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What Grounded Theory Is . . . A Critically Reflective Conversation Among Scholars

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Abstract

Grounded theory (GT) is taught in many doctoral schools across the world and exemplified in most methodological books and publications in top-tier journals as a qualitative research method. This limited view of GT does not allow full use of possible resources and restrains researchers' creativity and capabilities. Thus, it blocks some innovative possibilities and the emergence of valuable theories, which are badly needed. Therefore, understanding the full reach and scope of GT is becoming urgent, and we brought together a panel of established grounded theory scholars to help us in this endeavor through a reflective conversation.

Keywords

exploratory, grounded theory, quantitative research, qualitative research, research design

Introduction (by Isabelle Walsh)

Grounded theory (GT) has, since the late 1980s, become the dominant qualitative approach in many disciplines (Bryant & Charmaz, 2007). However, GT has been used with different approaches (Matavire & Brown, 2011) and for different purposes (see e.g., Wolfswinkel, Furtmueller, & Wilderom, 2011). It has also been used with both qualitative and quantitative data (Schall, 1983; Walsh, 2014a). Some scholars use it as a full methodological "package" while others use only some

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of its precepts (e.g., as a coding procedure): "GT has become a whole range of applications from orthodox and classic GT to GT light ... to one-calorie-only GT" (Gummeson, 2011, p. 232). More broadly, GT has been applied in many fields of research from different perspectives (Holton, 2011) and thus has different meanings for different people (Somekh & Lewin, 2011).

In 2006, Suddaby wrote a very interesting piece detailing what GT "is not," which listed common misconceptions of GT. It was at the time absolutely essential to highlight these misconceptions. It has now become even more essential and urgent to understand the full reach and scope of GT and to clarify what GT "is" as different applications of GT have led to a rather blurred picture of it.

As highlighted by Bryant and Charmaz (2007), the term *grounded theory* itself leads to misunderstanding. It describes at the same time both the research process and the end result—namely, a new theory that is empirically grounded in data. The GT research process may be described as investigating an area of interest to the researcher in order to highlight the main concern that emerges from the field through collected data; the purpose of this process is to identify a "core" category that also emerges from the researcher's data as explaining this main concern. Glaser and Strauss's 1967 seminal book, *The Discovery of Grounded Theory* (which we refer to hereafter as *Discovery*), provides founding principles and guidelines for the GT process. These guidelines may be applied with any data (qualitative and/or quantitative) and different philosophical assumptions (positivism, symbolic interactionism, constructivisim, critical realism, etc.). Because of this, the GT process may be perceived differently by different researchers and may produce different end results, namely, theories that may be, for instance, analytic, explanatory, and/or predictive. This situation has led over the years to the emergence of different streams of GT, which have tended to blur the overall scope and reach of GT.

To help us reflect further on these elements and confront different perspectives, established scholars were brought together.[1] This exchange helps us show that GT transcends the narrow way in which it has come to be applied, not only in the type of data used during the research process but also in the specifications that make it GT. This exchange thus leads us to view GT more broadly as a "research paradigm for discovery" (Glaser, 2005, p. 145).

The present work results from a panel symposium about GT that I organized, with the help of Judith Holton, for the Academy of Management meeting in Orlando, Florida, USA, in August 2013. The panelists are renowned scholars, most of them recognized as experts in the domain of GT: Judith Holton has written a number of methodological papers and books about GT and is the founding editor of *The Grounded Theory Review*, a research journal dedicated to GT research. Lotte Bailyn uses inductive methods in her research and was trained in the same school of thought that gave birth to GT. Walter Fernandez has conducted and supervised many GT research projects, presented research seminars and workshops around the globe, and is an active reviewer and editor of GT papers for top journals. Natalia Levina is a founding member of a special interest group on GT at the Association for Information Systems (AIS); she has published a number of empirical GT studies and reviews such studies for top-tier journals. Barney Glaser is one of GT's originators.

These panelists were asked to address the following questions: What is GT? Is GT a method, a technique, a methodology, a framework, or a paradigm? Or is it something else? Before the symposium took place, each panelist elaborated on their understanding of GT and prepared their answers to these questions independently of the other panelists. These answers were then presented together at the symposium, to prompt a reaction from Barney Glaser and questions from the audience. The symposium attracted a great number of people, both experienced and novice grounded theorists. It was taped and transcribed by a research assistant.

Even though the transcript was focused, shortened, and edited to fit within the boundaries of the *Organizational Research Methods* journal, we aimed to keep the conversational style and to preserve, as far as possible, the authenticity of the event. Thus, this article proposes an unconventional form of communicating scholarship—an unusual writing format—through a "conversation"

(Huff, 2009) among scholars who propose different perspectives on a given issue. This format, which does not follow the argumentative strategies typical of traditional research outlets (deVaujany, Walsh, & Mitev, 2011), has been little used (see the groundbreaking article published in 1999 by Kaghan, Strauss, Barley, Brannen, and Thomas) although some journals are now recognizing the possibly important impact of such conversations (see e.g., the journal *Perspectives*, which regularly publishes symposium transcripts in the field of management).

In the next section, the panelists' contributions are presented before being synthesized in concluding remarks.

Edited Transcript of the Symposium

Introduction: Why This Symposium? (by Isabelle Walsh)

Before we actually start this symposium, I must explain what motivated it and how it "came to life."

