Challenges When Using Grounded Theory: A Pragmatic Introduction to Doing GT Research

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Abstract
The grounded theory (GT) method is widely applied, yet frequently misunderstood. We outline the main variants of GT and dispel the most common myths associated with GT. We argue that the different variants of GT incorporate a core set of shared procedures that can be put to work by any researcher or team from their chosen ontological and epistemological perspective. This “shared core” of the GT method is articulated as the principles of (1) taking the word “grounded” seriously, (2) capturing and explaining context-related social processes, (3) pursuing theory through engagement with data, and (4) pursuing theory through theoretical sampling. In this article, we have put forward, in a nutshell, a distillation of core principles underpinning existing GT approaches that can aid further engagement with the different variants of GT. We are motivated by the wish to make GT more comprehensible and accessible, especially for researchers who are new to the method.

Keywords
grounded theory method, classical grounded theory, constructivist grounded theory, theoretical sampling, constant comparison

What Is Already Known
The grounded theory (GT) method has evolved over time to comprise several different variants. Researchers new to the GT method often find it hard to gain an oversight of the method and the different strands within it. GT processes such as theoretical sampling and saturation are frequently misunderstood.

What This Article Adds
Concise examination of myths that has evolved around the GT method. Distillation of the core principles that underpins the different variants of the GT method. A synthesis of the GT method that focuses on doing GT of particular value to researchers new to GT.

Introduction
Grounded theory (GT) is a widely applied research method that is spelled out in several books including the foundational work by Glaser and Strauss (1967); the current editions of pathbreaking works by Charmaz (2014), Clarke (2005), and Corbin and Strauss (2015); and the comprehensive outline by Bryant (2017). In these and other contributions, the GT method takes a number of different forms, which appear to be partly in contradiction or even dispute with each other. This article seeks to crystallize what all versions of GT have in common. We spell out the shared core of GT and clarify the key research procedures compatible with the principles underpinning the method in order to make it easier for novices to the method to apply their chosen variant of GT.

GT has been influenced by the Pragmatist philosophical tradition (Bacon, 2012; Bryant, 2009; Charmaz, 2014), but it has come to be widely perceived as anything but pragmatic in the colloquial sense of the word. Rather, GT procedures are often seen as time-consuming and convoluted, involving a multitude of rules that come across as challenging and even obtuse. Students and even experienced researchers frequently wonder whether they are applying the GT method correctly or whether they are able to deploy the method in full. Indeed, they have reason to worry as some research practices that
have been associated with GT—such as interviewing participants in quick succession, without recording the interviews—are anathema to present-day institutional requirements. Moreover, we regularly examine student work (including PhD theses) and are asked to peer-review articles that claim to have applied the GT method, despite barely any adherence to core principles of GT. Notwithstanding its many merits and followers, GT appears to cause confusion and apprehension and attracts ill-advised adherents.

This article seeks to spell out the core principles of GT. We believe that our critical yet simple pragmatic (with a small “p”) approach can help to ensure that the method gains wider understanding, reach, and accessibility. We are not proposing a “successor” to earlier versions of GT. Rather, we set out to steer a course through these iterations for those new to—or perhaps confused about—the method. We put forward a crystallization of the GT method that can be worked through by researchers who are unfamiliar with, or apprehensive about, GT.

Although an increasing number of journal articles are published on GT, they tend to focus on certain aspects of GT (Draucker, Martzolf, Ross, & Rusk, 2007; Kolb, 2012; Timmermans & Tavory, 2012) and on specific approaches to GT (Giske & Artinian, 2007; Keane, 2015). Our approach here is more general and integrative. We are motivated by pragmatic concerns in the colloquial sense of the term pragmatic: sensible, realistic, practical, feasible, and attainable. We wish to go back to the etymological origin of the term pragmatism: the ancient Greek for the verb “to do.” We seek to provide a synthesis of the GT method that focuses on doing GT. In our interpretation, GT can be put to work, in a pragmatic way, from any perspective, whether staunchly positivist, radically constructivist, hyper critical, or anything in between. We hope to bring a basic level of understanding of the GT method to a wide audience of potential users of the method, by identifying and summarizing the principles that underpin the various approaches to GT. Following this introduction, the readers are hopefully in a position to decide whether GT would suit their purposes and to proceed to choosing the variant of GT that best corresponds to their ontological and epistemological position.

