Capturing the Essence of Grounded Theory:
The Importance of Understanding Commonalities and Variants

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ABSTRACT

This paper aims to capture the essence of grounded theory (GT) by setting out its commonalities and variants and, importantly, the implications of the latter for the implementation of the former, and for the truth claims and the contributions to knowledge that a GT study might make. Firstly, three ontological and epistemological variants of GT are outlined. Secondly, the commonalities of GT are set out as eight core elements of GT methodology that are individually necessary, but only sufficient collectively, to define a GT study. These elements are: an iterative process; theoretical sampling; theoretical sensitivity; codes, memos and concepts; constant comparison; theoretical saturation; fit, work, relevance and modifiability; and substantive theory. Thirdly, the implications of the ontological and epistemological variants of GT for, firstly, the implementation of the core common elements of the methodology and, secondly, the truth claims and contributions to knowledge that might be made, are discussed. Finally, the paper concludes by arguing that published GT studies in sport, exercise and health research have not always explicitly demonstrated a full understand of the commonalities and variants of GT, and that researchers publishing GT studies must take responsibility for doing this.
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Grounded Theory (GT) has been variously presented as a method (e.g. Bringer, Brackenridge, & Johnson, 2006), a set of techniques or procedures (e.g. Greckhamer & Koro-Ljungberg, 2005; Morgan & Giacobbi, 2006), a methodology (e.g. Holt & Dunn, 2004), a set of principles and practices (Charmaz, 2006: p. 9), an outcome or end product (e.g. Eccles, Walsh, & Ingledew, 2002), or “both a method, technique or research design, and the outcome of the research” (Sarantakos, 2005: p. 117). This apparent confusion is exacerbated by what Sparkes (2015) describes as terminological slippage among many authors writing about methodology and method.

Glaser and Strauss (1967) argue that GT should be labeled a methodology, whilst Weed (2009, p. 504) describes GT as a “total methodology… that provides a set of principles for the entire research process”. This is distinct from methods (i.e., the techniques that are used to collect and analyse data), which are not unique to GT and do not characterize or define it. It is also distinct from the assumptions deriving from questions of ontology (what is real?) and epistemology (how do we know?) that underpin GT methodology, and which have come to be contested as at least three broad variants of GT have developed over time.

Critiques of the use of grounded theory abound in sport, exercise and health research (e.g., Becker, 1983; Cutliffe, 2005; Kennedy & Lingard, 2006; Weed, 2009; Wilson & Hutchinson, 1996) and in the wider research methods literature (e.g., Dey, 1999, Greckhamer & Koro-Llungberg, 2005). Such critiques tend to focus on two broad issues: an incomplete use of the methodology and a failure to engage with or understand ontological and epistemological assumptions. The latter relates to variants of GT and the former to core commonalities across those variants. Weed (2009) argues that there are eight core common elements of GT methodology that are individually necessary, but only collectively sufficient, to define a GT study. However, the eight core common elements of the methodology may be underpinned by differing ontological and epistemological assumptions which have implications for: (i) how the eight core elements are implemented in terms of the specific methods
or techniques used; and (ii) the “truth claims” and contribution to knowledge that a GT study might make.

FIGURE 1 ABOUT HERE

The aim of this paper is to capture the essence of grounded theory by setting out the commonalities and variants of the approach (see figure 1). Firstly, three broad ontological and epistemological variants of GT are outlined. Secondly, eight core common elements of GT methodology that collectively define the approach are set out. Thirdly, the implications of the ontological and epistemological variants for, Firstly, the implementation of the core common elements of the methodology and, secondly, the truth claims and contributions to knowledge that might be made, are discussed. Finally, the paper concludes by arguing that published GT studies in sport, exercise and health research have not always explicitly demonstrated a full understand of the commonalities and variants of GT, and that researchers publishing GT studies must take responsibility for doing this.