I started using GT after being taught it as a qualitative research methodology during my doctoral studies and, I am ashamed to say, before reading *Discovery* (Glaser & Strauss, 1967). At the time, I used only qualitative data. The resulting work was eventually published (Walsh, Kefi, & Baskerville, 2010), but subsequently, and in order to move my work forward and formalize my findings, I felt compelled to use quantitative data while remaining in a GT stance. Most probably due to my own background (which is in mathematics; although, when I started doing GT, I only used qualitative data, methods, and techniques, as I was told) and my philosophical assumptions (which are anchored to Capital Realism), I found that I was, in some instances, unable to fully saturate some categories or formalize findings without using both qualitative and quantitative data and techniques. It was at that time that I read *Discovery* (Glaser & Strauss, 1967) and some of Glaser's subsequent publications. This allowed me to free my creativity and theory-building capacity, which had been hindered by limited methodological choices through the sole use of qualitative data and techniques. These choices had been imposed on me by the instruction received, which appeared to be confirmed by most GT studies published in top-tier journals. Thus, it took me years to discover the full scope of GT as described by Glaser and Strauss in *Discovery* (1967) and apply it fully. After publishing several qualitative GT studies, I finally succeeded in publishing a mixed-method GT study in a top-tier journal of my research field (Walsh, 2014a). This article used mixed qualitative and quantitative data and techniques.

However, when I started interacting with other scholars in GT methodological circles, I was highly surprised to discover that what took me years to understand and apply—that you could use both quantitative and qualitative data, methods, and techniques in a GT study—was obvious to some established GT scholars. If it were that obvious, why was GT taught only as a qualitative methodology in many doctoral schools? Why were most methodological books about GT barely mentioning quantitative data while giving numerous examples with qualitative data? Why weren't there more mixed-method GT studies using both qualitative and quantitative data published in top-tier journals? Couldn't we, as GT scholars, open up the circle and share what we knew? Could we provide the means necessary to help GT researchers to stop misrepresenting and mislabeling their GT studies (Birks, Fernandez, Levina, & Nasirin, 2013; Walsh, 2014b, 2014c) in order to please reviewers and to achieve publication of their works? These questions prompted me to write a methodological article: I wished to try and synthetize the available information and to share the little I had acquired over years of investigations while applying GT and while trying to publish the resulting grounded theories.

When the idea of this symposium emerged, I had been thinking and working on this methodological article—about the use of quantitative data in GT studies—for several years and the article had been under review for a while.[2] It eventually turned out to be a GT about GT; while investigating the

mixed design of one of my research projects, GT emerged as a **meta-theory of inductive research design, most powerful to help discovering theories in rupture with existing literature**; I found that GT could also be extended and considered more broadly as a **research paradigm** (Walsh, 2014c). Through this work, I have come to believe that if GT has been judged "groundbreaking" for qualitative analysis, it is even more so for quantitative analysis and mixed-method research.

Because my work had not yet been validated through publication at the time, I could not openly discuss it and share my findings with fellow grounded theorists. However, I still felt I needed to hear what other grounded theorists had to say about GT and what they consider this to be. Thus, I decided to put a message on the Academy of Management's listservs in November 2012. At the time I thought that, if I were lucky, I might get about a dozen people interested in starting a "conversation" (Huff, 2009). I posted a very simple question: Whoever said that grounded theory is only a qualitative method? I received so many answers within one week that it took me over a month to read, understand, and analyze all that people had to say in response to my question.

Even though my original idea had been to organize a paper symposium in order to illustrate mixed-method GT, Judith [Holton] and I decided that it would be better to have a panel symposium because there was so much to debate, there were so many apparently unanswered questions, and there were so many researchers "out there" who needed synthetized (but non-limitative) information that could not easily be found in existing publications. These unanswered questions and the main issues highlighted through the responses to my post on the listservs may be summarized through the questions we asked our panelists (What is GT? Is GT a method, a technique, a methodology, a framework, or a paradigm? Or is it something else?) and the two key themes that emerged from their answers (the reach and scope of GT and the use of quantitative data in GT studies).

Different terms are associated with GT: In various fields of research, it is currently described as a "technique" (e.g., Lawrence & Tar, 2013), a "method" (e.g., Amsteus, 2014), a "methodology" (e.g., Manuj & Pohlen, 2012), or a "paradigm" (e.g., Rodriguez-Martin, Martínez-Andrés, Cervera-Monteagudo, Notario-Pacheco, & Martínez-Vizcaíno, 2013). Therefore, and before we start the "conversation" (Huff, 2009), we have to clarify the meaning of some words—because, as highlighted by Mingers (2003), these words may be interpreted differently by different researchers. The following definitions are not claimed to be correct across domains, but they will help align panelists' contributions as the five elements that we define are essential for any research endeavor:

- The *methods* are the data collection methods used in a research project. For instance, interviewing is a qualitative method, and surveying is a quantitative method.
- The *techniques* are the instruments that help us make sense of the data. For example, cluster analysis is a quantitative technique, and text analysis is a qualitative technique.
- The *methodology* is the particular combination of research methods and techniques used in a research project.
- The *framework* is the general set of guidelines that a researcher may choose to follow in a given project—for example, action research (Baskerville & Pries-Heje, 1999) or case-study research (Eisenhardt, 1989).
- The *paradigm* is the system of beliefs and practices shared by a group of researchers (Klee, 1997; Morgan, 2007).

Through the vision of established scholars, and with the help of Barney Glaser as discussant, we aim to promote intellectual exchange about what GT actually is. Our goal is to critically uncover the underlying assumptions in today's GT research and to have scholars identify essential elements that are mostly ignored by many top-tier journals. By doing so, we hope to uncover the full potential of GT toward theory building and to reposition it within its true realm, which is irrelevant to what data are used—qualitative, quantitative, or both.

The Genesis of GT (by Judith Holton)

As a researcher, I use various qualitative frameworks as well as classic GT in my work. By *classic GT*, I refer to the general methodology and subsequent paradigm that were originally summarized in *Discovery* (Glaser & Strauss, 1967) and that have been extensively elaborated through Glaser's subsequent publications (Glaser, 1978, 1992, 1998, 2001, 2003, 2005, 2007, 2008, 2009, 2011, 2012). I do clearly distinguish between qualitative research and GT, perhaps largely due to the opportunity I had early in my PhD process to attend a GT troubleshooting seminar led by Barney Glaser and then subsequently to be mentored by him—I think this has helped me appreciate the distinctions and means that I am perhaps more readily open to setting aside some of the precepts of qualitative research when I am using GT.

