Editorial

Astrid Gynnild, Editor

GT constantly challenges grounded theorists to expand their skills and competencies in areas where they know little. Many researchers experience that theoretical coding is possibly the most difficult task of doing grounded theory. One of the many myths is that most, or all, grounded theories are basic processes, or that they should be. As documented in *Theoretical Sensitivity* (Glaser, 1978) and *Theoretical Coding* (Glaser, 2005), there are dozens of theoretical codes and coding families available for grounded theorists to pick and choose from, depending on best fit for their particular theory.

In this issue of the Grounded Theory Review, I am delighted to publish a new research by **Barney Glaser**. "Staying Open: The Use of Theoretical Codes in GT," is soon to be published as chapter two in Dr. Glaser's new book *No Preconceptions: The Grounded Theory Dictum.* In this chapter, Dr. Glaser discusses consequences of theoretical preconceptions and the importance of actively studying theoretical codes to expand one's repertoire of TCs. His message is that by constantly comparing theoretical codes also beyond one's field, the growing mastery of TCs will help researchers open up, let go of personal and professional preconceptions, and become more sensitive to the data.

Following Barney Glaser's often cited advice of using and exploring the constant comparative method beyond one's field, Glen Gatin from Burdon University in Canada has generated a beginning formal theory of *Keeping Your Distance*. His starting point was the changing notions of distance prompted by ICT learning and social networking online. Dr. Gatin's theory helps explain many apparent paradoxes related to extended openness of our time. Strategies for regulating distance are manifest in interactions between individuals and in the interactions between individuals and institutions. When we are accessible to "the whole world" wherever we are via new technologies, strategies for keeping your distance seems to be particularly important for identity formation.

Colin Griffiths from Ireland has studied verbal and non-verbal interactions of people with severe and complex disabilities. After collecting visual micro-data using video, Griffiths spent months analyzing the videos, frame by frame, according to the GT protocol. He points out that baseline data, the fourth layer of data in grounded theory, is defined as the best description a participant can offer. In his study, baseline data constituted micro and macro behaviors such as vocalization, facial expressions and body activity gestures. Griffiths discusses the strengths and challenges of collecting data from raw footage following GT procedures. He concludes that visual micro-data are well suited for uncovering and explaining patterns of non-verbal behavior.

In the next article, **Gary Evans** from the United Kingdom provides a "Rationale for selection of classical grounded theory methodology" based on an examination of classic grounded theory, straussian grounded theory, constructivist grounded theory, and feminist theory

respectively. Evans argues that the answer is in the data, but in order to find out which GT approach will be a good fit for you, one need to understand GT philosophy and decide which of them that best match your philosophy of research. Insights into the differences in coding procedures in particular, help identify personal preferences. Writes Evans, ”Learning the different methodologies is a difficult journey as terminology often sounds similar to the novice researcher, but only by exploring the differences can the researcher rationalize their own choice.”

Daniel Berry, Canada, and four colleagues have written an interesting methodological essay which demonstrates the power of a classic GT to identify what is happening in a practical situation of software engineering. The ICT professors have identified striking similarities between the cyclic steps of a classic GT process and that of software engineers’ approaches to requirements engineering and architecture recovery. The authors emphasize that requirements engineering ”can be done in a way that resembles using a classic GT process to discover and construct requirements of the program that its client needs and wants.” As a consequence, the resulting requirements specification, which is a reflection of human-made decisions about the expected behavior of a program that meets human needs, might be called a working GT.

Finally, the experienced grounded theorist **Susan Stillman** from the United States provides a thought provoking review of one of Barney Glaser’s latest books, *Getting out of the Data: Grounded Theory Conceptualization.* She initially thought that any reader could easily delve into this book, but after testing it on a friend, she realized that the content of the book is for people who are genuinly interested in learning more about ditching description and going from data to conceptualization.

Hans Thulesius from Sweden reviews another book by Barney Glaser that was recently published, *Stop, Write: Writing Grounded Theory.* Thulesius guides the reader through the chapters and reminds us, when reflecting on aspects of sorting confusion discussed by Glaser, that not all confusion can be eliminated, since confusion ”is a part of the method. Confusion triggers the preconscious processing that takes care of assimilating ideas and parts of ideas into an integrated whole.” And that eventually helps grounded theorists write up their theories.

Have a good read!

Staying Open: The Use of Theoretical Codes in GT

Barney G. Glaser, PhD, Hon. PhD

Theoretical codes (TC's) are the abstract models that emerge during the sorting of mature memos in to a potential substantive theory. They conceptualize the integration of substantive codes into hypotheses of a substantive theory. The researcher is challenged to staying open to their emergence and earned relevance rather than their preconceived forcing, which is very strong. They not only bring in their framework, but also their theoretical perspective, which can easily force the data beyond emergence. For example, using a basic social process TC requires at least two stages and there may not be a process in the sorting emergence. It may be all just be dimensions or conditional. In this chapter I discuss the skill of staying open to the emergent TC. As the reader knows, there are many TC's and each has its requirement for use and perspective. In chapter 3 of the book *Getting out of the Data:* I will discuss more fully all the TC effects that originate preconceptions.

Introduction

The full power of GT comes with staying open to the emergence of codes that fit with relevance when generating a GT. This power emerges especially with sorting mature memos into theoretical codes for writing up. Substantive coding comes comparatively easy and is exciting giving the researcher the exhilarating feeling of discovery. Putting the theory together with theoretical coding seems for many not so easy. It can have a beguiling mystique, with forcing implications for preconceptions. As Cutliffe says from his experience: "TC usage places the most demand on researcher's creativity."

TC's are frequently left out of otherwise quite good GT papers, monographs and dissertations although they are always implicit, such as range, dimension, or process. The novice GT researcher finds them hard to assimilate into his/her theory, which has to be finished for external requirements. Here I will consider several sources of difficulty with preconceptive consequences in using TC's. Staying open to the non forced, non preconceived discovery and use of TC's is the focus of this chapter. For a more extensive discussion on the emergence of TC's during sorting see chapters 3,4,and 5 of my book: *The Grounded Theory Perspective III: Theoretical Coding* (Sociology Press, 2005). I hope to add new insights in using TC's.

Readers who are challenged in staying on the substantively abstract of conceptualization may find this chapter even more challenging. Keeping researchers on an abstract conceptual level is hard for those trained in immediate accurate description, such as medicine, nursing, business, management, social work etc., many of whom are attracted to GT research. Practical considerations of work easily take over. Staying open to the

emergent conceptualization will actually increase their power of description, they soon learn. Getting on the TC level of abstraction even more so. TC's are abstract models that integrate categories and their properties into a theory. They emerge and put a theory together when sorting mature memos. They are easily forced. Thus, staying open to their emergence is not easy for novices. Their use comes with experiencing many research studies as part of the experiential growth of doing GT and learning earned relevance with theoretical sensitivity. Remember they are always implicit in a substantive GT, the simplest being dimensional, if one doesn't emerge for the novice. TC's are not to be preconceived forced by a discipline, supervisor or a pet code. Pet codes happen with grab easily, such as basic social process or networking. They spread like wild fire like the fashionable, "self sustaining systems." They preconceive the theory model easily.

Staying Open

For the researcher, staying open to the earned relevance of a TC means being open to the fullest possible array of TC's. The researcher learns and masters sensitivity to as many TC's as possible. The more TC's the researcher learns, the more this requirement becomes exciting. Substantive theories use them in their name such as "survivalizing of homeless: a basic social process," or "fluctuating support networks." There are lists of of TC's in my books *Theoretical Sensitivity, Doing GT and Theoretical Coding: the Grounded Perspective III.* TC's can come from all fields like revolving amplifying causal systems from economics.

Most GT researchers I have read to date get the staying open point easily for substantive coding but not for TC's. For failure to study TC's they are not sensitive to what could emerge. Rather, they use the TC of the perspective of their field of origins, hence are likely to be preconceived. They even can describe their GT research by the preconceived TC. For example "I am studying a basic social process," which is a pervasive, popular TC with grab. I say maybe yes, maybe no. TC perspectives become assumed by the preframed researcher being wedded to say symbolic interaction or social structure categories.

There is nothing wrong with using social structure or symbolic interaction perspective TC's if they earn relevance through emergence. My effort here is to put a stop to the assumed default relevance, caused by routine forcing irrespective of fit or relevance and remolding GT to just another a QDA method. One reads of Strauss's conditional matrix everywhere in the literature as if always relevant, which assertion is not grounded. GT is a general methodology that can be used with any type of data and therefore any TC. Therefore, it has no special theoretical perspective or epistemology. The point is always to figure out what the data is, not what it is not. GT just searches for latent patterns in whatever data is being used. GT is a concept indicator method. Not all data is socially constructed, but if the researcher has some, it too will have its patterns. It is up to the GT researcher to tell the reader exactly what data he has and how the concepts and TC's emerged from it. "All is data" and all data can yield substantive and theoretical codes. GT does not need a "grande" epistomology with a favorite TC to justify its use. Those researchers wedded to a perspective, an epistemology will preconceive their TC use. Staying open to the TC's that come from all fields and types of data is enriching for the GT

research. For example, the random walk model for biochemistry or amplifying causal looping from economics or conjunctional causation in political science are all enriching to watch for. If the researcher stays open.

Staying open to what can emerge can be tuned in on itself, however. It is as if to stay open and suspend preconception cannot be based on the simple ability to suspend knowledge. It has to be based on expected or expert knowledge. Experts in a field find it easy to say a category emerged or a TC emerged, which is really just a product of their advanced training. They will claim preconceptively that their exquisitely tuned capacity guided them where to look to get the best categories and TC's. It is claimed as an undeniable asset that makes they open to learned and experienced preconceptions. In sum, highly trained people well formed in their field find it hard to transcend their experienced view. They see it everywhere rather that staying open. However much they pretend to be open. They can easily spot preconceptions of categories and TC's in others. Staying in control wins over staying open. They must be aware of more subtle forcing based on experience when doing their own research. The novice GT research can suspend preconception based on lack of knowledge and training in an area. The experienced GT researcher is not so fortunate in this regard: subtle forcing abounds.

By now the reader may be discouraged and feeling that he/she cannot stay open to TC's. That is, it is just too hard to leave the comfort, safety of cherished learned and trusted TC's of their field and colleagues. I say "not so." They are not to be given up. They are to be added to by learning more TC's, by becoming sensitive to the additions and then letting learned relevance dictate their use. Staying open to emergent TC's progresses as the researcher learns more and more. The researcher should study beyond the boundary of his field. Of course this can yield endless possibilities, As one progresses sensitivity to them increases and it is easy to pick up on the model putting together any theory. They are exciting to learn as they give an abstract view of data and grasping them is not hard, once the researcher gets the sensitivity. The wider the array of TC's that one learns the less the tendency is to preconceive with a pet or discipline TC. I have listed many in my books: *Theoretical Sensitivity, Doing Grounded Theory and GT Perspective II, Theoretical coding*. Start with reading them to learn staying open to be sensitive to emergent TC's; Remember they model a substantive theory excitingly well, but the researcher does not have to have one. It is important not to force one on the theory just because one has not emerged.

The excitement of learning TC's is well put by Walter Fernandez when he says, quite rightly, "Theoretical coding conceptualizes hypotheses that are integrated into a theory. The grounded integration of concepts is a flexibility activity implying theoretical sensitivity to a number a number of possible TC's that provides new perspectives that remain grounded in the data." Fernandez then provides his reader with a two page chart of 26 TC/s. This list helps the researcher stay open to which, if any, TC may emerge. The more TC's a researcher learns, the less is the tendency to derail a substantive theory into a routine discipline TC. Earned relevance of emergent TC/s that emerge in theoretical sorting of memos is a must, if the researcher uses one. They emerged with the skill development of the researcher. It is part of developing theoretical sensitivity about how they model and

how to let their use emerge. Skimming and dipping in of papers from other fields can be fun, quick and easy. Let me give an example on how a TC can pop up.

In perusing a biochemistry paper I came upon the "random walk" model. This means that all variables are in unorganized flux until one variable is introduced and then, all of a sudden, all the variables in flux immediately fall into a stable organized patter. This model is highly applicable to social life and action. People mixing at random and visiting each other in all directions before a meeting suddenly come to order when the host or lecturer appears. It happens in fancy seminars, courts, staff meetings, children's play yards etc. We can see it everywhere. A "come to order" is announced, in many ways, and the order of the occasion is produced almost immediately.

Another TC that jumped off an economic article I was perusing is "amplifying casual looping." This TC is part of the interaction of effects family. As consequences become continually causes and the cause become continually consequences one sees either worsening or bettering progressions. This model can apply everywhere in continuing relationships that improve or worsen. It applies to abusive relationships or love relationships. I am sure the reader can see its generality and application booth positive and negative, say in growing spousal abuse. It is an easy TC to preconceive and force, so careful, it must grounded.

Another TC comes from political science and is harder to spot: "conjunctural causation." It means that a set of causes have to occur in some connection to generate a consequence. The connection between the cases requires a complex set of conditions. Different sets of the same causes have different consequences. Some of the causes are very relevant and some are just triggers. It fits political science on a large national scale, for example organizing various subgroups to vote on measure or when do conditions reorganize to turn a peaceful demonstration into a brutal riot.

These three examples show how complex causal models that emerge can provide integration substantive codes that go far beyond simple causation that is forced "as appropriate" by local authoritative disciplines. The reader will find it fun to skim theories from other fields to pick up their TC's and thereby open them selves up to many TC's. The more this is done, the more the researcher will have the realization that the number of TC's is endless and therefore staying open and sensitive to what ever TC emerges is the way to do GT. To focus on only one TC preferred by a field is a pure preconceived shut down of GT methodology.

Bear in mind, do not worry if your substnative GT theory has no TC. It will be implicit in the theory. The important ideas is to not preconceive one, just to have one to point to. Also, studying theories in many fields to find TC's may be a task, exciting for some, but not for others. It is optional. Learn the ones in my books.

TC's are Slippery

TC's are the least understood aspect of generation GT When GT methodology is used merely as a legitimating jargon for a QDA then of course understanding TC is moot and one just preconceives the field favorite TC. But when the researcher is genuinely trying to do GT research, the first confusion is theoretically substantively coding the data. Later in the research, when sorting mature memos, starts the confusion is sorting for theoretical codes. Both types of coding emerge from the data and are recorded in memos. They occur in mixes. When a TC integrates the substantive codes with fit and relevance, GT is being generated. For example, a causal model can easily be mixed with a zone of tolerance and two outside sitting points. Learning TC's emphasizes the earned relevance of these mixes as they model substantive codes. The possibilities are there and grounded. Unlike substantive coding, the underlying groundedness is less clear since they are abstract models of integration based on sorting mature memos for a best fit. Their fit, therefore, is not as underlying tight with the data as a substantive code is. Their organization of a theory is not right or wrong so much as variable on an abstract level. There can be alternatives as the researcher generates and maintains the fit, work and relevance of his substantive codes.

The variability can be slippery and often result in confusion, depression and anxiety over the emergence of the best fit model of integration. Of course, best fit grounding is required in the TC emergence, but given the ready modification of a GT the TC model can easily get adjusted as it emerges. This, of course, can add to its confusion and then forcing of a preconceived TC on the codes as a way out of the confusion that comes with waiting and sorting for the TC of earned relevance. Forcing with familiar field concepts can easily lead to irrelevancies. For example, every GT is not a BSP (basic social process) and rich as this TC is, forcing it on a theory with stages of a process that does not exist can dilute fit and relevance. One goal of a GT researcher is to develop a repertoire of as many TC's as possible. This maximizes the emergent fitting of the substantive theory into a well generated integrated emergent model.