VARIANTS OF GROUNDED THEORY: ONTOLOGICAL AND EPISTEMOLOGICAL ASSUMPTIONS

While Dey (1999) suggests there are as many interpretations of GT as there are grounded theorists, ontologically and epistemologically there are three broad variants: realist-positivist, or Glaserian GT (e.g. Glaser, 1992); post-positivist, or Straussian GT (e.g., Strauss & Corbin, 1990); and constructivist-interpretivist GT (e.g., Charmaz, 2006). Proponents of all variants agree that the main thrust of GT is to develop higher level understanding that is grounded in the data collected rather than predetermined by existing theories or frameworks (Lingard, Albert & Levinson, 2008). Glaserian GT is underpinned by the realist ontological assumption that there is a single truth to be discovered from data (Madill, Jordan, & Shirley, 2000; Rennie, 1996; Thomas & James, 2006), and the positivist epistemological assumption that knowledge of phenomena emerges directly from such data (Glaser, 1992). Straussian GT lays epistemological claim to being “‘interpretive work and… interpretations must include the perspectives and voice of the people who we study’” (Strauss & Corbin, 1994: p.279), but it is also ontologically realist due to its concern with recognising
bias and maintaining objectivity (Annells, 1996, 1997; Charmaz, 2000). In recognizing that some aspects of the social world cannot be directly measured, but seeking to retain an objective approach that is free from bias, Straussian GT is widely acknowledged to be post-positivist (Weed, 2009; 2010). Partly as a challenge to the realist assumptions that underpin both Glaserian and Straussian GT, further critiques (e.g. Layder, 1993; Charmaz, 1995) suggest that GT might consider the utility of a constructivist ontology supported by an interpretivist epistemology. This constructivist challenge rejects the notion of objectivity and focuses on the meanings that can be constructed from interpretations of the data. As noted in the introduction, the differing ontological and epistemological variants of GT have implications for the methods and techniques of analysis that may be used in implementing the core common elements of the methodology, and for the truth claims and the nature of the contribution to knowledge that a GT study might make, and these implications are discussed later in the paper.

COMMONALITIES OF GROUNDED THEORY: CORE ELEMENTS OF THE METHODOLOGY

Drawing on a wide range of substantive (e.g. Becker, 1993; Buckley & Waring, 2009; Cutcliffe, 2005; Goulding, 2002; Kennedy & Lingard, 2006; Selden, 2005; Wilson & Hutchinson, 1996) and research methodology (Bryan, 2003; Bryant & Charmaz, 2007; Charmaz, 2000, 2006; Dey, 1999; Glaser, 1992; Glaser & Strauss, 1967; Greckhamer & Koro-Ljungberg, 2005; Kelle, 2005; Layder, 1982; Pidgeon & Henwood, 1997; Strauss & Corbin, 1990) literature relating to GT, Weed (2009) sets out eight core elements of GT. These elements, common across the three ontological and epistemological variants, are: an iterative process; theoretical sampling; theoretical sensitivity; codes, memos and concepts; constant comparison; theoretical saturation; fit, work, relevance and modifiability; and substantive theory. Each of these elements are discussed in turn.

Core to GT is a non-linear iterative process. Data is collected, analysed and compared with the literature, following which further data is collected to help refine concepts, which is then analysed and compared with the literature and original concepts, leading to the focused collection of further data. This process proceeds until the theoretical
coverage of the research area is adequate (see theoretical saturation below). Consequently, research designs which complete data collection prior to proceeding to analysis compromise one of the key tenets of GT methodology. Weed (2009) notes that this is the most common and fundamental problem with GT studies in exercise and sport.

Sampling in GT is guided by issues that arise from the iterative analysis. This theoretical sampling approach aims to refine and develop theoretical ideas and concepts, or to identify anomalies, “not to increase the size of the original sample” (Charmaz, 2000: p. 519). For example, in Bringer et al.’s (2006) study of coaches’ perceptions of sexual exploitation in sport, analysis from an early iteration suggested that coaches’ practice was being affected by the scrutiny of child protection policies, consequently the subsequent iteration sought to refine understanding by theoretically sampling three coaches that were highly scrutinized due to actual or perceived relationships with athletes.

