity in data, or 'personalising', what we could call a fundamental difference in the data as to how people approach their Facebook statuses. In this example, we first choose to pursue the unsaturated concept 'personalising', in order to learn more about the category, and proceed to Step 1.

Step 1

We would then sample a new Facebook group, of the same age, 18–25, in the same country, for the unsaturated concept of Personalising. Group differences are minimised, as it is a similar group, but we are pursuing diverse concepts in the data.

We would actively seek out slices of data that consist of statuses that are Personalising, for the purpose of learning more about this particular category. This will quickly fill out the category and help us understand how it might vary in different circumstances. Obviously, both 'Curating' and 'Personalising' could be subsumed into a higher level concept of, say, 'Impression Management' as the theory increases in scope, and we could probably expect new categories to emerge, which can be aspects of 'Impression Management'.

Step 2

We could then proceed to maximise group differences by sampling different age groups, and different countries, in order to deepen the theory and 'identify the fundamental uniformities of greatest scope'. In this stage, we will be paying attention to the saturated concepts of curating, and possibly personalising. This will further fill out the category 'Impression Management', which consists, at present of curating and personalising, and perhaps other types of Impression management discovered in Step 1. So, depending on how the theory is developing and the different properties of 'Impression Management', it might be apposite to sample a Facebook group that is older, or the same age range in a different country, so see if the categories hold true in a different culture. We could also consider whether membership of various Facebook groups has any sway on Impression Management. At this stage then, the theory is increasing in depth. Impression Management is also a category that is quite abstract, which in future, may help us toward a formal theory.

Step 3

Again, we would be sampling a different group to maximise group differences, but also considering further unsaturated concepts that have been discovered in Step 2, to delimit the theory and densify the theory. At this stage, one could consider sampling slices of data not from Facebook, but other online sources such as Twitter, or extending the age range further, or sampling more slices from people from various Facebook groups. Obviously, how those differences are maximised has a direct bearing on the theory development, and may also suggest new relationships between concepts. How the category of Impression Management is being filled out will suggests new avenues of theoretical sampling, until the theory is suitably densified and has adequate (theoretical) scope for the research purpose.

Note that this example gives but one route through the table, and it is a matter of judgement of how one might proceed through the table – the choice is to maximise group differences immediately, or pay attention to unsaturated concepts and deepening of the category while minimising group differences. My own preference is for the latter, as this seems to me the best way to deepen the theory by ensuring it is grounded in lots of instances from a similar group. It's also important to note how, as we might proceed to a formal theory, the category becomes more abstract (in this example, 'Impression Management') and not underpinned by empirical data, as this job is done by the lower level categories that underpin that more abstract category (in this example, 'Curating' and 'Personalising', and no doubt many other categories). To me the contribution of this table is not only understanding that we can extend the scope of a theory by paying attention to like and unlike groups, but that our theoretical sampling can be guided by our categories.

Considering theory scope in relation to theoretical sampling

Figure 8.1 is offered as a summary of Glaser and Strauss's vision of theory building, without compromising the original vision. For me the key insight of their approach is *not that we extend the scope of the theory by sampling different groups, but that we are theoretically guided by category development as we do so*. (If you have read Chapter 3, you will see that this figure is an elaboration of the
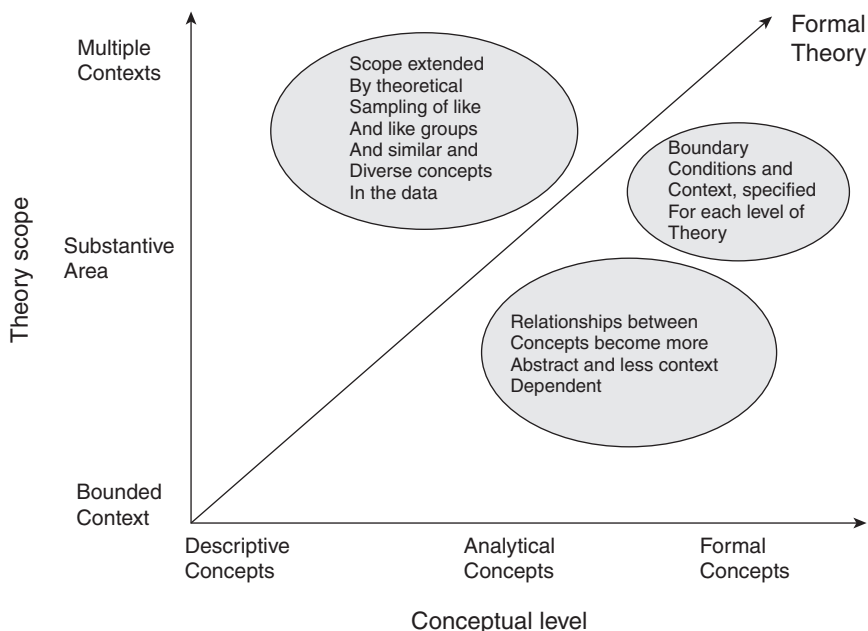
Figure 8.1   Theory scope and conceptual level

earlier Figure 3.3, where we discuss levels of theory, but with the added consideration of how theoretical sampling extends scope and conceptual level.)

The *x* axis represents Conceptual Level, and the *y* axis Theory Scope. These are the two dimensions that are acted upon by following Glaser and Strauss's guidance on theoretical sampling. The process of sampling similar or dissimilar groups extends the scope, but it is by paying attention to saturated and unsaturated concepts that the conceptual level of the theory, and its direction, is considered and worked on.

Theory scope

The starting point for theory building is a bounded context, where seed concepts are generated. These seed concepts might not even be empirically grounded, and little more than hunches (Urquhart et al. 2010). Substantive theories, which grounded theorists are very familiar with, pertain to the specific area being investigated, but the concepts generated in that theory exist independently of that data. Formal theories focus on conceptual entities. The scope of a theory is extended by sampling like and unlike groups, guided by concepts in the data. The suggestion here too is that boundary conditions are specified for each level of theory. In grounded theory terms, these boundary conditions are represented by theoretical codes and the categories. The suggestion of this figure is that these conditions and contexts should be clearly specified when a theory is published.

Conceptual level

When we first begin to code data, we inevitably code descriptively as it is necessary to explain the data to ourselves. As we begin to theorise about the data, and write theoretical memos, our concepts become more analytic, and less context dependent. The same applies to the relationships between concepts, where we have the challenge described by Stinchcombe (1991) of making sure the relationships we posit between concepts at the lower level also reside at the higher level.

Theoretical sampling for our previous examples

In this section, we continue the previous examples in the book, so you can get an understanding of theoretical sampling in practice. Our very first example was in Chapter 2, where we started off by looking at how we might apply grounded theory to an excerpt of an interview between a systems analyst and their client. In that example, how might the emergent theory be densified or expanded in scope using Glaser and Strauss's recommendations for comparison groups? This study was of systems analysts and their clients in public agencies

in the Australian state of Tasmania. Table 8.4 gives some options for theoretical sampling for the example in Chapter 2.

We can see from Table 8.4 that, fundamentally, the decision to maximise or minimise group differences depends on what we decide the dimensions of those cases or groups to be. In this example, those dimensions are geography (we could stay within the state of Tasmania or sample many Australian states, expanding the scope of the emergent theory), public or private sector (again, sampling the private sector would expand the scope of the emergent theory), other professional relationships (again, this would expand the scope of the

Table 8.4   Using theoretical sampling to extend the scope of a theory

	Concepts in the data	
Group differences	**Similar**	**Diverse**
Minimised	Sampling more systems analysts and clients in public agencies in Tasmania	Sampling systems analysts and clients in the private sector in Tasmania
	Sampling more systems analysts and clients in public agencies in different states of Australia	Sampling more systems analysts and clients in the private sector in different states of Australia
	Maximum similarity in data leads to:	Finding other published studies and datasets of systems analysts and their clients
	Verifying usefulness of category; Generating basic properties; Establishing a set of conditions for a degree of category. These can be used for prediction.	*Identifying/developing fundamental differences under which category and hypotheses vary*
Maximised	Sampling other professional relationships in public agencies in Tasmania; for instance, accountants and financial advisors and their internal clients.	Sampling other professional relationships in the private sector in Tasmania; for instance, accountants and financial advisors and their internal clients.
	Sampling other professional relationships in public agencies in different states of Australia	Sampling other professional relationships in the private sector in different states in Australia
	Identifying/developing fundamental uniformities of greatest scope	Examining published studies and articles about all sorts of professional relationships where a client exists
		Maximum diversity in data quickly forces
		Dense developing of property of categories
		Integrating of categories and properties
		Delimiting scope of theory

Source: Adapted from Glaser and Strauss (1967).

theory). Of course, we would not only be interested in the group differences - we would also be interested in where the codes – both saturated and unsaturated – took us, and how we want to develop the theory further.

In this example, for instance, we might want to focus on the strategies that any professional would use with a client, and saturate those codes further with different professional groups. On the other hand, if we were working in my home discipline of information systems, we might choose to focus on how the concepts for the proposed system are built between the analyst and client – so we would be focusing on perhaps unsaturated codes about concept building and sampling more systems analyst and client dyads. So the two aspects of group difference and concepts in the data are necessarily intertwined. My PhD students have found it useful in their dissertations to consider how theoretical sampling might be used to extend their work in future research. This is an important point – we can and should be able to build on the grounded theories we build in our disciplines, in order to extend the scope of the theory we are contributing. There is nothing I would personally like better than for a colleague to build on theories I have created using grounded theory, either by extending it to a different group, or operationalising it so it could be tested quantitatively. Unfortunately, some academic disciplines tend to favour novel contribution over consolidated theory building, so the unique contribution of grounded theory, that of systematic theory building, in my opinion, remains unutilised.

Theoretical sampling for Obama's inauguration speech example

For the example of Obama's inauguration speech, presented in Chapters 6 and 7, we could sample all inaugural addresses, or all speeches by Obama, to extend the theory. In Chapter 8, where we discussed Theoretical Integration, we discovered that Dudash (2007) asks if inaugural speeches constitute a unique group for study, so we could reference this. We would need to consider the similarities and differences of these speeches, and to some extent it would depend on how we wish to proceed – is this a theory about Obama, or all presidents, or inauguration speeches? Again, you should be able to see that there is a clear interaction between not only the sampling of different groups, but the emergent concepts as the theory takes shape. The point that Dudash makes about message dissemination – that how the speech is conveyed – has changed over time, is also interesting. We might find that the question of multiple audiences is even more important given the widespread accessibility of inaugural speeches in the Internet age, and this question of satisfying multiple audiences is a potential contribution of our emergent theory. So, we can see here too how our comparison of our emergent concepts with the literature is helpful in determining the direction of the emergent theory. The context of Obama's speech – and other inaugural speeches – may also need also to be taken into account, depending on how the theory evolves. Another option

would be to look other contemporary political speeches made by leaders in the Western world – thus tying the speeches together to a particular historical context. The shifting context of such speeches is important, and how Obama's speeches (and other presidential speeches) might need to respond to those shifting contexts might also be a potential contribution of the emergent theory, especially with reference to the rhetorical devices used.

Theoretical sampling for evaluation of IT training projects example

For the example of the evaluation of IT training projects within Microsoft's Unlimited Potential program, presented in Chapters 6 and 7, a number of options for theoretical sampling are possible. From the perspective of group differences, we could sample different programs, and different countries – this would increase the scope of the theory quite quickly. On the other hand, we might decide to stay with Microsoft's Unlimited Potential Program and see how it plays out in different countries – this would give us much more insight into the relationship between benefits and context. From the perspective of emerging concepts that are saturated or unsaturated, we could look at the different types of training – locally relevant training, generic training, or industry based training and use them as the basis for selection of our future cases. Alternatively, we could choose to delve into qualitative evaluation, and focus on programs that are using those methods of evaluation. So, we can see how we can consciously shape the emerging theory, by making sampling decisions based on emerging concepts.

Examples of theoretical sampling in dissertations

One of the absolute delights of working with postgraduate students is that I get to try out ideas with them – and in many cases they take those ideas in a different direction than I might have done myself. So this section gives some examples from dissertations, to demonstrate that theoretical sampling can practically be done in the envelope of a dissertation project.

The previous worked examples should have made clear that, essentially, when we are theoretically sampling, we are either considering *data differences* (the coding and emergent concepts) or *group differences*, or both. So one option for theoretical sampling in a project, rather than considering both group and data differences at the same time, is to explore along one or the other axis. So, one option might be to simply decide to make sure that we have either selected cases very similar or different to each other, or to look very carefully at the data, as represented by the codes. One useful idea here is to additionally consider whether your codes are saturated or unsaturated. Do you wish to saturate them further to densify the theory, or do you want to pursue unsaturated concepts to see if they expand the theory?

The first example, from a colleague's dissertation, rather than from one of my own students, does precisely that. In Lehmann's (2010) classic grounded theory study of international information systems, the decision on theoretical sampling was driven by the level of saturation of various categories. The second case was chosen on the basis of unsaturated categories, in order to maximize differences. This table from Lehmann (2010) shows how his examination of unsaturated categories enabled him to arrive at requirements for the next case (see Table 8.5).

In Anand Sheombar's (2019) PhD dissertation on social media in non-governmental organisations (NGOs), the concept of theoretical sampling was used from the beginning. Here's his take on Table 8.2, seen previously, on minimising and maximum comparison groups, with his comments in italics. First, he considered the issue of minimising and maximising group differences. He determined that the key dimensions of group differences in the NGOs that he could compare on were size of the NGO, and activity area. He then considered the issue of similar and diverse data, as represented by the categories. He determined that he would try and both increase saturation of categories where possible, and also looking at unsaturated categories where possible (see Table 8.6).

So, how did those considerations play out in practice in the study? The process for theoretical sampling can be seen in Figure 8.2. The initial data for the pilot study was collected from NGOs who were selected because of their

Table 8.5   Establishing theoretical sampling requirements for the next case (Lehmann 2010)

Unsaturated categories	Requirements of the next case
Business Domain:	
Nature of the Business	The business should have a reasonably clear focus to allow an easy identification of any linkage between operations and the nature of the IIS.
Global Business Strategy	There is no specific preference for any particular global strategy, as long as the case's strategy is a clear one and can be readily compared within the Bartlett & Ghoshal framework.
Rejection of Global IS	The case should be around an accepted IIS to allow ready investigation into what made the business accept it.
Analysis	The case should provide examples of the methods/paradigms used, successfully, to develop and/or maintain the IIS.
Business Sameness	
Data/Business	
Modeling	
IS Professional Skills	
IS Conservatism	
Conceptual Capability	

Table 8.6   Options for theoretical sampling (Sheombar 2019, drawing on Urquhart 2013, 2019 and adapted from Glaser and Strauss 1967)

Group differences	Data in category	
	Similar	Diverse
Minimised		
In this study, considering the similarities such as size and activity area	• Verifying usefulness of category; • Generating basic properties; • Establishing a set of conditions for a degree of category • *In this study, I will see how saturated some categories are and develop further based on saturation (Urquhart 2013)*	• Identifying fundamental differences of category and hypotheses • *In this study, I will look at categories that are diverse and try and develop them – based on the level of saturation (Urquhart 2013)*
Maximised		
In this study, examining differences in NGO size and activity area	• Identifying/developing fundamental uniformities of greatest scope • *In this study, I will see how saturated some categories are and develop further based on saturation (Urquhart 2013)*	• Diversity in data quickly forces dense developing of the property of categories • Integrating categories and properties • Delimiting scope of the theory • *In this study, I will look at categories that are diverse and try and develop them – based on the level of saturation (Urquhart 2013)*

active use of social media for development activities. When inspecting the characteristics of the initial cases (or groups) a distinction was made between NGOs that are active on one area of development, and those who are engaged with multiple developmental areas. The pilot cases were mostly concerned with multiple issues.

This led to a further sampling step of NGOs active with social media based on whether they were active on multiple issues of development, or focused on a single issue in development. As can be seen in Figure 8.2, minimising the sampling with the pilot cases led to the choice for the Community Knowledge Management NGO (multiple issue NGO), whereas increasing the difference led to the choice of single-issue NGO labelled as 'Health & sex education NGO'.