Last but not least among our motives, we note that most of the (peer-reviewed) advice on how to do GT can be found in textbooks, large methodological volumes, or journals with limited access and hence is restricted to those who can access libraries, pay to view articles online, or pay for books; our open-access article strives to make advice available to anyone and anywhere (with Internet access) in concise form—and for free.

The vast majority of researchers are currently steered (by contextual impetuses such as need to demonstrate “impact”) toward an approach that calls for elements of constructivism (acknowledgment that the researcher and context influence the study) and elements of realism and even positivism in their research design and approach (e.g., the requirement to generate findings that have practical relevance and wide applicability to a social problem). These considerations also generate a strong rationale for spelling out the essential elements of GT, available to researchers with varying ontological and epistemological positions, faced with multiple institutional demands governing research practices. We intend this article to be especially useful to researchers coming to grips with GT as a “gateway” that allows them to appreciate the method’s key principles while also facilitating deeper engagement with the various iterations of GT.

**Background: The Different Strands of GT**

Due to the brevity necessary in a journal article, we cannot here give a detailed account of the subtleties of each iteration of GT. Rather, we offer a very brief “genealogy” of GT “evolution” and point out some of the key differences between the various approaches to GT. For readers who are interested in a more thorough account of the “canonical basis” and evolution of different variants of the method, Bryant (2017) is a useful source.

**Classical Grounded Theory**

The “founders” of GT, Glaser and Strauss (1967/2010—and several other works)—were strongly motivated by their reaction against what they saw as undue emphasis on verification and neglect of theorizing, among social scientists in the post–Second World War period. Glaser and Strauss highlighted the centrality of predictions and applications: In their view, a good theory must be put to work and should work in the sense of predicting future phenomena. Ontologically, of all strands of GT, the classical GT of Glaser and Strauss is the strand most strongly underpinned by objectivism and closest to positivist approaches. Despite a number of works that focus on their substantive research findings (on death, dying, and awareness—e.g., Glaser & Strauss, 1965, 1968), the methodological advice pertaining to this foundational variant of GT is relatively lightly documented—compared to the later variants. The emphasis on a sole researcher or a very small team moving ahead at great speed, entirely guided by the drive to build theory not necessarily recording the data, now seems in conflict with many present-day institutional requirements and practices. Indeed, for Clarke (2014), classical GT is a method of analysis that prescribed no rigor or rules regarding data collection procedures.

**Strauss and Corbin: Objectivism and Reflexivity**

In contrast to the classical approach, Strauss and Corbin’s (1990/2015) very detailed outline of data analysis, with emphasis on ongoing validation and a combination of induction and deduction (Heath & Cowley, 2004), has contributed to the impression that there is a step-by-step “formula” that must be painstakingly followed in order to produce “good” GT (Bryant, 2009). Strauss and Corbin’s version of GT (Strauss & Corbin, 1990/2015, 1998) has objectivist underpinnings—that is, an
understanding that there is an objective, external reality which can be discovered by the researcher and reported on (Charmaz, 2000, 2013). However, Corbin’s recent editions (Corbin & Strauss, 2008, 2015) endorse more heavily the reflexive role of the researcher and soften the application of technical procedures as outlined in previous editions of the Strauss and Corbin method (Charmaz, 2013).

**Constructivist Grounded Theory**

The role of the participant and researcher in the process of generating knowledge, and interrogating the nature of the knowledge generated, is a key point of departure for Charmaz’s (2006, 2014) constructivist grounded theory (CGT). Where classical GT asserts that theory emerges from data, and is drawn out by the researcher in her role as a detached, yet reflexive scientific observer, CGT fully implicates the researcher in generating data and theory. In CGT, participants are active in the construction of knowledge, a knowledge that Charmaz (2014) argues is strengthened when the process of construction is acknowledged. In turn, the knowledge generated is posited as constitutive of an interpretive portrayal. For Charmaz, “the pragmatist foundations [of GT] encourage us to construct an interpretive rendering of the worlds we study rather than an external reporting of events and statements” (Charmaz, 2014, p. 339). However, emphasis in the CGT method on knowledge as an interpretive portrayal and hence its inherent subjectivity might be seen to be in tension with some of the requirements increasingly frequently imposed on research projects. For instance, virtually all competitive research funding programs by the European Commission emphasize grand “societal challenges” and the importance of generating objective research findings that could underpin large-scale practical or policy responses to these challenges.