While theoretical sampling can guide data collection in the second and subsequent iterations of a GT study, clearly it cannot guide initial data collection. Furthermore, the raison detre of GT to develop analysis and theory that is grounded in data rather than pre-determined by particular theories or frameworks might suggest that a GT study should commence with a completely blank slate or tabula rasa. However, GT data collection should be undertaken with an open mind rather than an empty head (Charmaz, 2006), and as such GT researchers seek to develop an initial theoretical sensitivity to their research area. Importantly, theoretical sensitivity is increased by being steeped in the literature and associated general ideas (Glaser, 1978), but is compromised by conducting a detailed review guided by or developing specific theoretical frameworks. Weed (2005), for example, drew on the wide-ranging policy studies literature for theoretical sensitivity in his study of the policy process for sport and tourism, but the specifically relevant concepts relating to policy communities (Marsh & Rhodes, 1987) only became clear as data collection progressed. In this respect, the integrity of a GT study is maintained by conducting the detailed and substantive review of the literature as part of the iterative process as concepts and ideas are developed and refined, but by entering the field cognizant of “sensitising
concepts” that provide a point of departure for data collection. Such sensitizing concepts are, however, a place to start, not a place to end (Charmaz, 2003).

One of the greatest areas of confusion between the core necessary characteristics of GT methodology and the various methods and techniques of analysis that may or may not be used in a GT study, is in relation to the coding and conceptualization of data using **codes, memos and concepts**. In 1990, Strauss and Corbin (1990) set out their very technical and prescriptive preferred way of data analysis for the post-positivist Straussian variant of GT. The step-by-step approach of this text no doubt led to its popularity, but this popularity has also led many researchers to mistakenly assume that GT refers to a distinctive set of methods and techniques for coding qualitative data, including line-by-line coding, open coding, axial coding, and selective coding\(^1\). These have been widely and appropriately utilized in exercise and sport research (e.g. Holt & Dunn, 2004), but the choice of coding techniques and methods does not define this element of GT, rather the principles of coding do. And these principles are simply that initial coding (be it on a word-by-word, line-by-line, incident-by-incident, or some other basis) seeks to describe phenomena before moving to a further higher order stage (which may or may not take place via axial, selective or focused coding) that seeks to conceptualise phenomena\(^2\). This process can be supported by memo-writing, which allows ideas, notions and linkages to be formally noted and included in the iterative analytical process. Rather than being complex and technical, the core process is quite simple: to move from codes (description) to concepts, aided by memos.

The iterative process in GT research is held together by analysis underpinned by **constant comparison**. Such comparison is initially between data and data, then between codes, then between codes and concepts, then between concepts and literature, with further **constant** and ongoing comparison continuing between data, codes, concepts, and literature as a way of checking that insights continue to be grounded in all parts of the analysis (Glaser, 1992; Strauss & Corbin, 1990). As

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\(^1\) See, inter alia, Strauss and Corbin (1990 or 1998) for detailed explanations of these coding techniques.

\(^2\) Other techniques that may be used by those following the post-positivist Straussian variant of grounded theory include diagramming and conditional or consequential matrices. See Strauss and Corbin (1990 or 1998) for details of these techniques.
additional data is theoretically sampled in subsequent iterations, the comparison extends to become between codes in later iterations and concepts from earlier iterations to check that such concepts remain relevant given insights developed from subsequent data collection. Sbaraini et al. (2011), for example, in their GT study of dental practices, realised through comparisons between and across iterations that dentists moved from a vague commitment to reading about evidence to a more specific and applied process of making sense of which knowledge was applicable to their practice. It should be noted, however, that constant comparison is not the same as triangulation: the latter is a realist approach to “validity”, whilst the former is an approach for the development of theory. For many, it is constant comparison that ensures that GT remains grounded.