My goal is simply to remind us of the roots of GT and of how those roots are important to a full appreciation of GT as more than a qualitative methodology or framework for data analysis.

Many acknowledge *Discovery* (Glaser & Strauss, 1967) as the seminal work on GT whose approach its authors positioned as a rejection of the "theoretical capitalism" that dominated the 20th-century research landscape and that inherently privileged theory-testing approaches over theory-building methodologies. However, it is important to remember that Glaser had started to develop the approach during his doctoral studies at Columbia—research based solely on secondary analysis of quantitative survey data. Many have read that his work at Columbia was influenced particularly by Paul Lazarsfeld's work on inductive quantitative analysis and Robert Merton's work on theory construction (Glaser, 1998, 2008; Holton, 2011).

GT was openly embraced by qualitative researchers because of its accommodation of all data, despite its roots in quantitative data and techniques, at a time (1960s) when qualitative researchers were seeking to establish credibility in the face of dominant quantitative research. Within qualitative research, where it has taken hold, it has spawned an increasingly disparate articulation of perspectives, dicta, and authoritative guides intended to elaborate and extend its adoption, adaptation, and evolution as a qualitative research methodology. GT was, however, largely ignored by quantitative methodologists. To this day, many qualitative researchers embrace GT while quantitative researchers mostly ignore it. As a consequence, GT has been all but forgotten in both quantitative and mixed-method circles even though these methodological ideas were never intended solely for qualitative research.

Discovery is more an introduction and positioning of the approach than it is a "how to" guide. However, both its authors independently produced such guides subsequently. Glaser wrote *Theoretical Sensitivity* (Glaser, 1978), based on his experiences of teaching PhD students at the University of California, San Francisco. In parallel, Strauss went on to work with a young graduate student, Juliet Corbin, and that collaboration resulted in the 1990 publication of a "how to" text (Strauss & Corbin, 1990) that appeared to remain within the qualitative realm. In my reading, however, Glaser (1978) remains the foundational guide to doing GT.

Karen Locke observed in a 1996 paper (Locke, 1996) that *Discovery* (Glaser & Strauss, 1967) was extensively cited by researchers as methodological justification for their research studies, yet few cited the subsequent work of either Glaser or Strauss. Unfortunately, this observation still holds in many published papers. As such, many of those citing *Discovery* create their own procedures; for qualitatively trained researchers, these have inevitably become enmeshed in the requirements of their particular methodologies and have been accepted over time as basic assumptions of what GT is. However, some of these assumptions are not aligned with the precepts of classic GT, and as a consequence, they have led to a very limitative perception of what GT is. Classic GT is not a qualitative research methodology but rather a general methodology for the development of theory using any and all types of data (Glaser & Strauss, 1967, p. 18). It is a "full package." Cherry picking

some aspects of that package and integrating them with other methods and techniques do not make a study a GT study. Neither does simply using empirical data to "ground" a study.

Classic GT is ontologically and epistemologically flexible. The researcher's philosophical stance will, of course, come into play in the substantive area of interest chosen as the initial focus and in the data sources considered as appropriate data. But, this aside, the full package of GT can be applied to any data, and I contend that the full package must be applied to merit the distinction of a GT. I appreciate it when researchers acknowledge that they are simply drawing on the tenets of GT but stop short of claiming their work to be GT; that distinction is important.

Fundamental to GT's conceptualist paradigm are its principles of emergence, theoretical sampling, and constant comparison. The principle of *emergence* necessitates that the researcher remains open to what is discovered empirically in the area under study, free of preconceived ideas based on personal or professional research interests or theoretical frameworks drawn from extant theory—"to enter the research setting with as few predetermined ideas as possible—especially logically deducted, a priori hypotheses" (Glaser, 1978, p. 3). This "earned relevance" (Glaser, 1978, p. 8) is achieved through the tandem processes of theoretical sampling and constant comparison. *Theoretical sampling* is the process of data collection in which the researcher jointly collects, codes, and analyzes data, making decisions about what data to collect and where to find those data based not on a predefined population but instead on emerging theoretical ideas. In this way, it is ensured that the emergent theory is grounded in data, not extant theory, and that the theory is conceptually elaborated rather than logically deduced (Glaser, 1978, pp. 37-41). The third principle, *constant comparison* (Glaser, 1965), implies that data are continuously compared with previously collected and analyzed data as researchers look for similarities and differences. Each new empirical incident is analyzed to see if the data support—and continue to support—emerging concepts. Data analysis and conceptualization are thus embedded through the interchangeability of empirical indicators found within the data toward theoretical integration and the emergence of a theory.

So, to answer our opening question: Is GT a method, a technique, a methodology, a framework, or a paradigm? Well, I have written about classic GT as a general research methodology that uses all data and that can adopt any philosophical stance (Holton, 2007a). As I have continued to study and use GT, however, I have come to recognize that it is, in fact, **more than a methodology—GT is its own paradigm—a practice paradigm of emergent theory generation as discovered in empirical data**.

How Can We Take Advantage of the GT Methodology? (by Walter Fernandez)

The question being considered is: What is GT? For many reviewers and editors, GT is whatever they see when they receive a manuscript claiming to use GT and/or to be a GT. You won't see many of these manuscripts because they will be rejected. I believe that there are important hidden lessons in the rejected papers; thus, I would like to address the question by discussing some of the reasons why researchers at times fail to take advantage of a mature methodology that is excellent for exploratory research, a methodology developed over more than 40 years.