**Situational Analysis**

Clarke’s situational analysis takes GT around the postmodern turn to “regenerate” GT (Clarke, 2005, p. xxi). Clarke strives to replace the “basic social process” concept undergirding traditional GT analysis by building on Strauss’s social worlds/arenas/negotiations framework to offer a method of situational analysis (SA; Clarke, 2003, 2005, 2014). The basic premise of the SA approach is that the conditions of the situation are in the situation and therefore context as well as process should be under inquiry. This requires that the conditional elements of the situation need to be specified in the analysis of the situation itself as they are constitutive of it and not merely framing it. Three situational maps are proposed encompassing: (1) the major human, nonhuman, discursive, and other elements of the situation; (2) social worlds/arenas maps addressing the context including actors of the situation; and (3) positional maps addressing positionalities taken as well as missing or silenced positionalities that are at work. SA by its nature emphasizes thick description and thick analysis (Clarke, 2014). This makes its application in applied policy inquiries challenging due to the limited generalizability of findings allowed for by the method, as the notion of relevance for policy implies general applicability to social problems.

**Critical Grounded Theory**

More recent developments in GT include the alignment of the GT method with a critical realist perspective (Kempter & Parry, 2011, 2014; Lee, 2016; Oliver, 2012)—a perspective that adheres to the existence of one reality that is open, fluid, and shaped by how people interpret (construct meaning) in it. Critical realist GT has the potential to navigate between the positivist and radical constructivist positions within GT because it focuses on the human perspective and on the structures, processes, and social relations that shape events and outcomes (Oliver, 2012). A central feature of critical realism—and other forms of critical inquiry—is retroduction: moving from description to causal inference via engaging with preexisting theories and knowledge (Bhaskar, 1986/2009). Hence, similar to other strands of GT, critical realist GT involves a combination of induction, deduction, and abduction in order to gain conceptual clarity about phenomena—see Myth 2: Engaging With the Literature and Existing Theory Spurs GT and Core Principle 1: Taking the Word Grounded Seriously sections.

The ontological offerings of critical realism have been the basis for the emergence of “Critical grounded theory”—a distinct GT methodology to operationalize theories underpinned by critical realism (Belfrage & Hauf, 2017). In contrast to classical GT (Glaser, 1992; Glaser & Strauss, 1967/2010), the critical grounded theorist begins with critical observations and/or experiences of the critical issues prior to the study and seeks to enact change—the field research in critical GT is always intended to be emancipatory. Similar to all other variants of GT, in critical GT, theory can be further developed or modified as new data are gathered. Hence, critical GT is also well suited to achieving greater conceptual clarity and to the refinement and reconstruction of existing theory (Belfrage & Hauf, 2017; Hadley, 2015).

**Toward Common Ground**

Notwithstanding the differences, all these approaches share a Pragmatist influence; all ask questions that pertain to processes, interactions, and—especially in Clarke’s case—context; and all strive to approach the inquiry with openness to new findings. We contend that the majority of researchers who use or contemplate using GT are aware of and want to acknowledge their own role in the process of knowledge production. However, we also recognize that the majority of contemporary researchers are engaged in knowledge-production processes that are not divorced from various practical concerns, such as the need to explain the applicability, or even the tangible impact, of their research for social, political, and economic issues and problems. Hence, in most cases, researchers will be adopting positions that are not clear-cut
but rather have to respond to a number of requirements such as the requirement, by many research funding bodies, to be both reflexive and to demonstrate relevance to major social problems. We believe that our outline of the core principles of GT can help researchers to think about how their work can meet these requirements.

Myths About GT

As mentioned in the Introduction section, GT tends to give rise to a lot of anxiety, particularly in novice researchers. The different “schools” of GT that have sprung up are partly the reason for this. In their attempts to distinguish themselves, these schools have elaborated sets of rules that can acquire an air of mystique, signaling that mastering these rules is a complex craft and, moreover, significantly different from the other “brands” of GT. This in turn has contributed to what we see as myths regarding GT, that is, beliefs about how GT is done “right” or “wrong.” GT processes such as “theoretical sampling” and “saturation” are widely misunderstood. The use of seemingly familiar techniques for very specific processes in GT has contributed to some researchers misunderstanding core GT processes as being close to generic research practices. For example, as discussed in greater detail below, it is not uncommon to confuse sampling for participants with theoretical sampling or to conflate data saturation with theoretical saturation. Such slippages in interpretation can result in researchers following procedures that in fact work against the method rather than with it (Morse, 1995). We now go on to spell out, and debunk, some prevalent myths that have evolved around the GT method.