The next phase of sampling dealt with the concept of NGO values, a category from the data that described the organisational values of the NGO. NGOs that had similar values in *local knowledge* use and collaboration partners (sub-categories of NGO Values) led to data collection at the Agriculture NGO and the
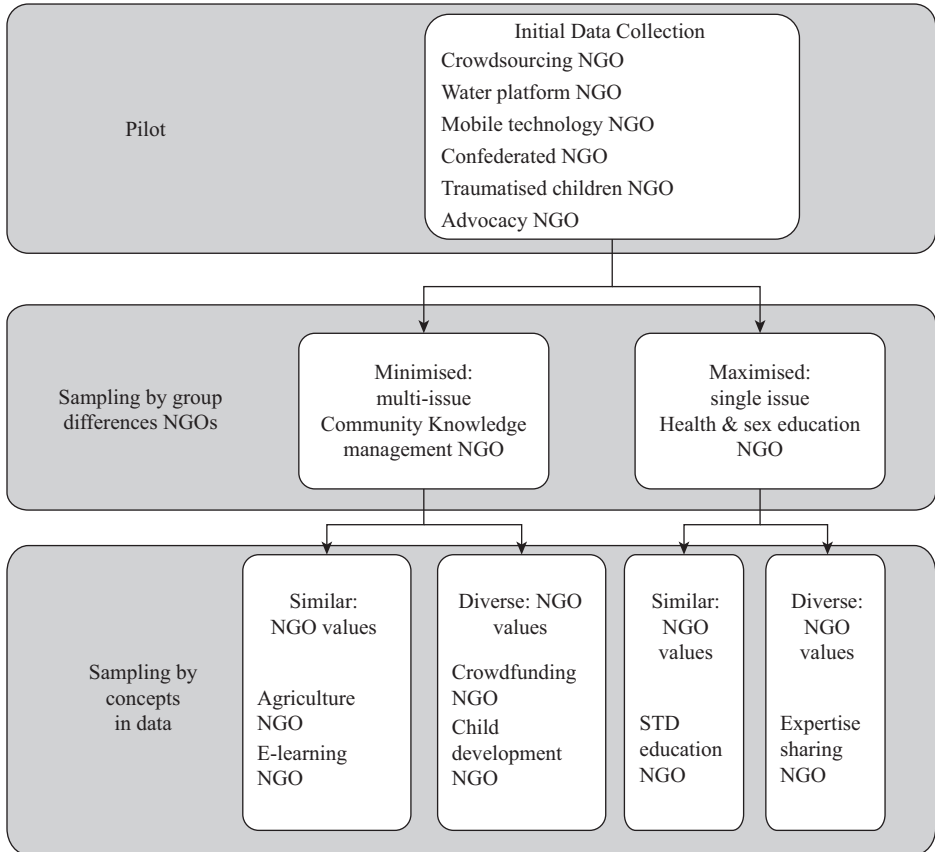
Figure 8.2   Theoretical sampling in NGO study (Sheombar 2019)

E-Learning NGO (multi issue development focus) while diverse values led to the selection of the Crowdfunding and the Child Development NGOs (also multi issue NGOs). In a similar vein, the sampling based on similar NGO values regarding healthcare led from Health & sex education NGO to the STD education NGO (another single issue NGO) whereas the Expertise sharing NGO focused on knowledge transfer (another subcategory within NGO values) in a broad range of areas. So we can see in Figure 8.2 that the category of NGO values shaped the selection of successive cases, also bearing in mind similarity and dissimilarity of cases, as expressed by the NGO single issue or multiple issue focus.

In Chris Mill's PhD dissertation on English Golf Clubs (Mills 2021), theoretical sampling was deployed differently, and I think the beauty of these examples is that they help illustrate the various ways that theoretical sampling can be enacted, and that it is always dependent on the study itself and what might be possible.

This study deployed theoretical sampling in three main ways. First, theoretical sampling was used to select golf clubs for inclusion in the study. Second,

it was used to select volunteers to interview. Third, it was used to adapt the interview schedule to facilitate the collection of data that were relevant to the theory under construction.

To facilitate theoretical sampling of golf club cases, data was collected in phases. For each phase, selection criteria were created, which included the desired characteristics of golf clubs and their volunteers. The criteria sought to maximise or maximise the differences between groups or concepts in the data, as suggested by Glaser and Strauss (1967).

The process of theoretical sampling across the phases is shown in Figure 8.3. We can see that there is a foundational case, Club A. When it comes to the next two clubs, Club B and C, we can see that the differences have been maximised in terms of location for Club B and a shorter history in the case of Club C. In terms of concepts in the data, Club B provided an extension to the category of discord as a feature of member–volunteer communication, and Club C an extension to the category of volunteer socialisation. In Club D, some densifying of categories was made possible by similarities between Club D and Club C – both had volunteers with a short membership history. Club D also allowed for further filling out of the category of volunteer socialisation because of the relatively short member histories.

Theoretical sampling was also used to select interviewees within each club. We can see in the table above how a consideration of group differences and the emergent categories of member–volunteer communication and volunteer socialisation led to a deeper consideration of volunteer characteristics. So, in this example, we can see how group differences interacted with the other aspect of theoretical sampling – the categories themselves. Over the course of the study, theoretical sampling decisions took account of various volunteer characteristics, including gender, age, employment status and length of club membership. Each characteristic was targeted with the aim of understanding whether volunteer experiences were similar or different across diverse types of volunteer.

Slices of data in theoretical sampling

Glaser and Strauss (1967) say that a 'slice of data' gives us different vantage points from which to understand a category and develop its properties and that there is no limit to the data collection techniques, or the type of data acquired (Glaser and Strauss 1967, p. 65). A slice of data, therefore, could include secondary data. Glaser and Strauss give the example of a meat industry report on eating habits of professionals when investigating the lifestyles of professionals, or reading an article about pain by a nurse or a patient when investigating management of pain in hospitals. Holton and Walsh (2017) suggest that, in an age of big data, there are many sources of secondary data available to us on the Internet. For example, Yarwood-Ross (2019) draws upon the blogs of veteran amputees as well as first hand interviews in his classic grounded theory thesis. Glaser and Strauss also suggest that we can use 'anecdotal comparison', where

Phase 1
Club A
Club A was chosen as it offered a rich case where the phenomena of organisational commitment appeared to be strongly present among volunteers. The club provided an opportunity to establish some basic analytical categories.
Characteristics of the club that made it a good first choice included: A typical of members' golf club with a long history and traditional outlook. Impressive contribution and commitment from volunteers – e.g. extensive volunteering for the open competitions hosted by the club. Volunteers were mostly aged over 60 years and retired, and therefore typical of most golf club volunteers.

Phase 2	
Club B	Club C
Group difference: Club B shared club A's long history and tradition. However, club B extended group difference because it was struggling and was not located in an affluent area. The club was finding it difficult to recruit and retain volunteers. The club also provided opportunities to maximise the difference in volunteer characteristics since there were several prominent and long-standing female volunteers.	Group difference: Club C lacked the long histories of clubs A and B. The club had less entrenched behavioural norms and was comparatively informal. This made club C a potentially revelatory case. The club included volunteers who had first taken up golf as adults, which provided opportunities to maximise difference among volunteers studied.
Conceptual development: There was some discord among members and volunteers. This facilitated the investigation of discord as a feature of member-volunteer communication.	Conceptual development: The club had several volunteers who had taken up golf as adults. This provided opportunities to explore volunteer socialisation in rich detail since their golf club socialisation experiences were more recent.

Phase 3
Club D
Group difference: The club had several volunteers who had comparatively short playing and membership histories. Although similar volunteers had been found in club C, club D provided the opportunity to further explore their experience inside a relatively traditional golf club.
Conceptual development: Club D had several volunteers who had taken up golf as adults and had comparatively short membership and volunteering histories at the club. This facilitated the collection of data to explore the process of socialisation within a traditional club. The club's membership included both 'traditionalist' and 'relaxed' older members. The club was also slowly changing. This provided an opportunity to explore the dynamics of organisational change within member-volunteer communication.

Phase 4
E–Younger volunteers from a range of different clubs
The final phase was mostly concerned with maximising group difference. The decision to sample younger volunteers was made to see whether and how concepts constructed during phases 1 to 3 applied to younger adult volunteers that were in full-time work. The sampling of volunteers from a range of golf clubs also helped to explore whether constructed concepts were relevant across a range of different club contexts.

Figure 8.3   Theoretical sampling in the England Golf study (Mills 2021)

we can use our own stories or those of others, and that this data can be trusted if the experience is 'lived' (p. 67), and this certainly applies to the Yarwood-Ross study. Here we can see the truth of Glaser's dictum 'all is data' (Glaser 2007). Other easy possibilities for secondary data in theoretical sampling would include the sampling of Tweets, and these would also have the advantage of being authored by the individual, rather than being mediated by the study author.

Holton and Walsh (2017) suggest that we can use literature as secondary data, once the core concept has emerged. However, it is important to note that they are in fact suggesting that we compare concepts from the literature with emergent concepts, which in my view is more about theoretical integration (see the section on relating emergent concepts to the literature, in Chapter 7 Theoretical Coding). Strauss (1987) talks of the stage in the development of your theory where supplementary or conflicting analyses from the literature need to be grappled with (p. 282), and this is an important stage in the emergent theory development.

So we can conclude perhaps that theoretical sampling of literature needs to be approached with some caution, because of the danger of 'forcing', where we might impose concepts from the literature too soon. This was certainly the case with a dissertation I examined some time ago that claimed to theoretically sample the literature – it was clear that the literature had exerted undue influence on the emergent categories. A balance needs to be struck, then, in theoretical sampling, between awareness of forcing, and the idea that 'all is data'. We need to be aware that researchers might selectively report on their data set, and that the study we are theoretically sampling was all in likelihood designed using guiding theories.

Summary

- This chapter had the aim of expanding our understanding of theoretical sampling in grounded theory. We first looked at the general concept of theoretical sampling, and its primacy in grounded theory – namely, that while the dictum 'all is data' in grounded theory is certainly true, it is more important to recognise that data is collected to enable theoretical sampling to take place. It is an intrinsic part of the method. We then looked at definitions of sampling, and how theoretical sampling and purposeful sampling sometimes overlap. We then concluded with two options for 'light' theoretical sampling where access to the field might be limited.
- The chapter then turned its attention to Glaser and Strauss's recommendations for theoretical sampling as contained in the chapter on the subject in the 1967 book. The recommendations focus on comparison groups, and how the selection of these comparison groups gave control over two aspects of the developing theory – first, conceptual level; and second, population scope. It is important to note that we can both minimise AND maximise group differences, and also consider the categories themselves. For instance, we can choose to

pursue sampling based on unsaturated categories to expand the theory, as well as maximise or minimise group differences.

- Glaser and Strauss's recommendations are then worked through a practical example, that of understanding statuses posted on Facebook. This enables us to see how it might be possible to implement the recommendations in practice – one thing to note is that there are many routes through Glaser and Strauss's table on comparison groups. Depending on the study, you might choose to densify the theory by focusing on saturated rather than unsaturated categories, for instance. You might also think about secondary data for your comparison groups (see the section on Slices of Data).
- I then offer a summary of how those recommendations impact on theory scope and conceptual level. The diagram offers an account of how we might progress to formal theory using the recommendations.
- We then revisit the examples that have been used throughout the book, to see what options for theoretical sampling might exist. First, the study of systems analysts and clients is considered which was first introduced in Chapter 2. We then discuss both the Obama inauguration speech (Example 1), and then the IT skills training evaluation (Example 2), which were both introduced in Chapter 6. In discussing all three examples, we can see how the dimensions of group differences and similarities, and concepts in the data (either saturated or unsaturated), interact to shape the emergent theory.
- We then look at three examples of theoretical sampling in dissertations. The first is from my colleague Hans Lehmann, who focuses on unsaturated concepts. The next two examples come from my postgraduate students. Both of these students considered the table offered by Glaser and Strauss, and interpreted it in their own way. The beauty of these examples is they show how someone might attempt to enact theoretical sampling in a large research study, and they cast some light on the practice of theoretical sampling.
- Finally, we discuss what might comprise a 'slice of data', when theoretical sampling. A slice of data can be secondary data of all kinds – this could come from a report or study. It is also important to note that we are blessed with a very easy source of secondary data – the Internet. Collecting tweets, for instance, would be very helpful because they are directly authored by an individual, rather than a report of what that individual said. Glaser and Strauss (1967) also suggest 'anecdotal comparison', using our own stories or those of others, and say that these can be trusted if the experience is 'lived'. We also look at the issue of whether literature can be legitimately seen as a slice of data, and warn that this can lead to 'forcing' where concepts from the literature might contaminate the emerging categories.

EXERCISES

1   Find a journal article that describes a grounded theory study and puts forward a grounded theory. Using the table for comparison groups put forward by Glaser and Strauss (1967), draw a table for that study and use it to make some suggestions about theoretical sampling.

2   Write down some reasons why theoretical sampling might not be possible in a study. How could you ensure through your research design that at least some theoretical sampling took place?

3   How much theoretical sampling do you think might be possible in a PhD project? Consider the study you are working on now. Write down ways of working in some theoretical sampling.

4   Consider the role of secondary data in theoretical sampling, and possible slices of data – what slices of data could be added to your current study?

WEB RESOURCES

There is a nice, but brief, discussion of theoretical sampling in an interview between Graham R. Gibbs and the late Kathy Charmaz (view from 30.22). Hopefully you've already viewed it, as this is a recommendation from Chapter 7! **https://www.youtube.com/watch?v=D5AHmHQS6WQ**

FURTHER READING

Lehmann, H. (2002). A Grounded Theory of International Information Systems. PhD Thesis, University of Auckland. Available for download at https:// researchspace.auckland.ac.nz/handle/2292/626
This thesis is an excellent example of a grounded theory study. In particular, Hans's treatment of theoretical sampling – and the systematic way he assesses the saturation or otherwise of concepts – is extremely interesting.
Morse and Clark (2019) elaborate on the 2007 chapter cited earlier, and explore even more possibilities for theoretical sampling in a grounded theory study.

Morse, J.M., and Clark, L. (2019). "The Nuances of Grounded Theory Sampling and the Pivotal Role of Theoretical Sampling." In *The Sage Handbook of Current Developments in Grounded Theory,* edited by T. Bryant and K. Charmaz. London: SAGE.

FREQUENTLY ASKED QUESTIONS

Why should I bother with theoretical sampling? It looks complicated, do I really have to do it? Surely a grounded theory study is enough on its own without theoretical sampling.

I can understand why a postgraduate student might have this reaction, and indeed, I witnessed this very reaction in my office! However, as Kathy Charmaz says (2014), *'The logic of theoretical sampling distinguishes grounded theory from other types of*

qualitative inquiry' Theoretical sampling allows you to elaborate and saturate your categories, and helps you build an unassailable theory. It is also not hard to do, as long as you account for it your research design. Even if you have constraints in the field, you can always build in a limited amount of theoretical sampling, as explained in Chapter 5. But Glaser and Strauss would not have devoted a whole chapter to it in their classic 1967 book if it was a trivial matter. Besides, if you understand theoretical sampling, you understand theory building just that bit better, especially if you consider the options for widening and densifying your theory as per their recommendations. The reality is that there are many grounded theory theses out there that don't mention theoretical sampling, but doing theoretical sampling will make your theory a whole lot better.

9

Writing up your grounded theory study

This chapter:

- Discusses the process of writing up a grounded theory study
- Discusses the presentation of grounded theory in a study write up
- Discusses the need to show how the analysis of the data was conducted
- Discusses how the chain of evidence afforded by grounded theory might be presented
- Considers how the theory building aspect can be presented, and how this might differ depending on whether the study is being written up for a journal paper or a thesis

Introduction

Once you have completed a grounded theory study, there remains one more challenge – how to write up that study. In fact, there are two challenges – the first is the issue of the writing process itself, which can often dog post-graduates and colleagues alike, and which in my view is not given insufficient attention in research training. So, the first part of this chapter looks at the process of writing itself, and how to have a more productive writing process.

The second challenge is the specific issues associated with writing up a grounded theory study. GTM gives a set of particular challenges when writing up the study. Some of these issues are not confined to GTM studies – any qualitative study will have rich findings to show, and may need to present a chain of evidence. It is also helpful to keep in mind, for instance, that a degree of abstraction and scaling up makes it easier to relate your emergent theory with the extant literature. This chapter showcases the many and varied ways my students and colleagues have responded to those issues, and I

am very grateful to them for being able to share here what is a wide range of examples. We begin with a reminder of why scaling up your theory is important.

Why scale up the theory?

One of the most common criticisms of grounded theory is that it produces low level theories around micro phenomena (Layder 1993, 1998). Like many criticisms which may seem unwarranted at first glance, it has a grain of truth in it. Because grounded theory method starts off doing line by line, and often word by word coding, codes are necessarily detailed to begin with. Sometimes this means that the grounded theorist can end up mired in low level concepts, simply because the starting point is richness. How does the grounded theorist deal with all this richness, and make sure that a sufficiently abstract theory is produced? How do we then relate that emerging theory with other theories in our discipline?

It cannot be denied that the technique of grounded theory coding can result in a dense micro theory, because the starting point of the coding is often a line by line examination of the text. The approach means that there are rich concepts emerge and unique insights gained. Unfortunately, sometimes these insights are so interesting, and the story so unique, that the researcher forgets to do a vital part of the job – the scholarly job of relating the concepts to the literature. In order to do that scholarly job, the emergent theory has to be at a sufficient level of abstraction, and it is here that the challenge lies. It's also important to remember too, when the theory is emerging, the direction of that emergence will point to other literature that can be used to enrich the theory. In my opinion, the job is not done until we have integrated our emerging theory with the existing ones in the field. We need to be able to say how our theory contradicts, confirms or extends existing theories.

In different disciplines, there will be different norms about how important it is to scale up the theory. Whether scaling up is important often depends on the aim of the research, and philosophy of the research. If doing an ethnographic study using grounded theory, detail of participants' worlds will be important, and generating an abstract theory, less so. If working in a positivist paradigm, there will be likely more emphasis on generating propositions that could be tested in future, and so the need to abstract or level up the theory somewhat may be greater.

In order to scale up the theory, the concepts produced by our theory need to be at a higher level than they often start out as. Often this can be simply achieved by grouping concepts into larger ones, to make them more abstract. We saw this in Chapter 7, in Example 1, where eight selective codes were grouped into three larger categories. Thinking about where our emergent

theory might fit within the extant literature is not only an obligation of being a scholar but also takes considerable effort. As Strauss (1987) says *after your theory has begun to integrate and densify to a considerable degree..then supplementary or complementary or conflicting analyses should be grappled with*. To me, the word grapple says everything! I would also maintain that it is difficult to do that grappling, unless your own emergent theory is of a sufficient level of abstraction – otherwise the process of relating becomes difficult, as the scale of the concepts to be related are too different. As early as Chapter 3, we discussed the concept of different levels of theory, and how we might set our theory against the extant literature.

If grounded theories are low level theories, what is a high level theory? The highest level of abstraction in grounded theory is called a 'formal theory'. Formal theories focus on conceptual entities (Strauss 1987), such as organisational knowledge, organisational learning or collaborative work. Other examples of formal theories would be theories on social capital, actor-network theory and structuration theory. We can see that theory can shade from bounded contexts, through to substantive theory (pertaining to the phenomena being studied) through to more formal concepts, as described in Chapter 3.