I would argue that this is often a problem of execution: either of the research process itself or of the research report. I frequently see good research that isn't presented in the way that the journals are expecting and research that shows poor understanding of the methodology the researchers claim to have adopted. In particular, I would like to mention four problems in executing GT studies.

The first issue is the misuse of data. 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, analyze the data, and—based on that analysis—decide on the next wave of data gathering. The nature of the data—qualitative or quantitative; from interviews, documents, focus groups,

or blogs—is not the central point here. The justification for the type of data needed in a GT study is provided by the requirements of theoretical sampling. Yet, I often see examples of data that were collected "because they were there," and that is part of the problem. I expect to see a research problem, with the data offering a good fit to this problem and to the researcher's position (see Dougherty, 2002, for a more comprehensive discussion on this issue).

The second issue relates to GT epistemological flexibility. Grounded theory studies and the GT method literature show that GT is a general method (Glaser, 1978, 1998; Glaser & Strauss, 1967) that can be used successfully by interpretive, positivist, and critical researchers (Urquhart & Fernandez, 2013). However, poor understanding of the nature of, and risks embedded in, this flexibility can lead to epistemological confusion and deficient research design. Thus, epistemological considerations affecting the execution of the research, such as seeking to obtain a good alignment between the researcher role in the study and the data collection and sampling strategy, need to be clear in the researcher's mind at the outset and also during subsequent phases of a GT study. Doing so will facilitate achieving well-defined and epistemologically congruent research outcomes and thus enhance these outcomes and reduce the risk of confusing the reviewers of your paper. It is important, therefore, when writing GT articles to be explicit about your epistemological stance, an openness that will facilitate reviewers' correct assessment of the study (as also stated by Sarker, Xiao, & Beaulieu, 2013, with regard to qualitative studies in general).

The third issue concerns methodological flexibility. On this point, I would argue that we have a responsibility to learned practice and that shortcuts, tempting as they may be, can get in the way of deeper understanding of "the GT paradigm" that Judith Holton is talking about. My premise is that a deeper understanding of GT enables flexible practice and contributes to better research results. Grounded theory provides overarching procedures that guide the research while offering freedom in terms of flexibility on what type of data you are going to use and how you can use them. Yet, Jean-Paul Sartre warned us that with freedom comes responsibility, in this case the responsibility to do the homework and build a solid understanding of the method-paradigm. My observation, grounded on many GT research seminars and on my editorial work, shows that some researchers are willing to take advantage of the flexibility but not to take responsibility for investing the necessary time and effort in reading about the methodology to gain a deep understanding of what needs to be done and, more importantly, why different steps have to be followed in order to generate grounded theory. I have also found that many researchers claiming to use GT (while simultaneously violating its core tenets) do not do this to mislead readers, or to gain some sort of legitimacy by "jargonizing" (Glaser, 2009), but rather because they have not read the seminal GT books or, at best, they have only read introductory books (e.g., Glaser & Strauss, 1967; Strauss & Corbin, 1990); this amount of reading is, in my view, insufficient. Limited reading can, and often does, induce a risky sense of competence. I sustain that it is our scholarly responsibility to understand the methodology well. Such understanding gives us better access to a powerful research methodology that offers much freedom to operate within its framework in a creative manner. Thus, my advice to both novice grounded theorists, as well as qualitative and quantitative researchers interested in knowing more about GT, is to act responsibly, namely, to read the seminal books. For a more detailed discussion on flexible and learned use of GT, as well as a description of the role of central GT books in informing GT research, please refer to Urquhart and Fernández (2013).

The fourth issue is about description, conceptualization, and integration. Glaser often reminds us that GT is good as far as it goes. The first step that you can take with GT is description. I think that GT is a great tool for description, but—in my opinion—we fail to maximize the value of GT if we stop at description. GT is about conceptualizing and producing theories. If GT is applied thoroughly, as described in the seminal books, the emerging substantive theory can be integrated with an extant formal theory in order to explain the findings and to link the emerging theory to previous knowledge. This integration is important to researchers aiming to publish in top-tier journals. GT papers

published in such journals consistently show examples of the successful integration of substantive studies with extant theory (Urquhart & Fernandez, 2013).

To conclude, I see GT as a basic social process (Glaser, 1978) in which researchers engage with their data and participants in creating theory. To advance GT, we should focus on the knowledgeable execution of this process. Good execution requires effective research-planning by researchers who understand what they are doing, are knowledgeable about the methodology, and have the necessary skills to conduct this type of theory-building research (Glaser, 1998).

Qualitative/Quantitative: What Is the Difference? (by Lotte Bailyn)

We all agree—at least on this panel—that GT is not limited to qualitative data. My goal here is to examine this statement and ask: What do we even mean by ''qualitative'' and ''quantitative''? Are we talking about the types of data that are being used? Are we talking about modes of analysis? Are we talking about overall purpose? These are the questions that I want to raise.

To begin with, what about the types of data we use? In a very simple way, we can think of data as verbal or numeric. Verbal data may consist of interviews, field notes, text, and various other forms of data that consist of words. Numeric data, on the other hand, may come from questionnaire responses, censuses, existing data sets, experiments, and other numerical sources. So the question is: Are numeric data the same as quantitative data and verbal the same as qualitative data? Basically, I don't think that the distinction between quantitative and qualitative data is very meaningful; rather, it is a distinction between verbal and numeric data.

What about the approach we take to data? We talk a lot about inductive and deductive. Deductive comes from the scientific method, where there is a theory, you deduce your hypothesis, you collect your data, and your only goal is to see whether that hypothesis is verified. But we know that papers of this kind often don't actually follow that process; so-called quantitative researchers will very often make a surprising finding from their data and create a post hoc hypothesis that will then be confirmed. In fact, they are using an inductive mode because they can't create a post hoc hypothesis without connecting those data to some conceptual or theoretical idea. But we do tend to associate qualitative with inductive and quantitative with deductive approaches.