Myth 1: GT Must Produce Fully Elaborated Theory

GT—the name suggests that a fully fledged theory must arise from a GT study. The requirement that theory resulting from GT inquiry must “fit,” “work,” and have “relevance” and “modifiability” suggests that GT theory should not only describe, explain, and predict but also be dense, integrated, and open to revision (Glaser & Strauss, 1967/2010, pp. 3, 5). However, the idea of generating theory is intimidating for most researchers, especially inexperienced ones. In actuality, the most common outcome from a GT study is greater conceptual clarity, or a conceptual framework, which is short of theory in the sense of a comprehensive system of ideas intended to fully explain and predict something. This is in fact more or less explicitly recognized in some GT manuals, for instance:

The grounded theory method should, obviously, lead to the development of grounded theories, although these may also be termed models or frameworks or conceptual schemas. (Bryant, 2017, p. 99, italics in the original)

Bryant appears to conflate theories, models, framework, and schemas, but we think it is important to acknowledge that while the application of the GT method can result in a theory, in many cases, it amounts to a new or better conceptualization or a framework that links concepts but falls short of a fully elaborated theory that covers all aspects, stages, consequences, and likelihood of a process or a phenomenon. In our view, claiming that application of the GT method always can, and must, result in theory is incorrect, misleading, and unnecessarily intimidating. All GT work should start with aspirations to theory-building, but researchers should bear in mind that the practicalities of research (in particular, limits to theoretical sampling—see the later section) could stymie their efforts at producing theory. For example, highly practical considerations such as limited time and funds—issues that are common in student projects including doctoral work (Wu & Beaunae, 2014)—might present obstacles to developing a theory. We contend that significant progress toward constructing categories, and spelling out links between them, with the view to achieving conceptual clarity, is a sufficient (if not necessarily the ideal) outcome for a GT study. For further elaborations of these distinctions, please see the section below titled Core Principle 3: Pursuing Theory Through Engagement With Data.

Myth 2: Engaging With the Literature and Existing Theory Spoils GT

The misleading idea of the researcher as a “blank slate” continues to plague GT and to create confusion and suspicion toward GT (Urquhart & Fernandez, 2013). Classical grounded theorists advised against engagement with existing literature prior to commencing data collection (Glaser & Holton, 2004); the strongest phrasing being perhaps the advice to “at first, literally ignore the literature of theory and fact on the area under study” (Glaser & Strauss, 1967/2010, p. 37). Cognizant of how such advice militates against present-day institutional requirements and conventions, we (Conlon, Carney, Timonen, & Scharf, 2015; Foley & Timonen, 2015) have recognized the necessity of engaging with extant literature in order to identify the area of focus and to justify the research questions. We agree with Charmaz (2014) that the idea of the researcher as a blank slate is no longer a realistic proposition. It is now a standard requirement in scholarship and funding applications, ethics procedures, and practically all other “rites of passage” of research to outline the “state of the art,” that is, to produce a literature review at the outset of a research project. We argue, alongside several others (e.g., Dunne, 2011; Hallberg, 2010), that this is useful, rather than a hindrance, to GT, provided that the researcher works hard at remaining open to their data.

Relating this to Myth 1 above, we contend that researchers can use the GT method when working with a theoretical orientation (obtained from the literature), without going as far as hypothesis testing. Furthermore, we argue that GT can be used to deepen existing theoretical insights (i.e., to “work with” extant literature). The key premise of GT is remaining open to the portrayals of the world as encountered and not forcing data into theoretical accounts: This can be done with awareness
of existing theories. Indeed, we argue that this can be done more productively with such awareness.

**Myth 3: Data Collection and Analysis Must Always Happen in Tandem**

Data collection and analysis progressing in tandem is the GT ideal because it is only by analyzing and sampling concurrently that concepts and theory can be developed in an inductive, grounded manner. However, this ideal is not always practicable, particularly when interviews are the sole or principal method of data generation and the time frame available is short. Indeed, what GT researchers often describe as simultaneous interview data collection and analysis, varies considerably depending on the sample size, the scope of the study, and the topic at hand. Several factors can have an adverse impact on timely recruitment and subsequently on the timing of analysis. GT researchers are not alone in the problems that they encounter when accessing participants. For instance, it might be necessary to proceed with fieldwork as the opportunity to gather data present itself, regardless of whether this allows for plentiful time to engage in analysis (Corbin & Holt, 2011). Team-based GT research might also necessitate two or more researchers collecting data in different locations and hence pose challenges to analyzing all data in tandem with data collection (Conlon et al., 2015). Researchers are sometimes beholden to the restrictions placed on them by ethics (institutional review) committees and often have to depend on gatekeepers in order to recruit participants. Researchers also need to accommodate participants’ time window for participation in a study. These constraints can be manageable, provided the researcher is attuned to directing data generation toward illuminating the emerging and theoretically relevant aspects and dimensions of a process or phenomenon. The key is sampling theoretically for concepts within the data as it emerges, and basing further data collection on the conceptual and theoretical gaps within this data, although sometimes practical considerations make this impossible in a beat-to-beat manner. GT asks the researcher to engage in coding, memo writing, and theorizing as soon as there are provisional categories—which can be understood as codes that “cluster” together—and to build emerging insights into the data generation process as the inquiry develops. While detailed, dedicated, and fully developed coding and concurrent memoing may not always be possible, the implicated researcher directs the process of inquiry to follow the direction of nascent theorizing, and the writing of analytical memos is an invaluable tool in this process. A research process that grounds theory-building within the data satisfies the method’s requirements, even when data generation does not adhere to the ideal sequence.