Given the iterative process at its core, an important part of a GT study is the approach to understanding when the analysis is complete, and this is provided by the concept of theoretical saturation. There is no numerical threshold for the number of participants that may result in theoretical saturation. In Weed’s (2005) study of the policy process for sport and tourism it was 25, whereas in Kennedy et al.’s (2007) study of clinical oversight in hospital emergency departments it was 88. An analysis should be interrogated for theoretical saturation during each iteration, and it is reached when gathering data and the ongoing process of constant comparison no longer brings fresh theoretical insights or enhances or extends higher level concepts (Charmaz, 2006). At this point, “the generated grounded theory [should have] conceptual density [and] theoretical completeness” (Glaser, 2001: p. 191).

Every research methodology should incorporate an approach by which research quality can be assured, but such approaches should be developed as appropriate to that methodology and its underlying ontological and epistemological assumptions (Sparkes, 2002; Sparkes & Smith, 2009), rather than aped from other methodologies and designs. For GT, research quality is assured by the concepts of fit, work, relevance and modifiability (Glaser & Strauss, 1967). “Fit” relates to how closely the theory generated fits the phenomena it is proposed to represent, and is ensured by constant comparison and theoretical saturation. The ability of a theory to offer analytical explanations for processes within the context in which it is situated is the extent to which it “works”. “Relevance” is the expectation that a theory will engage
with the real world concerns of those involved in the processes it seeks to explain. Lastly, the theory generated should be designed to be open to development or extension as a result of new insights provided by further future empirical research, that is, it should be “modifiable”. Importantly, words and concepts such as validity and reliability have no place in GT research (Weed, 2009).

Finally, as the name implies, the theory generated from a GT study is not intended to be generically applicable, it is a theory grounded in the substantive area in which the research has been conducted (Strauss & Corbin, 1998). As such, the product of a GT study is a substantive theory in an area such as, for example, parental involvement in youth sport (Holt et al, 2008). There is the potential for substantive grounded theories to be linked with other grounded theories and/or the wider literature to create a more generically applicable formal theory, but the approach to achieving such links must be informed by the ontological and epistemological variant used.

THE IMPLICATIONS OF COMMONALITY AND VARIANTS IN GROUNDED THEORY

The commonalities of GT - the eight core elements across ontological and epistemological variants - are helpful in understanding the circumstances in which it is appropriate to use GT. Firstly, researchers should consider whether their research question or area is appropriate for a study design that supports iterative data collection and analysis using constant comparison within a context of theoretical sampling (Lingard et al, 2008). Similarly, if the research area or question is already supported by emerging and established theories that require further exploration or testing, then GT is unlikely to be appropriate. GT studies are most appropriate where there is limited existing work that has sought to explain or understand social processes or experiences. Often GT studies can be complimentary or supplementary to existing research that describes or predicts outcomes, but that does not explore processes leading to outcomes, or experiences of those outcomes.

The ontological and epistemological variants of GT have implications for the methods and techniques of analysis that may be used in implementing the core common elements of the methodology. For example, the discussions of codes, concepts and
memos in the previous section noted that the post-positivist Straussian variant of GT is associated with particularly detailed analytical techniques to derive interpretations from the data. Similarly, theoretical saturation in realist variants of GT may be assumed to represent the point at which the truth has been fully discovered, whereas for constructivists saturation may be assumed to represent the point at which insights from the process have been exhausted. In terms of research quality, differing ontological and epistemological variants will inform the ways in which it is appropriate to apply the concepts of fit, work, relevance and modifiability. Realist approaches will regard the substantive theory generated as “the truth”, whereas constructivists will see it as “a truth” among many. This implies that, for example, ontologically realist variants of GT will assume that “fit” is generic, whereas constructivists will see it as a more contingent and relative measure. Equally, realists will assume that “relevance” will be universal across the substantive area, whereas constructivists will assume that some aspects of the substantive theory will be more relevant to some participants than others. These examples illustrate the importance of the implications of the variants of grounded theory for the way in which the core common elements are implemented.