My preference, when talking about the approach to analysis, is to think of it as exploratory versus confirmatory. You can also think of it as discovery versus validation. I think Barney Glaser might think of it as generation versus verification. But let's stick to exploratory and confirmatory. Is exploratory qualitative and confirmatory quantitative? Not necessarily, since verbal data can easily be used for confirmation. And both kinds of data can be used in an exploratory way. That's what GT is all about. So when we say ''exploratory,'' does that mean that data speak?

We all know that data don't speak for themselves. When I was teaching the research-methods seminar for PhD students, I always started with a particular assignment. I gave students some numbers in a two-by-two table, a table with two dimensions. I tried to use real data with some interaction in them, and all I asked the students to do was to write a paragraph about what the data said. They had four numbers, and I said that no statistics were necessary but they could use percentages. The result was shocking because everybody wrote a completely different paragraph. It depended on how the students interpreted each dimension and on the direction in which they percentaged their data. You have just four numbers and yet you come out with completely different results! So data don't speak for themselves. They need to have a conceptual guide, and then they do speak. And I think the real issue is how we hear what they say. How do we connect the conceptual guide with what we hear from the data, which modifies the conceptual guide? This ''back and forth'' between what we might call the empirical and conceptual planes is a very important part of the ideas behind GT.

If we bring together the type of data with the type of approach/mode of analysis, we have four different combinations or cells. We tend to think of verbal and exploratory as qualitative and of

Table 1. Data Analysis.

Type of Data	Mode of analysis	
	Confirmatory	Exploratory
Verbal		
Numeric		

numeric and confirmatory as quantitative. But, in fact, you have good research in all four cells—and GT, if used in the appropriate way, is applicable to all four cells (see Table 1).

I think we have good guidelines for using GT with verbal data. We have less good guidelines for numeric data, even though Barney Glaser has written a book on quantitative GT (Glaser, 2008).

I would suggest the following as possible guidelines for exploratory analysis of numeric data (see Bailyn, 1977). First, openness is very important. You have to make the data available in an open manner to allow it to "speak" so that you can "hear" it. This means that you get more information from distributions, both the ends and the middle, than you do from means and correlations. Another important guideline is to look at "deviant" cases: the cases in your data that don't fit your modal patterns. They help to provide boundary conditions and scope. Then, there are various tactical things that you can do. Scales are used to increase reliability, but looking at the items within the scales opens up the data and may give you a more nuanced understanding of what is going on. Clusters and patterns are much more likely than regression equations to give you the kind of understanding that the data can provide, as do pictures and graphs. But the most important part is to connect the data to the concepts and theoretical understanding that are emerging from the analysis.

To give an example, my first book (Bailyn, 1980) was a questionnaire study of MIT [Massachusetts Institute of Technology] alumni 15 to 20 years into their careers. I was interested in their career patterns and in the values and norms associated with different kinds of technical careers. An obvious thing to look at was the difference between science-based and engineering-based careers. Did these represent different occupational cultures, with different norms and values? We had a whole series of questions on values, norms, and so on. When I compared the science-based with the engineering-based responses, I found no difference. This was a surprise—there was a lot of literature showing differences between these two occupations. So I first attempted to figure out why MIT graduates might be different—namely, why perhaps the MIT culture overrode the contrasting cultures of engineering and science. But I couldn't find anything in the data (or in my imagination) that made sense of this as an explanation.

So, for a while, I let it go and went on to other aspects of the study. One of these related to how satisfied people were with their occupational positions and how successful they thought they were in these. And that led me back to the original dilemma: If I'm trying to use individual data to get at occupational norms, it doesn't make sense to include those people who give evidence of not fitting into the occupation. So then I limited my comparison to those who felt successful, and indeed there emerged very different patterns of values and norms between the successful science-based and engineering-based alumni. Of course, I was accused of not being fair, of manipulating the data, and of data-dredging. But it was done because it linked to a conceptual understanding of what I was using those data for.

I think that GT is applicable to all kinds of research, and I also think that "qualitative versus quantitative" is not a very meaningful distinction when we apply it as an ideal type to one particular combination of data and approach. If we do, we're losing a lot of opportunities for creative research, which often reside in the deviant cells, namely, confirmatory/verbal and exploratory/numeric. The previous story is an example of exploratory analysis with numeric data. Here's another one from a

Table 2. Conceptual and Empirical Data Analysis.

Type of Data	Mode of Analysis			
	Confirmatory		Exploratory	
Verbal	Phenomenon based	Contribution to theory	Phenomenon based	Contribution to theory
Numeric	Phenomenon based	Contribution to theory	Phenomenon based	Contribution to theory

student working paper. This study involved questionnaire data from a government science-research organization. The student was interested in work–personal life integration. The questionnaire had lots of work and home/family questions in it, one of which was the most explicit about this relationship. The initial exploration to identify a core concept was to include all the questions that were linked in any way to the area of interest and to do a factor analysis. Out of this emerged a group of questions that linked together and were attached to the explicit question in this area. This became the core category. One of the PIs on the project immediately shot back that there were at least three other questions that should be included. And we had to explain: "Yes, that does make sense, but actually—empirically in this particular group—those questions did not hang together with the core concept." Of course, that in itself helped the theorizing, since we had to try to figure out why those "obvious" questions were not empirically related.

Concerning the other deviant cell (confirmatory investigation of verbal data), any systematic content analysis fits into this category. But here's a concrete example from another working paper. This researcher had a belief that certain types of organizations were most likely to get involved in environmental sustainability. How could this hunch be confirmed? As a first step, the author looked at annual reports—verbal data—and simply counted the number of times that certain key environmental words were used, so confirming the hypothesis. Also, confirmation is a process in the whole iteration of data and emerging concepts—hence the value of counts in some stages of a GT process with verbal data.