**Myth 4: Coding the GT Way Is Excessively Time-Consuming**

Different schools of GT have developed different coding procedures and questions invariably arise about whether or not they fundamentally differ from each other. Explanations of similarities and differences in coding procedures between different schools of GT (e.g., LaRossa, 2005) are useful but GT remains open to criticism because of the different “labels” that different schools of GT attach to different stages of coding. However, we argue, all share the common goals of, first, “opening up” the data as much as possible in order to identify codes and categories (codes that cohere together) in the data and, second, of developing a conceptual framework/theory by making connections between categories. These analytical steps are often encapsulated in a shorthand form by using the term constant comparison (see also below). The key difference is that classical GT (Glaser, 1992) cautions against early cross-cutting of the data in order to avoid forcing conceptual links between data while most other interpretations of GT tentatively look for connections between developing concepts in the theory generating process as outlined in more detail below. Essentially, it is a question of when the researcher starts to make connections. Either way, the end goal is the same—identifying relationships between categories and using these to develop concepts and a conceptual framework that will (ideally) amount to theory.

All coding stages in GT require time, and attention to all data is important in a GT study. However, GT coding has a reputation for being painstakingly slow to do, a belief that can make researchers averse toward adopting GT, and push them toward alternatives that are perceived to be “easier.” One reason for this is that some researchers believe that they need to open (initial) code all of a data set even when the data set is very large, a process that is undeniably time-consuming. However, we see plenty of support within the GT tradition for open (initial) coding being used more pragmatically to “break open” a topic, after which theoretical sampling can be employed more strategically to look for the same code arising elsewhere in the data set (see also the later section on theoretical sampling). In other words, it may not be necessary to open code all data because as a study progresses, additional data are gathered via sampling for the concepts that came about in the initial coding phase.

We contend that GT coding—even with a large data set—can be a smooth and iterative process where identifying early connections in the data and following leads that emerge from the data are key to moving the data analysis forward in a focused manner. Coding qualitative data is almost invariably time-consuming, regardless of precise methodology employed; opting for GT poses no particular disadvantage and might indeed be advantageous in supporting researchers becoming focused on understanding a particular aspect of their data from an early stage of analysis.

**Core Principles of GT Research**

Having spelled out what GT does not necessitate or imply, we now turn to outlining the indispensable core components of a GT study. We argue that there is a set of core principles that are shared by all strands within GT and that adherence to these is
necessary and sufficient to claim the label and status of a GT study. These are principles and procedures that any study that claims the GT label must adhere to, regardless of the ontological and epistemological position that it starts out from and works within. Conversely, a study that does not incorporate these elements does not stand up as a GT study.

We of course acknowledge that there are differences among GT scholars in the degree of attachment to and the exact interpretation of these core principles. However, in the context of this article, we strive to steer a common course through these differences in the interest of setting out principles that can be applied by a diversity of researchers in contemporary research environments.

Core Principle 1: Taking the Word “Grounded” Seriously

Any GT study must remain open to new, unanticipated findings and avoid “hypothesis testing” style of inquiry. If a researcher is interested in testing hypotheses, they should use other methods—GT is *not* suited for verification/falsification of preexisting propositions. As was pointed out, there is a pragmatic necessity, within current regulations and incentives in academia to conduct a literature review *prior* to entering the field. GT researchers must have the ability to keep their knowledge of the literature in the background when entering the field, so as not to force their data into a priori categories—a practice that bears some resemblance to hypothesis testing. This involves employing unstructured or lightly structured interview guides (consisting of “open” questions) or protocols for observation and other data generation formats, and remaining flexible throughout the data collection, in order to be able to capture data in a maximally open way. Remaining open to the data involves being prepared to alter the research question(s) as a result of observations and insights gained when collecting data and avoiding “closed” questions that imply certain types of answers and tend to close down rather than open up enquiry. For instance, “do you like school?” is a closed question (implying a yes or no response), whereas “tell me about school” is an open question.