Some researchers get confusion between the meanings of substantive coding and theoretical coding. Needless to say, substantive codes are the categories and their properties that emerge in conceptualizing the data from the substantive area being researched. They are used to build the substantive theory, but are not theoretical codes. TC's are used to provide the abstract model that emerges when sorting mature substantive coded memos. TC's must also pattern out when sorting memos to provide grounded integration of the substantive codes. Preconceived TC's can easily force the integrative model.

Without substantive codes, theoretical codes are empty abstractions. But substantive codes can be related without explicit TC's. Without a TC the results is easily somewhat confused and theoretically unclear as to integrative connections. The implicit TC is typically dimensions of a core concept. It is the integrative interaction between substantive and theoretical codes that fully characterize the generating of GT. This is simple to say but leads to confusion since TC's exist on a higher abstract level of modeling substantive code relationships or hypotheses. However, substantive codes are often called theoretical codes and thus mixing the two usually meaning confusion or just missing TC's all together.

Everyone after an initial try loves and understands the constant comparative method for generating substantive categories and their properties. As one GT researcher wrote me, "your phrase 'fluctuating support networks' has really grabbed my attention" (Holton email 6/9/03). But this joy and grab is not so for TC's, except perhaps for discovery of a BSP. TC's are often ignored, left implicit or just plain missed with no understanding. Researchers generate categories naming latent patterns social action all the time. And these names easily grab others. The same researchers often do not systematically sort memos to generate TC's, except maybe to mumble causes or processes.

Substantive categories grab by denoting recognizable patterns, where TC's seldom have this grab since they denote abstract models that are usually implicit in the theory, and seldom explicitly mentioned. And it is even more confusing if the TC and the core substantive code have the same name, such as process. Thus it is clear that substantive codes are on a different conceptual level of abstraction. And TC's are more abstract since they model the integration of the substantive categories which name grounded patterns. Mixing the two types of codes is typical and hard to figure out at times.

Confusions occur like this. A core category may be a TC named such as becoming or cultivating or routing and they are BSP's, but the BSP is not the core, it just models the core substantive code. Thus, in one dissertation the core category was survivalizing, which was a basic social process. The abstract level relationship of both types of coding is always the same. TC's are more abstract than substantive categories, no matter what level they start at and GT is readily modifiable, unlike the accuracy of description. In sum, the researcher constantly compares to generate substantive codes from and sorts mature theoretical memos into a what ever TC he best thinks articulates his theory, or he leaves the TC implicit. On the abstract level it is easy enough to distinguish between substantive codes and theory codes. But on the descriptive level they get muddled. This muddling occurs in the writings of many QDA theorists such as Ian Dey or Jan Morse.

Are TC's necessary? As I have said, the answer is "no," but a substantive theory is best when a TC's is explicitly used. TC's are always implicitly in the theory, even when not consciously used. But a GT will appear more plausible, more relevant and more enhanced when integrated and modeled by an emergent TC. The hypotheses will be clearer and stand in relief from the superficiality of a conceptual QDA. Using a TC from sorting mature memos makes generating substantive categories and their properties easier and the resulting theory more complex and multivariate. As long as there is no preconception, a TC helps more theoretical sampling, theoretical saturation, and delimiting the theory to reach theoretical completeness because it provides an emergent guiding framework. Analyzing a theoretical framework without an emergent TC is harder, but happens. But be cautious, as this is when preconception of a TC occurs and is forced for its guidance in integration. But the TC should emerge however tempting forcing may be. It is easy by prior training to force one on forming the theory as a framing tendency. Resist this preconceived temptation, however strong. Staying open to emergent TC's is important and totally necessary. They provide the full rich understanding of the substantive theory being generated. They also place the most demand on the generating sensitivity skills of the researcher. Experience in generating theories increases this skill.

Keeping Your Distance

Glen Gatin, Brandon University

Abstract

This analysis began with inquiries into the substantive area of distance education using the classic grounded theory method. Analysis revealed a pattern of problem-solving behavior, from which the theory *Keeping Your Distance* emerged. The theory is an integrated set of concepts referring to the conscious and unconscious strategies that people use to regulate distance, physical and representative, in their everyday lives. Strategies are used to control physical, emotional, and psychological realities and to conserve personal energy in interactions with individuals and/or institutions. For all social interactions, people use a personalized algorithm of engagement that mitigates conditions and consequences and preserves optimal distance. *Keeping Your Distance* provides a theoretical starting point for considerations of the changing notions of distance. In part, these changes have been brought about by developments in the fields of Information and Communication Technology (ICT) and online social networking.

Introduction

This study began in the substantive area of distance education by analyzing the responses of people who used computer-mediated distance education as they solved problems and resolved concerns. Data were collected in face-to-face interviews as well as from institutional documents, collegial comments, casual conversation and observational data. Glaser's (1998) dictum that *all is data* was interpreted to mean that not only is it *possible* to use a variety of data sources, but that as many data sources as possible *should* be examined. Initial participants for this analysis were chosen from related groups: students, support staff, administration and faculty involved in the distance education enterprise. After the analysis of the first three interviews a pattern began to form; after the sixth interview the core variable emerged. Interviews continued until the main properties were established and saturated. Early theoretical sampling looked beyond the initial groups from the distance education arena to test the generalizability of the core variable. Extant theory provided important data, particularly, Moore's (1997) Theory of Transactional Distance.

Data were coded and condensed into written memos. Memos were sorted according to analytical rules (Glaser, 1978). The most critical rule for sorting was the relationship of the memo to the core variable; if a memo was not related to the core

variable or a property of the core variable, it was left out of the analysis. The analyst established rules for the determination of the core variable, the one that explains the most variation, recognizing that "the goal is not to cover all possible theoretical possibilities nor explain *all* variation." (p.122). Other rules relate to the integrative fit of ideas and are "based on the assumption that the social organization of the world is integrated and the job of the grounded theorist is to discover it" (p. 123). The memos become the outline, and then the writer must merely connect and integrate the ideas together into a formal theory.

The theory of *keeping your distance* emerged through at least three distinct levels of abstraction: concrete/descriptive, metaphoric/symbolic, and abstract/conceptual. What follows is the elucidation of that theory using the "conditions and consequences" model (Glaser, 1978, p. 74). These are not *findings* but an integrated set of hypotheses. Illustrations and examples are from data collected in this research and are provided for the purpose of establishing imagery and understanding. These illustrations and examples are for the purpose of making the theory clear and should not be considered as proofs or descriptions of the process used to derive the theory. References to theoretical work *by others* are not necessarily intended to seek verification of this theory or to try to verify another theory.

Overview

Keeping Your Distance is a grounded theory about a pattern of behavior people use in their social interactions and engagements with others. Essentially, people arrange their world in such a way as to have physical and emotional control of their circumstances by maintaining distance in various realms. Arranging for physical distance in the spatial or geographical sense is the most obvious response, but symbolic distance is often used as a proxy for physical distance. People use physical distance to ensure safety, autonomy, and emotional control and to preserve energy while engaging with the world. Seeking to create physical distance may be a response to a perceived physical threat, but physical distance may also be used to mitigate perceived emotional and existential threats. People develop and employ a repertory of techniques to maintain a symbolic distance, even when in physical proximity to others. Techniques used are most often a combination of behaviors or strategies.

Theory

People *keep their distance* in response to conditions that arise in various settings in their everyday lives. They employ purposeful strategies designed to ensure an optimal distance, and these strategies have outcomes. In *keeping their distance,* people use complex systematic processes to adjust for changes in conditions and to adjust for the effect of previously applied strategies. The *keeping your distance*

process is recursive and in most instances does not result in a completely satisfactory outcome. The drive for optimal outcome is balanced by the energy required by the strategic responses. People may be able to tolerate a less than optimal distance if there are mitigating factors. Mitigating factors of *keeping your distance* include a personal coefficient of preferred distance.

Keeping your distance applies across contexts

The tendency to engage in *keeping your distance* persists across contexts although the strategies may vary. Strategies that a person uses in his or her everyday exchanges with family may be different from those used in pursuit of education, career, or other social contexts. In a family relationship, physical contact is usually regarded as a necessary ingredient. Parents and children are hugged, friends embraced, lovers caressed, all requiring direct physical contact. In these circumstances more discrete *keeping your distance* methods are employed. Even the most loving relationship requires some distance. People need to allow distance in any relationship and respect the subtle *keeping your distance* cues that others display. In many family relationships *keeping your distance* is ritualized and built into such things as the boys' night out or girls' night out. Anecdotal comparisons indicate many such ritual distance strategies associated with in-law relationships. These are accepted mechanisms of ensuring that relationship boundaries and distances are observed in the most intimate family relationships. Collegial discussions offered the example of the distance that an adolescent establishes and maintains from parents as a necessary component of developing maturity. *Keeping your distance* strategies applied in an education setting would not be appropriate in a family context, just as intimate exchanges appropriate in a family relationship are inappropriate in an education context.

Keeping your distance is a basic pattern of social behavior that is expressed in the activities of individuals but is also manifest in interactions with institutions and communities. People use *keeping your distance* collectively and the outlines of the basic pattern can be seen in communities and companies as easily as with individuals. Ideologically distinct communities such as religious or political groups manifest the *keeping your distance* impulse most clearly but all communities employ methods of creating distance for their membership. Every community -- geographic, professional, or social -- has a repertory of techniques designed to keep members close and nonmembers at a distance. A physical community (in the geographic sense) may erect a gated wall to keep others at a distance.

Professional communities use licensure, credentialing and communication controls to ensure that nonmembers are kept at a symbolic or physical distance. Social communities use strategies for member identification, communication, and sanction which ensure that members in good standing are in the inner circle and nonmembers are out of the loop.

Many incidents were recorded in data of *keeping your distance* in the work context. In traditional hierarchical workplaces, highly bureaucratic agencies evoke a range of human psychosocial responses and present a number of complex problems that people must deal with on a routine basis. Respondents described a broad range of strategies that they used to function in the workplace, many of them referring to distance. An illustration of this was the observation of a receptionist who used desks and office equipment to erect a barrier to maintain distance between her and the clients that she was employed to serve. *Keeping your distance* is often a prominent feature of a workplace survival response set used to maintain distance between superiors, co-workers, and difficult situations. Beleaguered workers at one education facility eagerly anticipated their relocation to a campus at a distance from administrators. Their perception was that the distance thus gained would enable them to perform their jobs efficiently and without constant unreasonable demands and undue threats to their workplace autonomy from administrators who were perceived to be mostly interested in exercising arbitrary authority.

Keeping your distance was also credited with motivating adaptive responses where an individual who finds him or herself in an intolerable situation will use discontent to energize a program of professional development that will allow him/her to create the desired distance. People make career change choices based on their *keeping your distance* strategy set. One respondent offered that the reason s/he was engaged in education was to improve his/her employability skills to "get away from crappy jobs, working for ignorant people."

Keeping your distance accounts for changes over time

One of the tests of a theory is persistence over time. People experience change over time and their responses, the strategy sets, the triggering conditions, and the intensity of response may vary with time and experience but *keeping your distance* accounts for a basic tendency that persists. The behavioral expression of a person's *keeping your distance* strategy may change over time but the propensity to use *keeping your distance* strategies remains comparatively constant over time. A shy person may learn, with time and experience, to appear less shy in public but still feels shy. A person may also learn, with time and experience, to function with less than optimal distance but the propensity to prefer more distance persists. A respondent reported that while he had been teaching for some time in a face-to-face situation and had adapted reasonably well, he was pleased to be able to teach by distance, as his natural preference was for more distance. His natural preference for what he considered an optimal distance had not diminished with time. Another contributor spoke of the discomfort she experienced appearing in public and the distance-related strategies that she employed to reduce exposure to public scrutiny. She recognized that the strategy was career limiting and attempted to try a different approach by enrolling in a public speaking club. While she became adept at public speaking over time she recognized that her lasting preference was to keep her distance from such occasions.

Systems Thinking Informs the Theory

Simmons (2006) described the ambitions of grounded theorists with respect to systems:

> An important thing to understand about grounded theory in relation to its suitability for studying and understanding systems is that, rather than being focused on verifying relationships between limited numbers of preconceived variables, it is designed to discover *all* relevant variables including those that may be discovered later or in other settings. Not only does this provide the ability to study whole systems, not just parts of systems, it enables the theory to be modified as new data emerge or as new data are collected from other settings (p. 488).

In proposing the grounded theory of *keeping your distance* I have a similar ambition: to explain a complete system of social behavior patterns in a way that allows for modification and its application in various settings. Each action taken creates a new set of conditions that sets up a new response and consequence. Reflection allows people to adjust their strategies to obtain optimal outcomes but the theory of *keeping your distance* suggests that a systematic bias exists. People want/need to keep their distance and they err on the side of distance. As people accumulate life experience, they increasingly refine their use of distance to maintain personal autonomy and control. Indicators of this were taken from reports of older people contemplating placement in senior citizens facilities where their autonomy and personal control would be constricted. Similar indicators were revealed in the reports of people who elected to work out of their own homes and maintain distance from a restrictive work environment.

Degrees of constraint and freedom are continually being calculated for best results but *keeping your distance* can justify forgoing what might otherwise be considered optimal. Each of the conditions that evoke *keeping your distance* has consequences that cause problems for people if they do not have an adequate response.

Conditions that Evoke *Keeping your Distance*

Conditions that evoke the *keeping your distance* response may be outward actions or internalized mental/attitudinal states. From the data collected in this analysis, the main conditions under which people respond with *keeping your distance* are perceived threats to personal safety, personal autonomy, emotional stability, and psychic integrity. Keeping your distance is also used to preserve physical and emotional energy under conditions of unacceptable demands. Similarly, the consequences of a chosen *keeping your distance* strategy may be manifest externally but are more likely to be internalized and not readily apparent to casual observers. The theory of *keeping your distance* provides a theoretical foothold to understand the systematic way that people use distance for control in their lives.

Explanations of these patterned responses are often not clearly articulated for

various reasons. In a number of instances respondents appeared to be providing *properline* data, possibly from recognition that their strategies might be perceived as antisocial. They offered elaborate rationales for such patterns of behavior. In situations such as these, the analyst must use abductive reasoning to discern the most likely explanation for a given pattern of behavior. Glaser (2007) suggested that properline or even obviously distorted data are not necessarily rejected from a grounded analysis. Because grounded theory produces abstractions not descriptions, "distortions are just more variables to conceptualize and make part of the data" (p. 4).

Consequences of the conditions

What happens if people do not effectively employ strategies to preserve optimal distance? The conditions of perceived threat to optimal distance have consequences for people that make it necessary to adopt *keeping your distance* strategies. Collegial discussions with informed observers suggest that individuals who do not employ effective strategies experience a lack or loss of physical safety, emotional control, and/or personal autonomy. They may also feel that they are wasting precious resources on unproductive interactions. Further observational data suggest that inadequate responses may give rise to defensive reactions that exacerbate conditions.