I want to end by bringing up one other distinction, and that is the purpose, the reason we're doing the research. This purpose may be phenomenon-based: You really want to understand what's going on with a social phenomenon. In contrast, there may be an emphasis primarily on theory, to which you have to make a contribution. Nowadays, mainstream journals put tremendous emphasis on contribution to theory. But that wasn't always the case. Over 50 years ago, when I published my dissertation, the editors removed the whole theoretical first chapter. They were interested in the phenomenon, the findings—though of course in the interpretation of findings, you always use theory. So I think we need to consider where we are on this dimension, even though we are being pushed in the direction of contribution to theory at this point in time. But the distinction exists. In fact, you could divide each of the four cells in Table 1 in half—half phenomenon-based and half contribution to theory. What is common to all eight resulting situations is that the conceptual and empirical go hand in hand (see Table 2).

In conclusion, for me, GT is a framework or, better still, a perspective: a perspective on data and on what one can learn from data.

Going Back to Quantitative Data (by Natalia Levina)

I am going to try to make a call for the GT community not just to embrace quantitative research but also to see the opportunities that come from the change in technology and from the availability of large data sets. I believe that if we stand still and continue with the narrow focus on qualitative data, we will miss a huge opportunity that has to do with the availability of data. You will say that I'm here

pitching "big data." Unfortunately, I'm not a data scientist. Yet, I'm surrounded by prominent data scientists in the information systems research community who do interesting and innovative work with big data sets. There is great opportunity for us to learn from each other. On the one hand, there isn't a paradigm for data scientists to easily publish their inductive data discoveries. These, often highly insightful, findings either go unpublished or are turned into hypotheses followed by testing to suit mainstream publication requirements. On the other hand, grounded theory scholars are increasingly encountering large digitized data archives that cannot be reasonably analyzed with qualitative methods alone. Thus we would all benefit if we start including inductive data scientists into the grounded theory research community and start using some of the advanced analytical techniques available today.

So in the spirit of GT, I looked for what the "data" actually say about *quantitative* theory building. If you go to Google Scholar and type "quantitative theory building," it's striking that most citations have nothing to do with quantitative theory building. They have to do with "anti-quantitative" research and focus on theory building using qualitative studies such as the classic research by Eisenhardt (1989). In the first couple of pages returned by the search engine, I found one paper by Fine and Elsbach (2000) that speaks about generating theory from analyzing the results of psychological experiments, but that is not fully embracing GT. Another well-cited paper by Gioia and Pitre (1990) comes fairly close to the GT paradigm and starts developing ways to integrate methods, but there are almost no specifics on how to implement the approach. The bottom line is that there is a gap, and it needs to be filled to create some legitimacy even around the combination of these search terms—*quantitative data* and *theory building*. We need to have some papers at the top of the Google Scholar search that speak about quantitative theory building and give people guidelines on what can be done.

Lotte [Bailyn] did a great job giving us the first steps. I won't repeat what has already been said, but I think that some of the methods and techniques in quantitative scholarship are already associated with building theory. Agar's (1980) classic work on ethnographic methods talks about building better theory by counting events relevant to the context. Yet, the use of quantitative methods in qualitative research pretty much stops at basic descriptive statistics, correlations, and clustering. If one adopts a specific social theory—for example, Bourdieu's theory of practice—then one is asked to use specific tools such as correspondence analysis to identify data clusters and their relations (Bourdieu, 1996; Greenacre & Blasius, 1994). However, there is little more than that in terms of currently accepted techniques for quantitative analysis within qualitative research.

Walter [Fernandez] and I were involved in the special issue of the *European Journal of Information Systems* on GT (Birks et al., 2013). In this issue, we published two articles (Gasson & Waters, 2013; Vaast & Walsham, 2013) that talked about using online archival data within GT to get people started on working with large data sets. I must say, however, that these papers were just good first steps and didn't go much into the more advanced quantitative techniques.

We may also benefit from quantitative tools for understanding change over time. As an example, in our recent paper with Emmanuelle Vaast, we studied an online community of bankers. We had 20,000 participants, with four years' worth of data, and we looked at how the participants responded to the financial crisis, which created moral taint for this occupational group. It's hard to analyze such data by hand; you can code them, but coding would help us see only the context. You need more tools for visualizing coded data (at least some graphs) in order to spot longitudinal patterns in data on such a scale. Using frequency counts of particular types of codes and showing their evolution over time helped us tell a much richer story than we could have if we had used just qualitative data (our approach is described in Levina & Vaast, in press).

There are, however, much bigger opportunities to embrace data-mining—which is, by definition, finding patterns in data. There are a number of quantitative techniques developed by the computer-science and statistics communities that can help researchers see the patterns in data

(Duda, Hart, & Stork, 2012) that have not percolated into management research yet. There is also social network analysis (Scott & Carrington, 2011), where there is relatively little a priori explanatory theory and where each researcher is encouraged to discover new patterns in their own data. Social network analysis has made its way into mainstream management journals, but not within GT paradigm.

An interesting example of applying GT principles to build a theory from a large online data set using predictive modeling techniques is demonstrated in a recent paper by Adamopoulos (2013). He uses a number of sophisticated text and data-mining techniques to analyze data from user forums of MOOCs [Massive Open Online Courses] to better understand what factors contribute to students' intention to complete the course rather than to drop out. The main GT feature of this work, as compared to more traditional econometric approaches, is that the variables themselves were identified from the textual analysis and not defined a priori by the researcher. Using similar methods, Althoff, Danescu-Niculescu-Mizil, and Jurafsky (2014) built an emergent theory of how to entice people to respond to online requests for favors discovering specific communication style and social (e.g., status) factors that addressed the key concern. In these and other examples of data-mining approaches used for theory building, having a "hold out" data set—a set of data on which the emergent conceptual prediction will be tested and that has not been used in theory generation thus far—is one way of translating the notion of theoretical saturation into research that uses mostly numerical data.