One of the ironies of the grounded theory history thus far is that grounded theory is still primarily known for its strengths in qualitative data analysis as opposed to its capabilities in theory generation – this despite the fact that in the 1967 book, there is a chapter, early on the book (Chapter 4), titled 'From Substantive to Formal Theory'. In this chapter, they make a compelling case for grounded formal theory as closing the gap between abstract theories and detailed sociological studies; and point to the dangers of being guided by very abstract formal theories in research.

The writing up process

The process of writing up is not much discussed in typical research methods training, which is why I wish to discuss it here. Difficulties in writing up can plague all levels of academic researcher, from student to professor, and there are ways we can make our writing more efficient and productive. First, I do not find the assumption that there will be a writing up 'phase' in someone's dissertation, a terribly helpful one for the candidate. If the writing process is delayed until later, rather than occurring concurrently with data collection and analysis, it forms an obstacle to completion that is harder to get past that people might think. It also means that the student is less likely to publish academic papers during their dissertation, and this helps so much for those candidates who aspire to an academic career. Luckily, grounded theory method encourages the use of theoretical memos, which should mean that the student will be

starting to effectively write up, given that so many theoretical memos do find their way into the writeup. I always strongly advise my own students to think, from the very outset, in terms of the document that they have to produce, and the size of the writing task. There is no reason why bits of theoretical memos, the research proposal, and early analyses of literature cannot simply be cut and pasted into a draft thesis document, very early on in the research process. I find that this relatively easy mechanism really helps a focus on what needs to be produced.

If a student is doing the PhD by publication model, the same advice still applies – that the draft papers need to be planned early, and targeted well, should be obvious. It's important to note too, that with the PhD by publication model, an introduction and conclusion wrapping and linking the papers needs to be written, and this can be a substantial piece of work in of itself, of up to about 30,000 words.

One issue that is problematic for students and academic staff alike is the issue of time. As someone who did her own PhD part time and completed this book with no study leave, I feel as if I know this issue intimately! I've always been taken by the time management remark I read once that there is no point in complaining about lack of time, we have the same 10,080 minutes in a week that everyone else has. It's not an entirely true or fair remark, as those with childcare or other responsibilities will attest, but it highlights a really important issue – how we use our time to write. I often meet people who say they will get on with whatever writing project it is – just as soon as they will get a block of time to do it. For hard pressed academics, getting blocks of time to do anything becomes increasingly hard, when faced with competing demands of teaching and administration, which can seem so much more urgent than writing. It seems to me that writing for publication comes into the important but not urgent category of time management, and we need to find ways to prioritise that writing. To paraphrase a colleague of mine, Lynne M. Markus, research isn't finished until it is published – and it's not going to be published until we finish writing it!

When writing up my own PhD during a busy teaching period, I used to spend 30 minutes in the morning on it, before I did anything else. When I propose this method to colleagues and students they sometimes react in horror, and say that they need at least a day to connect properly with what they are doing. My reply to this is, if they stayed connected with the work on a regular basis (say 30 minutes a day), they would not need this reimmersion time. Felder and Brent (2008) make a similar point in their brilliant short piece entitled 'How to Write Anything', about the importance of taking regular short periods of time to write. They also point out that, when you do get that block of time, you'll be much more effective because you will be warmed up in the first place. It is astounding, as they say, how much these regular short writing periods can add

to the total word count. I've also found it very motivating – what can be better than working on your own goals every day, even if it is only for 30 minutes? Felder and Brent also make the point that the writing process should be kept separate from the editing function. It's much easier for the process of writing to simply write, unimpeded by worries of spelling or headings – all this can be fixed later and should not be allowed to distract from the task of producing the manuscript or thesis in the first place.

When we do get the time to write, be it half an hour or a whole day, can we use it effectively? Felder and Brent (2008) say they do not claim the tactic is necessarily easy, and I agree with that. What happens if you get time, and find yourself unable to write? The fact is that *some blocks to our writing are emotional, rather than practical*. We may find ourselves unable to write because we are distracted by fears about the project, or feelings about people in our environment that seem to in some way impede the writing project.

Some years ago, I ran a writing retreat for some PhD students at their request. I gave them the following exercise to do, which is based on Julia Cameron's 'unblocking' exercise in her classic book on creativity, *The Artists Way* (Cameron 2011). We tend to forget, I think, that research is an essentially creative process, and that how we feel about writing up is important. The exercise essentially asks the person to write down their fears and resentments about the project, and then decide to concentrate on the quantity rather than the quality of the writing. The key idea is we outsource quality issues to someone else (a supervisor, a colleague, a friend, or even God or A Higher Power, depending on your belief system) and that the aspiring writer should just concentrate on producing the words! This is similar to the advice from Felder and Brent (2008) – to just write regularly, in draft form, and not worry about editing issues. The exercise is reproduced below (see Figure 9.1).

I can vividly remember the first time I did this exercise with the group of students on the retreat. The rage, anger and fear in the room was palpable, as they all set about writing down their fears and resentments about their PhDs. I wasn't surprised, because I had done the exercise myself, and found my own resentments to be pretty palpable, too! There is a human dimension to the process of creating a piece of writing, and we don't often acknowledge the fears associated that act of creation. The great thing about this exercise though, is that first it encourages the person to recognise those fears, and then identify what payback there might be in staying stuck. In my experience, there is always a payback in staying stuck, even if it is just simply the chance to complain to someone how you are prevented from writing. The good news is that this exercise does work, and many students of mine have testified to its efficacy. It is as if, having faced those fears, the person is then free to write without worrying. It does achieve a remarkable mindset shift, and for this, myself and countless others are indebted to Julia Cameron's writing on creativity.

Unblocking Exercise

Often, the reasons we are blocked in our writing are not practical but emotional. We may in fact have enough time, or be able to use our time effectively, if we are feeling positive about our writing. Often what is blocking us is not immediately apparent, but there is often buried resentment (anger) and resistance (fear) behind a block. These are often defences against what is perceived (rightly or wrongly) as a hostile environment. This unblocking exercise comes with a guarantee – try it!

List any resentments you have in connection with this writing project. It does not matter how petty, picky, or irrational these resentments may appear.

Examples:
I am fed up of having to do this research in my so-called spare time when my Head of Department gives me all this extra work!
All my supervisor ever does is pick faults with my work
I am fed up of being a poor PhD student.

List any and all fears you have about this project. These fears can be as dumb as any two year olds ☺

Examples:
I'm afraid my work will be awful and I won't know it
I'm afraid my work will be good and they won't know it
I'm afraid my ideas are ahead of my time
I'm afraid my ideas are outdated
I'm afraid I'll never finish

Ask yourself if that is all. Have you left out any 'little' fears? Suppressed any 'stupid' anger? Get it on the page

Ask yourself what you stand to gain by not doing this piece of work.

Examples
If I don't write it, no one will hate it.
If I don't finish it, I get to complain about it
I can criticise others, knowing I can do better

Make the deal. The deal is simple and has only two elements.

Leave it to others/the Universe/God/your supervisor to take care of the quality.

You take care of the quantity!!!

So get writing ☺

Based on Julia Camerons 'Blasting Through Blocks' exercise, *The Artists Way*

Figure 9.1   Unblocking exercise
Source: Adapted from Cameron (2011).

Having now 'unblocked', let us turn to the specific challenges for writing up grounded theory studies.

Challenges of writing-up a grounded theory study

This section looks at the challenges of writing up a grounded theory study. As previously stated, some of these challenges apply to all qualitative studies. I would contend that they play out in particular way in grounded theory studies,

because of the unique characteristics of grounded theory method. The challenges are outlined below:

- How much context of the study should be supplied for the reader?
- How should the coding procedure be represented, and to what level of detail?
- GTM gives an opportunity to present a chain of evidence – to what extent should that evidence chain be presented?
- Grounded theory gives rich findings – how best to present those findings?
- Grounded theory also gives a substantive theory – how best to present a substantive theory?
- Grounded theory also requires theoretical integration, and a different approach to the literature review – how can this be presented in the format reviewers and readers expect?

The process of writing up the study involves balancing all these issues. How those issues are balanced depends very much on the audience of the study – fellow researchers, examiners, your home academic discipline – and how much space there is allowed in the write up; a journal paper with a limit of 8,000 words is very different from a dissertation. Let's examine each issue in turn.

How much context of the study should be presented?

The issue of the balance between description of the context and the analysis is an important one in the research write up. Too little description, the write up becomes unanchored from its context and hard to understand. Too much description, we are left wondering if the research is nothing more than 'a nice story', to borrow the words of a North American academic, who explained to me that this was his reason for completely discounting qualitative research. I was a PhD student at the time – I heartily disagreed, of course, but those words stayed with me. Many years later, I came to realise that he did indeed have a point. There are some qualitative research studies where the researcher has become so bound up in the richness of the context it is impossible to draw any analytic conclusions or see how the findings might relate to existing literature. This degree of richness may be appropriate for some research traditions such as ethnography, of course. But it is important to note that a grounded theory study does give the opportunity to abstract and analyse in a systematic manner and go well beyond rich description. So, the question is, how much rich description should there be in a grounded theory study?

The extent of context provided in the write up is influenced by a number of factors. The first is to do with the access agreements you may have made with the host research organisation or community. It may well be that you cannot provide too much detail of participants because to provide too much detail, such as age or position in the organisation, would lead to their identification. Similarly, you may have made an agreement with a company that some details are commercial in confidence and need to be excluded. All that said, I think it is important to provide some context, simply because then the reader is more likely to be convinced

of your analysis if you share with them some of the background as well. There are several ways of supplying the context, such tables giving company and interviewee characteristics, descriptions of company or country background, use of photographs and vignettes. An example vignette from my own PhD work about systems analysts and their clients is given below (see Figure 9.2).

> In Federal Agency B, the Accreditation Officer has arranged to meet with the Senior Systems Consultant about her suggestion that agenda details regarding accreditation of courses be automatically generated from the Access database where they are held, rather than being generated independently using Word. Both analyst and client are approximately the same age and have met only briefly prior to this meeting – the client is new to the organisation. Most of the time is spent discussing the processes from the client's perspective [processes associated with system] and the problem as raised by the client [problem identification]. The analyst, taking an organisational view, points out that some of the client's information is also relevant to another section in the same organisation (links in information). He also points out that there is no key to link course accreditation and registration (links in information) and is informed that a member of the client's section is already in the process of linking the two databases. There is also a great deal of discussion about where the client's processes fit in to organisational changes (organisational context), possibly because the client is new to the organisation and the analyst is unfamiliar with the work that the client's section undertakes. The interaction is quite wide-ranging, identifies a number of issues associated with the client's database (problem identification) and the analyst decides to pursue possible commonalities in information by discussing it with the relevant section head (links in information).

Figure 9.2   Example of vignette

You can see in the above example that there is some analysis intertwined with the description, and this occurs in many write ups. My own opinion though is that providing such a descriptive context sets the scene and helps the reader understand the analysis. In some dissertations I have supervised, we have taken the decision to have a separate chapter that sets out the context of the study.

Representing the coding procedure

To what extent the coding procedure is presented in the write up depends largely on the audience. In a dissertation, it will be crucial to represent how the data was coded. In a journal paper, there may not be space to say anything other than open coding, selective coding and theoretical coding was applied, and perhaps give an example of each.

One of the very real problems that may occur in a dissertation situation is that, in fact, the coding has not proceeded in a textbook way. There may have been modifications to the procedure for good reasons, or reasons simply of convenience. One obvious way of representing a coding procedure is to use a diagram. Figure 9.3 shows an example, courtesy of Karin Olesen, an ex PhD student of mine in New Zealand (Olesen 2006).

```
┌─────────────────────────────────────────────────────┐
│            Separation of data into social groups      │
└─────────────────────────────────────────────────────┘
                          ▼
┌─────────────────────────────────────────────────────┐
│       Open coding of documents using Grounded Theory  │
└─────────────────────────────────────────────────────┘
                          ▼
┌─────────────────────────────────────────────────────┐
│    Selective coding of open codes using Grounded Theory│
└─────────────────────────────────────────────────────┘
                          ▼
┌─────────────────────────────────────────────────────┐
│        Key emergent themes with technology identified │
└─────────────────────────────────────────────────────┘
                          ▼
┌─────────────────────────────────────────────────────┐
│  Recoded into: Technology-in-use and technology strategy by year│
│                (already in social groups)             │
└─────────────────────────────────────────────────────┘
```
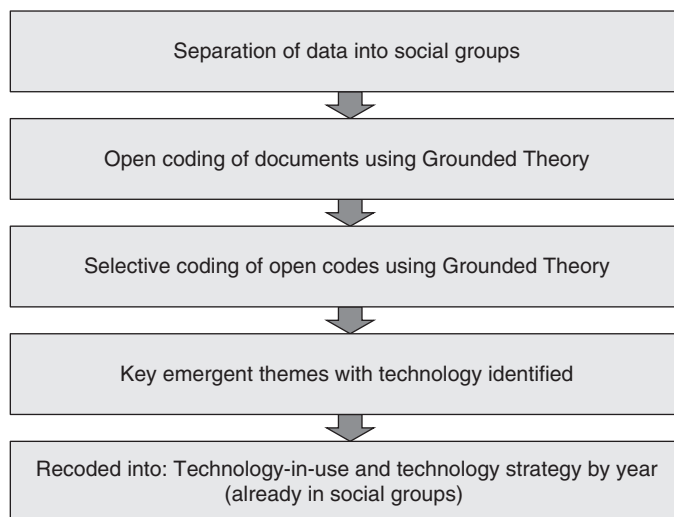
Figure 9.3   Representing the coding process (Olesen 2006)

There are various other things that could be added to this diagram – for instance, theoretical sampling could be shown, even specific theoretical coding concepts that directed the next phase. Note though, that this particular example shows a modified grounded theory procedure, and the theoretical coding stage, where selective codes are related to each other, is omitted. In this case, the theory building aspect is supplied with the technology-in-use and technology strategy aspects.

In a dissertation, giving an example of how the coding proceeded is possible, and also advisable, given that the main point of a dissertation is to persuade the examiner(s) that the author is a competent researcher. By giving an example, the reader can actually see how the coding was applied, and this makes the coding more credible and convincing (see Figure 9.3).

Let's have a look at another PhD thesis, this time by Gillian Reid, which looked at how Chief Executive Officers perceived the role of a particular type of IT project, infrastructure projects (Reid 2007).

First, Gillian explains her open coding by means of a simple table giving some examples (see Table 9.1).

Table 9.1   Example of open coding from Dr. Gillian Reid (2007)

'Nugget' from interview transcript	Initial open code
Technical jargon is a barrier to understanding what is happening	Technology barriers
So much background we just don't have as non-ICT Mgrs, which makes information and advice hard to understand/believe	ICT background deficiencies
ICT people just focussed on what can be done with the technology	Technology focus
Technology developments make it possible to do things better, faster, more cost-effectively. Can't afford to stop.	Productivity benefits
ICT should build better communications links with end-users and management	Comms expectations

After discussing how she applied the process of open coding, she then goes on to explain her selective codes, again by using an example. In Table 9.1, we can see how various open codes were grouped into selective codes. It might not be necessary to put these into a table however – it might be sufficient to simply explain the process, or put them in an appendix for people who want to examine them. Tables are more popular in some disciplines than others, and in arts based disciplines, may not be appropriate to a more flowing writing style. That said, tables and other displays can be incredibly useful to summarise, and given scepticism about grounded theory that can still occur in some disciplines about grounded theory, tables can unequivocally demonstrate a strong chain of evidence (see Table 9.2).

Once Gillian has discussed the process of selective coding in depth, including how various categories were renamed, in what was an iterative process, she then goes on to provide a figure showing the path of relationships between selective codes (see Figure 9.4).

This diagram is useful, because it does show how selective codes are connected. Again, an alternative option would be to discuss each connection, or the process of each connection, in the text.

She then concludes by giving an overview diagram of the entire coding process (see Figure 9.5). The overview diagram of the coding process is helpful, because it gives a clear overview, with examples. Also notice the honesty of the diagram – it does represent several successive groupings of categories.

By laying out the coding process like this, what is achieved? First, I think that this is good research, because the researcher is laying out the methodology very clearly, and this means that the methodology could be followed by fellow researchers. Second, it allows the researcher to reflect on the coding process. Often new researchers are hesitant to admit that the coding process was not perfect, or that the stages were not precisely followed – yet this is the reality of doing research. We learn from that process of reflection, and so do others.

In a journal paper, it is unlikely that there will be space to represent the coding process in detail. Yet I think it is important to convey a sense of how the analysis proceeded, rather than just saying that grounded theory procedures were applied. Personally, I think that our reflection on those procedures, and the fact that those procedures don't always proceed as one might expect, is part of a scholarly duty we have to engage in. Journal papers are one of the primary ways an academic community communicates with each other. We learn from our colleagues' reflections. Of course, one thing that happens is that we can change our views, but the text we wrote remains out there in the discourse, speaking for us! It is important then, to bear in mind that whatever we write is bound by the context of our experience at that time, and that our views can and should change as we discover more.