Dimensions of *Keeping Your Distance*: Exposing the Latent Patterns

People use *keeping your distance* in distinct patterns of behavior as they solve common problems or concerns in their everyday lives. These patterns can be organized into categories, each pattern providing a slightly different perspective on the core variable. Each category has elements and strategies that are unique but also have essential commonalities; the principal common thread is the use of distance. Interpersonal contact and relationships are the essence of the human experience. At the same time, these interactions and relationships bring a myriad of problems that must be dealt with in a systematic fashion. While people may resolve relationship problems with a variety of means, one of the consistent features of solutions is to maintain distance. That distance may be emotional, psychological, or symbolic but often creating actual physical distance is a significant component of systematic relationship management. When creating physical distance is not possible, people use symbolic or psychological strategies that represent physical distancing.

Distancing for physical safety

The most basic pattern of behavior for *keeping your distance* is the commonly observed pattern of creating physical distance to avoid interactions that could have real or perceived harmful physical effects. At a medical clinic, people will attempt to

use distance to separate themselves from others who are coughing or sneezing or manifesting open sores. A natural impulse is to increase distance in the interests of self-preservation. Even if a threat is not physical, the response is to physically create distance by moving away. I have watched as people physically distance themselves from a person who expresses a seemingly inappropriate comment, behaves in an unconventional manner, or wears inappropriate clothing. In my work with physically, emotionally, and mentally challenged people I have observed people seek to create the maximum allowable distance between themselves and someone who appears "different." I have made similar observations at political events when someone has made a statement that challenged the status quo. People visibly moved away from the challenger. The best explanation for this behavior is that people believe that they can use distance to avoid the contamination of association with someone who is displaying behavior or appearance that is likely to attract censure.

Keeping your distance is still important in physical safety. People manage their distance with various strategies to preserve physical safety. For example, on-campus incidents of sexual assault have made remote technology-mediated education a much safer option, an important consideration for some women. One of the incidents that indicated this concept was a description provided by a woman who moved from a rural center to a major city to pursue higher education. In moving to the urban center she was thrust into social circumstances that included gang activity and drug culture. These constituted a physical threat and emotional turmoil. She subsequently adjusted her behavior to attend university by distance, with the intention of avoiding these perceived threats. Her *keeping your distance* strategy included activities that were designed to preserve her physical safety.

Social groups appear to use *keeping your distance* strategies on many scales. Consideration of historical data suggests quarantine and isolation are ways that distance is created and maintained to preserve mainstream society from exposure to disease and contagion. The historical record shows that leper colonies and tuberculosis sanitariums were designed to protect society from the real and perceived harmful effects of association with infected individuals (Cosgrave-Mather, 2003; Centers for Disease Control and Prevention, 2007). While societies are considerably more enlightened with respect to the treatment of disease, the notion of using distance has a long history and remains a default mechanism for dealing with problematic social issues. Distance has the effect of reducing a sense of responsibility for problematic situations, as evidenced by reports of the response of governments to deadly conflicts in foreign lands. One of the leading public rationales for the U.S. Bush administration's war against Iraq was framed in terms of distance, to fight terrorism over there so we won't have to fight them over here (Luntz, 2004). Bageant (2007) points out that perceived distance allowed people to disassociate from their governments' questionable practices.

Distancing for emotional control

This pattern is apparent when engaging in personal, emotional and intimate relationships. It should be noted that the distancing referred to is a part of a normal pattern of behavior and not necessarily pathological. The desire for intimacy is always balanced with a need for emotional independence. Even in the closest and most harmonious relationships, a sense of space is critical for emotional stability. One person explained that while she loved the night courses she took, her objective was as much to get out of the house to save her sanity and thereby enhance her marriage. She observed that others she knew would go to the bar but that had the potential for other undesired effects. In a productive and valued relationship, the distance is kept to a minimum. However, even within positive relationships a need is perceived for personal space and at least some occasions of physical separation.

In adult intimate relationships, distance is a critical element of emotional control and is negotiated and adjusted regularly. Distance, in the sense that one partner or both are aloof and uncommunicative, may be perceived to have detrimental relationship effects. In these circumstances, the problem may actually be over-distancing, where the normal impulse to *keep your distance* is out of adjustment and the negotiated distance between partners is in disequilibrium. *Keeping your distance* is not necessarily a symptom of a dysfunctional relationship. Intimate partners attribute the allowance of space or distance as important factors in harmonious relationships and this is certainly borne out in anecdotal comparisons and personal experience.

Keeping your distance is also used to maintain distance from emotional encounters that are potentially painful or embarrassing. Poets, authors and songwriters have the particular gift of articulating emotional themes, and *keeping your distance* is directly referenced in a number of songs, videos, and movies. An Internet search for references to the term “keeping your distance” in popular culture yielded a rich source of data for this section of the analysis. The most persistent theme of these references is of the preservation of emotional control and stability. The song “Keep your Distance” by folk singer Richard Thompson features the following lyrics:

> Keep your distance, keep your distance
> When I feel you close to me what can I do but fall
> Keep your distance, oh keep your distance
> With us it must be all or none at all. (Thompson, 2001)

Another popular song that enjoyed a certain amount of play in my house was “Miss Independent” by Kelly Clarkson. The song begins by describing an individual as

> Miss Independent,
> Miss Self-sufficient,
> Miss Keep your distance. (Clarkson, 2003)

This common theme in popular culture recommends keeping your distance to preserve emotional control, acknowledging that romantic relationships can be

fraught with heartache and disappointment. The common remedy recommended by many "advice to the lovelorn" columnists is to keep your distance as best you can. The negotiation and maintenance of optimal distance is an ongoing concern in romantic relationships. Keeping your distance was a rule for romantic and emotional involvement that was broken only under the most certain of circumstances. Keeping your distance may entail actual physical distance but may also entail other strategies such as withholding or redirecting conversation, avoiding eye contact, negative verbal cues, and forbidding and distancing body language. Electronic equivalents such as "unfriending" or blocking people on social networking sites are common.

Other physical cues may signal a wish to maintain distance from certain individuals and reduce distance to others. To illustrate this concept, consider individuals who choose a style of dress or grooming to signal affinity and draw those with similar affinities closer. The same cues ensure greater distance from those who do not share the same affinity. Observations of clothing style choices and presentation suggest that keeping your distance influences personal presentation. These behaviors are cues that greater or lesser distance, most often actual physical distance, is desired. One respondent, a part-time performer in a band specializing in a particular genre of music, reported that when he wore his band t-shirt, people interested in that genre would engage him in conversation and make assumptions about his lifestyle and affinities. In most non-performance circumstances he chooses a style of dress and appearance intended to keep his distance from the type of people attracted to that genre of music.

Relationships outside of family have a different set of strategies but have the same desired effect--emotional control. Emotional relationships in these realms have significant elements of power and influence and involve basic and complex subjective experiences such as fear, anger, apathy, frustration, surprise, satisfaction, and motivation. One respondent reported that one of his coping strategies was "just walking away" (creating distance) from a tense situation at work, an effective strategy to manage anger. Distance in work relationships is implicitly and explicitly negotiated and carefully maintained. A respondent working in an education setting reflected that she used a number of strategies to demonstrate that she was in a position of authority. Concerned that her youthful appearance might erode her credibility, she used verbal cues and physical space to discourage closeness that would impact her professionalism.

In hierarchical organizations, status is often represented by distance. Observational data of hierarchical institutions confirm that high status individuals within an organization have the largest offices with the best views and the most advantageous proximity to other powerful workers. Low status holders occupy the less desirable physical spaces and must endure either physical crowding or isolation. Low status female workers may have to endure uncomfortable physical proximity to male co-workers and must adjust their *keeping your distance* strategies for the sake of job security. The relationship between stress and physical crowding (lack of space or distance) has been studied from a number of perspectives.

Maintaining distance for emotional control is closely related to the need for autonomy, with many overlapping issues and similar strategies. Many indicators from data collected for this study were interchangeable in multiple categories.

Distancing for autonomy

This pattern is manifest when people perceive that their autonomy is threatened. A sense of personal autonomy is essential for identity formation, and *keeping your distance* is adopted to establish and maintain the necessary space, where a person or community can feel that they are self-determining. *Keeping your distance* is a response to chaos, in the practical sense where there seems to be no clear connection between cause and effect. Respondents reported a common strategy of physically or emotionally withdrawing to avoid chaotic situations until ambiguity is resolved. *Keeping your distance* is a response to problematic or toxic encounters such as those that involve aggressive marketing, bullying, racism, or persecution.

Perhaps the most powerful illustration of this dimension was taken from the report of a respected professional who described in detail the efforts that he employed to keep his distance. This included numerous choices including place of residence, one that guaranteed that neighbors would not intrude, his clear signals to uninvited visitors to his residence that he preferred that they respect his distance, and his general adoption of a pattern of living that ensured that he would always be able to maintain control and autonomy through distance. Although specific strategies may vary, the basic pattern is best explained as a desire to ensure autonomy through distance.

Marketers and professional salespeople have long recognized the basic tendency for people to keep their distance. In marketing terms this is known as resistance, and one of the strategies recommended for overcoming this tendency is to get people close enough to touch their products (Peck & Shu, 2009). If a salesperson can get a customer close enough to touch the new electronic device, drive the new car, or sit in the living room of the new house s/he knows that the chances of making a sale are improved. One blog promoting consumer awareness suggested in a post that the best way to resist this sales technique was to "keep your distance" (Holzmann, 2009).

Distancing is an important component of political image management. A very common journalistic convention uses the construction: X sought to distance himself from remarks made by Y. Political responses are framed in the language of distance. Analysis of the history of new world settlement shows that the prospect of being able to maintain political and religious autonomy was one of the principal appeals for immigrants attracted to settlement in the US and Canada. Physical distance from arbitrary exercise of power was a critical aspect of this impulse and remains a common strategy for religious and political groups. In many cases, this pattern of settlement involved groups of people with religious beliefs or political affinities. Like-

minded individuals, or those that subscribe to a religious or philosophical perspective, will gather in communities that are intentionally set apart from greater concentrations of population. One respondent, a member of a community that prefers rural living, reported that the community prefers to keep their distance from the influences of mainstream society in populated centers. This community had established an extensive educational network with related communities. This collective strategy allowed them to *keep their distance* but still enjoy the educational benefits that otherwise would only have been available in a more urban setting.

With other ethnic, religious, or political groups, *keeping your distance* is a major component of social control strategies. A common colonialist strategy was to establish areas set aside for indigenous populations, the reservations set aside for the North American Indians, the townships of South African apartheid. The intention was to keep indigenous people at a distance. My discussions with acquaintances living on reservations indicate that while there may be privations, hope remains that physical separation from mainstream society will preserve cultural autonomy.

As society becomes more technologically oriented, many traditional expectations for privacy have changed, and strategies for keeping distance change apace. Concerns about security and antiterrorism have given people difficult choices. Ubiquitous closed-circuit television CCTV monitors have turned parts of the world into a 24/7/365 surveillance society. Much of the security benefit is illusory and highly theatrical but the result is that people are facing greater difficulty in maintaining autonomy and a sense of personal freedom. Many people employ a variety of strategies to *keeping their distance* from government control and state scrutiny.

As technology becomes more pervasive, many people use technology to manage distance. A respondent noted that while she is not close to people in her neighborhood she has online relationships that she considers close friends. These relationships sustain her in a way that allows her to control the duration and intensity of contact.

Distancing for energy conservation

Social engagement requires varying degrees of investment of physical and emotional energy. In some circumstances, people evaluate the energy invested with the amount of personal return. The return may be reciprocity or it may be the sense of personal satisfaction and positive personal self-regard. People learn to manage their distance to maintain personal energy for causes and engagements that they consider the most rewarding. *Keeping your distance* is used to preserve physical and emotional resources. Some interactions with people and institutions drain personal energy and interfere with goal-directed behavior. *Keeping your distance* strategies are used to minimize the impact of such associations. In some cases, the preservation of energy aspect of *keeping your distance* simply involves the avoidance of people or circumstances that the individual finds annoying or unappealing.

Numerous individuals reported being pleased to be able to use distance education because it allowed *keeping distance* from other students who weren't as motivated or interested in progressing at the same pace. One woman described experiences in face-to-face classrooms that she perceived as a waste of time and effort dealing with extraneous, often minor social issues that were not useful to the learning experience. *Keeping a distance* from problematic people and issues allowed people to be much more efficient with limited time and energy resources. The distance afforded by computer-mediated education was worth any ostensible limitations of the delivery format.

People reported *keeping their distance* from other situations where they felt sympathetic but realized that they just didn't have the skills, resources, or energy to make a difference. A number of respondents spoke of *keeping their distance* from friends or family members that they described as needy. They wanted to help but realized that they would not be able to assist, and no amount of effort made on behalf of the needy individual was going to be effective. In these cases, people specifically used such *keeping your distance* strategies as using an unlisted telephone number, screening phone calls, making excuses, and in some cases, making life choices to avoid frequent contact with relatives. One person moved to another city because a family member was unable to make appropriate choices and was continually looking to be bailed out of jams. Even in the most loving and generous relationships, *keeping your distance* is an important factor. One person defined the optimal distance to live from relatives as close enough for occasional child care but far enough that daily entertaining was not an expectation. *Keeping your distance* allows people to direct their energy in the most effective causes.

Employers are challenged with the issue of *keeping your distance* with respect to their workforce. Workplaces must be organized so that people are in physical proximity to ensure efficient operation. However, putting people together has mixed benefits. In a harmonious workplace, people share ideas and support each other. Much sharing of critical work-related information happens in informal settings, the coffee table, and the water cooler. On the other hand, inevitable squabbles and struggles for power and resources may distract from the company's goal. Companies often feel threatened by collegial relationships because they fear that the workers will make unacceptable collective demands. Many companies spend a great deal of effort making sure that the proper distance is maintained in a workplace. Observations of many modern workplaces demonstrate that while the physical coffee room is gone, the virtual coffee room is provided through in-house instant messaging. Many companies err on the side of greater distance even though they are aware that closer communication may help productivity and profit. Analysis of policy documents and observations of office settings indicates that increasingly, companies embrace communications systems such as web-based social networking because it allows them to avoid workplace information silos but keeps workers on task and physically separated.

The conservation of energy apparent in *keeping your distance* can be seen as an effort to control for social entropy, to avoid the loss of energy associated with the decay of social relationships. As individuals recognize that their involvement in a social exchange is absorbing increasingly large amounts of personal energy and that the situation is degrading and unlikely to improve, they apply strategies that will increase their distance to preserve or redirect personal energy. One woman reflected on leaving a dysfunctional marriage, where a significant concern was creating distance to preserve emotional and psychic energy rather than waste her effort on a no-win scenario.

Moderating the *Keeping your Distance* Response

Keeping your distance acts as an "always on" filter for threatening, problematic, annoying, or bothersome things. The strength of the filter varies from time to time with the intensity of connected variables. The cost of closeness is weighted against benefits, corrected by a *keeping your distance* factor. People have an ideal distance where they feel comfortable but if conditions change, that distance is no longer comfortable and strategies are engaged to adjust distance.

Skin thickness

One respondent described her ability to tolerate conditions as depending on how thick her skin felt on any given day. The determination of "skin thickness" is a highly personalized social algorithm, a set of rules or heuristics that provide adjustable and adaptable solutions to recurring problems. This algorithm is recursive and is comprised of feedback loops where the choices made on one occasion affect future events and allow for the incorporation of unexpected events. The metrics of distance are widely variable for each individual. Each person has different physical criteria for acceptable distance.