The ontological and epistemological variant used is also key to considerations of the truth claims and contribution to knowledge a GT study can make. The potential to move from a substantive theory, grounded in the particular area researched, to more generically applicable formal theory, is recognized across all variants of GT (Charmaz, 2006; Glaser, 1992; Glaser & Strauss, 1967; Strauss & Corbin, 1990). However, this move does suggest the need to assume some form of underlying reality (Weed, 2009), which would intuitively seem problematic for constructivist GT. Charmaz (2000: p. 523) argues that GT should “distinguish between the real and the true” and that constructivist GT “remains realist because it addresses human realities and assumes the existence of real worlds”. This has led Weed (2009) to suggest that critical realism might be a more appropriate ontology for what might be more appropriately described as approaches responding to a constructivist challenge (Weed, 2010), rather than as constructivist GT per se. Nevertheless, the ontological and epistemological variants of GT suggest different approaches to GT’s contribution to knowledge. Approaches leaning towards realist (or critical realist) assumptions may seek to contribute to knowledge by engaging with other grounded theories or the
wider literature to build more formal theory across substantive areas. However, equally valuably, approaches leaning towards constructivist ontologies may seek to contribute to knowledge by offering the GT generated as “a truth” rather than “the truth” in a particular substantive area and, similarly, may seek to make a wider contribution by seeking to be one among a plurality of perspectives contributing to wider understanding of a more generic and formal area of research.

**CONCLUDING THOUGHTS**

The essence of GT is captured through a full understanding of its commonalities - the eight core individually necessary and collectively sufficient elements of GT methodology – across its ontological and epistemological variants, including, importantly, the implications of the latter for the implementation of the former. However, researchers must take responsibility not only for understanding GT’s commonalities and variants, but for explicitly demonstrating this understanding in published manuscripts. A high quality GT study must demonstrate to other researchers, be they experienced, emergent, or aspirant grounded theorists, or simply those interested in understanding the insights generated by GT studies, that they have appropriately understood and applied the methodology, and that they are clear about the claims to contribute to knowledge they make, and the foundations that underpin those claims. A failure to do this is described by Greckhamer and Koro-Ljungberg (2005: p. 734) as indicative of an “intuitive use” of the methodology “by researchers who appear to be unclear or uncertain about the epistemology and the theoretical stance related to the method and its analytical procedures” leading to a failure “to see the importance of communicating their underlying theoretical connections and assumptions”. Weed (2009) argues that there are multiple examples of published studies in sport, exercise and health that clearly suggest an intuitive use of GT methodology, and this perpetuates confusion about commonalities and variants in GT among those seeking both to conduct and to understand GT methodology. Ultimately, therefore, researchers publishing GT studies must take responsibility for both the methodologies they employ and the manuscripts they produce, and must ensure that they demonstrate in published manuscripts that they fully understand GT methodology and the implications of the ontological and epistemological variant they have used.
References


Figure 1: Commonalities and Variants of Grounded Theory

**Ontological & Epistemological Variants of Grounded Theory**

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<tr>
<th>REALIST</th>
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<th>CONSTRUCTIVIST</th>
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<tr>
<td>POSITIVIST</td>
<td>INTERPRETIVIST</td>
<td>(constructivist challenge)</td>
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<td>(traditional)</td>
<td>(post-positivist)</td>
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<td>(Glaser, 1992)</td>
<td>(Strauss &amp; Corbin, 1990)</td>
<td>(Charmaz, 2006; Layder, 1993)</td>
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**Commonalities of Grounded Theory Methodology**

Theoretical Sensitivity ➔ Iterative Process

Constant Comparison ➔ Codes, Memos & Concepts ➔ Theoretical Sampling

Theoretical Saturation ➔ Fit, Work, Relevance, Modifiability ➔ Substantive Theory