Table 9.2 Example of selective codes from Dr. Gillian Reid (2007)

Jargon barriers	Business of ICT/I	Professional relationship issues	Tech org issues	Executive engagement issues	Strategic issues	ICT/I project skills issues	Implement ation issues	ICT/I project success factors
Jargon issues	Technology/ Business balance	ICT/Business expectations	ICT responsibilities	Change management issues	Business value of ICT/I	Business capabilities	PIR activities	ICT/I project strategies
Jargon interpretation	Mgmt support	ICT/Comms quality	Infrastructure challenges	Executive involvement	Org. leadership and strategy	ICT project skills sourcing	ICT/I project delivery	ICT/I project scoping
Mgmt ICT understanding	ICT business understanding	ICT imperialism	Technology dependency	ICT/I expertise concerns	Project priority conflicts	ICT project skills dependencies	Project expectations	Organisational buy-in
	ICT reporting structure	ICT insularity	Technology seduction	Technology adoption	Technology key business driver		Project management	Risk mgmt
	ICT/User interface	Mgmt dissatisfaction			Technology opportunities		Project progress reporting	Training
		Cultural disconnects					Project scope change	

Jargon barriers (1)

Professional relationship issues (3)

Business of ICT/I (2)

Executive engagement issues (5)

Technology/ organisation/issues (6)

Strategic issues (4)

Implementation issues (8)

ICT/I project success factors (9)

ICT/I project skills issues (7)
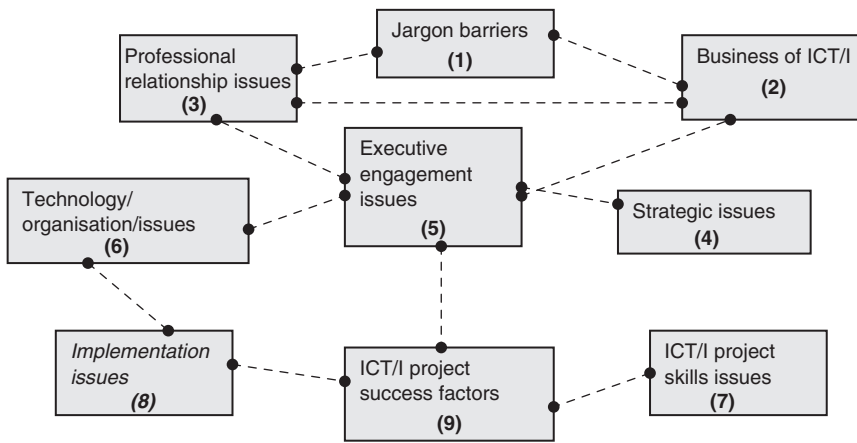
Figure 9.4   Diagram by Dr. Gillian Reid showing relationship paths between selective codes (Reid 2007)

Comms issues
Senior management not stupid if don't understand tech. language, just stupid if don't ask for explanation.

Insist comms be put into language management can understand.

Technical jargon a mystery to us who don't have a technical background.

Constant ongoing comms among all parties – then unexpected can be dealt with better.

I'm sitting here thinking, 'What the hell am I doing? I don't know anything about what they are talking about.'

Have real difficulties with quality of technical advice being given. Not sure I was getting best, clearest, picture.

Nuggets

Explanation seeking

Management's ICT understanding

Jargon issues

Technology mysteries

Jargon barriers

ICT comms quality

Comms effectiveness

Professional relationships

Comms confidence

Management's dissatisfaction

Technical advice quality

Open codes

Low-level categories

Major categories

Theme

Figure 9.5   Overall coding process by Dr. Gillian Reid (2007)

In the next section, we'll consider how we can present a chain of evidence in grounded theory.

Presenting a chain of evidence

One of the major strengths of grounded theory is that it does give a chain of evidence. For every concept that comes from the data, there are dozens of instances, thanks to the practices of constant comparison and theoretical saturation. This means that grounded theory studies can avoid the charges that are sometimes levelled at qualitative research – namely, that qualitative researchers are selective about the data they use to back up certain findings. Because of the emphasis on theoretical saturation, the researcher can be sure that the findings are representative, i.e. not just detected once or twice in the data. In some research paradigms, this can be important. How far you go in demonstrating the chain of evidence will depend on your philosophical position. Only categories that are 'saturated' are included in the theory. Depending on what paradigm the grounded theory study is being conducted within, counts can be made to demonstrate the extent of saturation.

As a 'weak constructivist' (Orlikowski and Baroudi 1991), you might merely want to show that the codes occurred sufficiently in the data analysed. If coming from a critical realist position, you might want to actually count the occurrences of codes. I have also seen analyses of most frequently occurring words in a transcript used in conjunction with grounded theory analysis.

Here's one idea I used in my own thesis – to show how the codes occurred in an interview. I had divided my transcripts into topic chunks for ease of analysis. In my research, I was focusing on how systems analysts interact with their clients when designing information systems, and did six detailed case studies of such interactions. Here's a chain of evidence for one transcript in one case study (see Table 9.3).

Table 9.3   Example of a chain of evidence of codes (Urquhart 1999)

No	Topic	Dominant grounded theory codes
1	Issue to be discussed	*agenda setting, conversation topic, key searching, forward reframe*
2	Numbering of subdivision	*key searching, information identification, forward reframe, problem identification, reflection, exemplification, information justification*
3	Capacity of proposed numbering	*information identification, key searching*
4	Prefix for proposed numbering	*information identification, key searching, prop, exemplification*
5	Need for date received field	*information identification*

(Continued)

Table 9.3   (Continued)

No	Topic	Dominant grounded theory codes
6	Reporting requirements	*problem identification, organisational context, process identification*
7	Recording of closing dates	*information identification, process identification, process justification, imagining, exemplification*
8	Using closing dates for inquiries	*process identification, exemplification, process justification, imagining, forward reframe, information identification, imagining*
9	Process of recording objections	*process identification, information identification, exemplification, imagining, dialoguing, organisational context, problem identification, forward reframe, process justification*
10	Time period for objections	*posit, forward reframe, problem identification, process identification, information identification, exemplification, imagining, forward reframe*
11	Process for objections in new system	*process identification, key searching, organisational context, future solution, imagining, dialoguing, negotiation*
12	Implementing new process	*reflection, negotiation, future action, process identification*
13	Stop and start dates	*problem identification, information identification, process identification, exemplification*
14	Reporting stop and start dates	*process identification, imagining, dialoguing, information identification*
15	Overriding stop dates	*problem identification, process identification, future action, imagining, prop*
16	Procedure for override	*problem identification, process identification, negotiation, future action*
17	Referral information	*problem identification, information identification*
18	Process of referrals	*posit, exemplification, dialoguing, imagining, process justification*
19	Implementing recording of referrals	*future solution, prop, forward reframe, negotiation, organisational context, future action.*
20	Future action	*future action, future solution, information identification*

If you use this type of documentation you rapidly build up a chain of evidence that is unassailable. In this particular example, I then went on to demonstrate the occurrence of themes (high level categories based on grouping of selective codes), over all of the data sources in all the case studies, as demonstrated in Table 9.4.

Table 9.4   Demonstrating a chain of evidence over a number of cases (Urquhart 1999)

Theme	Interac-tion	Paragraph – analyst	Paragraph – client	Interview – analyst	Interview – client	Review
Issues to be Discussed	C1, C2, C3, C4, C5, C6	C1, C2, C3, C4, C5, C6*	C1, C2, C3, C4, C5	C1, C2, C3, C4, C5,C6	C1, C2, C3, C4, C5, C6	C1, C4
Scope of System	C1, C2, C3, C4, C5	C1, C2, C4			C1,C2	C2, C5, C6
Personal Disclosures	C1, C3				C6	
Information Input to System	C1, C2, C3, C5, C6	C6*		C1, C2, C3, C4, C5, C6	C5	C2, C5, C6
Processes Associated with System	C1, C2, C3, C4, C5, C6	C4, C5, C6*	C1, C2, C3, C4, C5	C2, C3, C4, C5, C6	C5, C6	C5, C6
Links in Information	C1, C3, C4, C5, C6	C3	C3, C4	C3		C3, C4, C5, C6
Future Action	C1, C3, C6		C1, C2, C3, C5			C1,C2, C5
Problem Identification	C1, C4, C5, C6	C5		C2, C4	C6	C4
Information Output from System	C1, C3, C6	C5				
Analyst's Understanding of Processes	C3, C5	C1, C2		C1, C2, C3, C4, C5, C6		C1, C2, C3, C5, C6
Future Solutions	C1, C3		C3			C2
Organisational Context	C3, C5	C1,C2, C4, C5, C6*	C1	C5, C6	C1, C2, C3, C4, C5,C6	C1, C2, C3, C5, C6
Professional Relationships				C1, C2, C3, C4, C5, C6	C1, C2, C3, C4, C5,C6	C1, C5, C6
Mutual Understanding				C1,C2, C6	C1,C2, C5, C6	C1, C2, C3, C4, C5, C6
Note Taking					C1, C3	
Use of Props					C1, C4, C6	

*The paragraph submitted in Case 6 was a joint paragraph.

There are probably many other ways to demonstrate a chain of evidence, but the key point here is that grounded theory does offer the opportunity to provide one. In a dissertation, there is the space to show a chain of evidence, and it strengthens the thesis to do so. In a journal article, there may be no space to show that chain of evidence, but it can always be provided if asked for by reviewers, and put in an appendix.

Another possibility for demonstrating the chain of evidence is to show your workings, in the form of theoretical memos that were written throughout the research process. Here's one written by my colleague, Walter Fernández (see Figure 9.6).

Perception of conflict 01/11/01 09:36:38 AM

01/11/01 How conflict is perceived may affect the way project mgrs deal with team members bringing conflict to their attention. Mark, for example, was annoyed by Maria coming up with issues in what it was perceived as a pedantic attitude. Mark also perceived this as a threat to his authority – i.e. Maria taking the role of project manager (as mentioned by Mark during interview). However, if conflict reporting is perceived as having a potentially constructive role, by this I mean the identification of conflict (real or potential) that leads to the understanding and resolution of the conflict, it is likely that the project manager would appreciate the input and thorough approach of the tech leader as a positive contribution to the project.

Conversely, as our data shows, the project manager may choose to ignore the advice (or even to get rid of the advisor) if the reported conflict is perceived as (a) unnecessarily adding to the substantial number of problems the PjMgr is dealing with and (b) a consequence of personal attitude regarding the vendor or simple being pedantic abut minor details.

Figure 9.6   Example of theoretical memo giving the 'why' of conflict in a project (Fernández 2003)

Remember too that theoretical memos can also be cut and pasted into the write up, and to me this is a large part of the attraction of these memos!

Presenting findings

A grounded theory gives rich findings, by virtue of its method. If coding proceeds at the word or sentence level, it stands to reason that there will be a large corpus of findings to draw upon. So often the challenge of presenting findings, especially in the context of a journal article, is how best to summarise those findings without losing the richness of those findings. This issue becomes even more complex when you are trying to present a substantive theory that you have developed. So often, with the limited space afforded by a journal article (say 6,000 to 10,000 words), there is an issue of trading off breadth for depth. What also complicates the presentation of findings is that they have to be

presented in such a way that the uninitiated (to grounded theory anyway) can follow them. Another presentational issue is that often, the use of grounded theory will have to be both explained, and justified. So, presentation of findings is not a simple exercise! In my experience, the simplest way to present findings is to take the reader through the selective codes and their components. You can start with a table that shows these codes, and explain to the reader that the findings will be presented according to that table. For instance, here is how my colleague Riitta Hekkala and I introduce a set of findings on power issues in inter organisational projects (see Table 9.5).

Table 9.5   Introducing some grounded theory findings (Hekkala et al. 2009)

Power was one core theme which emerged through the GT analysis, and this section discusses this core theme in detail. We identified **sources of power, power as resistance, reasons for the power struggle and power as exercised** as important selective codes of the category. This table presents the open codes and selective codes that make up the category.

Category	Selective codes		Open codes
	Sources of power	←	Legitimate power, Expert power, Political power
	Power as resistance	←	Control of decision making, Tensions between old and new, Seeming acceptance, Insecurity
POWER			
	Reasons for the power struggle	←	Previous project, Positions in project, Jargon, Time pressure, Unclear responsibilities
	Power as exercised	←	Final authority, Veto power, 'Forged power'

After introducing the findings in this way, each selective code was discussed in turn, and the open codes are highlighted using italics in the narrative. We also used quotes to illustrate those codes, taking advantage of the superb chain of evidence afforded by grounded theory. Here's an edited example (see Figure 9.7).

You can also use diagrams to show the relationships between selective and open codes, and include the quotes. Here's an innovative diagram from Dr. Antonio Díaz Andrade, which illustrates a category from his study of ICT for development in the rural Andes (see Figure 9.8).

How much of a narrative of the findings you provide is up to you, and also is determined by how much space you have to give those findings. It will also be dictated by research paradigm, home discipline and the style of the journal or examiner.

Sources of power

Expert power was also in evidence and conflicted at times with the project manager's *legitimate power*. For instance, there was a 'tug of war' between the suppliers and the project manager around various issues. The discussions were a 'little bit hostile' (Thomas, Rhoo). Supplier Cumma felt that disagreements were frequent and faults were dealt with by 'tattling' to the project manager. So, supplier Cumma sought background support for their work from other project members on the basis of their expert *power*. Later, however, the confidence in Cumma started to wane.

   Thomas (Rhoo) pondered how the steering group should regard the matter, since nothing was happening. Thomas thought that the roles of 'generals' and 'officers' were not defined and, consequently, attempts were made 'to transfer war leadership on to wrong shoulders'. Thomas thought that, because legitimate power was not defined in the project, people 'took' power and that this problem was not being managed.

Figure 9.7   Example of grounded theory findings (Hekkala et al. 2009)
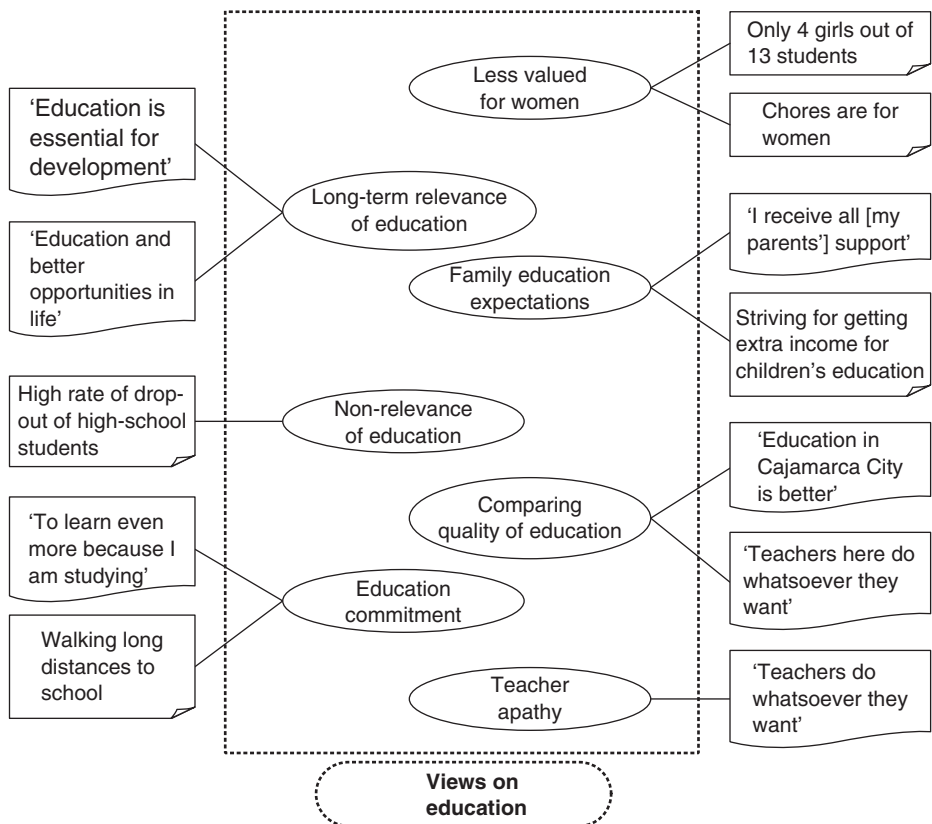
Figure 9.8   Incorporating quotes and codes in a diagram (Diaz Andrade 2007)

Here's an example of some extensive quotes I've used in my own work. One advantage of explaining the findings like this is that it also gives you a chance to elaborate on the relationships between codes. Often the hard thinking about these relationships will have been done using theoretical memos, and it is interesting how many times theoretical memos find their way into the presentation of findings (see Figure 9.9).

Later, the analyst resumes *key searching*, as seen by the following sequence of successive posits or *frames*.

Analyst: So, like each of these applicants have, like, a numerical or reference number?
Client: Yes.
Analyst: Does that get recorded on their application form or something?
Client: Yes it does.
Analyst: So you can then go back to the paper files and find out which one it talked about?
Client: So that's vital … that number … otherwise you would be powering through a host of forms looking for particular applicants.

In Case 1, the issue of whether a key was used to access an individual student recurred until the analyst used a mock-up of the form in question. Once this *prop* had been used, it was possible to establish exactly what the key in question consisted of. The fact that it took so long to resolve was probably in equal proportion to the difficulty of discussing the status of one piece of data embedded within a larger process and raises some interesting questions as to when details of information should be discussed vis-à-vis the client processes. From this perspective, it might be that analyst's framing of the problem, using a strategy of *key searching*, could have become an overwhelming conceptualisation of the problem, to the possible detriment of the problem as a whole. Schön (1983) points out that professionals tend to set problems in such a way as to make them solvable and this can sometimes result in a narrow conceptualisation of the problem.

However, the strategy of *key searching* can perhaps be seen more broadly, that of one of a repertoire of strategies that information systems professionals use to fracture apart a problem and find a solution. Given that the information system professional is generally concerned with building information systems, the establishment and formation of a key, the means of retrieving information, is an important mechanism by which information can be provided to the client. This is perhaps best illustrated by Case 6, where a key needed to be established for a register of subdivision information. This was, incidentally, not only recognised as an important strategy by the analyst but also by the client, who effectively played the role of business analyst for her section. The analyst's view of *key searching*, as expressed by her in the interaction review, was as follows:

What we were doing was discussing the key to the file or the key to the record. And that's pretty important to us, because what we want to do is eventually find out when an application … go through a certain year and month we want to know when, and it also helps us for reporting.