People implicitly and explicitly consider contingencies or mitigating factors and compute the relative advantages of physical and emotional proximity to other people, communities, or institutions. Each calculation trades off an ideal personal sphere of control and influence for the benefits of association with others. Some people may tolerate a suboptimal situation for a period of time if a more desirable set of circumstances is likely to emerge. Describing an intolerable work situation, a person mentioned that she could only endure because of the presence of a mentor and a supportive peer group. Without these supports she would have "run away screaming." Mitigating factors impact the development and deployment of strategies and temper the need to *keep your distance.* The complexity of most interactions requires continual adjustment. Variation in k*eeping your distance* is based on life experience and circumstances; effects associated with class, age, gender, and economic status influence *keeping your distance*. Perceived threats that would normally trigger *keeping your distance* may not prompt the same response if mitigating factors are present. The presence of a mentor, a supportive group, an

engaging distraction, will reduce the felt need to react. Mitigating factors can accumulate across contexts to decrease the likelihood of triggering *keeping your distance*.

Decisions guided by *keeping your distance* strategies may be conscious and clearly articulated, but just as often they are unconscious and implicit in action choices. A few cases illustrate the strength of the *keeping your distance* phenomena. A person who has experienced periods of homelessness reported that he was prepared to endure the privations of living on the street to preserve the distance that he felt was necessary from agencies and institutions that threatened his sense of autonomy and independence. Similarly, an elderly person endures considerable inconvenience to remain in his/her own home and preserve the distance s/he feels is necessary for his or her autonomy.

Achieving Optimal Distance

The effect of *keeping your distance* strategies intended to respond to threats to autonomy is that a person feels a sense of self-efficacy in his/her independent goal-directed behavior. Distancing ensures adequate personal latitude to accomplish goals.

When effective, *keeping your distance* strategies give people a feeling of being safe from physical harm or contamination. They feel that they have sufficient control in emotional engagements. They feel that they are free from the arbitrary exercise of authority. They feel as if their energy is being directed in a satisfying way. When *keeping your distance* responses are ineffective or inadequate, people experience renewed or continued discomfort and either increase their distance or move to another mode of distancing. Often the effect of *keeping your distance* strategies alters conditions. These new conditions then require a readjustment of the *keeping your distance* calculus and adoption of additional distancing strategies that increases, maintains, or lessens the distance.

Unintended negative consequences of *keeping your distance* occur in two respects: the failure to develop adequate *keeping your distance* strategies, and an exaggerated *keeping your distance* response. Either situation can be self-limiting, self-defeating and in some cases, clinically significant from the perspective of psychopathology. A person that does not develop an adequate *keeping your distance* response or adequate set of strategies can feel dependent and miserable because he or she is unable to avoid the collateral damage that occurs when s/he is in close association with particular individuals or groups. At the other extreme, a person with an overdeveloped *keeping your distance* strategy set isolates and feels miserable for lack of human contact. In my experience working with people with various emotional disturbances, a commonly observed behavior was an extreme form of distancing: isolation sometimes accompanied by alcohol binging. Often that behavior would attract the attention of social services agencies and result in

unwelcomed intervention.

People vacillate between the two extremes seeking a comfort zone. The consequence of not developing and maintaining *keeping your distance* can be misery one way or the other. Many respondents described these issues in the context of family relationships and in particular the phenomena of delayed adulthood. The popular movie *Failure to Launch* explored the phenomena of people in their 20s still living with their parents in a state of suspended emotional development (Dey, 2006). Failure to launch describes a situation where keeping your distance strategies have failed.

Deferring the *Keeping your Distance* Response

Where the perceived threat is to emotional control, the *keeping your distance* response may involve a physical distance, but may also involve a temporal element. The strategy involves arranging for temporal distance where an individual delays or defers an interaction to put distance between him/herself and a perceived threat to emotional control. Distancing strategies for emotional control that involve intra-psychic elements are experiential in their outcomes. One respondent described creating distance from problematic experiences by "putting them on the high shelf." The outcome is that a person is able to engage in functional and satisfying relationships.

Overriding the *Keeping your Distance* Tendency

Conflicting internal impulses, usually based on emotional or cognitive elements-- fear, loneliness, career considerations, or sexual interest for example-- may cause a person to act against his/her inclination to *keep their distance*. One may consciously tell oneself that one should be warmer, more neighborly, more approachable, but one ignores the *keeping your distance* impulse to his or her regret. An individual working in direct sales reported that he had to "really psych himself up" to sell stuff that he didn't really believe in to people who didn't really want to hear from him. In this case he not only had to overcome the tendency of others to maintain distance but also his own tendency to keep his distance. Sales directors call the latter tendency "call reluctance" (Dudley & Goodson, 2007).

Contribution to the Body of Knowledge

The theory of *keeping your distance* contributes to the theoretical dialog in the field of online learning. One of the core theories of the field of distance education is Moore's (1997) theory of transactional distance. This theory posits that a fundamental problem with distance education exists because of the emotional and psychological effects of physical separation between teachers and students.

Transactional distance is seen as resulting in a sense of isolation, feelings of disconnectedness, and a loss of motivation to continue with a course or program. The solution to this identified problem was to design interventions that reduced or eliminated transactional distance. The theory of transactional distance continues to provide a meaningful frame for the critical analysis of online learning (Giossos, 2009).

The theory of *keeping your distance* supports the fundamental premise of Moore's theory in the sense that perceived distance is an important consideration in online learning. However, the theory of *keeping your distance* contests the most often recommended remedy of working to reduce the sense of distance. Because people develop strategies to maintain distance from other people, situations, and institutions, any intervention designed to reduce distance is not necessarily welcome or helpful. Institutions should permit people the maximum amount of autonomy and control by allowing them to keep their distance.

Conclusion

GT analysis revealed a pattern of problem-solving behavior; the theory of *keeping your distance* is an integrated set of concepts referring to the conscious and unconscious strategies that people use to regulate distance, physical and representative, in their everyday lives. Strategies are used to control physical, emotional, and psychological realities and to conserve personal energy in interactions with individuals and/or institutions. For all social interactions, people use an algorithm of engagement intended to maintain optimal distance.

The theory *keeping your distance* fits the data, grabs the attention and imagination, it is highly generalizable and it can be modified to accommodate new data as it emerges (Glaser, 1978). Consistent with previous experience reported with theories generated using this method, additional reformulations of *keeping your distance* will develop as the implications and precepts of the theory are tested against further experience.

The theory of *keeping your distance* provides a theoretical foothold for considerations of the changing notions of distance in the face of new developments in the field of media studies, ICT and social networking. The theory of *keeping your distance* will aid policy-makers and institutional planners in their efforts to design flexible, respectful learning environments that accommodate new realities of a technologically advanced society.

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Using Grounded Theory to Analyze Qualitative Observational Data that is Obtained by Video Recording

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Abstract

This paper presents a method for the collection and analysis of qualitative data that is derived by observation and that may be used to generate a grounded theory. Video recordings were made of the verbal and non-verbal interactions of people with severe and complex disabilities and the staff who work with them. Three dyads composed of a student/teacher or carer and a person with a severe or profound intellectual disability were observed in a variety of different activities that took place in a school. Two of these recordings yielded 25 minutes of video, which was transcribed into narrative format. The nature of the qualitative micro data that was captured is described and the fit between such data and classic grounded theory is discussed. The strengths and weaknesses of the use of video as a tool to collect data that is amenable to analysis using grounded theory are considered. The paper concludes by suggesting that using classic grounded theory to analyze qualitative data that is collected using video offers a method that has the potential to uncover and explain patterns of non-verbal interactions that were not previously evident.

Introduction

Understanding how people communicate is difficult both for those who have the experience of an intellectual disability and for those who attempt to communicate with them (Caldwell 2007). This difficulty is magnified for people with profound intellectual and multiple disability (PIMD), who are confronted with many challenges in living their daily lives. Such challenges centre around how to comprehend the world that they live in. However, functionally, the primary practical concern that they have is how to communicate with a complex and at times forbidding world.

The research study from which this paper is derived aimed to develop a theory to explain how people with PIMD confront that primary difficulty and communicate with others. The aim of this paper is to describe the method that was used in the study. Video was the tool used to collect the data, and this approach to data collection, combined with a meticulous analysis of the videotapes, revealed the micro-behaviours that constitute the basic building blocks of dyadic communication. The progression in the data analysis process is described from descriptions of these micro-behaviours towards the emergence of the concepts of the theory. A discussion of the arguments for and against video-taping in the context of the development of grounded theory is presented and finally the strengths and weakness of the method are considered.

Background to the Study

People with profound intellectual and multiple disability (PIMD) have an intelligence quotient below 25 points (American Psychiatric Association 2000). They require virtually total care in terms of assistance in activities of daily living (Cascella, 2005), they often have accompanying secondary disabilities such as epilepsy, physical disability or mental health difficulties (Nakken and Vlaskampf, 2007) and they do not use speech, but generally interact using non-verbal communications (Hogg et al., 2001). As well as being non-verbal, people with this severe degree of disability have only a restricted capacity to communicate in any mode (Grove et al., 1999). The effect of the multiple difficulties that people with profound intellectual and multiple disability are confronted with is that they have to deal with a world where they receive restricted sensory inputs which they must interpret through the prism of a limited cognitive ability. Such a situation leads to communication difficulties both for the person with PIMD and the people who do not have a disability but who may be related to the person with PIMD or may work to support them. These difficulties are functional in that they affect the way in which interaction occurs between people who do not have a disability (primarily staff and relatives) and those who do.

There is evidence that staff who work with people with PIMD frequently use complex language and plentiful verbal communications when interacting (Bradshaw, 2001). Such complex communications are not likely to be understood by the person with PIMD. However, staff must interpret what they understand of the communications of the person with intellectual disability so that they can act as advocates and facilitators for them (Grove et al., 1999). Equally, persons with profound intellectual and multiple disability interpret and react to staff behaviours and communications. The problem is that the accurate ascription of meaning to another's interaction is difficult for both parties. For example, people with such severe degrees of disability may do things slowly, pause unexpectedly or indeed produce very few behaviours (Ware, 2003), making understanding of the significance of their behaviours problematic.

The key issue then is that both the person with the intellectual disability and the person who does not have the disability are predisposed to mutually misinterpret each other's communications. Given that interaction is dyadic and may be viewed as a continuous process of social coordination (Fogel, 1993), the main concern of both the person with PIMD and the non disabled person is to understand the nature of this continuous communication process in order to communicate effectively with the other person.

The theory of attuning

The fieldwork for the study took place in a school for adolescents and young adults with PIMD in Ireland. There were three participants in the study who had a severe or profound intellectual disability, each of whom was observed in the classroom with a non disabled person, namely the staff member who was chiefly responsible for the person's care, support and education. Each pair (dyad of staff and person with PIMD) was observed for one hour, engaged in activities such as

playing games, singing stories, painting and participating in gross motor activities such as throwing a ball and walking.

The outcome of the study was that a theory of 'attuning' emerged to explain the interactional process (Griffiths, 2010). The theory of attuning offers a theoretical explanation of how people with severe or profound intellectual and multiple disability communicate with others. The theory suggests that the process of attuning regulates communication. Furthermore, it suggests that this is a reciprocal process whereby the concepts and processes apply equally to both persons who are communicating, irrespective of whether they have a disability. Thus attuning may be regarded as a dynamic process that describes how the communication partners move towards or away from each other cognitively and affectively. The theory of attuning has seven concepts: setting, being, stimulus, attention, action, engagement and the core category of attuning.

In brief, the theory suggests that all communication takes place in a setting (the place where the dyad is located), which influences the state of mind of the people in it (their being). The person's state of mind influences how the person behaves. He or she may offer a stimulus to the other person in the dyad, to which the other may attend and then action may follow. The application by one person of attention to the stimulus of the other is not inevitable, but if it does occur, it will affect how the person acts and if they become engaged (communicate) or not. The process that enables the person to act and to communicate is the process of attuning, which affects and reflects how the partners feel (their being), what they do and if and how they become mutually engaged. Attuning therefore describes the nature of the continuous process of communication, the understanding of which is the main concern of the participants in the study.

Rationale for Data Collection

It is said that data for a grounded theory research project should be obtained through using the best technique available to obtain the information that is desired (Glaser Strauss, 1967). Classic grounded theory (CGT) was chosen as the preferred method for the study because so little was known about the patterns of communication that were inherent in what the study participants did. The lack of knowledge of what concerned people with these difficulties, and how they interacted, meant that the researcher approached the research question with an open mind as to what might be found. This approach fitted with that of grounded theory. However, a sense that the solution to the problem lay in the detail was a starting point in seeking answers to the research question.

Accurate descriptions of what is going on "run a poor second" to "socially structured fictions" (Glaser 2001, p. 146). It seemed to this researcher that the virtue of grounded theory was its ability to accept all forms of data and also its neutrality in terms of its approach to the data. Furthermore, it appeared that these virtues would facilitate the emergence of an accurate understanding of the patterns of behaviour that were embedded in the data. In particular it was important to extend the uncovering of patterns within the detailed data of very

small behaviours of the participants. The 'all is data' perspective requires many incidents to compare and saturate categories (Glaser, 2001). The 25 minutes of videotaped observational data in this study detailed more than 1000 incidents comprising 36,000 data points. There is a danger in over reliance on descriptive data because the data may dominate the findings to the point that an accurate description of what happened emerges rather than a conceptual theory. I was aware of this danger and took active steps to avoid it by appropriate application of the constant comparative method.

The detail in the data

Observation through the use of videotaping produced a detailed recording of micro-incidents. Micro-incidents are the bedrock data that generated the categories which form the basis of the theory. Micro-incidents may be regarded as constituting an important data source for the generation of theory because ultimately, an understanding of what is going on in the data is derived from constant comparison of micro-incidents, rather than macro-situations (Glaser, 1998). This study collected interactional data. Interactional data can be derived from interviews or alternatively from observation. This constitutes the verbal-actual axis (Glaser, 2001) of both talk and behaviour. Thus, verbal interactions, non-verbal interactions, and all observable behaviours that were displayed by the participants in the dyads in the view of the camera constituted the data. Video recordings were made of three of these dyads, each of which consisted of one student with PIMD and one carer or teacher (who was the student's keyworker). Each one hour recording sampled the student and keyworker in a variety of educational activities. In order to manage the mass of recorded data, just two of the three recordings were examined and between them selected episodes of interaction were examined, which yielded 25 minutes of data which were transcribed and analyzed.

All communications and behaviours that were observed during the 25 minutes of video were logged into a narrative that encompassed the totality of observed behaviours of both participants in the dyad. This was achieved by running the video-tape at normal speed, running it slowly and running it frame by frame, where each frame encompassed $1/24^{th}$ of a second of the action. It has been noted that capturing of recorded video in a very thorough narrative transcription sensitizes the researcher to the observation of micro-events (Nilsson, 2012), a process which was very evident as the data transcription progressed. The narrative illuminated the verbal and non-verbal interactions of both participants in the dyad in detail and in sequence. Nilsson emphasises the utility of thorough transcriptions of micro-events, which enables the researcher to become aware of the "small details, changes and deviations in the action on the video recording" (Nilsson, 2012, p. 110). This awareness of small events was facilitated by the development of a list of possible target behaviours that would constitute baseline data.

Grounded theory classifies data into four types, in descending order of accuracy these are: *baseline data* which is the participant's best description of what he or she has to say, *properline data*, which is named when the participant tells what he/she thinks he or she is supposed to say. *Interpreted data* and

vaguing out are the least accurate data form. Glaser comments that baseline data is the "best description the participant can offer" (Glaser, 1998, p. 9). A check sheet of indicative behaviours was developed in order to orient the researcher to the types of behaviours that might be found. The check sheet was based on the relevant literature but also on discussions with Jenny Wilder, who had conducted similar observations of young children with intellectual disability (Wilder, 2005). This was by no means a comprehensive list of behaviours but it illustrates typical macro and micro-behaviours that occur in this type of interaction.