My final point is that beyond opportunities for GT scholars, there are also opportunities for establishing better research publishing practices and making novel theoretical contributions for hypothetico-deductive researchers. I recall being in a talk by Max Bazerman (Kramer, Tenbrunsel, & Bazerman, 2009), who is a leading researcher on ethical decision making, and he mentioned the importance of high ethical standards in reporting the findings in psychology research. Many senior, well-published scholars in the room spoke up and said that they wished they could be honest in reporting that their initial hypotheses were quite different from the theory they presented in the paper, but reviewers were forcing their hand into changing the hypotheses in order to report interesting patterns in data. Publishing within GT paradigm is a way to legitimize the importance of such interesting inductive discoveries while also openly reporting how researchers arrived at them.

For grounded theorists who are mostly qualitative, there is a huge opportunity to embrace "all data." Often, I am asked if I have done quantitative research with GT. I have done quantitative hypothetico-deductive research and published it without mentioning GT, but my "GT papers" do not report on quantitative analysis. Sometimes, I have actually used quantitative methods to better understand the phenomenon under study (Levina, 2001) but wrote it up for a good journal without mentioning the numerical data so as to fit the genre of expectations of writing up theory-building research (Levina, 2005). I hope we can change that soon!

To the question of whether GT is a paradigm or not, I use Deetz's (1996) paper, which—instead of using standard Burrell-Morgan paradigms of social research (Burrell & Morgan, 1979)—uses a relational critical-theory approach in defining paradigms. This makes me define **GT as a paradigm in terms of what it emphasizes in relation to other paradigms of social research. GT is an approach to research that privileges context (phenomenon) over a priori academic theory**. It can be described only in relation to traditional theory-driven research that privileges a priori theory at the expense of the contextual details of phenomena. Figure 1 helps capture this relational thinking as well as positions grounded theory in relation to the more traditional positivist versus interpretive research distinction. If we see it this way, we should not equate GT in an academic context to practitioner-focused investigations. While GT often offers useful practical insights, in the academic setting it embraces the richness and uniqueness of the context without necessarily ignoring the development of theory applicable to other phenomena and other contexts.

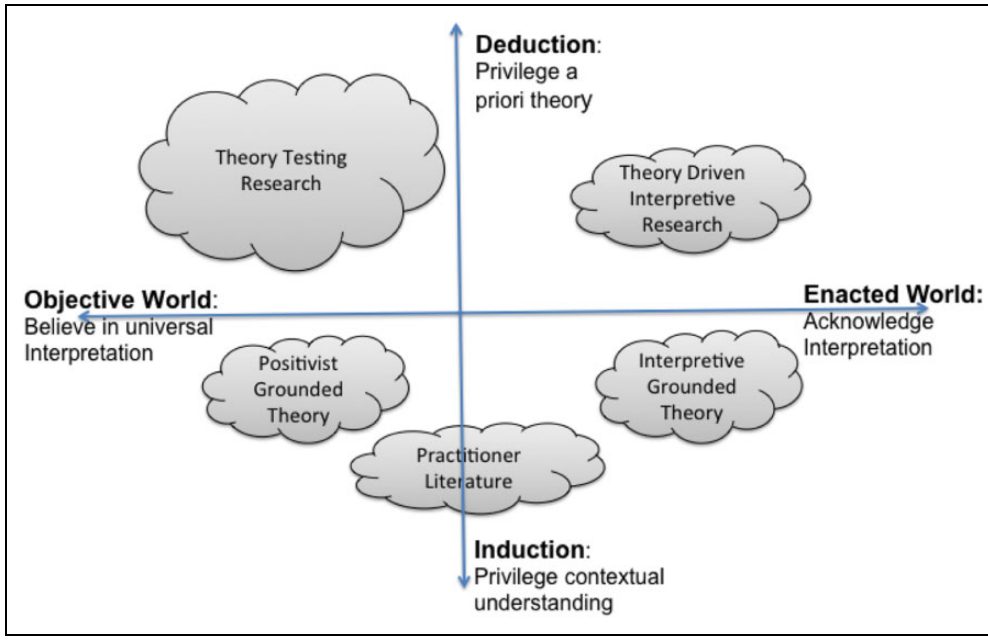

Figure 1. Grounded theory within the relational approach to paradigms.

GT as the Discovery of Patterns (by Barney Glaser)

It's all in the books. **GT is simply the discovery of emerging patterns in data**. Everything has patterns. Everybody engages in GT every day because it's a very simple human process to figure out patterns and to act in response to those patterns. GT is the generation of theories from data. GT goes on every day in everybody's lives: conceptualizing patterns and acting in terms of them. You will all have figured out a route from your home to this conference and so on. To do that, you made a GT by discovering the basic variable mobility resource patterns. You fly, you drive, you walk; you try to make it efficient; you don't want to run out of resources. This was a theory developed at UCSF [University of California, San Francisco]. You're here, that was a GT. GT is just developing patterns that explain how to resolve your main concern. And your main concern was how to get here. You've all selected routes based on variable mobility resources.

I take issue with a lot of this talk that you just heard because it's "heavy talk." But that's what academics do. So it's their talk, a perspective. I've been involved in many dissertations where people go into the field, not knowing anything, and come up with theories that have many practical implications. You can remodel GT this way or that way, and it's very clear when you hear "remodeling," but GT is a grounded theory of the methodology, and the terms *grounded theory* have tremendous "grab."