Codes and concepts must be emergent, that is, grounded in the data although, as pointed out above, they can (and must) be “put into dialogue” with existing concepts and knowledge. This “dialogue” should take place before, during, and after data collection, first as part of the universal institutional requirement to produce a literature review and subsequently (during and after completion of fieldwork) in order to discuss concepts and categories that have emerged from the data. GT is *and should always be* inductive in its approach, meaning that understanding of phenomena and processes emerge from and are grounded in the data. However, GT also incorporates elements of deduction and abduction whereby in the process (or at least the aspiration) of building theory, the researcher must seek to understand how concepts which are *grounded* in the data (i.e., are inducted from it) relate to existing knowledge. Existing knowledge and even “hunches” about possible explanations for what is going on in the data can help us to make better sense of the data: This is the kind of “detective work” that is meant by the term abduction—which refers to the search for possible explanations of “what is going on here.” In other words, in addition to deriving (inducting) concepts, models, frameworks, and theory from the data, the GT researcher is engaged in a process of formulating explanations pertaining to what brings about the patterns observed in the data. Regardless of the level it operates at, theory must be *grounded in the data* to be consistent with GT principles.

Core Principle 2: Capturing and Explaining Context-Related Processes and Phenomena

GT is a concept- and theory-generating methodology that is able to work with different forms of data (Glaser & Holton, 2004). The most commonly used data collection method in GT is qualitative interviewing although a variety of other methods can also be employed including focus groups (Hennick, 2014; Hernandez, 2011), (participant) observation (Laitinen, Kaunonen, & Astedt-Kurki, 2014), GT analysis of quantitative data (Glaser & Strauss, 1967/2010), and analysis of visual and textual sources such as film, newspapers, biographies, and historical documents (Corbin & Strauss, 2015). Clarke’s (2005) SA in fact envisages multiple data formats across all of these categories and more. The aforementioned forms of data are of course used in other research methodologies but what makes their use in GT distinctive is the orientation to processes, events, or phenomena emerging from the data related to the context where the data were generated. In GT, data generation is aimed at explaining how changes in action–interaction come about in response to different contexts (i.e., conditions) by capturing data in a way that is amenable to identifying and explaining these processes and phenomena.

Attempting to capture and explain process, events, and phenomena through data generation requires the researcher to be attuned to the complexity of the actions–interactions at play. For example, in GT, interviews usually start off somewhat unstructured as the researcher strives to maintain openness to the data. In practice, most interviews in GT will contain some degree of structure because as the researcher looks to elaborate emerging concepts in the data, questions become more focused and aimed at understanding the complexity surrounding key processes in the data (Conlon et al., 2015). In other words, the researcher becomes increasingly oriented to understanding “what is going on here” and “what are the major patterns” and “what explains them.” In GT-based interviews and focus groups, the researcher *must* seek to probe into, and seek clarification about, how key events, incidents, and behaviors grounded in the data are shaped by context. Observation is another method of data generation in GT inquiries that can provide insights into events, situations, and processes. The procedures for generating observational data should also follow the principles of remaining open, probing for clarification, and ongoing modification to follow emerging theoretical hunches (Bluff, 2005).
Core Principle 3: Pursuing Theory Through Engagement With Data

In GT, engagement with data constitutes another form of data. GT is both an art and a tool of social science, and while the data must stay central, there is also a strong creative impetus at work in GT data analysis—connections must develop from close readings of the data that might not be apparent at face value. However, any argumentation and theorizing must ultimately be brought back to, and justified, against the data. This necessitates memoing and constant comparison, practices that make GT analysis a highly iterative process where core concepts and theory can only emerge after multiple “rounds” of data analysis (Belfrage & Hauf, 2017; Bryant, 2017; Charmaz, 2014; Corbin & Strauss, 2015; Gibson & Hartman, 2014; Glaser, 2014).