Vocalisation	**Eye expression**	**Facial expression**	**Body activity**	**Gestures**
Loud breathing	Gaze towards a person	Smile	Stretches	Lifts arms
Cry	Gaze towards activity	Chew	Collapses /Slumps	Stretches out arms
Laughter	Gaze towards object	Mouth open	Turns head away	Nods
Clears throat	Turns gaze away	Forms mouth	Collects body before activity	Pulls away hands
Cough	Focuses using joint attention	Frown	Body upright and alert	Gives hands
Spits	Blank stare	Purses lips	Stillness	Shakes head
Smacks mouth	Winks			Makes minor hand movement
Scream	Eyes closed			Makes arm movement
Normal breathing				Scratches
Babbles				Rubs
Moans				Points to object/ person
Silent				Gestures to ask for help
Speech/ vocalisation				

Table 1. Indicative behaviours.

Because grounded theory research is "collection method neutral" (Glaser, 2007, p. 20), as a research method, it can conceptualise any form of data. However,

interactional observations have been specifically identified as a form of data that may generate theory (Glaser, 2007). In short, the verbal-behavioural data juncture may reveal accurate detailed description of the behaviour that is observed or it may not. Grounded theory is not concerned with describing the data but with identifying the patterns that are inherent in the data. These may initially be inaccurate, however grounded theory has the capacity to correct inaccuracies, as the inherent patterns will inevitably emerge as data saturation is approached. This tendency for the data to self-correct was evident in the identification and emergence of the categories of data in the study. At the same time, the reliance on detailed baseline data meant that the patterns of behaviour that were being identified were patterns of very small behaviours, behaviours that might ordinarily remain unobserved.

There are doubts as to whether the collection of audio recorded data facilitates the development of a grounded theory. Indeed, it is suggested that it may actively hinder it (Glaser, 1998), largely because it promotes descriptive completeness rather than conceptualization of the data and hence it may hinder the development of theory. In considering whether such doubts apply to the use of video recorded data, Nilsson (2012) reports that Glaser acknowledges that the use of video is the only method that is sufficiently sensitive to be capable of capturing micro-communications and that for research participants who are non-verbal and therefore communicate by means of macro and micro non-verbal communications, there is no other method of collecting '"original information explaining what was happening in their field of interest" (Nilsson, 2012, p. 107), that is, baseline data.

Data analysis

In undertaking this study, I took as the starting point Watzlawick et al.'s (1967) statement that observation of non-verbal behaviours has been shown to offer a powerful insight into the meaning that people place on an interaction. It seemed to me that such an assumption underpinned the identification of the main concern of the participants and how they resolved it. In order to achieve these goals, I sought to make a detailed description of observed communications and behaviours of both the person with a profound intellectual and multiple disability and his or her keyworker. The narrative data that was collected detailed the sequence of interactions. As a result, in some interaction sequences several behaviours could be identified as occurring in a very short period of time, with the result that a very fine detail of what happened in the communication was evident.

From a grounded theory viewpoint, a legitimate criticism of such a process is that the over concern with detailed description may impede the raising of the analysis to the conceptual level. In order to overcome this danger during the data analysis I constantly looked for patterns in the data and was aware of the injunction that grounded theory is based on a "latent structure analysis approach using a concept indicator model" that yields "emergent theoretical frameworks that the researcher must stay open to" (Glaser, 2005, p. 5).

Once coding of the data commenced the codes were tracked by physically moving and amending hard copies of each code as the code evolved and as its location within the emerging theory became clear. The constant comparison process not only generated codes that changed as the data analysis continued, but it also generated memos. The early memos detailed the properties of the codes, but as time went by, the memos indicated how codes should be sorted and tentatively named the categories (concepts) to which they belonged. This was the process that is described thus "in sorting, the analyst is constantly moving back and forth between memos and a potential outline working with it so everything fits" (Glaser, 1978, p. 118). In all, over 200 memos were written.

As the analysis progressed and as the core category and the eventual vertical structures of the theory (the seven categories) emerged, the memos became more sophisticated. Through the constant comparison of the emergent categories, ideas were developed that explored emergent relationships between those categories and also between codes both within and between categories. The result was that the memos wove a horizontal mesh that named the relationships that were inherent in the theory, some of which are detailed in section two. The increasing sophistication of the memos was in many ways the key to the process and it enabled an understanding of how a minutely detailed micro-communication such as a glance from one person to another might form part of a macro-theory which explains how the attention process (of which eye gaze is one small part) operates.

Evaluation of the Use of Video

The advantages of using video to record, and subsequently to document the action and interaction that was the subject of the study, were immense. Detailed descriptions of every action, pose, posture, movement, gesture and vocalisation of the participants were made. The narrative was embedded in the transcription structure such that precise sequences of communication and interaction were clearly identifiable. This is, in fact, the nub of the matter; video allowed for the collection of extremely detailed data that revealed what was not evident to the observer of action in real time. The fruit of this process was the fine-grained detail of incidents and sequences in behaviour that constituted the transcription and formed the basis for the data analysis. Arising from that transcription it became possible to identify the patterns in the micro-behaviours and micro-communications that constituted the interaction process. In view of the fact that these micro-communications were predominantly gestures, marginal vocalisations, alterations of eye gaze and inflections of body parts, behaviours which are easily missed or at least not consciously registered in real interaction, the use of video constituted a way of seeing what had not been seen before.

It has been noted that the examination through the use of video of fine detailed 'nuanced expressions' such as these, opens the way to the analysis of interactions and micro-behaviours that occur at other levels than that of the obvious activity that is evident in real time interaction (Nilsson, 2012). Such minute changes in behaviours are virtually impossible to identify without using

video (Nilsson, 2012). However, video unveils this world of nuanced expressions and makes these communicative behaviours amenable to interpretation.

There were two limitations in this study to the use of video. The first was that I was present in the classrooms where the interaction took place and my presence was compounded by the video camera and the stand upon which it sat. This can induce the Hawthorne effect (Heacock et al., 1996), which suggests that the presence of the researcher affects the people being observed (Polit and Hungler, 1999) and therefore the observed behaviours are changed because an observer is seen to be watching. The consequence of my presence in the classroom setting was that I took the role of 'observer as participant' (Speziale and Carpenter, 2007), which led to minimal participation in the action. On a few occasions I interacted with the participants in order to maintain the relationship which had been established prior to and during the data-gathering period. This begged the question: Did my presence affect the action that was taking place? The answer to that question can only be a subjective one, which was: not very much. Diary records show that I had spent some considerable time becoming familiarised with the participants before the observations commenced. The video records show that for most of the time, the participants were involved in interacting with each other and appeared to give little thought to the camera and observer. That view is an interpretation of the behavioural evidence. However, there was no evidence observable to me to gainsay that conclusion.

The second limitation of using videotaped data in this study was the length of time that the analysis took. The transcription of the videotapes was the most painstaking and slow phase of the data analysis. This had to be carried out in order to render as precise a written description of the data as possible. As such, each episode in the tape was viewed in real time, in slow motion and generally frame-by-frame, in order to ascertain the exact behaviours that were occurring and the precise sequences in which they occurred. Typically it took five and half hours to transcribe one minute of Tony and Mary's (one of the dyads) video and this covered 11 pages of transcript.

Indeed, it took two months of intensive work to transcribe 13 minutes of tape. Such lengthy data analysis is not untypical. Schonfeld made a videotape of a case study of one student engaged in a graphic educational computer game that attempted to "understand virtually all the actions taken in a problem session and the mental states that lay behind them" (Schonfeld, 1992, p. 182). Schonfeld asked the research group to analyze the behaviours that they saw. This took the group (the number of whom is not specified in the report) 18 months to analyze 7 hours of video. In the context of 'thick description' of an event, he notes that the descriptions were "thicker than most" (Schonfeld ,1992, p. 209).

Discussion: Unearthing the complex

This study attempted to uncover some of the more fundamental elements and the inherent patters in the complex nature of human interaction. In order to achieve this aim video recording was used. As explained above, the videotape was analyzed by running it at normal speed, running it slowly and running it frame by

frame, where each frame encompassed the action of 1/24th of a second. Such detailed analysis allowed the synchrony in the interaction process to become clear, as well as the relationship between motor movements of both persons to become evident as the movements of each developed and decayed. Furthermore, the precursors of each person's interactions were made explicit. It was interesting to note that a repeated behaviour of one individual in many cases elicited different reactions from others depending on whom that individual was interacting with. Equally in many cases a pattern was established, whereby the same behaviour of one person consistently elicited the same reaction from the other person. When the reaction changed, the influence of different variables in the setting could be identified as the cause.

Density, precision and permanence

Video permits the fine-grained, detailed nature of the data that is; it's density to be made explicit (Latvala et al., 2000). Dense data typically contains subtle communicative behaviour. A good example of dense data is a sequential analysis of shifting eye gaze patterns between two people. Eye gaze changes quickly, at times up to three to four times per second. However, as the interaction was analyzed 24 times per second, the precise record of how a person's gaze shifted from one focus to another was identifiable, as was the movement of the person's attention from one stimulus to another and the resulting changes in eye gaze and other interactions of the second person in the dyad. Thus, detailed analysis demonstrated the interdependence of each person in the communication process.

The quality most clearly demonstrated by the analytic process was its precision. Heritage concurs with this view and notes that attaining a high level of precision is enabled by videotaped data (Heritage, 1984). This view is reinforced by Heacock et al who comment on the capacity of video to allow fine-grained recording, they state that "it is not unusual for an observer replaying a videotape to detect nuances in non verbal behaviour that an observer in the field setting missed" (Heacock et al., 1996, p. 336). In short, the density of the data was uncovered through the precise nature of the analysis. However, that precision was only made possible because of another aspect of video, namely it's permanence which meant that it could be viewed as many times as required and in many different ways. To sum up this section, video enables data to be collected that is permanently on record, that can be very complex or dense and that can be analyzed precisely in fine detail.

Conclusion

This paper has considered how grounded theory may be utilized as a mechanism for the analysis of observational qualitative data that is derived from videotaped interactions. In this case, the interactions were of people with profound intellectual disability and their carers and teachers. The nature of people with such severe disabilities is that they cannot interact in an ordinarily recognised manner; they have little or no speech and their non-verbal behaviours tend to be idiosyncratic. Video offered a possibility of examining these behaviours and those of the non-disabled partner in detail, with the consequence that the grounded

theoretical analysis made it possible to identify the main concern of the participants. It also enabled the patterns in the data to be identified. Thus, it facilitated the emergence of a theory explaining how the participants met the main concern. Video recording was integral to the research method and as such it is recommended as a mechanism for the investigation of interaction particularly in situations where the nature of the interaction is obscure. Lastly, this study found, as others have done, that the linkage of video and classic grounded theory provides a method which has the potential to uncover patterns of human behaviours which previously were not evident and thus to explain what is happening in complex social situations (Nilsson, 2012).

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A Novice Researcher's First Walk Through the Maze of Grounded Theory: Rationalization for Classical Grounded Theory

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Abstract

Being new to grounded theory the onus to understand the methodology and the various versionscan be daunting.Learning and understanding the differences between grounded theories methodologies can be as much a learning of one's own research philosophy and this philosophy is often the deciding factor in methodology selection. Learning the different methodologies is a difficult journey as terminology often sounds similar to the novice researcher, but only by exploring the differences can the researcher rationalize their own choice. This paper offers the new researcher a view into the confusing world of grounded theory, where common terms are usedbut the secret lies in understanding the philosophy of the researcher and the topic of discovery. Glaser was correct, the answer is in the data, but you need to understand the philosophy of the method and if it matches your philosophy of research.

Theoretical Framework

Grounded theory, developed by Barney Glaser and Anselm Strauss in the early 1960s, is a methodology for inductively generating theory (Patton, 1990). Glaser's definition of grounded theory is "a general methodology of analysis linked with data collection that uses a systematically applied set of methods to generate an inductive theory about a substantive area" (Glaser, 1992, p. 16).While this definition is accepted by researchers, the approach and rigor in the data collection, handling and analysis created differences between Glaser and Strauss. Strauss developed a more linear approach to the research methodology (Strauss & Corbin 1990). Grounded theory is not new to business research and Mintzberg emphasized the importance of grounded research for qualitative inquiry within organization settings:

> "measuring in real organizational terms means first of all getting out, into real organizations. Questionnaires often won't do. Nor will laboratory simulations... The qualitative research designs, on the other hand, permit the researcher to get close to the data, to know well all the individuals involved and observe and record what they do and say" (Mintzberg, 1979, p. 586).

As grounded theory became more popular for researchers, the substantial divide between the creators of the methodology was apparent. The two original authors reached a diacritical juncture on the aims, principles, and procedures associated with the implementation of the method. Two paths emerged, and these are marked by Strauss and Corbin's 1990 publication, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*, towhich Glaser responded harshly with accusations of distortion of the central objectives of parsimony and theoretical emergence (Glaser, 1992). Glaser's views were supported by other grounded theory researchers who agreed that the late Strauss' 1990

publication was an erosion of the original 1967 methodology (Stern, 1994). During the years since the opening of the debate on grounded theory, a number of researchers have firmly supported the classic grounded theory methodology CGT (Bowen 2005; Clark & Lang 2002; Davis 1996; Efinger, Maldonado &McArdie 2004; Holton 2007; Schreiber 2001).

Various scholars have put forward a range of strategies and guidelines for the coding process (Charmaz 2006; Goulding 2005; Partington 2002; Patton 2002; Strauss & Corbin 1990, 1998). The process and methods for coding have created the highest level of debate for users of grounded theory. Some researchers have combined quantitative and qualitative forms of data collection when using grounded theory. And while nothing prohibits such combination, the purpose needs to be clear, otherwise a muddling of the methodology will occur (Baker, West & Stern 1992; Wells, 1995). While the coding process is an important part of grounded theory, over-rigid structures can create blocks that limit the researcher's ability to complete the analysis (Glaser, 1978; Katz,1983).These changes in coding go much deeper than just a coding process, they are a departure from the core elements of CGT and this paper looks at how these differences impact the researcher.

Fernandez (2012) identified four different grounded theory models: CGT (Glaser 1978), the Strauss and Corbin (1990) qualitative data analysis (QDA) sometimes referred to as the Straussian grounded theory, the constructivist grounded theory (Charmaz, 2000), and the feminist grounded theory (Wuest, 1995). While less known variants of grounded theory exist, these are considered the main grounded theory methodologies widely used in academic research.

Gynnild (2011) is critical of a number of how to grounded theory books for committing theory slurring making "non-systematic switching between references to Strauss/Corbin, Glaser and Charmaz...a rather diffuse method of skip and dip when collecting data" (Gynnild, 2011, p. 64). This has increased the confusion for the novice user of grounded theory. Tolhurst (2012), in reviewing the grounded theory methods, "skips and dips" to develop a view without explaining the actual differences between methods. His final analysis did not add clarity, but furthered the confusion by referring to the method as tortuous with no alternative methodology. Egan (2002) also "skips and dips" between CGT and Straussian theory, scarcely making reference to the difference, leading the reader to believe they follow a similar path of data analysis. Martin (2011) noted that numerous published works presented as grounded theory have been guilty of method mixing or method slurring.Stern and Porr (2011), in defence of critics of their book *Essentials of Accessible Grounded Theory 2011*,argued that, unlike others, any modification they put forward never departed from the core elements found in the traditional Glaser and Strauss (1967) grounded theory. They stated that they had adhered to the "four fundamental principles (Discovery never verification, explanation never description, emergence never forcing and the matrix operation)" (Stern &Porr, 2011:88).