What is so great about using the terms *grounded theory* or *GT*? Why not just say *research*? The grab renders GT as jargon and neglects the fact that it's a method that takes you from 0 to 100. Every step is required, and every step follows on from the one before: It's sequential. When GT is remodeled as qualitative data analysis, the GT jargon is often so far ahead of the method in the remodeling that you get reconception: mixing GT with other methods. Yes, you can mix GT with other methods, but you have to do it very carefully, using procedures that fit the GT model, starting with open coding, selective coding, theoretical sampling, memoing … read the books! You'll see. It's not complex. It's very straightforward and very simple. All you're doing is looking for patterns of behavior

that explain a main concern, and then you name the patterns. Patterns are what people are doing to resolve their main concerns.

I see hundreds of dissertations where this goes on very simply and explains and changes the way we understand what is happening by a tremendous amount. For example, we now have grounded theories of "Cautionary Control," "Supernormalizing," "Default Remodeling," "Desisting Residual Selves," "Atmosphering," "Toning Clients," "Competitive Knowing," and much more. We are talking about real generated variables. For example, you've all heard of past residual selves. This is a very important GT: It changed the whole way criminals are treated. How do you give up old identities? They get reactivated if you are in the right—or wrong—context. This was discovered in a study on residual selves and criminal acts. This goes on everywhere. And one way it goes on in most of our lives is that we become orphans even as adults. I can't believe it when I listen to people in their 50s and 60s whose parents have died, meaning they're the last generation: They start talking like they are orphans.

So, for all the lofty academic talk, you can take GT whichever way you choose. It's way ahead of the procedures and the product. **GT proves itself by being a GT of the method**. I didn't think up these words because they sounded cute; they emerged with the method that went into doing the *Awareness of Dying* study (Glaser & Strauss, 1965). GT has grab! Right? Every word has grab—constant comparison, theoretical sampling, theoretical saturation, and so on—but people grab these words and take them out of context.

GT is just a set of steps that take you from walking in the data knowing nothing to emerging with a conceptual theory of knowing how the core variable is constantly resolved.

Concluding Remarks (by Isabelle Walsh)

With the present work, some GT scholars have started addressing two important issues related to GT: (a) the reach and scope of GT, as described in *Discovery* (Glaser & Strauss, 1967), which is broader than the frameworks proposed subsequently by some authors, and (b) the possibility of using quantitative data in GT studies.

The panel symposium has offered a range of perspectives on the development and application of GT over the past 47 years. Judith Holton recalled GT genesis, its roots in inductive quantitative analysis, and its key features. Walter Fernandez discussed classic GT as a general research methodology, its qualitative embrace, and its emerging relevance to mixed methods, highlighting five common barriers to good GT research that must be controlled by the researcher. Then, Lotte Bailyn discussed the confusing distinction that is still being made between so-called qualitative and quantitative research. Finally, Natalia Levina highlighted the importance of going back to the quantitative roots of GT, particularly at this time of "big data." Embracing numeric data enriches GT scholars with new insights based on new analytical methods. Finally, Barney Glaser described his holistic vision of GT as an approach that helps the researcher discover emerging patterns in data.

While *Discovery* (Glaser & Strauss, 1967) included some extremely detailed essential steps and procedures, the fact that its two authors were from different philosophical backgrounds demonstrates that GT is philosophically neutral. GT as originally described by Glaser and Strauss (1967) is open to any type of data. It may be considered as a method, a methodology, a framework, and even more broadly, as a paradigm that can help researchers find new models and develop new theories. However, in my reading, it is closer to a research paradigm than to a technique, a method, or a methodology. It seems that even if researchers do fully respect its foundational pillars and detailed guidelines, GT will keep being "remodeled" (Glaser, as cited in Simmons, 2011), as researchers will adapt and apply these guidelines to their data, using the methods and techniques that are congruent with their philosophical assumptions. However, it has to be highlighted that these remodelings

provide limitative and restrictive perspectives on GT, which is much broader and should be investigated from seminal texts if one is to grab its reach and scope.

This symposium also highlighted the fact that GT is currently taught in many doctoral schools across the world and is illustrated in many methodological books in ways that are much too limited to allow creativity and full use of possible resources. As a result, GT is nowadays still mostly applied with qualitative data. This limited use of GT restrains researchers' capabilities, blocks innovative possibilities in these times of "big data," and hinders the emergence of valuable and badly needed theories.

With this panel symposium, we hope to have highlighted the true realm of GT, which allows researchers' creativity some freedom while at the same time providing them with essential guidelines. The present work also illustrates a genre of writing that is little used: a "live" conversation among scholars, sharing their different perspectives. This genre is particularly useful when non-consensual scholarly positions have arisen on important issues in a research domain or when paradigmatic changes are starting to emerge in a research field.

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1. The order of the authors reflects the order in which they spoke during the actual symposium, even though we reorganized this order slightly in the text, in order to make the present work clearer.
2. This article has now been published: Walsh (2014c).

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Barney Glaser received his PhD from Columbia University in 1961. He then went to University of California San Francisco, where he joined Anselm Strauss in doing the dying in hospitals study, published in 1965 as *Awareness of Dying*. This study led to the publication of *Discovery of Grounded Theory* (Glaser & Strauss, 1967) as a methodological treatise. He has continued to publish additional books and papers elaborating on the classical approach to grounded theory including *Theoretical Sensitivity* (1978), *Basics of Grounded Theory Analysis* (1992), *Doing Grounded Theory* (1998), *The Grounded Theory Perspectives* (I-III, 2001-2005), *Doing Formal Grounded Theory* (2007), and *Doing Quantitative Grounded Theory* (2008). In 1998 he received an honorary doctorate from Stockholm University, Sweden. He remains active in publishing and teaching classic grounded theory through his international grounded theory seminars.