Figure 9.9   Reporting of findings in a narrative (Urquhart 1999)

In this example, you can also see that I am weaving in some of the litera-ture, and this is common in some disciplines. Generally I think it's best to present the findings first, then discuss them in the light of the literature and do some thorough theoretical integration. We'll return to this issue later in the chapter.

Presenting the substantive theory

As well as the richness that grounded theory findings afford, there is the theory itself. So there is an issue of how to present the emergent theory. Generally, the easiest thing to do is express the theory and the relationships between categories in a diagram. Here's a simple example from Hekkala and Urquhart (2013), which advances a theory about the workings of power in an inter-organisational information systems (IOIS) project (see Figure 9.10).
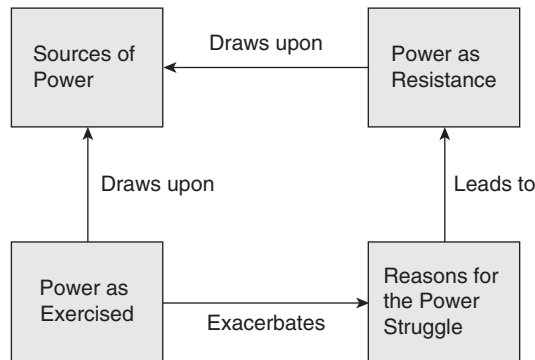
Figure 9.10   Project power in an IOIS project (Hekkala and Urquhart 2013)

Of course, it's not enough to simply to lay out the relationships; ideally, each relationship should be described, with reference to the findings that inspired it. Also, the idea is to get to a point where your emergent theory can be engaged with other theories, so it needs to be at a sufficient level of abstraction. Here's an example from Gillian Reid's thesis which shows three core themes, and gives instances from the data of the relationship between those core themes (see Figure 9.11).

The nice thing about this diagram is the level of abstraction that is evident. If the theory is at a sufficient level of abstraction, it becomes easier then to engage that theory with other theories, which is the vital last stage of building a grounded theory.

Jargon barriers/CEO engagement/attitudes to ICT/I projects

Post-implementation reviews affect organisational learning and perpetuate Theme 1 issues arising from Theme 3

Theme 1

Jargon and professional relationships

Theme 3

ICT/I project outcomes

Negative outcomes affecting Theme 2 issues – 'Business people can't easily come to a clear understanding of ICT/I. ICT people have to make this understandable to us.'

Negative outcomes affecting Theme 3 issues – 'Not directly involved. Don't look at them closely. Some bits working all right, others not at all. Mostly we're just getting by.'

Theme 2

Executive engagement in ICT/I projects

Positive outcomes affecting Theme 2 issues – 'Not stupid if don't understand technical language, just stupid if don't ask for explanation in language I can understand.'

Positive outcomes affecting Theme 3 issues – 'Being involved helped staff feel supported and unexpected issues dealt with better.'

Figure 9.11   Example of substantive theory diagram (Reid 2007)

Of course, a diagram showing relationships between themes is not the only way to report a grounded theory, because there is a huge range of theoretical families and codes available to the researcher. Here's an example from Mills (2021), showing his substantive theory of volunteer engagement in English associational golf clubs. Mills makes it clear that his model utilises the Snyder and Omoto (2008) basic framework of stages for volunteering. So, he is using Snyder and Omoto as a theoretical coding family, in the same way he might have used Glaser's Basic Social Process family (Glaser 1978, 2005) (see Figure 9.12).
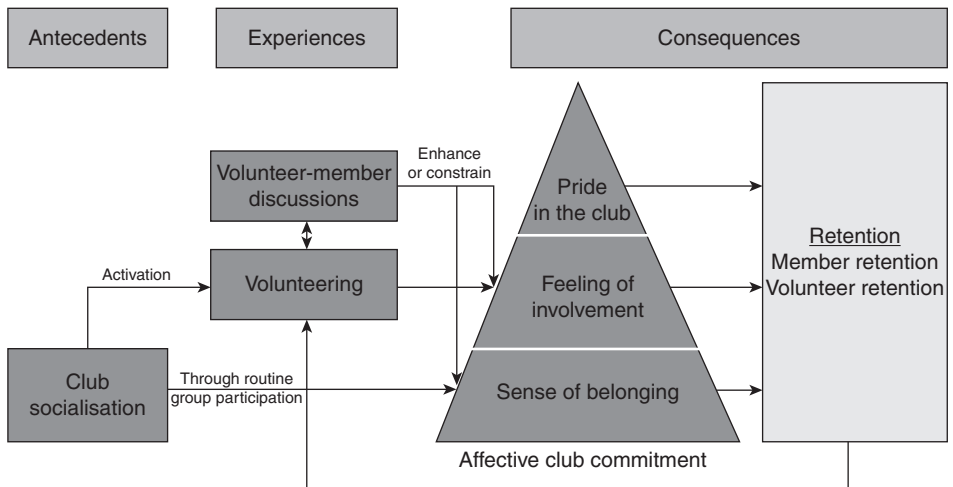
Figure 9.12   A model of volunteer engagement in English associational golf clubs

If you are working in a positivist paradigm, one possibility is to report your findings as hypotheses or propositions. Here's an example from my colleague Walter Fernández (2003). Note also here the focus on carefully explaining the relationships, something I think should apply in all paradigms (see Figure 9.13).

In the next section, we'll have a quick look as to how theoretical integration might proceed in a thesis or a paper, and how the literature can be treated, building on our discussion at the end of Chapter 3.
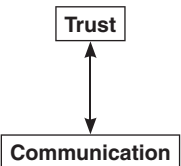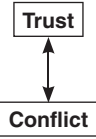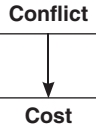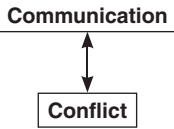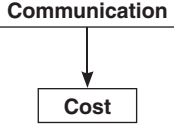
Interrelated concepts	Propositions
Trust ↕ **Communication**	1. When experiencing low levels of trust in situations posing project risks, actors with high level of responsibility for the outcome of the project will increase the frequency of their inter-team communicative actions according to their perception of risks. 2. When experiencing high levels of trust, actors working to highly aggressive schedules and having a low need for frequent interactions will reduce the frequency of inter-team communicative actions. 3. The level of trust will be positively related to the level of communication openness between the parties. Communicative transactions perceived as open and constructive will augment the level of trust between the participant parties. 4. Communicative transactions perceived by the parties as open and constructive will help to discover and resolve conflicts.
Trust ↓ **Cost**	5. The level of trust will be negatively related to the cost of controls and safeguards strategies. 6. High levels of trust that are proven (the realisation of risks associated with trust) will result in project delays and incur in (a) cost of rectification, (b) cost of delayed benefits or (c) cost of cancellation (sunk costs). 7. High levels of trust that are proven incorrect (the realisation of risks associated with trust) will result in project delays and incur (a) cost of rectification, (b) cost of delayed benefits or (c) cost of cancellation (sunk costs). 8. Low levels of trust (or distrust) that are proven correct ex post will result in implementing greater control measures, thus increasing the project cost and the perception of risk. 9. Low levels of trust that are perceived incorrect will result in a reduction of transaction costs if the trustor is prepared to risk exposing the project to opportunistic behaviours.
Trust ↕ **Conflict**	10. High levels of trust will facilitate the discovery and communication of conflicts. 11. High levels of trust will facilitate resolving conflicts in a collaborative manner. 12. Collaborative and effective behaviour during resolution of non-opportunistic conflicts will increase trust levels.
Conflict ↓ **Cost**	13. The efficiency and effectiveness of the conflict resolution action will be negatively related to the total project cost.
Communication ↕ **Conflict**	14. Communicative transactions perceived by the parties as open and constructive will help to discover and resolve conflicts. 15. The detection of conflicts will increase demands for effective inter-team communication.
Communication ↓ **Cost**	16. The project cost is affected by communicative actions and decisions to not engage in communicative actions.

Figure 9.13 Example of reporting grounded theory as a set of propositions (Fernández 2003)

Theoretical integration and presenting the literature

As previously suggested in Chapter 7, it is necessary to engage your emergent theory with the literature. In my view, we are not completing our jobs as scholars if we stop short of considering how our emergent theory relates with the literature. Otherwise, I think we do run the danger of being vulnerable to the 'nice story but where's the theory' accusation which is sometimes levelled (however unjustly) at qualitative research. There are several ways we can address and present the task of theoretical integration, and it often depends on the nature of the emergent theory we are dealing with and our audience. The first and simplest way is to take each category in turn, and set it against the literature. Here's an example from Mills (2021) (see Figure 9.14).

Volunteering and affective club commitment

If club socialisation forms the bedrock for affective club commitment, then volunteering has the capacity to enhance it. It is this study's contention that volunteering adds another layer to affective club commitment by stimulating feelings of involvement. This analysis has parallels to Cuskelly et al.'s (1998) findings that volunteers who spend more time doing their role tend to display higher levels of affective organisational commitment. In other words, the more one volunteers the more one feels involved and the more one becomes emotionally attached to the club. While this argument has merit, our study focusses less on time input and more on the meaningful nature of the contributions made.

It has been suggested that volunteers spend more time volunteering because they have high levels of affective organisational commitment (Engelberg et al., 2011). Here, Engelberg et al. appear to raise a different causal relationship to that proposed by Cuskelly et al. (1998) by suggesting that club commitment leads to spending more time volunteering. Helpfully, this study's findings allow for both interpretations by suggesting that club commitment is a multi-dimensional construct that includes feelings of belonging and feelings of involvement.

Figure 9.14   Example of theoretically integrating a category

Here's an overview of theoretical integration from a positivist grounded theory study (Rodriguez et al. 2022), which is pretty systematic (see Table 9.6).

This table neatly illustrates which factors are already present in the literature, but also shows which factors are new to the literature. Thus we can see, at a glance, how the theory confirms, and extends, the literature. But of course, theoretical integration is not just a matter of tables. Strauss (1987) talks of the need to grapple with the literature. So there is a very real need to discuss the emergent theory and critically relate it to existing theories, and this needs to take up some space in the paper or dissertation. One of the interesting things about this example is that the literature being integrated is at the same

Table 9.6   Example of theoretical integration in a positivist grounded theory study (Rodriguez et al. 2022)

Overall comment: The grounded theory of value for value-based feature selection in software/ software-intensive products generated in this research is a first of its kind in the field. It assembles together pieces to be considered when deciding the value of a feature.

Theory component	Comment on how the theory relates to existing literature	Comment on how the theory extends existing literature
Value proposition	Previous empirical studies on value propositions: **1. Survey studies ([9], [13–18]):** • 13 predefined value propositions (9 emerged in our study and 4 were not mentioned by our interviewees). • A business over a project/ product perspective. • Respondents proposed additional criteria, which suggests that predefined survey criteria were not enough to define value in the respondents' contexts. **2. Interview-based studies:** • Alahyri et al. [10] stresses a project focus on short-term value pro-positions (interviewees: process responsible and product owners). • Rodríguez et al. [5] presents a detailed description of value propositions for Case A. **3. Secondary studies: the Value Software Map (VSM) [3] classifies value propositions into 62 value components. Generic classification (any decision/any product).**	• It classifies value propositions for feature selection into six dimensions (i.e. customer value, market competitiveness, economic value/profitability, cost efficiency, technology and architecture and company's strategy), including business and project/technical aspects. • It empirically identifies 27 new value propositions – 7 core and 20 specific (e.g. # of customers, overall customer solution, feature visibility, opportunity cost) – see Appendix G. • It provides deeper analysis of value propositions compared to related work (particularly survey studies) and provides concrete definitions of value propositions (see Appendix D). • The focus on feature selection makes elicited value propositions more specific, with clear use cases compared to related work (e.g. secondary studies).
Core value proposition	• [9] and [13] discerned the possibility of a pattern on value propositions. • Many value propositions mentioned in previous research are part of our core value propositions (e.g. customer satisfaction, competitiveness, time-to-market, development cost, and implementation complexity).	• It confirms a pattern on value propositions (core value propositions). • It extends it by showing the nature of core value propositions. • It provides new core value propositions (e.g. # of customers, lead customer satisfaction).

(Continued)

Table 9.6 (Continued)

Overall comment: The grounded theory of value for value-based feature selection in software/software-intensive products generated in this research is a first of its kind in the field. It assembles together pieces to be considered when deciding the value of a feature.

Theory component	Comment on how the theory relates to existing literature	Comment on how the theory extends existing literature
Specific value proposition	–	• Specific value propositions have not been discussed in the literature. • We theorized that specific value propositions will be common across product type, but more work is needed. Examples of specific value propositions are presented in Appendix D. • It indicates that a pattern on value propositions can be only partially achieved.
Type of feature	–	• The influence of type of feature on value propositions has not been recognized in existing literature. • It relates value propositions to type of feature (mandatory vs. non-mandatory feature).
Stakeholder group	• The 4+1 theory of VBSE by Boehm and Jain [58], which centers in the win-win Theory W (an enterprise will succeed if and only if it makes winners of its success-critical stakeholders) • Rodríguez et al. [5] presents a detailed per-stakeholder group analysis for Case A.	• It confirms that value propositions differ among stakeholder groups (win-win theory). • It extends it by providing a detailed per-stakeholder analysis (e.g. stakeholder groups have a similar understanding on main propositions but a distinct primary focus).
Company context	Barney et al. [14–16], mentioned that '*other factors might influence the criteria used to select and prioritize release requirements – for example, product maturity, requirement source, customer type, contract type and size of the customer base. These factors require further study.*'	• It relates value propositions to company context and, particularly, product characteristics, company's business model and software development process.

substantive level, or only slightly higher, than the emergent theory. What if we want to go further?

The second option then, is to view our emergent theory from the lens of higher level, more formal theories, and, in this process, start to abstract our emergent theory still further. If we are to do this, then we need to pay attention to the level of our theories. In the discipline of information systems, actor-network theory and structuration theory, are all high level formal theories that are used to explain the interaction of organizations and information technology. An early example of this in information systems is Orlikowski (1993), who related her emergent theory on software use in an organisation to larger theories about innovation.

While we are in the business of influencing examiners or reviewers that our use of grounded theory contributes to theory, and makes a contribution in general, it's worth using the analytic generalisations from Walsham (1995b), which enumerate the four different ways a case study can make a theoretical contribution. The four different types of analytic generalisation, as suggested by Walsham are as follows:

First, development of concepts – this is self-explanatory. Given that grounded theory studies build theory, and often discover new concepts, it would be surprising if a grounded theory study did not contribute in this area. Second, generation of theory – again, in a grounded theory study where a full theory is built as opposed to using the method for analysis, one would expect a contribution to be made in this area. Third, drawing of specific implications for particular domains of action, which may provide useful for other related contexts. This, again, should not be beyond the reach of a grounded theory study, because even if extensive theoretical sampling has not been carried out, the grounded theorist will have some sense of how sampling different groups could extend and densify the theory. The principle of theoretical sensitivity should also assist with identifying other contributions to other disciplines and contexts. Fourth, contribution to rich insight – where the study itself gives insights that are not easily categorised as new concepts, theory or specific implications, but nevertheless do give insight. Grounded theory studies, because of their 'grounded' nature that has a close relationship with the data, often give many rich insights.

Table 9.7 gives an example of how these generalisations were applied to a study of ICTs in the rural Andes (Diaz Andrade 2007). I do think spelling out the contribution like this, especially in a dissertation, is very helpful – the examiner does not have to trawl through the thesis to decide what the contributions are. The second advantage of this approach is that if you yourself state what the contributions are, you are framing your contribution and hopefully setting up the criteria by which you will be judged, rather than allowing other people to do it for you (see Table 9.7).

Table 9.7   Illustrating contribution using (Walsham 1995) analytic generalisations (Diaz Andrade 2007)

Development of concepts	Activators of information	Individuals who not only purposefully seek information by using computers but also
		Trigger a process of disseminating information
		Throughout their communities using their
		Existing connections. For instance, Alejandro
		In Chanta Alta, Sixto in La Encañada, Darío in Llacanora, César in Puruay Alto, and Enrique in San Marcos.
Generation of theory	Computer-skilled persons, who are central individuals acting in communities with strong social texture, articulate their communal networks to their virtual networks	Alejandro in Chanta Alta and César in Puruay
		Alto are remarkable examples.
Drawing of specific implications	The necessity of both strong social texture and activators of information for the ICT	Examples of strong social texture are Chanta
	intervention to interact with the existing social fabric in rural areas	Alta, Huanico and Puruay Alto. The activators of information in Chanta Alta and Puruay Alto
		are Alejandro and César, respectively. Major
		restrictions and extreme isolation, prevent
		people in Huanico from accessing computers
Contribution to rich insight	The chances for articulating both communal networks and virtual networks are hampered in the communities organised in a top-down approach	La Encañada, Llacanora and San Marcos all have local governments who look after the
		community issues. The ICT-mediated
		information that Sixto, Darío or Enrique can
		obtain does not find its way to be distributed
		to the whole community.

Table 9.8 gives a more contemporary update on the idea of how to show contribution, from Mills (2021), where he draws upon Makadok et al. (2018) to show how his study makes a contribution to theory (see Table 9.8).