Constant comparison is the analytical process of comparing data against data in order to identify similarities and differences between pieces of data. In making comparisons between data, the researcher looks for similarities and differences (variation) between conditions (i.e., context) and consequences surrounding key events, incidents, and patterns in the data. Constant comparison advances coding, categorization, and conceptualization. The important aspect here is the key premise of coding: The researcher constantly asking “what is this data doing in relation to this inquiry?” An iterative dynamic between the very parameters of inquiry, data collection, and data analysis in the pursuit of concepts, conceptual frameworks, and theory is a core principle shared by all grounded theorists.

The exact terminology surrounding coding differs somewhat between grounded theorists (e.g., Charmaz, 2014; Corbin & Strauss, 2015; Holton & Walsh, 2016) and, for clarity and coherence, researchers are encouraged to use one set of procedures over another. Classical GT refers to a process of first “substantive” coding (also referred to as open coding), followed by “selective” coding and then by “theoretical” coding (Holton & Walsh, 2016). Corbin and Strauss (2015) describe GT coding as starting with open coding, proceeding to “conceptual saturation,” and on to “theoretical integration.” Charmaz describes a period of “initial” (open line) coding, followed first by “focused” coding and then by theoretical coding (Charmaz, 2014). More detailed summaries of differences between coding procedures in GT can be found in LaRossa (2005), Heath and Cowley (2004), and Bryant (2017). We also illustrate the coding process below, explicating the steps from open to theoretical coding. A key difference in coding between classical GT (Glaser, 1992) and other schools of GT (Charmaz, 2014; Clarke, 2005; Corbin & Strauss, 2015) is how open the researcher is to developing connections between data in the early stages of analysis. Indeed, Clarke (2003, p. 560) proposes the SA method of mapping situations as a means to address the “analytic paralysis” she recognizes can often feature in interpretive inquiries due to fears about making premature or erroneous analytic commitments. Nonetheless, all coding procedures in GT fundamentally share a common process that results in categories and concepts and which in turn drives sampling in pursuit of theory (see section below on theoretical sampling).

A GT researcher can begin to tentatively look for relationships between concepts as she or he opens up the data and gets a feel for the data. Taking an example from the authors’ research on intergenerational solidarity (Timonen, Conlon, Scharf, & Carney, 2013), in the process of open coding, we noticed many different examples of help and support provision in the data and went on to identify specific behaviors or incidents in the data as constituting the category of “providing care to aging parents.” Open coding also identified some patterns in the data pertaining to participants’ “expectations of a professional career” (another category). Constant comparative processes were used to look closely at the data for possible connections between these two categories and as data collection continued, to ask questions about how (the prospect of) providing care for aging parents might impact on plans for and the pursuit of a professional career. Asking these questions served to elicit data that expanded on the characteristics and meaning of a further category labeled “family obligation.” This level of coding is what is meant by conceptual clarification.

The final stages of coding in GT— theoretical coding—can (but do not have to) involve strong engagement around a core category that incorporates or supersedes other categories in explanatory importance and hence is “elevated” to the status of an important concept. For instance, based on the above analysis, the category “family obligation” could be one of a number of categories that “feeds into” the central concept of “family solidarity” that plays a major part in the emergent theory (in this case, theory of how solidarity is enacted by families of different socioeconomic standing—see Timonen et al., 2013). The final stages of coding in GT therefore involve theoretical integration of the categories—a refinement of all categories and, where possible, of the relationships between them, leading to the formulation of concepts and the relationships between them that constitute the theory. This purposive, theoretically orientated interrogation of data can expedite analysis significantly.

The deep engagement with the data in GT, coupled with the strong iterative process in GT data analysis, necessitate memoing—memoing is essential in GT. Memos, which can be supported by integrative diagrams, are essentially written records of analysis which document the analytical and methodological steps taken by the researcher, including the theoretical comparisons made within the data. Together with coding, memos are the primary record of how the researcher has engaged with the data in pursuit of concepts and theory. Memos need to account for how categories and concepts have developed, and in cases where theory has emerged, explain how it has emerged. Hence, memoing should begin at the very outset of the study. In practice, on completion of coding, grounded theorists ordinarily find themselves needing to compile additional theory-building memos that expand on the existing theoretical memos in order to fully account for and synthesize the emergence of and relationships between codes, categories, and concepts (Foley & Timonen, 2015). Data analysis can be aided by
computer-assisted qualitative data analysis software (CAQDAS; e.g., Bringer, Johnston, & Brackenbridge, 2006). The various CAQDAS packages on the market can be useful in GT as a means to track coding, store and retrieve data, and link memos to data. Suited to GT, CAQDAS also enables contextual annotating and hyperlinking of the data to multiple other forms of data. However, it is important to understand that CAQDAS does not “think” for the researcher and the strong creative impetus at play in GT has little to do with the technical assistance provided by CAQDAS. It is the researcher who codes, conceptualizes, and theorizes the data. It follows that CAQDAS is an optional aid, not an indispensable tool, in GT data analysis.