Simmons (2011) believes that greater distinction needs to be made between CGT and constructivist grounded theory, and that while Stern and Porr (2011) may have adhered to some of the basics of grounded theory, they failed to effectively draw the differences between the methodologies. In 2004, Glaser put forward a number of concerns about some

of the re-modelling that had taken place with what is termed qualitative data analysis (QDA). Glaser asserted that the mixing of QDA and grounded theory methodologies had the effect of downgrading and eroding the goal of conceptual theory (Glaser, 2004, 2009b,2012b). Conceptualization blocking by applying QDA constraints continues to be the most common complaint of grounded theory researchers (Glaser, 2011). Glaser (2009b) explains in detail how QDA and multiple versions of grounded theory have jargonized elements of CGT to achieve authenticity. A strong advocate of CGT, Simmons(2010, 2011) is critical of any mixing of grounded theory methodologies. An alternative is to remain true to the original work of 1967, with Glaser's subsequent work (1978, 1992, 1998a, 1998b, 2001, 2004, 2007, 2009a, 2009b, 2011, 2012a).

A more effective process is to view the different types of grounded theory methods and to select the one that best fits the researcher (Fendt& Sachs 2008). It is important to understand the impact of different research methodologies and how the researcher views the world. Howell (2013) recognizes the importance of the combined philosophy of the researcher and the methodology and highlights this in the following statement: "When we undertake a research project we approach the world with pre-conceptions about the relationship between mind and external reality; such will affect the methodological approach, research programme and methods of data collection" (p.4). The following explores four of the most cited forms of grounded theory, how their views differ on the application of grounded theory, and, ultimately, a rationale for the selection of CGT. To aid the novice research this paper reviews the four main categories of grounded theory and uses the scholarly works of experienced researchers to position the differences.

Feminist grounded theory

Feminist grounded theory was developed initially for nurses in recognition of the andocentric bias and to ensure that women's voices were heard in the research community (Wuest 1995). Wuest overlays feminist theory onto the CGT, the Straussian, and the constructivist grounded theory, advocating that "[g]rounded theory is consistent with the postmodern feminist epistemology in the recognition of multiple explanations of reality" (Wuest, 1995, p. 127). No preference is stated towards the Straussian, CGT, or constructivist grounded theory methodologies. Wuest selects methodological elements from all three grounded theories to put forward the importance of merging with feminist theory. Wuest states that "[f]eminism is not a research method; it is a perspective that can be applied to a traditional disciplinary method" (1995, p. 129). The feminist grounded theory has been widely accepted as a method of research ideally suited to the nursing profession, and grounded theory is enriched by taking a feminist perspective when the research is based on women (Plummer & Young, 2010).

Classic grounded theory (CGT)

The CGT grounded theory methodology has its grounding in the original work of Glaser and Strauss (1965, 1967). They provided some guidance for evaluation of the empirical grounding of a grounded theory. This can be summarized as follows:

(1) Fit – does the theory fit the substantive area in which it will be used?

(2) *Understandability – will non-professionals concerned with the substantive area understand the theory?*
(3) *Generalizability – does the theory apply to a wide range of situations in the substantive area?*
(4) *Control – does the theory allow the user some control over the "structure and process of daily situations as they change through time"?* (Glaser & Strauss, 1967, p.237)

There are two types of coding in CGT: substantive coding and theoretical coding, with the former preceding the latter. Some authors refer to the substantive CGT as having sub phases of open and selective (Hernandez & Andrews, 2012; Walker & Myrick, 2006). Holton (2007) summarizes the substantive coding process as follows:

> "In substantive coding, the researcher works with the data directly, fracturing and analyzing it, initially through *open coding* for the emergence of a core category and related concepts and then subsequently through theoretical sampling and *selective coding* of data to theoretically saturate the core and related concepts" (p.265).

The constant comparative process involves three types of comparisons: (1) incident to incident for the emergence of concepts, (2) concepts to more incidents for further theoretical elaboration, saturation, and densification of concepts, and (3) concepts to concepts for their emergent theoretical integration and through theoretical coding (Glaser & Strauss, 1967; Holton, 2007). "All is data" is a well-known Glaser dictum. It means that all research is considered data, unlike QDA which has a specific descriptive structure. The grounded theory researcher needs to compare the data on as many dimensions as possible. Grounded theory researchers take into account all data, including newspaper articles, questionnaire results, social, structural and interactional observations, interviews, casual comments, global and cultural statements, historical documents, whatever is available that allows the researcher to explore all aspects of the theory. Grounded theory produces abstractions not descriptions (Glaser, 2007).

The memoing process helps the researcher determine which of the theoretical codes provides the best relational model to integrate substantive codes to theoretical codes (Hernandez, 2009). Theoretical memos capture the "meaning and ideas for one's growing theory at the moment they occur" (Glaser, 1998a, p.178). Glaser does not support having different types of notes, as put forward by Strauss and Corbin (1990); in his view this limits the development of the theory. The use of field notes and coding freedom are key elements of CGT. Field notes allow the researcher to "stay focused on what is really happening and facilitates coding on a higher conceptual level without the distraction of endless descriptive and superfluous detail" (Glaser, 2011, p.55). The constant comparison allows the core category to emerge and, unlike the Straussian and constructivist grounded theory, the CGT view is that this core then becomes a focus for the literature review and further selective data collection (Glaser, 2011). For CGT, field notes "form the basis for the construction of memos, memos play a key role in the development of the theory" (Montgomery & Bailey, 2007, p.76). Using CGT, there is no one set format in the design of field notes and they may change in format as the research develops (Glaser, 2011).

Theoretical coding occurs as the final stage "to conceptualize how the substantive codes may relate to each other as hypotheses to be integrated into the theory" (Holton, 2007, p.255). For many researchers, the challenge in grounded theory is the ability to get conceptual, being close to the data can cause blurring and difficulty in seeing the theoretical patterns (Scott, 2009). "Theoretical codes conceptualize how the substantive codes may relate to each other as hypotheses to be integrated into the theory" (Glaser, 1978, p.164). Substantive codes break down (fracture the data) while theoretical codes "weave the fractured story back together again [into] an organized whole theory" (Glaser, 1978, p.165). Theoretical codes are either implicit or explicit but, whether implicit or explicit, their purpose is to integrate the substantive theory (Glaser, 2005).

Theoretical saturation is achieved by the constant comparison of incidents in the data to elicit the properties and dimensions of each category or code. Riley (1996) stated that most studies achieve saturation with between eight and 24 interviews, depending on the topic focus. While it is dangerous to provide specific numbers in the development of a saturation point, it is a guideline in a methodology that has often developed over-rigid rules for judging the credibility of grounded theory products (Skodol-Wilson & Ambler-Hutchinson, 1996). In evaluating the credibility of the theoretical sampling, it is important that the researcher understands that there is no definitive checklist for ensuring credibility and that theoretical sampling will be different for every theory (Breckenridge & Jones, 2009).

A difference between Straussian theory and CGT is in the use of literature. CGT believes "More focused reading only occurs when emergent theory is sufficiently developed to allow the literature to be used as additional data" (Heath &Cowley, 2004, p.143). Heath (2006) found delaying the literature was effective in allowing her to use past literature to challenge as well as support her emergent theory. Christiansen (2011) put forward that if the researcher cannot accept the delaying of the literature review process during the research, they should choose another research method. To be true to theory development and effective use of literature it should not occur at the beginning of the study, for those who advocate a pre-study literature review they should understand it will damage the research by creating early closure to the direction, by misleading the direction to follow, and it may in itself be an inappropriate selection of literature (Hickey, 1997). The literature review process is one of the starkest differences of CGT when compared to the Straussian and constructivist grounded theories. Following the CGT methodology allows the researcher to use existing theory to "challenge emergent theory and locate the emergent theory within the current body of knowledge" (Heath, 2006, p.527).

A common problem during the write-up stage is to write description vs. abstract, which is often a result of data overload (Glaser, 2012a). Glaser (2012a) suggests that memo sorting is a key part of the writing process and that a memo can range from a trigger word to several pages.

The final hurdle for many grounded theory researchers is that they must have the ability to be aware of their own personal bias throughout the research process through reflexivity. Deady (2011) points out that part of the richness of the experienced researcher is the knowledge gained in the field of expertise. CGT researchers need to ask themselves

the questions: "What perspective do I represent?" and "How may this perspective influence my reading? And how should I factor it out?" (Deady, 2011, p.51).Ehigie and Ehigie (2005) state that the interviewer must be knowledgeable about the topic and be able to relate to the participants in terms of language – using vocabularynormally used within the sector being studied. The interviewer must also know when it is necessary to probe deeper, get the interviewee to elaborate, or broaden the topic of discussion. Having knowledge in a topic does not mean having preconceived ideas. To do research in nursing it helps to understand the issues related to nursing, just as in business it helps to have a business background when dealing with business research. Glaser (2011) never questioned the ability of the researcher to have knowledge, but rather to stay open and ensure the inductive process is allowed to work effectively. Neither Glaser nor Strauss ever made "a claim of pure objectivity; it is merely a statement regarding maximizing objectivity to the extent possible. This is what classical grounded theory was designed to accomplish" (Simmons, 2011, p.75).

CGT places induction as a key process with deduction occurring on emerging questions and patterns, allowing a movement from generalization to theory.CGT has what is defined by Glaser (1978, 1992) an inductive-deductive mix. The Straussian approach puts more emphasis on deduction and verification, often leading the researcher away from the data and into following prior research and knowledge which reduces the effectiveness of the research (Heath &Cowley, 2004; Rennie, 1998). Glaser (2009a) put forward that CGT allows the generation of a hypothesis that can be later tested using qualitative or quantitative measures, but the researcher does not formulate any hypothesis in advance of the research, whereas the Straussian approach "argues that an empirically grounded theory is both generated and verified in the data" (Hallberg, 2006, p.143). After comparing CGT and Straussian theory, Rennie (1998) concluded that "Glaser's procedures are the most consistent with the objectives of the method" (p.101). Elizondo-Schmelkes (2011) used CGT to develop her theory of authenticating incorporating descriptions from interviews as backup to the categories that she discovered during her research. While the process and steps may seem daunting at first Glaser has written extensively on grounded theory procedures (Glaser, 1978, 1992, 1993, 1994, 1995, 1998a, 1998b, 2001, 2004, 2007, 2009a, 2009b, 2011, 2012a.)

The CGT as put forward by Glaser (1978, 2002, 2007, 2011) stays true to the original concepts put forward by Glaser and Strauss (1967) and all other methods have serious flaws that distract from the goals of grounded theory. Deady (2011) selected CGT for its combination of rigour and flexibility in how it incorporated the literature review into the data analysis and, unlike other grounded theory models, allowed the researcher freedom to develop their own memoing process. Many supporters of CGT see the methodology as offering the greatest amount of freedom in the development of substantive theory (Deady, 2011; Loy, 2011; Simmons, 2011). When looking at the future of grounded theory, Glaser sees expansion of theory bits or parts of what makes up a substantive theory that will be used to describe a situation or to tell part of a story, i.e. the group is superdiversifying, or cultivating each bit giving a meaning to actions or stories. The researcher will need to continue to point out that theory bits are only part of the substantive theory and that part of good grounded theory is that the theory bits are the beginning of

more research (Glaser, 1999). Glaser also points out that CGT is only part of the research tools available; it is not intended to replace other forms of research but adds a valuable complement to the research community.

Straussian Grounded Theory

Strauss and Corbin's (1990) book *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* took a prescriptive position for grounded theory. The main changes they incorporated were to the coding structure adding more procedures on how to code and structure the data. This method is often referred to as Straussian grounded theory. They used a three stage coding methodology of open coding, axial coding, and selective coding While based on the concepts of Glaser and Strauss (1967), the Straussian methodology has proven too difficult for most researchers and doctoral students to follow and most revert back to the less prescriptive CGT approach (Partington, 2000). Corbin and Strauss (1990) put forward eleven basic procedures to follow in the development of their method as follows:

1. *Data collection and analysis are interrelated processes.*
2. *Concepts are the basic units of analysis.*
3. *Categories must be developed and related.*
4. *Sampling in grounded theory proceeds on theoretical grounds.*
5. *Analysis makes use of constant comparisons.*
6. *Patterns and variations must be accounted for.*
7. *Process must be built into theory.*
8. *Writing theoretical memos is an integral part of doing grounded theory.*
9. *Hypotheses about relationships among categories are developed and verified as much as possible during the research process.*
10. *A grounded theorist need not work alone.*
11. *Broader structural conditions must be brought into the analysis, however microscopic in focus is the research* (pp.419–422).

These procedures allow the researcher to understand more clearly the differences between Straussian and CGT beyond just the coding methods. At the highest level they would appear very similar; however, taking a more detailed review of each heading, the major differences are in points four, nine and 11. CGT would argue point 4, *Sampling in grounded theory proceeds on theoretical grounds*, creates a preconceived bias. While both support sampling based on theoretical grounds, Corbin and Strauss (1990) support the concept that the researcher brings the idea of the phenomenon to be studied; alternatively the CGT would insist that it should come from the data and not be initiated by the researcher.

Goulding (1999) identifies the need for flexibility in some aspects of grounded theory. No researcher starts with a totally blank sheet. In fact, the body of knowledge is key to the development of new theories. The art lies in finding a balance between all aspects of data collection that allow the researcher to develop their themes without prejudice or preconceptions. Glaser (2011) argues that the obsession with this point of preconceptions is a misunderstanding of the importance of the inductive process. CGT

supports the use of both literature and what can be brought by other theories, but not until the data has had the opportunity to direct the researcher (Glaser, 2011).

Point nine sees a substantive separation between Straussian theory and CGT, where the process for verification takes a very different path for the two methods.

The Straussian approach is more structured, leading to a much more rigid coding structure for analysis. It also has its emphasis on deduction, verification and validation. What at first glance may appear more structured and therefore easier, on investigation the method put forward is actually more complex, with the use of tools, paradigms, and matrices beyond the constant comparative method offered within CGT. Glaser (1992) put forward that the Straussian approach is not a modification to grounded theory, but a whole new approach and should not be confused with grounded theory. Rennie (1998) sees Straussian grounded theory as introducing hypothetico-deductivism to grounded theory based on instrumentalism, whereas CGT insists on an inductive approach and that the method should only lead to theory and not to verification.

Lastly, for point 11, *broader structural conditions must be brought into the analysis, however microscopic in focus is the research*, again we see a much more step by step structured process, where CGT would argue that the broader conditions would be reflected in the data (Strauss & Corbin, 1998; Glaser, 2001). In their methodology, Strauss and Corbin argue that their coding methods provide an aid to the researcher, moving the research from too much focus on induction and towards a more balanced method that encompasses induction, deduction, and verification.

While both CGT and Straussian grounded theory use a comparative method in the use of literature as data, the Straussian approach uses the literature in the early stages of research to develop theoretical sensitivity and the generation of hypotheses (Heath and Cowley, 2004). Heath and Cowley also highlight that while a shared ontology exists between CGT and Straussian theory, "there may be slight epistemological differences" (p.142). These differences are often misunderstood by the novice researcher as both state they strive for similar results, but the coding process which is often cited as the primary difference has at its root a different philosophical use of induction, deduction, and verification (Heath &Cowley, 2004).