A related issue to theoretical integration is how the literature in a study is reported. As discussed in Chapter 2, the grounded theory dictum that literature should not impose concepts on the coding of data does not act as an excuse for

Table 9.8   Theoretical contributions and their classification (Mills 2021)

Theoretical contributions made by this study	Classification according to the 'taxonomy of ways of make a contribution to theory' (Makadok et al. 2018)	
	Levers of the theorising process	Type of contribution
In constructing **club socialisation** as a new and distinctive form of organisational socialisation for volunteers in voluntary sports clubs, this study has demonstrated how organisational socialisation models for volunteers need adapting for contexts. While club socialisation has similarities to other socialisation models (e.g. newcomer uncertainty, various stages of organisational understanding and involvement), there are also important differences (e.g. types of uncertainty, locating assimilation before volunteering starts). In showing how the club socialisation of sports club volunteers occurs during membership, this study has also identified club socialisation an important antecedent to volunteering rather than part of the volunteering experience. Club socialisation plays an important role in the formation of affective club commitment.	Constructs (What?)	Redefine, clarify, broaden or narrow an existing construct. Introduce a new construct as antecedent.
This study has built **volunteer–member discussions** as a new concept to represent a type of informal democracy within democratic membership-based voluntary organisations. It has proposed a framework for defining volunteer–member discussions which incorporate five key dimensions. The study has shown how the concept is useful for understanding the volunteer experience and as an influence on the development of affective club commitment.	Constructs (What?)	Introduce a new construct as focal phenomenon.
This study has constructed **affective club commitment** as a form of affective organisational commitment that is felt by volunteers in the context of associational golf clubs and, subject to further research, other voluntary sports clubs and membership-based organisations. The concept is distinctive because it allows for the layering and integration of multiple feelings towards multiple intra-organisational targets, comprising a sense of belonging to other members, a feeling of involvement to voluntary efforts made and pride in the organisation as a whole.	Constructs (What?)	Redefine, clarity, broaden or narrow an existing construct.

(Continued)

Table 9.8   (Continued)

Theoretical contributions made by this study	Classification according to the 'taxonomy of ways of make a contribution to theory' (Makadok et al. 2018)	
	Levers of the theorising process	Type of contribution
In the section below, this study draws on the theory constructed from the research to identify actions that golf clubs can take to develop of affective club commitment among their volunteers.	Outputs: explanations, predictions, prescriptions, etc.	Derive initial outputs from a new theory.

not engaging with the literature. It is simply a case of sequencing, with some searching done at the beginning, but much more searching done at the end of the theory development, so theoretical integration can take place. For dissertation students, it is generally impossible to avoid institutional requirements that a literature review be done first. A recommendation here is to think in terms of a draft literature review, where the relevance of the literature review is determined by the emergent theory (Urquhart and Fernandez 2013).

How should this actual sequence be represented in a paper or dissertation? In both cases (dissertation or paper) we are talking about a retrospective write up of how the research is done; there is the opportunity to order things in a different way for ease of understanding. In a dissertation, I have seen the literature review represented as a draft literature review, and new literature introduced in the discussion of findings for the purposes of theoretical integration.

In journal papers that report grounded theory studies, I have seen two configurations – the first reports the findings first, and the literature afterwards. The second presents more conventionally, with a literature review up front, then with more theoretical integration at the back. Which is best? – Levina and Vaast (2008) to my mind are an excellent example of the second tactic. Their paper on overlapping boundaries in offshore IT outsourcing provides plenty of literature up front, then more to integrate with the rich findings, and finally a theoretical model complete with relationships between the concepts. Levina and Vaast (2008) say only that their approach is informed by grounded theory, yet it is in fact an excellent example of how a grounded theory study can fit the criteria of a top journal, and contribute to theory building in a discipline. Examples of the first approach are most commonly seen in classic grounded theory, of which Bush Welch (2018) is a good example.

Summary

- This chapter has tackled the issue of how to write up a grounded theory study from two perspectives – first, the process of writing; and second, the particular challenges involved in presenting a grounded theory study in a dissertation or journal paper.

- The first issue we discussed – the actual process of writing – is one that is, in my opinion, not discussed frequently enough in research methods texts. While audience and structure of writing are quite frequently discussed in such texts, blocks to writing, and how people find time to do such writing, are not often discussed. It is possible to use small, regular blocks of time efficiently to get the writing project done, if you have the right mindset. The blocks to writing are often emotional rather than practical, and in this section, I introduced an 'unblocking' exercise which many of my students have used, successfully, to motivate themselves to write.

- The challenges of presenting a grounded theory study were outlined as how the coding procedure, chain of evidence, rich findings, substantive theory and theoretical integration might be represented in the write up. These challenges – and how they are balanced in a piece of writing – will also vary according to the purpose of the write up – journal or dissertation, research paradigm, and home discipline.

- The chapter presented lots of examples as to how we might present various aspects of a grounded theory study to examiners and reviewers. The first issue we looked at was how to present the coding procedure. It was acknowledged that this might be of supreme interest to examiners of a dissertation, but of less interest to reviewers of a journal article. That said, explaining the coding process in a journal article is of great interest to colleagues who also want to apply the method – indeed it may be their only source of information for practical examples of application in their own field. The problem here for the journal article writer is how to represent the coding process in an economical fashion, given usual word limits. One way of doing this may be a diagram, and several examples are given courtesy of my wonderful past PhD students. Whether that representation should be truthful is also discussed. Personally, I welcome different adaptations of grounded theory, and I would rather see these discussed and debated with fellow scholars rather than us adhering to a 'pure' grounded theory method. Researchers work in the real world; things happen, and we may not always be able to follow our ideal way of working. That said, the ideal of grounded theory is always worth following because of the rewards it brings.

- The chapter then went on to present different ways of showing the chain of evidence that is afforded by grounded theory method. Given that grounded theory method does give a very extensive chain of evidence, it seems a shame to not to use it. Again, in journal articles this may be harder to do because of space restrictions, but tables can represent the chain with some economy, and can be put in an appendix. For dissertations, I would always recommend showing the chain of evidence. Finally, the degree to which demonstrating a chain of evidence is important to you will depend on your philosophical position.

- The next issue tackled was how to present the rich findings of a grounded theory study. Different examples were given here from dissertations and papers. Key things to note here are that the detailed level of grounded theory findings allow us to report in a narrative form with rich quotes; also that a table showing code groupings can act as a framework to guide the reader as to how the findings will be reported. Relationships between categories need to be reported too, otherwise the job of theory building is not done. The chapter also gives some examples of how this can be done, and also shows that findings can be reported as hypotheses.

- The next section talked about theoretical integration. While the importance of theoretical integration was discussed in Chapter 3, this section talks about how it might be achieved in a thesis or journal paper. How the integration is achieved depends largely on the level of theory engaged with, and it is useful to be aware of levels of theory when attempting theoretical integration. Some examples were given. With the notion of theoretical integration also comes the idea of contribution – how can the theoretical contribution of a grounded theory study be demonstrated? A suggestion here was using the four types of analytical generalisation suggested by Walsham (1995), and another, using theoretical contributions used by Makadok et al. (2018).

EXERCISES

1 Access some grounded theory dissertations/and or journal papers in your discipline area. How do they compare in presentation of findings? How much theoretical integration takes place, and how is it achieved?

2 Take a journal paper that uses grounded theory and identify in which places you would present the methodology and findings differently. Why did the writer (s) present their study in this particular way? Can you think of reasons they may have gone for a particular mode of presentation? Suggest some different ways the findings could have been presented.

3 Research analytic generalisation. Are there other ways to generalise to theory? What are the standards for generalisation in your discipline area?

WEB RESOURCE

This provides a quick link to the article by Richard Felder, and Rebecca Brent about 'How to Write Anything'. You will need to join Research Gate to access. https://www.researchgate.net/publication/291656237_How_to_write_anything

FURTHER READING

Felder, R., and Brent, R. (2008). "How To Write Anything." *Chemical Engineering Education* 42(3): 139–140.

Cameron, J. (2011). *The Artist's Way: A Course in Discovering and Recovering Your Creative Self.* London: Pan McMillan.

FREQUENTLY ASKED QUESTION

I am completely baffled as to how to write my thesis. How do I know that the structure of the thesis is correct?

First, if you look at example dissertations from your institution and others, both good and bad, you will see that the structure varies quite a lot, depending on the study. Some elements, though, are consistent. You will need an introduction, based on your research proposal. You'll need a literature review, whether it is introduced before or after the findings (I have seen both). Remember too, that the thesis write up is a retrospective one, so you can have your literature review in the traditional place in a thesis (Chapter 2), but explain that this is a non-committal literature review. You'll also need a methodology, traditionally Chapter 3 (but not always), explaining your use of grounded theory. Generally, these chapters can be started on while or before you are collecting your data. How you present your findings, and the structure of those chapters, will depend on disciplinary considerations (some disciplines, including business and management, are more traditional than others), and potential examiners, and ideally should be discussed with your supervisor.

10

The contribution of grounded theory – some reflections

This chapter:

- Summarises some key insights from the book
- Gives some commonly asked questions about grounded theory from post-graduate students
- Discusses the current and potential contribution of grounded theory in a range of evolving contexts

Introduction

This book comes largely from my own experience using grounded theory method (GTM) as an academic. It is very much a personal view of grounded theory, and as such will be bound to offend some, and delight others. This is bound to be so, because GTM shows all the characteristics of a contested concept, as so insightfully pointed out by Bryant and Charmaz (2007). They applied Bryant's (2006) explanation of the characteristics of a contested concept (Gallie 1956), to GTM. These ideas are worth examining in detail, and below is my own interpretation of how those characteristics play out in GTM (see Table 10.1).

One of the delights then, of grounded theory, is a vigorous and complex intellectual tradition and a continuing debate about its use. Later in the chapter I will discuss just how vibrant that debate is, and where it might travel in future. Certainly there is no shortage of passion – and fascination – with the concepts of grounded theory amongst its practitioners. It has certainly enlivened, possibly defined, my own academic life, and I see it do the same for

Table 10.1   GTM as a contested concept

Gallie's characteristics (as adapted by Bryant 2006)	As they play out in GTM
The concept should be significant and valuable	GTM is seen as a significant and valuable method in the social sciences and other disciplines.
It must have an internally complex character	GTM is internally complex as evidenced by the number of books and articles written about the method.
Its complexity leads to a variety of descriptions	There are several different descriptions of GTM, notably the Glaserian and Straussian strand, but also constructivist and postmodern views (Clarke 2005; Charmaz 2006).
There has been considerable modification in the light of changing circumstances that could not be predicted	The Strauss and Corbin (1990) book represented a considerable modification to the original 1967 book. Glaser's 1978 book represented an extensive elaboration on the procedures in the 1967 book.
People who use the concept know that their specific use is contested by other parties and recognise that their own use of it has to be maintained against other uses. The concept is used 'aggressively and defensively'	It is certainly true to say that both the Glaserian and Straussian strands have their passionate adherents. Glaser in particular feels that his version of grounded theory is closer to the original and calls it Classic Grounded Theory.
There is an original exemplar whose authority is recognised by all users of the concept	The original exemplar, of course, is the *Discovery of Grounded Theory,* published in 1967
Continuous competition for acknowledgement should enable the original exemplars achievement to be sustained and or developed in optimum fashion	This is perhaps one of the most interesting aspects of grounded theory – the continued level of debate around usage, and the different adaptations in many fields.

Source: Adapted from Bryant (2006) and Bryant and Charmaz (2007).

others. Once the box that is grounded theory has been opened, it is hard to shut it down! I think this is because once you have experienced building a theory, the full excitement and creativity of intellectual endeavour is revealed to you. We come out of that process with a very real understanding of both the importance, and the joy, of research. In the next section, I discuss some very practical insights from my own grounded theory practice with postgraduate students, before discussing what I hope are useful guidelines for that practice. We then conclude the book by pondering the future of grounded theory.

Key insights

I have learnt a lot from writing and then revising this book, and even more from my postgraduate students. It is very much an attempt to explicate what is largely tacit knowledge from using GTM over an extended period. The other thing I realised is that the process of postgraduate supervision is still somewhat

of a dark art, in that there are many rules of thumb I use in postgraduate supervision that, again, are not explicated in textbooks anywhere. In short, this is the book I want to be able to hand to my students as a basis for our discussions, and also as a basis for teaching qualitative analysis using grounded theory. So, these insights are not only about grounded theory but also the process of using grounded theory in postgraduate research.

Insight #1 – Grounded theory is infinitely adaptable as a method, but that adaptation should always be explained

One thing I have learnt both from writing this book, and from using the method for so long, is that the adaptations of GTM are many and various. The issue then, is not so much how people adapt GTM, but how they present those adaptations. Because GTM is such a well-established coding method, and indeed almost the only well-known qualitative coding method, it is tempting for researchers to wrap themselves in the respectability of GTM, and to call what they are doing GTM when it is not. Cue angry editors and reviewers from all sides of the contested terrain of GTM. Working as an editor for academic journals I gradually came up with a simple solution to this. Researchers should acknowledge their debt to GTM, and explain what the adaptation is. In this way, they contribute to the scholarly debate about GTM in all its forms, and we all get to learn more about the decisions colleagues make when deciding to apply a coding strategy to their data.

Insight # 2 – Theory is important

I often wonder if, in leveraging GTM procedures for data analysis, people lose sight of the eventual goal of GTM – producing theory. The critique that is occasionally levelled at qualitative researchers, that we get lost in the story and fail to abstract, can be sometimes also be true of grounded theorists. We need to remember that, for Glaser and Strauss, the whole point of the method was to produce theory grounded in everyday contexts, that could then be progressively formalised.

As discussed in Chapter 3, the importance of understanding how theories are constructed, and how they explain, cannot be overstated. There is something paradoxical at work here, in that sometimes people are attracted to the method because they feel there is something inherently practical and useful in starting with the data (there is). And yet, in order to build a good theory, it helps to understand what it might mean to identify certain causal patterns in the data. By understanding how mechanisms are used to explain, and types of explanation, we can become much more skilled at using Glaser's coding families, generating our own theoretical codes to help connect our categories, and abstracting key concepts.

In my own discipline, information systems, which is very much an applied discipline, there are debates about theory, and the fact that we do not generate our

own theories. This is despite the fact that we freely borrow and adapt theories from other reference disciplines such as sociology and management. What grounded theory has given me, and my postgraduate students, is a good appreciation of what a theory is, and in particular an appreciation for different levels of theory. If we think about the relationships between constructs, and in those terms, we are so much better able to theorise about the phenomena we are researching.

There are definitely practical problems involved in building a bridge from the substantive theories produced by grounded theory to larger, more formal theories, but the rewards for doing so are enormous, as it helps us increase the theoretical integrity of our particular discipline area. Our findings in the form of emergent theory can be abstracted, and tested in successive studies. Theoretical sampling of like and unlike groups, and along saturated and unsaturated categories offers the opportunity to build the scope and depth of the theory. Thinking of theory development like this is a unique strength of grounded theory, and something to be celebrated and used.

Insight #3 – The nature of GTM does not fit well with the PhD process, but that's not an argument for not using it

Over the years I've had many discussions with colleagues and students about the pros and cons of using GTM in Masters and PhD dissertations. It's a wonderful method, why would you not want to use it? The barriers to use can be divided into two; practical and institutional. Perhaps we can add a third; the researcher's own temperament.

Let's examine each of these in turn. The practical barriers can be circumvented with a little thought. The most significant practical barrier to GTM use in a dissertation is that of the normal institutional requirement of a literature review as a marker of progress, whereas GTM requires that the researcher does not impose theoretical concepts on the coding process. As previously stated, the best way to deal with this is to do a non-committal literature review (McCallin 2003), where the relevance of the literature review is determined by the emergent theory. The important thing is not to actually impose theory on the coding, and the philosophy behind this is to say that we approach coding with 'an open mind, not an empty head' (Dey 1999, p. 251). If you are following the classic strand of grounded theory, it might be possible to negotiate a different approach with your supervisor. One student I know in this situation opted to do a literature review on the use of the literature review in grounded theory, instead of the conventional literature review required as part of their research training programme.

Another possible practical barrier is the one of time possible for fieldwork. Within a Master's programme of one year, it may be hard to arrange enough time in the field so that overlapping data collection and analysis is possible for the purposes of theoretical sampling. That said, even with a short time in the field it should be possible to do some form of theoretical sampling, for instance, adding useful questions to the interview schedule, based on what emerges from

interviews. Another practical barrier is often claimed, that of the time it takes to do the analysis. There is no doubt that the line by line coding discipline required by GTM takes time, but, in all the supervisions I have undertaken, candidates seem to finish on time. Why? One possible explanation might be that, although the time spent analysing the data is longer (it certainly seems so at the time), writing up the findings is much easier because the write-up is being done on the foundation of an extensive analysis.

Candidates for Masters and PhDs do sometimes encounter institutional barriers when they wish to use GTM. The most common by far is that the supervisor is unfamiliar with the method, perceives it as very different, and is therefore unwilling to supervise a thesis that uses the method. The objection may not be motivated by an antipathy to grounded theory – a PhD supervisor may see it as inherently risky, and a good PhD supervisor will try and manage any risks in a PhD. There are solutions to this dilemma, such as ensuring that there is someone with qualitative analysis experience on the supervisory panel or committee. It is possible to learn grounded theory from a book as an isolated PhD student – that was my experience after all, but it is so much better if the candidate can connect with others doing grounded theory and exemplars of grounded theory. A more insidious institutional barrier is objections to the method based on a perceived lack of rigour, often connected with a perception that GTM ignores the literature. Sometimes the objection to GTM is part of a larger bias against qualitative methods in general, and/or interpretive research. If it is the latter, it should be pointed out that GTM can, and is often, used within a positivist framework.