Core Principle 4: Pursuing Theory Through Theoretical Sampling

In dispelling some myths around GT, we acknowledged that fully fledged theory does not always result from a GT study and that conceptual development and construction of a framework that pertain to “what is going on here” can suffice. Nonetheless, a GT study must always seek to theories, that is, try to elucidate and explain all or parts of a process or phenomenon under study. With this aim in mind, theoretical sampling is the gold standard and is employed even when data and analysis fall short of a fully fledged theory.

Theoretical sampling is a process whereby the researcher samples based on the concepts that emerge in the data. Although GT studies often start off by sampling for a degree of heterogeneity (diverse cases), or purposeful sampling (Morse, 2007), theoretical sampling can begin in the early stages of a project because in practice, the purpose of theoretical sampling is to gain a better understanding of the characteristics (properties) and possible variation (dimensions) of categories and concepts that are emerging in the data. As a GT study evolves and moves toward the stages of conceptual clarification, theoretical sampling tends to become more focused, directed at a smaller or more distinct group/population or toward specific sources of data, and is accompanied by a more narrowly delineated set of questions than originally envisaged. Here, the goal of GT is to reach “saturation” of the theoretical construct through data saturation, where no significant new insights are emerging (i.e., when categories are well described and dimensionalized). “Saturated” theory, or heavily contextualized insights, means that the data capture the complexity of the processes and interactions at play.

It is important to acknowledge, however, that theoretical sampling can be extremely challenging to implement. In GT, it is not just the data but also the feasibility of collecting more data that dictates how far theoretical sampling can go. For instance, research participants with particular characteristics suited to exploring the concepts that are emerging in the data can be impossible or extremely cumbersome to find, and in the case of populations that are designated vulnerable, some ethics committees and stakeholders could limit the potential for theoretical sampling (Otkay, 2012). For example, in a study of women concealing pregnancy (Conlon, 2010), recruiting women while they were still pregnant was considered potentially too harmful by the social work services that acted as the gatekeeper. Researchers can also be under pressure to complete studies within a particular time frame that does not allow for the time that comprehensive theory-building calls for. Saturation can then become hard or impossible to achieve, and without fully dimensionalized and well-described categories, it becomes difficult to build substantive theory, that is, theory about a process or phenomenon.

In GT, it is important to distinguish between sampling procedures for additional participants or cases versus theoretical sampling for building analysis and developing new insights. Theoretical sampling directs the researcher to cycle backward and forward through the data set to identify empirical accounts that can further deepen insights into a theoretical construct that has emerged in the data. Sometimes, the data set falls short of fully filling out the construct, and then the researcher must return to the field and generate further data purposively with the developing category or concept in mind. Essentially, in GT, theoretical sampling via whichever route(s) should always be directed toward expanding on and delineating categories, and ideally, integrating theory that fully explains relationships between central concepts. Theoretical sampling is not about merely extending the data set.

Conclusion

This article has sought to demystify GT and to specify the core principles of GT, building on its foundational relationship with Pragmatism. The article falls well short of being a “GT of GT,” but we subscribe to the idea that GT itself is always a product of its time, against the background of disciplinary developments of the time (Ralph, Birks, & Chapman, 2015). GT has taken a number of different forms by now, and we believe that it is valuable, especially for novices to GT, to draw out the “core” of these different approaches in the interest of making the method more accessible. We have in this article put forward, in a nutshell, the basic “tool kit” that is essential for employing GT, regardless of the researcher’s ontological or epistemological position. We are motivated by the wish to make GT more comprehensible and accessible, more widely used, and less intimidating, particularly for the novice researcher. However, this is not to sell GT short: It is a method that requires rigor, hard work, and care both in data collection and analysis. Not all GT studies must generate fully fledged theory, but as a method that is fundamentally aimed at explaining and rendering convincing portrayals of social processes, GT inquiry is highly ambitious. The procedures used to implement it should match that ambition, while providing for flexible yet conscientious deployment of GT methods. We hope that this article helps researchers new to GT to take the first step in the journey toward doing GT in a pragmatic yet ambitious manner. Following this initial step, we would expect, and recommend, that the readers delve into the wealth of scholarship referenced
throughout this article in order to further deepen their engagement with the method.

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