Glaser (1978) uses the term substantive (open) coding as a way to develop a set of categories and their properties that are "relevant for integrating into a theory" (Glaser, 1978, p.56). For Glaser (2011), the process is an inductive process and the emergence comes directly from the data. Strauss and Corbin (1990) also use the term "open coding" but the emphasis of conceptualizing and categorizing the data may be predetermined and while partially from the data it can equally come from the researcher. Axial coding is unique to Strauss and Corbin as an addition to the CGT and is defined as "a set of procedures whereby data are put back together in new ways after open coding, by making connections between categories. This is done by using a coding paradigm involving conditions, context, action/interactional strategies and consequences" (Strauss & Corbin, 1990, p.96). Kendall (1999) cites the difference in the concept of open coding and the inclusion of axial coding as

a key differentiation between CGT and Straussian grounded theory. In conclusion of her analysis, Kendall (1999) agrees with Glaser (1992) that the use of paradigm and axial coding is inconsistent to the purpose of grounded theory to generate a substantive theory and that the Straussian method allows an escape for those struggling with the conceptual difficulties of CGT.

Neill (2006) put forward an argument that reflexivity/reflection are an important part of the data analysis as long as it does not become a distraction from the data. Reflection can be an important part of the comparative process. Glaser (2001) was wary of too much dependence on reflexivity and warned researchers to be careful that they don't lose focus. The use of reflexivity and relationality is credited to Strauss and Corbin (1998) and is not seen as part of CGT. Hall and Callery (2001) argued that the inclusion of reflexivity and relationality is an important part of the validation and rigor of Straussian grounded theory, but that it has been misused by the constructivist approach.

Constructivist Grounded Theory

Constructionism has its beginning in sociology – how observations form an accurate reflection of the world – and has recently had a profound impact on researchers who select grounded theory as their methodology of choice (Andrews, 2012). Andrews (2012) is critical of Charmaz (2000, 2006) who has led the debate on the use of constructionism, stating that she's used the terms "constructionism" and "social constructionism" interchangeably without adequately explaining the differences – that one has an individual focus and the other a social focus on the world.

At the root of the constructivist theory is the belief that concepts are constructed, not discovered as put forward by Glaser (2002). For the constructivist, you begin with specific questions on a particular substantive area; in contrast, the CGT starts with a desire to know more about a substantive area but has no preconceived questions prior to the study (Hernandez & Andrews, 2012). Similar to the Straussian grounded theory, constructivist grounded theory begins with a review of the literature to determine what has been done before in the area of interest. This difference in the timing and approach to literature is a key difference found in both the constructivist and Straussian approaches (Hernandez & Andrews, 2012). Glaser (1978, 2011) points out that CGT allows the data to be developed without preconceived ideas and will integrate previous work during the comparative analysis. Andrews (2012) puts forward that the main argument against constructionism is in the perceived conceptualization of realism and relativism and that the argument has an "epistemological not an ontological perspective" (Andrews, 2012, p.44).

CGT is less focused on language as a method of interpretation but can coexist with a constructivist view that supports both objective and subjective reality. The CGT is not compatible to relativism (Andrews, 2012; Glaser, 2011). This has been a core of the debate between Charmaz and Glaser (Charmaz, 2000; Glaser, 2002, 2012b). The argument that constructivist grounded theory compensates for the single minded view is unjustified to CGT advocates who highlight that CGT focuses on a single concern of study (i.e. culture). They argue that the value of grounded theory is not on producing and verifying facts, but is in

generating concepts that will have different meanings to different people, and that the final theory is open to modification and new data (Breckenridge & Jones, 2012).

Bryant (2003), a supporter of and co-author with Charmaz (Bryant &Charmaz 2007), sees constructivism methodology as seeking to deal with the conflict of potential bias of the researcher and not a direct attack on the philosophy of grounded theory. Constructivist theory sees Glaser as an objectivist and CGT (including Straussian) as a "post-positivist ontology of critical realism" (Hallberg, 2006, p.146). Hallberg (2006) saw the constructivist development of grounded theory as more of the evolutionary development of grounded theory, from CGT in the 1960s, to Straussian in the 1990s, to the constructivist model in the 2000s, an approach between positivism and postmodernism. Howell 2013 points out that for the constructivists "Knowledge, truth, reality and theory are considered contingent and based on human perception and experience" (p.16). Each methodology comes with a philosophy which impacts the mindset and all aspects of how a methodology is used down to the method of coding (Howell, 2013).

The coding process for constructivist grounded theory uses three types of coding: open, focused, and theoretical. This is compared to CGT where two levels of coding exist, substantive and theoretical, and Straussian with its axial and selective coding. While the terminology may be similar, the definitions of what is termed "theoretical" coding is very different. For the constructivist approach, theoretical coding is the merging of concepts into groups. This happens throughout the process, whereas for the CGT the theoretical coding is part of the selective process used to integrate the grounded theory (Hernandez & Andrews, 2012). Bringer, Johnston and Brackenridge (2006), advocates of constructivist grounded theory, explain in detail how it is possible to use the constructivist method to code the variables into NVivo software. In the development of the article, Bringer, Johnston and Brackenridge make selective references to Glaser (1978), Strauss and Corbin (1990), and Charmaz (2000) to try to illustrate their use of grounded theory. As stated earlier, the combination of these different methods is referred to as method slurring and tends to erode the quality of the research instead of enhancing it (Simmons, 2011).

Cupchik (2001) put forward that constructivist realism "demonstrate[s] the complementary roles played by quantitative and qualitative methods in the analysis of social phenomena" (p.10). Glaser (2012b) stated that Charmaz and other constructivists were doing qualitative data analysis (QDA) and that the use of such methodologies completely subverted all the principles of grounded theory. He argued that researchers who use a constructivist approach are doing QDA and not grounded theory, and while it may appeal to those who like the QDA conceptual description method, it is a total erosion of CGT (Glaser, 2012b). Hernandez and Andrews (2012) are more generous in their final analysis, stating that the final difference in the product is that constructivist grounded theory creates a descriptive theory, whereas CGT is an explanatory theory.

Bryant (2009), seeing that the disputed differences between CGT, Straussian theory, and constructivist theory was likely to continue, took a pragmatic approach. He felt that the many issues could be put aside if the researchers remembered the core objective of research: "The epistemological issues that separate different strands, or branches of the

GTM family, can then be set to one side provided that people's research writings do not seek to make strong epistemological claims: the ultimate criterion of good research should be that it makes a difference" (p.32).

If researchers accept that both Straussian and constructivist forms of grounded theory are forms of QDA, then it is not surprising that these forms of grounded theory have closer relationships to software programs that are more structured in nature. In reviewing potential computer-assisted qualitative data analysis software (CAQDAS) tools, it became evident that either a Straussian or constructivist revision of grounded theory was being applied. Welsh (2002), who is experienced in the use of software, warns researchers to take care that their research does not get driven by the attributes of the software, creating codes that add little or no value to the analysis of the data.

Rationale for Selection of Classical Grounded Theory Methodology

The purpose of this author's research was to review boards, their structure and leadership, to determine the impact of culture on the functionality of the board. Goethals, Sorenson and Burns (2004) identified CGT as the best suited methodology for the study of leadership. They acknowledged that other versions of grounded theory exist but argued that the core elements, as initially put forward by Glaser and Strauss (1967), offered an excellent process to study the influence between people and leadership processes. The methodology is not guided by a theoretical perspective, and one of its strengths is its flexibility. Martin and Turner (1986) identified the characteristics of the CGT as an effective tool in the study of organizations. They argued that as an inductive theory, discovery methodology could lead and facilitate desirable improvements in the workplace. Deady (2011), a user of CGT, found "other methodologies tended to have gate-keeping rules to prevent use of casual or serendipitous observations" (p.43). Deady went on to argue that the CGT method allows the literature review and researcher bias to become just another variable, without placing an unnecessary structure on the data. Unlike the QDA approach which has a fixed method of coding and memoing, the CGT process allows the researcher to be flexible in their memoing process and leads to greater theoretical completeness (Deady, 2011). Heath and Cowley (2004) have pointed out that qualitative research using grounded theory is a "cognitive process and that each individual has a different cognitive style. A person's way of thinking, and explanation of analysis, may seem crystal clear to someone with a similar cognitive style and very confusing to another person whose approach is different" (p.149). The selection of the methodology is always a difficult task for the researcher who must be aware of "what is the relationship between the world thought the researcher, the researched and the issue under investigation?" (Howell, 2013, p.14). For the researcher it is important to have a full understanding of the philosophy that the research method puts forward and to select the one that best suits all aspect of the study (Howell, 2013).

Each of the grounded theories discussed have merit and arguments could be put forward for each of the processes, but for this researchthe best approach that matches the goals of the research, as well as the cognitive style of the researcher, is the CGT approach. All researchers who consider grounded theory need to determine which type of grounded

theory best suits their purpose. Loy (2011) describes his frustration in researching various versions of grounded theory, including considering the mixing of two methods, before finally reconciling to the use of CGT. His selection of the CGT over both the Straussian and constructivist grounded theories was partly influenced by his exposure to the more detailed works of Glaser and Holton, many which have been cited within this paper.

As this paper demonstrates, there is a large volume of literature available on grounded theory, with many researchers offering to demystify the methodology by stating the fundamental tenets of grounded theory (constant comparative method, theoretical coding, sampling, saturation, and sensitivity) without explaining the differences that exist between methods. O'Reilly, Paper and Marx (2012), with passing comments on the history and splintering of grounded theory, offer excellent reasons for the use of grounded theory and the resulting benefits; but by cross referencing the various forms of grounded theory, they leave the novice researcher confused and no further ahead in understanding which form of grounded theory best suits their research. Much of the research published citing grounded theory does not identify which form of grounded theory is being used, and it is only by following the citations and coding methods that one can clearly distinguish the method used. Much of the "how to" type literature on grounded theory will use terms that are common to more than one type of grounded theory, and it is only by understanding the different grounded theory models that the reader can distinguish which model is being referred to. Draucker, Martsolf, Ross and Rusk (2007) presented a paper entitled "Theoretical Sampling and Category Development in Grounded Theory" which, on review, is only applicable to Straussian grounded theory and would have no place in CGT; both methods discuss theoretical sampling and category development but from very different positions.

The purpose of this paper was not to discredit other forms of grounded theory, but to put forward that CGT was the best fit for the combination of the topic of board culture and the researcher (Author, 2010). The aspects of CGT that created the best fit included the concept that the theory needed to come from the data and that literature review could be viewed as another aspect of the data. The inductive philosophy put forward by Glaser (2011) had direct appeal to this researcher. Walker and Myrick, in their detailed analysis on coding and process, concluded that "maybe it is more about the researcher and less about the method" (2006, p.558), a sentiment shared by Heath and Cowley (2004), Fendt and Sacks (2008), Bryant (2009), and Fernandez (2012). For the researcher it is not about which method is superior, it is more which one fits both the data and the researcher.

What has been outlined previously within this paper is a discussion of method differences as viewed by various grounded theory scholars. As put forward by Glaser (2011) in describing the teaching of grounded theory, it is important for those using CGT to focus on two aspects of grounded theory: "1. the nature of the area of interest and 2. the extent of the researcher's abilities and talents and temperament to handle initial conceptual confusion" (p.47). As described earlier, the method of coding is very different for each form of grounded theory. The board culture research successfully completed by this author only considered coding from the perspective of CGT, which is based on induction and has a multi-level application of abstract codes for each line of data. A line of data may be a

recorded transcript, or memos and notes taken by the interviewer, or any other form of data. Glaser defines coding as "conceptualizing data by constant comparison of incident with incident, and incident with concept" (1992, p.38).

In researching the various versions of grounded theory and having had the opportunity to read volumes of different studies some valuable lessons were learned from the perspective of a novice user of grounded theory. These learnings can be summarized asfollows:

1. Understand yourself and how you like to do research. Can you tolerate the lack of clarity at the beginning of the research journey?
2. Take the time to explore the details of the various versions of grounded theory and be constantly aware of signs of method slurring.
3. Approach the how-to grounded theory books with a great deal of caution, many speak the terms but do not walk the talk.
4. Manage your fear that you will end up with lots of interview notes but no theory. (Having had that feeling, it does go away)
5. Trust in the process but stay true to the course. (For those doing CGT, caving in and doing the literature review prior to substantial development of your theory will likely derail a potentially good theory before it has the opportunity to blossom.) The research on culture and boards lucked out in that the researcher was so focused on trying to understand the data when time was allocated to the literature review the board culture theory was taking form and the literature review only re-enforced why the theory was important for future research.
6. If a mentor can be identified, use him/her but ensure that their philosophy is in tune with both the researcher and research area.
7. Don't give up. The eureka moment does come but most experience it when they are close to giving up. Have faith in the CGT process when used as designed it generates fantastic results.
8. Linked to the previous point stay open and remember if you selected CGT it will generate a substantive theory.
9. If using CGT be cautions of software claiming it will aid in your analysis it can act as a block and not an enabler.
10. Finally keep referring back to the '*Fit*, *Understandability, Generalizability and Control'* as put forward by Glaser and Strauss 1967 it keeps you on track.

With hindsight, the decision to use CGT for board culture research was the correct decision. The focus was to try and understand culture as applied to boards and to use the researchers unique accessibility to the boardroom to determine if by using CGT a new theory could be developed allowing boards to become more effective. The answer was yes.

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Requirements Specifications and Recovered Architectures as Grounded Theories

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Abstract

This paper describes the classic grounded theory (GT) process as a method to discover GTs to be subjected to later empirical validation. The paper shows that a well conducted instance of requirements engineering or of architecture recovery resembles an instance of the GT process for the purpose of discovering the requirements specification or recovered architecture artifact that the requirements engineering or architecture recovery produces. Therefore, this artifact resembles a GT.

Introduction

The purpose of this paper is to show that well conducted instances of two different activities in Software Engineering, *requirements engineering* (RE) and *architecture recovery* (AR) resemble grounded theory (GT) processes. Each verifies the power of the classic GT process, as discovered by Glaser and Strauss (1967), to identify what is happening in a practical situation, producing a working GT of the requirements or architecture of a system. The aim is to point out some striking similarities between the classic GT process and software engineers' approaches to requirements engineering and architecture recovery, thus demonstrating how requirements engineering and architecture recovery practitioners might be producing working GTs.

The purpose of requirements engineering is to use whatever data are available, from documents to spoken words, to construct a *requirements specification* for a software system. The purpose of architecture recovery is to use whatever data are available, from existing code and documentation to spoken words, to construct a *recovered architecture* for an existing software system. This paper is *not* trying to invent a new form of the GT process, but is simply showing, by appeal to a description of the classic GT process, that what software engineers are doing in either of these two specific cases amounts to a GT process and that the artifact produced, a requirements specification or a recovered architecture, resemble a GT.

Section 2 describes the classic GT process and its resulting working GTs. Section 3 argues that two activities in Software Engineering, Requirements Engineering and Architecture Recovery, are GT processes. Section 4 describes related work, and Section 5 concludes the paper.