The fact remains that the choice of research method has a number of social implications in terms of the candidate's future, especially in terms of which research constituencies they then connect with during and after their PhD, and their future career prospects. The unfortunate truth may simply be that, in a particular department, power structures and expertise coalesce around a particular method, and it may be very difficult for the candidate to do GTM if it is seen as a radical departure from the norm.

Finally, there is the issue of temperament. Detailed painstaking analysis does not suit everyone, even if there is also a great deal of space in GTM for creative insight about the data. The researcher also has to be comfortable with ambiguity, and the fact that a storyline is not always immediately apparent from the data. The researcher does have to be able to see it through, to be persistent, and optimistic when it seems to be going nowhere. The rewards are great.

Insight #4 – Grounded theory is a bottom up form of coding

This may not seem like much of a revelation, but thinking of GTM in this manner helps in several ways. First, it helps us distinguish GTM from other types of coding, top down (where the codes come from the literature), and middle range coding, where the codes come both from the literature and the data itself. So it helps isolate the role of literature in general coding.

Second, we can see why it might be a challenge to scale up concepts if they are generated bottom up, at a detailed level, during line by line coding. It is true to say that a student can get bogged down with codes and forget the need to abstract, until gently reminded! Third, we can see that coding is also a matter of level – larger scale codes can be grouped into themes. Alternatively themes can be taken from the literature and applied as a framework, as explained in Chapter 4.

This leads us into thinking about the role of theoretical frameworks generally. Generally the approach of most research is to build a framework from the literature, apply that framework, and then extend that framework based on the findings – a theory testing approach. Grounded theory builds a theoretical framework or theory from the data, then relates it to the literature – a theory building approach. Some alternatives to the theoretical framework approach are suggested in Chapter 3 when we discuss grounded theory and the literature.

Insight #5 – The quality of a grounded theory analysis is dependent on our ability to abstract concepts and think about relationships

One thing I have tried to demonstrate in the examples in this book is that the quality of the theory that emerges from the analysis is entirely dependent, in my view, on two things: the ability to abstract concepts, and to think about relationships. When we start coding, it is very easy to simply describe, rather than analyse, and often the open coding phase can seem, at first, a meaningless jumble of summary words for the data. It is only as we proceed with open coding, and move to selective coding, that we move from description to analysis, and understanding the meaning behind the text. That meaning is then tested by constant comparison. Possibly one reason GTM is so successful in yielding insights is that the mode of analysis does mean that the researcher spends a lot of time with their data, and not only that, they are close up to that data.

We can only claim to be building theory of course if we consider relationships between concepts. Otherwise, we are doing 'thematic analysis', which is a well-known approach (Braun and Clarke 2006), but it is not theory. Again, the ability to abstract concepts and think about relationships is enhanced by our theoretical sensitivity (Glaser 1978), where we understand theories and how they are constructed because we have read those theories and understand their underlying patterns of explanation.

With regard to relationships, one of the interesting things about the process of coding is how often what we might think is an interesting category, that is somehow related to two other categories, becomes a relationship between those categories. This has a real benefit, in that the theoretical memo you may well have written about that category, then helps you theorise that relationship

really well. Of course, it also is supremely helpful to write theoretical memos about how categories may relate to each other.

Insight #6 – Grounded theory is naturally interdisciplinary

One of the most exciting things about grounded theory for me is that it encourages us to look beyond our disciplinary boundaries, because the process of theoretical sampling leads our literature searching, as opposed to what we know. This might not be such a big deal in large fields such as sociology, in that there are many subfields that may provide the literature we are looking for, but even then I would like to think that it encourages us to look beyond what we know. Disciplinary boundaries can also be restrictive silos, and it is wonderful to think that, grounded theory as a method encourages us to think more broadly because we are following the path of the concepts we are building, as opposed to well-worn paths. This of course makes collaboration with colleagues from different disciplines easier too, as the principle of theoretical sensitivity enables us to understand the principles and structures of theories, wherever and in whatever discipline they may occur.

Insight # 7 – We need more discussion of the outputs of GTM, rather than the process of theory generation

Given that grounded theory is such a contested concept, I find it interesting that almost all the debate occurs around *how* we do grounded theory, as opposed to a discussion about the theories that might be actually be produced. There seems to be very little discussion about theory per se in grounded theory texts – indeed (Charmaz 2006, 2014), states that the notion of what a grounded theory actually is remains slippery at best. This is why I added a new chapter on theory (Chapter 3) in this book, so we can understand the nature of what we might be producing. Charmaz (2014) points to the epistemological differences between interpretive and positivist theory, and it is important to say that what a theory is seen to be also varies discipline by discipline. In the newer disciplines, the nature of theory has been somewhat of a vexed question, with periodic debates; see for example Byron and Thatcher (2016), and Corley and Gioia (2011) in management, or Markus (2014) in information systems.

The goal of theory is to explain, and Sutton and Staw (1995) make this point beautifully in their foundational management paper. The gift to the world that is grounded theory gives us many tools to *explain* what might be happening in the data, especially coding families (Glaser 1978, 2005), that themselves draw from underlying explanatory patterns, excavated from other theories.

When it comes to the nature of grounded theories produced, Charmaz (2014) points to the tension between contextualising a grounded theory and the goal of generalisation. She says 'When grounded theorists construct decontextualized analyses through moving across fields, they may ironically force their data into

their early generalizations because they lack sufficient contexts with which to ground new data' (p. 243).

This is an interesting point, but one that I don't entirely agree with. It is important to abstract, to push our theories up to a formal level that they have wide generality, across disciplines. Glaser and Strauss (1967) in *Discovery* devoted a whole chapter to this challenge of moving from substantive to formal theory. Until we achieve this, in my view, as Charmaz also says (but for perhaps different reasons), the promise of grounded theories remain largely unfulfilled.

Guidelines for grounded theory

In 2010, my colleagues and I came up with some guidelines for grounded theory (Urquhart, Lehmann et al. 2010). We did so because we felt that in our discipline, information systems, as in other disciplines, grounded theory and its characteristics were often misunderstood. We also thought that they might be a good way of assessing grounded theory studies, but in no way are these guidelines meant to be prescriptive. They are offered here to assist a general understanding of what a grounded theory study might consist of.

Constant comparison

Constant comparison has been described as core to the GTM (Charmaz 2006; Charmaz 2014). I see it as a very useful rule of thumb for a researcher doing any type of qualitative analysis because it is a constant process of comparing your analysis to the whole of the data. Constant comparison is defined as the process of constantly comparing instances of data that you have labelled as a particular category with other instances of data in the same category to see if these categories fit and are workable (Urquhart 2001). Charmaz makes two points about constant comparison. First, making comparisons between data, codes and categories advances conceptual understanding because of the need to expose analytic properties to rigorous scrutiny. Second, it makes the analysis more explicitly theoretical by asking 'What theoretical category are these data an instance of?' For me, the real advantage of practicing constant comparison means that there are always dozens of instances in the data to support the theory that is produced.

Iterative conceptualisation

One aspect of grounded theory that we felt was probably unique to grounded theory is what we chose to call iterative conceptualisation in our paper. We defined it as they process whereby theory is built in an iterative fashion by using theoretical coding, focusing particularly on relationships between categories. As discussed in Chapter 4, these relationships can be of many kinds,

ranging from causal relationships to relationships that describe influences of different kinds.

One of the interesting paradoxes about grounded theory is that, at first glance, it offers well-signposted procedures for theory building for the novice (Urquhart 1997). Yet if procedures are followed blindly, it can lead to difficulties if researchers do not realise that theory building is an iterative process. Theory building is also a creative process, so the researcher using grounded theory needs to be alert to intuition and to think beyond labels for the data.

In terms of doing iterative conceptualisation, researchers have suggested a number of alternatives. There are the coding stages of Strauss and Corbin (1990) (open coding, axial coding, selective coding), the coding stages of Glaser (1992) (open coding, selective coding, theoretical coding) or the coding stages of Charmaz (2014) (open coding, focused coding, axial coding, theoretical coding). Whichever coding stages are used, the key thing is that all stages are followed to allow adequate conceptualisations, which are the basis of a formed theory.

Miles and Huberman (1994) give a useful set of characterisations about codes that are of assistance when assessing the level of conceptualisation that occurs in grounded theory studies. They describe three types of codes that can be equated to analytic level: *descriptive* codes – attributing a class of phenomena to a segment of text, *interpretive* codes – where meaning is attributed with reference to context and other data segments, and *pattern* (or linked) codes – inferential and explanatory codes that describe a pattern. Clearly, it is desirable that the researcher reaches the third stage, that of inferential and explanatory codes because the business of theory building means understanding patterns and linkages.

Axial coding (Strauss and Corbin 1990) or theoretical coding (Glaser 1978) are essentially about relationships between categories – the very essence of theory building. Theoretical coding contributes to an understanding of relationships between the concepts or factors of a theory.

In my experience, it is in defining the relationships between categories that novice researchers often struggle to really achieve depth of theory. Chapters 3, 4 and 7 discuss this in some depth so I will not discuss it further here.

Another useful way to think about iterative conceptualisation is that it helps to answer important theoretical questions concerning 'what' and 'why'. Whetten (1989) says that the 'what' in a theory justifies the selection of factors and the proposed (causal) relationships. The 'why' in a theory attempts to explain why the factors are behaving the way they do.

Theoretical sampling

Theoretical sampling is deciding on analytic grounds where to sample from next (Glaser and Strauss 1967), and is an important aspect of grounded theory. While not confined to grounded theory, we identified it as an important marker

in grounded theory studies because theoretical sampling assists with iterative conceptualisation.

Through successive sampling according to the emergent theory (Glaser 1992), the research questions gradually become more refined, as dimensions of the research problem become clearer through analysis (Dey 1993). If the researcher is guided by the emergent theory when collecting data, then there is very little chance of the researcher imposing preconceived notions on the data. It is important to note, then, that this approach implies overlapping data collection and analysis. Theoretical sampling also means that there is a focus on the development of research questions.

Theoretical sampling is one of the foundations of GTM – it enables both a focus on the developing theory and ensures that the developing theory is truly grounded in the data. Theoretical sampling can also be used to extend the scope of the generated theory, where emerging concepts from the analysis enable us to sample other datasets that help extend and build the theory. For a detailed insight on theoretical sampling, and practical ways to go about it, please refer to Chapter 8 on theoretical sampling.

Scaling up

One of the issues we also drew attention to in our paper was the issue of scaling up the theory. Our collective experience with GTM told us that first-time users tend to get overwhelmed at the coding level. The founders of grounded theory suggest word- and sentence-level coding. This literally guarantees rich insights, and is one of the pluses of grounded theory. At the same time, the researcher can end up mired in detail because of the bottom up nature of the coding. The way forward here is to group categories into successively larger themes, so that the emergent theory is at a sufficient level of detail. Glaser and Strauss (Glaser 1978, 1992; Strauss 1987) both recommend 1–2 core categories precisely because of the need to get the theory to a reasonable level of abstraction. Glaser (1978) also makes the useful point that context is necessarily stripped away as one moves toward a formal theory, and that comparative analysis can be used to compare conceptual units of a theory.

Scaling up is discussed in more detail in Chapter 9 on Presenting Your Theory. It's also important to remember that Glaser and Strauss's recommendations for theoretical sampling, discussed in Chapter 8, give good guidance for extending the scope of the theory which in turn should lead to greater abstraction.

Theoretical integration

Often grounded theory studies do not go as far as systematically relating the emergent theory to the wider literature, and this was an issue that we identified for our guidelines. Like any other theory, a grounded theory needs to be put into the context of other theories in the field. The obligation (Strauss 1987,

p. 282) to engage with theories outside the discipline is an important one, in my opinion. To me, it means that we leverage the theory building capacity of GTM in its widest sense, and contribute to our respective scholarly disciplines by properly leveraging the method.

Glaser (1978) suggests that the substantive theory can be analysed by comparing it with other substantive theories in the area. Glaser suggests that formal models of process, structure and analysis may be useful guides to integration. For instance, in my own field of information systems, meta-theories such as structuration theory (Orlikowski 1992; Walsham 2002) or actor–network theory (Walsham 1997) all have been used as a lens through which to view emergent theory. Positioning a grounded theory against the literature is discussed in Chapter 3. A summary of the guidelines is given in Table 10.2.

Table 10.2   Guidelines for using grounded theory (Urquhart, Lehmann et al. 2010)

1. Constant comparison	Constant comparison is the process of constantly comparing instances of data labelled as a particular category with other instances of data in the same category. Constant comparison contributes to the development of theory by exposing the analytic properties of the codes and categories to rigorous scrutiny. This guideline for data analysis encourages re-searchers to be both rigorous and theoretical (Charmaz 2006).
2. Iterative conceptualisation	This guideline suggests that researchers should increase the level of abstraction and relate categories to each other through a process of iterative conceptualisation. In grounded theory, this is done using theoretical coding. The relationships between categories can be of many different types, not just causal. Theoretical coding contributes to an understanding of relationships between the concepts or factors of a theory. Theoretical memos are also very important to the development of theoretical coding and the whole process of iterative conceptualisation.
3. Theoretical sampling	This guideline stresses the importance of deciding on analytic grounds where to sample from next in the study. Theoretical sampling helps to ensure the comprehensive nature of the theory and ensures that the developing theory is truly grounded in the data.
4. Scaling up	This guideline suggests how a researcher might counter what is said to be a common problem in grounded theory viz. the production of a low level theory which is then hard to relate to the broader literature. Scaling up is the process of grouping higher level categories into broader themes. Scaling up contributes to the generalisability of the theory.
5. Theoretical integration	This guideline helps the researcher deal with what we think is an obligation of the grounded theorist – theoretical integration. Theoretical integration means relating the theory to other theories in the same or similar field. It is the process of comparing the substantive theory generated with other, previously developed, theories. This principle contributes to theoretical integration in the discipline and could help in the generation of formal theories.

The future of grounded theory

What is the future of grounded theory? Since the publication of the previous book, developments have continued apace, as we might expect from a well-established qualitative analysis method with a vigorous intellectual history. It has indeed continued to thrive. Debates about the nature of GTM continue, due to the competing intellectual traditions of Glaser and Strauss, but they have shifted and morphed in shape as constructivist grounded theory has proved to be a major strand in its own right. The proponents of the Glaserian strand – which is now known as Classic Grounded Theory – continue to feel that theirs is the true grounded theory. While my sympathies are entirely with the Glaserian version, I am also incredibly grateful for the Strauss (1987) book, and the 1990 Strauss and Corbin book, *Basics of Qualitative Research* (Strauss and Corbin 1990). Without their efforts to convey the method to their students, I doubt if I would have learnt enough to attempt the same in this book. Since the previous edition in 2008, Juliet Corbin has published another update of Basics of Qualitative Research (Corbin and Strauss 2015).

It is important to acknowledge the considerable legacy left by the late Kathy Charmaz who conceived and popularised constructivist grounded theory (Charmaz 2006, 2014). One distinct change since the publication of the last edition is the wide take up of constructivist grounded theory by postgraduate students who find the books both accessible and chiming with their own philosophical position.

We can also look to the *SAGE Handbook of Grounded Theory* (Bryant and Charmaz 2007) and the subsequent *SAGE Handbook of Current Developments in Grounded Theory* (Bryant and Charmaz 2019) as a useful barometer of the continued intellectual development of grounded theory. In 2007, as mentioned in the Introduction, Bryant and Charmaz discussed GTM as a contested concept. I believe this to be still the case, but my observation of the 2019 handbook is that grounded theory grows ever more pluralistic, with many rich perspectives, while at the same time, not becoming diluted as a tradition. Bryant (2019) in his editor's introduction, makes the valuable point that we can see GTM 'as comprising a number of "essences" and "accidents"'. The *accidents* Bryant describes as those rising from the social, cultural and political context of the time, and which need to be dismantled and jettisoned. In that category, I would firmly place Strauss and Corbin's axial coding paradigm (1990, 1998), which caused the split between the founders, and is no longer seen as an obligatory point of passage for those using the Straussian strand. While it is said that the coding paradigm was produced to guide students, in my opinion it was definitely an 'accident' that caused untold confusion (for me and my students, certainly!). In a paper I wrote with my colleague Stefan Seidel (Seidel and Urquhart 2013), we came to the conclusion that, where the axial coding paradigm was utilised in information systems (IS) studies over the period 1991 to 2010, there was indeed some evidence of forcing. That said, those colleagues

who used the paradigm were more likely to produce a theory. This to me underlines one of the great *essentials* of GTM – awareness of how theories are constructed, as exemplified by Glaser's coding families (1978, 2005).

It is instructive to see the two SAGE handbooks mentioned above as useful barometers of the evolution of thinking by its practitioners between 2007 and 2019. Table 10.3 briefly compares and contrasts the issues covered.

Table 10.3   Comparing the SAGE handbooks on grounded theory (Bryant and Charmaz 2007, 2019)

	2007	2019
Intellectual Foundations	X	X
Coding and Theoretical Sampling	X	X
Grounded Theory and Other Research Traditions	X	X
Grounded Theory in the Social Sciences	X	X
Theories and Theorising in Grounded Theory		X
Grounded Theory and International and Local Contexts		X

While there is the same concern with intellectual foundations, coding and theoretical sampling, how grounded theory fits with other research traditions and diverse academic disciplines, we can see two new concerns – theories and theorising, and also the influence of international and local contexts for GTM. Curiously, the first new concern, theories and theorising, is a mirror of my own journey with GTM. When I first wrote this book in 2012, my main aim was demystify the coding and theory building process in the best way I knew how. As time has passed, I have become more and more engaged with the nature of theory, and how theory and theory building is perceived in the newer disciplines, hence the new chapter on theory in this book. In the new handbook, my chapter on moving from substantive to formal theory[1] is accompanied by no less than four other chapters examining the role of theory in GTM, so it is good to know that I am not alone in my preoccupations as to what theory actually is, and what that means for the practice of GTM. We can perhaps see this as a natural progression – as we understand more and more about the legacy and intellectual foundations of GTM, and come to grips with the practical challenge of coding and theoretical sampling, our attention turns to the nature of the theory being produced. To me, this is also an issue of arguing the legitimacy of grounded theories in my own and newer disciplines. If one is producing a grounded theory, how does it compare with other theories in the field? What broader contribution can grounded theories make to those newer disciplines?

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[1]An excerpt from this chapter is in Chapter 8, Theoretical Sampling, where I give detailed options on how to follow Glaser and Strauss's 1967 advice on moving from substantive to formal theory.

Also noteworthy in the new handbook are chapters on feminist grounded theory (Hesse-Biber and Flowers 2019), containing useful practical examples, and critical grounded theory (Hadley 2019) though it should be mentioned that both these topics were both covered more broadly in the 2007 handbooks by Olesen (2007) and Gibson (2007). Both chapters will be extremely useful to postgraduate researchers for whom the method has appeal, but would like to integrate it into these perspectives. While there is a focused consideration of grounded theory and ethnic and racial diversity in the first handbook (O'Neil Green et al. 2007), and consideration of grounded theory using decolonising perspectives (Bainbridge et al. 2019), in the second, one could reasonably expect more discussion of race and grounded theory in future.

It is also pleasing to see a consideration of the internationalisation of grounded theory in the new handbook. Crossman and Noma (2019) take as their starting point Charmaz's (2014) observation that while GTM has been used to study phenomena in a wide variety of contexts, the cultural assumptions that underpin GTM are largely unexplored. There is also a practical problem with coding – what happens to nuances of meaning if an interview is conducted in a native language then subsequently translated to English? With my own students, we have always opted to code in the source language, as we feel that this gets us closer to the meaning. This can provide some challenges when subsequently rendering the codes into English, but in my view does keep us closer to the data. Crossman and Noma (2019) discuss this issue of translation and other practical issues of cross cultural practice in GTM.

The adaptations of grounded theory that currently exist are not only a product of confusion over the traditions of grounded theory but also of changing demands of research in the twenty-first century. One surprising omission from my point of view in the most recent *SAGE Handbook on Developments in Grounded theory* (Bryant and Charmaz 2019) are discussions of how GTM practice engages with social media sources. We now have a vast array of digital 'slices of data', such as chat messages, the content of web sites, email threads and so on. As Holton and Walsh (2017) point out, these sources of data give us a great deal more scope for theoretical sampling. A colleague and myself set ourselves a challenge – could we build grounded theory using social media data alone? The result of our explorations can be found in Vaast and Urquhart (2017), where we discuss the particular methodological dilemmas around social media data, such as lack of context, and ephemerality, and consider how we might deal with these issues in a grounded theory study. In particular, it is worth noting that by privileging certain features of interaction and at the same time obscuring others, social media confounds traditional methods of capturing and conceptualising social relationships of all kinds (Pousti, Urquhart et al. 2021). I think that social media sources then lay down a challenge to all qualitative researchers, and in Pousti, Urquhart et al. (2021) we discuss how some

of those dilemmas might usefully be dealt with using reflexivity and thoughtful research design of a qualitative social media study.

In a similar vein, Berente, Seidel et al. (2019) draw our attention to the possibility of computational grounded theorising. By this they mean the opportunity to use 'trace data', which is the large amount of digital data left by all users in all systems, to assist in the building of a grounded theory. So, for instance, in an organisational system, these may be 'found data' of events and activities, such as forms recording decisions, temporal patterns of access of a system. Clickstreams, sensor data and social media updates are all time-stamped sequenced trace data. They give some interesting examples of how automated analysis of such large data traces can actively contribute to the creation of a grounded theory.

There is still, at the time of writing, a dearth of discussion on what I see to be a key challenge for qualitative researchers in general and grounded theorists in particular – the proliferation of visual sources in our daily lives, through social media and digital cameras. Every day we are confronted with images, and yet generally academic researchers, with a few exceptions in cultural studies and of course art history, choose not analyse them. In 2015, myself and colleague Antonio Díaz Andráde examined in a paper how it was indeed possible to apply grounded theory coding procedures to images (Díaz Andráde, Urquhart et al. 2015). So, for me one aspect of grounded theory I would like to see discussed in the future is how we engage with visual sources, and social media data sources of all kinds. It is good to see one chapter in the Bryant and Charmaz (2019) handbook on visual images and GTM (Konecki 2019) which considers the role they can play as a supplement to the core GT analysis, but in my opinion we all need to take visual data sources more seriously in our research.

Summary

- This final chapter has looked at the contested nature of grounded theory, and summarised some key insights from the book, and speculated on its future. It also reflects on the continuing, and vibrant, intellectual debates. The insights are personal, and are the product of my attempts to distil the knowledge I have gained both in the practice of teaching and doing grounded theory, and the process of writing this book.
- The first insight is that grounded theory is littered with adaptations of the method. There are many reasons for this, but for me the main issue is that these adaptations be explained and justified in relation to the canon of grounded theory. In this way, those adaptations contribute to GTM as a living breathing method.
- The second insight is about the value of theory. One of the remarkable things about grounded theory application is how frequently it does not result in a theory, despite that being the aim of the method. The process of building theory helps us understand theory, and the role of other theories in our respective

disciplines. Chapter 3 in this new edition discusses in detail the nature of theory, and stresses the importance of unearthing causal patterns, of all kinds, in our quest to build grounded theories.

- The third insight is that various barriers to using GTM in a dissertation do exist, but those barriers in themselves are not an argument against using such a wonderful method. Some practical suggestions are made in this section to circumvent such barriers, based on experience. A lack of people doing grounded theory in their dissertations leads to a lack of future supervisors in the method, so for me as an academic this is a significant point about the future of grounded theory.

- The fourth insight is around the phenomena of GTM as a bottom up method – both its strength, in terms of the wonderful insights that can be gained by detailed engagement with the data, and a possible weakness because low level theories need to be scaled up in order to engage with other theories. So the importance of abstraction is discussed here.

- The fifth insight is a very practical one – that a good grounded theory analysis depends on two things, the ability to abstract, and think about relationships. So the quality of thinking – or theorising – when coding, is important. Some suggestions are made about coding relationships. This observation comes from looking at many grounded theory studies, and it is perhaps not surprising that, for me, a good grounded theory study is one that puts forward a theory that can be engaged with other theories.

- The sixth insight is that grounded theory, because of the principles of theoretical sensitivity and theoretical sampling, leads us towards a natural inter-disciplinarity. Because we follow the concepts emerging in our theory, rather than the dictates of our discipline, when searching for literature, we gain an appreciation of other disciplines. The principle of theoretical sensitivity helps us recognise how theories are constructed, regardless of discipline.

- The seventh insight discussed the curious fact that, in grounded theory, the process of theory generation is much examined, but the type of theory that is output from this process is not. This section refers back to Chapter 3 and thinks about the goal of theory being one of explanation. We also discuss Charmaz's (2014) contention about the tension between context and generalisation.

- I then went on to discuss some guidelines for grounded theory (Urquhart, Lehmann et al. 2010). While these guidelines are in no way meant to be prescriptive, they do give an indication of the elements that we might expect to be in a grounded theory study, namely, constant comparison, iterative conceptualisation, theoretical sampling, scaling up and theoretical integration.

- Finally, I went on to speculate about the future of grounded theory. Will it continue to be a contested concept? I review the developments in recent years to find out. What is evident is a huge amount of flowering of grounded theory in all its forms, with many books published and a new *SAGE Handbook of Contemporary Developments in Grounded Theory* (Bryant and Charmaz 2019). Many people now owe a huge debt to Charmaz's legacy of work on constructivist grounded theory. Some questions remain. How will new digital texts influence our coding practices, as we do more research using Internet sources of all kinds? How will visual data influence the practice of the method?

I look forward to finding out, in the company of my students and colleagues. In the meantime, I wish all those on the grounded theory journey well, and I hope they enjoy it as much as I do.

EXERCISES

1   Consider the contested nature of GTM as described at the beginning of this chapter. How has this played out in your particular discipline? Has one ortho-doxy of grounded theory prevailed? Can you think of any other examples in your discipline of a contested concept?

2   Discuss the seven insights about GTM listed in this chapter with a fellow student or researcher. Do you agree with those insights? Why or why not? Can you come up with any of your own, and how do they relate to those insights in the chapter?

3   Research adaptations of GTM in your own discipline. Are they explained or does the reader have to ponder the relationship of the adaptation to GTM? Which GTM texts are quoted most frequently in journal articles in your area?

4   Can you think of qualitative research challenges that GTM would not be able to meet? Why? What would be most difficult to analyse using GTM? How would you deal with issues of context (or lack of) in digital texts?

WEB RESOURCES

These are links that encourage you to connect with other researchers and discuss grounded theory.

There is a helpful group on Facebook, called Grounded Theory, administered by Barry Gibson, that welcomes all questions and all stripes of grounded theory **https://www.facebook.com/groups/123133504438755/about**

Australians have a Facebook group all of their own, Grounded Theory Australia, administered by Connie Allen, which is similarly welcoming and certainly does not bar non Aussies! **https://www.facebook.com/groups/702037949887542**

FURTHER READING

Clancy and Vince (2019) give really good reflexive account of a novice encounter with grounded theory, and talk about how the contested nature of grounded theory, and emphasis on purity of approach makes it more difficult to navigate.

Clancy A., and Vince, R. (2019). ''Theory as Fantasy: Emotional Dimensions to Grounded Theory,'' *British Journal of Management* **30: 203–216.**
https://doi.org/10.1111/1467-8551.12304

This book, by the co-editor of the *SAGE Grounded Theory Handbook* series, gives a deep and thoughtful treatment of how the different varieties of grounded theory have evolved.
Bryant, A. (2019). *The Varieties of Grounded Theory*. **London: SAGE.**

FREQUENTLY ASKED QUESTIONS

How do I defend my use of GTM to others?

This is possibly the most frequent question I get asked, and is a reflection on the institutional barriers that still seem to exist to using grounded theory. It is still seen as an unusual method in some disciplines including my own. Grounded theory is very defensible I think for several reasons, two of which are that it has a superb chain of evidence, and it is absolutely 'grounded' in the findings. It also has a systematic set of procedures. We get to find out what the data are telling us in a particular context, as opposed to imposing a theory on it from elsewhere. Thus it is brilliant for investigating innovations, processes and what people do in various settings. For me though, the overriding reason for using grounded theory is that it helps us understand the theory building process, and how important theory is. In terms of defending its use, there are many, many references about grounded theory, too many to detail here, but the point is that it is indeed a well-established method that has been in use for over fifty years. So in any PhD proposal defence, those references can be quoted. It is superb for new research problems where no previous theory exists. The use of grounded theory can generally be justified in terms of its appropriateness for the research problem, so how the research problem is framed always matters. If we start with a general research problem, and make the point that the analysis will determine the dimensions of that research problem (Dey 1993), this is also helpful.

What strand of grounded theory should I choose?

As this chapter indicates, grounded theory has evolved into three main strands. Which you choose very much depends on your research philosophy and personal taste. It will also depend on the evolution of the method within your own discipline – my experience is that the newer disciplines tend to have variable norms for grounded theory, depending on who popularised it first and what strand they used. As long as the choice is thoughtfully justified, and is acceptable to your PhD supervisor, and or academic community, then you should feel free to use the strand you prefer. And, also I hope, experience the joy that is grounded theory, whichever path you choose.

Glossary

Axial coding   A stage of coding proposed by Strauss and Corbin. The codes are first dimensionalised, then the Strauss and Corbin coding paradigm is applied. This stage of coding has in the past presented researchers with challenges (see Kendall 1999; Urquhart 2001). It is important to note that this phase is not used in the current version of Corbin and Strauss (2008).

Blank slate   Sometimes people erroneously assume that, to do GTM, the researcher has to be a 'blank slate' and forget everything they have read. In fact, the injunction is quite different – not to impose concepts on the data, but to consider what the data says first. Page 3 of Discovery of Grounded Theory (Glaser and Strauss 1967) points out that the researcher does not approach reality as a 'tabula rasa'. See also 'non-committal literature review'.

Coding   The act of attaching concepts to data. These concepts are called codes.

Coding families   First proposed by Glaser in his book *Theoretical Sensitivity* in 1978, where he introduced 18 coding families. These coding families help us to see how categories might be related to each other. Glaser introduced a further 25 families in his book in 2005. The '6Cs' and 'Strategy' families seem to have been the basis for the controversial Strauss and Corbin *coding paradigm*.

Coding paradigm   The coding paradigm proposed by Strauss and Corbin in their book *Basics of Qualitative Research* in 1990. This coding paradigm, and the book itself, was the cause of a split between Glaser and Strauss in 1990. The coding paradigm consists of 'Causal Conditions, Context, Intervening Conditions, Action/Interaction Strategies and Consequences'. It was stated to be mandatory in the book in 1990, less so in the next edition in 1998, and is now purely optional in the

Corbin and Strauss 2008 book. In my own field it has not been much applied but when it has, it does seem to have been implicated in the 'forcing' that Glaser felt would occur if the paradigm was used (Seidel and Urquhart 2013).

Constant comparison   A method proposed by Glaser and Strauss that helps with qualitative analysis. Put simply, the act of comparing one piece of data you have attached a concept to, to another piece of data you have attached the same concept to, to see if it represents the same concept.

Emergence   This term was first used by Glaser in 1992 and I would argue is a key tenet of his thinking. Emergence is the idea that the theory emerges from the data, that the data be allowed to tell its own story. The idea of emergence is subject to some criticism (see, for instance, Bryant, 2002) due to the lack of consideration of reflexivity when analysing data. It also has philosophical implications – it depends on your ontological view if you regard the findings as an underlying structure within the data.

Forcing   This term was first used by Glaser in 1992, and it encapsulates one of the key debates of grounded theory. Glaser felt that the use of the coding paradigm proposed by Strauss and Corbin in 1990 'forced the data and derailed it from relevance'. For Glaser it is very important that the data is not 'forced' – that it is allowed to tell its own story, as opposed to having a particular theoretical view overlaid upon it.

Formal theory   Formal theories focus on high-level conceptual entities (Strauss 1987), such as organisational learning. Other examples of formal theories include structuration theory, theories on social capital and actor network theory. Glaser and Strauss (1967) say that it should be possible to build a formal theory from a substantive theory, by use of theoretical sampling to widen the scope of the theory; see Glaser and Strauss (1967), *Chapter IV, From Substantive to Formal Theory*. There are, however, not many examples of formal theory produced by GTM (see Kearney 2007).

Grounded theory   What is produced by Grounded Theory Method (GTM). The theory is said to be 'grounded' because it is underpinned by data. Each concept in a grounded theory is underpinned by many instances of the concept occurring in the data.

Grounded theory method (GTM)   This term was suggested by Antony Bryant as a useful way of making the point that grounded theory is a method, and that a grounded theory is the product of that method. Used in this book for precisely that reason.

Integrative diagrams   A technique suggested by Strauss (1987) where categories and relationships are represented visually (and cumulatively), as a means to thinking about relationships.

Non-committal literature review   This is a useful mechanism for those using GTM – the idea that a literature review should be non-committal, and that the emerging theory will determine the relevance of the literature. Especially useful for dissertation students who don't have an option of not doing a literature review.

Open coding   The first stage of coding in both strands of grounded theory method (Glaserian and Straussian). The data is examined line by line and codes attached to words or groups of words.

Scaling up   The process of scaling up the emergent theory to a sufficient level of abstraction so it can be engaged with other theories in the field. Because the initial stage of coding in GTM is quite detailed, the theory can be at quite a low level, which is why the founders suggest 1–2 core categories for the emerging theory.

Selective coding   The second stage of coding in the Glaserian version of grounded theory. Open codes are grouped into higher level categories, with the core category or categories in mind.

Substantive theory   This is the type of theory that GTM produces in the first instance – substantive in the sense that it pertains only to the phenomena being studied and makes no claims to generalisation beyond that particular phenomena.

Theoretical codes   A theoretical code, to paraphrase Glaser (1978) 'conceptualises how the substantive codes may relate to each other'. Theoretical codes are contained in the coding families put forward by Glaser (1978, 2005) but can also be self generated by the researcher. Glaser warns of the possible danger of 'forcing' using a theoretical code – the theoretical code has to fit with the emerging theory.

Theoretical coding   The third stage of coding in the Glaserian version of grounded theory. In this stage, relationships are built between categories. Often these relationships are built using 'theoretical codes', from 'coding families' as first proposed by Glaser in 1978.

Theoretical integration   The task of relating the emergent theory to other theories in the same or similar field. Strauss (1987) talks of our obligation to 'grapple' with the literature once the theory has been generated.

Theoretical memos   Theoretical memos are a key tool for theorising. The idea is that, during coding, the researcher can break off to write down inspirations they have about the codes they are working on. Theoretical memos were first proposed by Glaser (1978) and their use is no longer confined to GTM because the practice allows researchers space to think creatively about their data.

Theoretical sampling   A very powerful idea from GTM, and one that has spread from GTM to other methods of research e.g. Eisenhardt (1989). Theoretical sampling is deciding on analytic grounds where to sample from next. In this way, the theory can be quickly be developed based on emerging concepts. One common way to increase the scope of the theory is to sample unlike groups; one way to increase the explanatory power of the theory is sample on diverse and less saturated concepts. For a full explanation, see Glaser and Strauss (1967), *Chapter IV, From Substantive to Formal Theory*.

Theoretical saturation   Theoretical saturation is the point in coding where you find that no new codes occur in the data. There are mounting instances of the same codes, but no new codes.

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Index