In what follows, an arbitrary GT process practitioner is without loss of generality assigned the male gender and an arbitrary requirements or architectural analyst is without loss of generality assigned the female gender. Note also that architecture recovery is a major and essential component of reverse engineering, whose common acronym, "RE" is identical with the acronym used for "requirements engineering". However, reverse

engineering includes steps that are not considered in this paper and is thus regarded as outside the scope of this paper.

2 Grounded Theory

The classic GT process is a method for developing grounded theories (Glaser & Strauss, 1967; Glaser, 1992), each of which is a theory about a named pattern of human behavior. In the 1960s, discomfort was growing with the application of traditional statistical methods to understanding and explaining social phenomena. The GT process was developed in response to this discomfort, and its purpose is to provide a means to gather detailed empirical evidence for theory that could be later subjected to traditional statistical empirical validation using controlled experiments or other means. The GT process is an adaptive research process for finding emergent theory that could not be anticipated in advance of the research. The researcher adapts the research process based on what he has learned from the data he has seen so far in order to pursue data that support the emergent theory. Therefore, not only is the theory emergent, but also the process and the set of data that are sought are emergent, as the researcher learns more and more about the phenomena involved and, thus, what data should be sought. Glaser (1992) says that *everything* is potentially data to the GT process practitioner.

The steps of an instance of the GT process are:

1. **Data collection**: collecting data about the phenomena to be modeled from a representative population,
2. **Coding**: coding the data in order to understand and categorize them,
3. **Sampling**: sampling the data by focusing on some categories,
4. **Memoing**: recording the data about categories found to be important into memoranda,
5. **Sorting**: sorting the memoranda by categories, and
6. **Writing up**: writing up the hypotheses that have been developed.

In remodeled versions of the classic GT process, Brower and Jeong (2008) provide more detailed kinds of coding, and Dick (2005) adds a note-taking step between Items 1 and 2.

Steps 2 through 4 repeat until a core category and a set of interrelated hypotheses deemed worthy of testing empirically are formed. While the steps are numbered in a particular order—the order even makes sense, because nothing can be written up until there is something to be written up—the reality is that dynamism reigns. In the middle of doing one step, one might see the opportunity for information requiring initiation of a different step. Hence, the steps can and do happen simultaneously.

A GT process practitioner immerses himself in an instance of the method, observing, with as little prejudice as is possible, what is happening, and drawing conclusions supported by his ongoing observations. Ideally, the GT process practitioner should begin the GT process with no hypotheses that he hopes to prove, in order to avoid being swayed (1) into seeing things that are not there and (2) into missing things that are there. In reality, totally avoiding opinions is impossible, but he should be aware of the opinions he does form, in order to keep himself honest. Moreover, he must clearly state his opinions in any write-up so that others can understand from where his decisions came (Walsham, 1995).

3 Requirements Engineering and Architecture Recovery as GT Processes

Software Engineering concerns itself with methods and processes for the development of software-intensive computer-based systems (Sommerville, 2007), hereinafter called

"programs".

Requirements engineering is the discovery and construction of requirements for a program that a client needs and wants from the very incomplete and inconsistent information provided by the client and the client's employees and associates, who will probably be the program's users (Robertson & Robertson, 2006; Gause & Weinberg, 1990). Indeed, this information may be so incomplete and inconsistent that the requirements engineering effort may include determining *what the problem is* that the program is supposed to solve, particularly if the problem is wicked (Rittel & Webber, 1973). It is generally not clear up front what information in addition to that supplied by the client will be needed. Thus, requirements engineering may include significant unstructured information gathering from the client's organization, including research into the problem itself. The sources of information can be any of the following:

- written documents,
- questionnaires,
- conversations with clients and users,
- interviews of clients and users,
- brainstorming sessions with clients and users,
- focus groups with clients and users,
- developing scenarios (storyboards) with clients and users, and
- walking through prototypes with clients and users, and
- even inventive inspiration,

about the way the problem is solved now, about the future program, or both. It is understood in requirements engineering that requirements are both discovered, by elicitation, and constructed, by invention (Robertson & Robertson, 2006; Gause & Weinberg, 1990). In other words, as with the classic GT process, *everything* about the problem or program is potentially useful information.

Architecture recovery occurs much later in a program's lifecycle, after it has been deployed for long enough that many of the original developers are no longer around or have forgotten many details that drove the original development, including the program's underlying architecture (Chikofsky &, Cross, 1990) and the rationale for it. If the program must now be changed in some way, the changes must respect the forgotten architecture. Therefore, it is necessary to recover the program's architecture and the rationale for the architecture from a detailed and thorough examination of the program's code and any other available related artifacts. This recovery is very much detective work, relying on intuition and experience about how code, in general, works and some lucky discoveries. The sources of information can be any of the following:

- the current and past versions of the code,
- comments in the current and past versions of the code,
- documentation about the current and past versions of the code,
- interviews and conversations with current and past designers and developers, and
- e-mail messages sent during current and past work on the program,

whether correct or not. Here again, as with the classic GT process, *everything* about the current and past versions of the program is potentially useful information.

It has occurred to us that:

- requirements engineering can be done in a way that resembles using a classic GT process to discover and construct requirements of the program that its client needs and wants, and
- architecture recovery can be done in a way that resembles using a classic GT process to discover and reconstruct the architecture of the program being examined.

A consequence of this observation is that

- the requirements specification that results from a requirements engineering effort resembles a GT, and
- the recovered architecture that results from an architecture recovery effort resembles a GT.

The classic GT process steps can be applied directly to requirements engineering and to architecture recovery. All that are changed are the subjects examined and the artifacts produced. As with any other GT construction effort, it is best that the requirements analyst or architectural analyst avoid having preconceived ideas of the outcome.

3.1 Requirements engineering as a GT process

Requirements engineering has as its purpose to discover requirements for a program to be built by developers at the behest of a client for the benefit of users (Robertson & Robertson, 2006). In requirements engineering for a program, the requirements analyst initially has a vague notion of the program's requirements, i.e., what the program is supposed to do. By reading requests for proposals, vision documents, and other written materials supplied by the client of the program, by talking with the client, users, or both, of the program, the requirements analyst begins to build a mental model of the program to be built. Each mental model must be both validated and refined by asking questions of the client and users. The questions that are asked at any time are derived from the mental model that has emerged so far. That is, the requirements analyst asks follow-up questions to clarify what he has learned already and to test emerging hypotheses.

While the typical requirements analyst may not specifically follow the six steps of the GT process, she normally does every step in some form, possibly in a different order and possibly in parallel, *as is allowed in the classic GT process*.

The requirements engineering variants of the steps of the GT process are:

1. **Data collection**: collecting requirement ideas from (1) a request for proposals; (2) vision documents; (3) interviews of clients and users; (4) client and user reactions to draft scenario descriptions, draft requirements specification sections, models, prototypes, etc.; (5) etc.,
2. **Coding**: (1) classifying requirements as functional or nonfunctional; (2) ranking requirements by necessity, desirability, feasibility, costs, etc.; (3) determining stakeholders affected by and affecting each requirement; (4) clustering requirements into feature groups; (5) etc.,
3. **Sampling**: asking customers and users follow up questions about the various codings of requirements ideas,
4. **Memoing**: writing stories, scenarios, requirements specification sections, etc.,
5. **Sorting**: sorting the memoranda by categories, and
6. **Writing up**: writing up the final requirements specification.

Thus, the resulting requirements specification, which is a reflection of human-made decisions about the expected behavior of a program that meets human needs, *is* the working GT. This requirements specification may take any of several possible forms, including those of a formal specification written in some mathematical notation (Bowen, 1996), an IEEE-standard Software Requirements Specification (SRS) written in mostly natural language (IEEE, 1998), and a preliminary user's manual written in mostly natural language (Berry, Daudjee, Dong, Fainchtein, Nelson, Nelson, & Ou, 2004).

Recall that the GT process provides a way to gather detailed empirical evidence for theory that could be subjected later to traditional statistical validation using, e.g., controlled experiments. There is a correspondence to even this follow-up experimentation in

requirements engineering! Very often, a prototype or early version of the program under development in a requirements engineering effort is subjected to usability studies. Some of these studies are conducted as controlled experiments. Even if there are no usability studies, no matter what, the final program is subjected to the most externally valid experiment possible, albeit possibly not controlled, of its acceptability to users: deployment among users, for bespoke software, or release to the market, for mass-market software. The lack of controls in deployment or release experiment is irrelevant, because the purpose of controls is to ensure that the small sampling of a normal experiment reflects the real world. A deployment or release *is* the real world.

With the application of the GT process, requirements engineering for a program becomes an interpretive and collaborative effort to develop a contextual and in-depth working GT about the program that a client needs and wants. The program's requirements should be constructed jointly by the developers and the client and users so that the clients and users will be motivated to support and use the program when it is finally built (Ramos, 2000). As with any other GT, this working GT must be validated. This validation consists in having the client and the users accept the requirements specification as specifying their collective requirements. Generally the client and users participate in a walkthrough of the requirements specification during which users' scenarios are exercised according to the specifications to see if what is specified is what the client and users want.

3.2 Architecture recovery as a GT process

Architecture recovery has as its purpose to determine a useful and reasonable model of the software architecture of an existing program (Chikofsky & Cross, 1990). Although architecture recovery is sometimes called "architecture extraction," that term is misleading, in that an explicit architectural model of a program commonly exists neither in the actual program nor in its documentation. Moreover, the architecture often does not exist even in the minds of the developers. Architecture recovery typically begins by searching for hints or descriptions of the architecture, such as might exist in any documentation of the program. Often, no such or poor documentation exists. The search may include interviewing any of the program's software architects and developers that are still available and other key stakeholders. The source code of the program may be analyzed manually, using fact extractors that automatically create a graphical representation of the code, or both.

The architectural analyst carrying out this analysis generally begins understanding neither the target architecture nor the best way to discover this architecture. Rather, she follows what is essentially a classic GT process. She gathers more and more data about the program and develops, in an emergent fashion, what is hoped to be an increasingly useful and detailed model of the architecture of the program (Holt, 2002). Involving developers in the recovery helps in two ways: The developers can provide intimate knowledge of the implemented program and at the same time, can direct the creation of a model that is more likely to be useful to the developers. As the architecture recovery proceeds, the analyst makes decisions on the fly, (1) that modify what she is doing to deal better with the data gained so far and (2) that refine the emergent model of the program's architecture.

The architecture recovery variants of steps of the GT process are:

1. **Data collection**: (1) collecting any reports that may document the program's architecture or aspects of it; (2) interviewing key stakeholders about the architecture; (3) inspecting the source code, manually or with tool support; (4) interacting with the running program, often using an interactive debugger or other instrument; (5) etc.
2. **Coding**: classifying collected information as essential or coincidental to the architecture, determining aspects of the program which have importance to the

stakeholders and to the architecture, preliminary division of the program into upper level subsystems, etc.

3. **Sampling**: (1) probing the source code, or any preliminary graph model, to see if any proposed decompositions are reflected in the actual implementation; (2) asking stakeholders if a proposed decomposition is useful and intuitive; (3) etc.
4. **Memoing**: (1) writing up preliminary descriptions of modules or components; (2) preparing preliminary diagrams of module or component interactions, as determined thus far; (3) etc.
5. **Sorting**: (1) collecting and sorting the various data, descriptions and diagrams, along with collected motivations, toward formulating an model of the overall architecture; (2) etc.
6. **Writing up**: writing up a description of a determined model of the architecture, including motivating rationale, top-level decomposition into subsystems, description and documentation of those subsystems, and further descriptions and decomposition as appropriate to the program.

Thus, the recovered architecture, which is a reflection of the human-made architectural decisions made during the initial construction and at each modification thereafter, *is* the working GT. The recovered architecture may take any of several possible forms including that of a collection of diagrams and code fragments, accompanied by a natural language description (Bachmann, Bass, Carriere, Clements, Garlan, Ivers, Nord, & Little, 2000), with the diagrams in the form of UML class or object diagrams (Booch, Jacobson, & Rumbaugh, 1998).

Architecture recovery is, therefore, a collaborative effort for developing a working GT about the architecture of a program. Some elements of this working GT, e.g., the code facts, are discovered by examining the program, and some other elements, e.g., the architecture, are constructed by thinking about the discovered facts. This working GT must be validated by showing the recovered architecture to all of the code's developers that are available for consultation.

As mentioned, the main purpose of recovering an architecture for a program is to be able to make needed modifications to the program. The recovered architecture tells the modifying developer where, in the program's code, the changes need to be made. A very effective validation of the correctness of the recovered architecture is that the modifications proceed straightforwardly.

4 Other Work

The GT process has been used extensively to develop theories explaining social behaviors of all kinds (e.g., Glaser & Strauss, 1967; Glaser, 1992; Jeong, 2006; Pershin, 2006), even in technical disciplines such as software engineering (e.g., Walsham, 1995; Carver, 2007; Coleman & O'Connor, 2006 & 2007; Hoda, Noble, & Marshall, 2010; Adolph, Hall, & Kruchten, 2011), requirements engineering (e.g., Calloway & Knapp, 1995; Johansson & Timpka, 1996; Galal & Paul, 1999; Ramos, 2000; Galal, 2001; Power, 2002; Lang & Fitzgerald, 2007; Breaux & Antón, 2008), and architecture recovery (e.g., Sillito, Volder, Fisher, & Murphy, 2005; Briand, 2006; Kapser & Godfrey, 2006; Sillito & Wynn, 2007). We call these uses of the GT process *methodological uses* because they study methods.

While there is much empirical work, including using the GT process, about requirements engineering and architecture recovery methods, in order to understand requirements engineering and architecture recovery, to the authors' knowledge, there is very little other work that specifically describes either requirements engineering or

architecture recovery as an empirical method itself. For example, Galal and Paul (1999) describe one part of requirements engineering as a GT process when they presented GSEM (Grounded System Engineering Methodology), a grounded analysis method for "developing qualitative scenarios against which statements of requirements can be evaluated". Gold and Bennett (2002) offer Hypothesis-Based Concept Assignment as a way of assigning meaning to code fragments by pairing concepts, i.e., meanings, with indicators, i.e., evidence in source code. The discovery of an indicator serving as evidence for a concept is called a hypothesis. It is not unreasonable to view this hypothesis generation as another instance of the GT process in architecture recovery. Weber (2010) used the GT process in order to determine the set of typical users for the privacy-and-security relevant portions of arbitrary CBSs from quotations gathered during interviews of 32 such users. She identified five different types of users and describes each as a persona. The set of personas are intended to inform requirements engineering for the privacy-and-security relevant portion of any program to be developed. That is, requirements analysts internalize the specifications of the personas in order to be able to answer questions that arise during requirements analysis without having to keep a set of users continuously available for questions during the analysis. Teixeira, Ferreira, and Santos (2010) describe as a GT process the data collection part of the user-centered requirements engineering that they did for a Web-based information system for managing the clinical information in hemophilia care.

5 Conclusions

Requirements engineering for a program can be viewed as a GT process for the purpose of discovering the program's requirements, and architecture recovery for a program can be viewed as a GT process for the purpose of discovering the program's architecture. In brief, the GT process provides a systematic description of the activities of requirements engineering and architecture recovery, which might otherwise seem to be random searches. Consequently, the requirements specification emerging from a requirements engineering effort or the recovered architecture emerging from an architecture recovery effort resembles a GT and must be subjected to validation in a manner appropriate for the artifact.

The emergence of the information that requirements engineering or architecture recovery normally finds is consistent with considering requirements engineering and architecture recovery as GT processes. In each of requirements engineering and architecture recovery, not only is the final product of the activity emergent, but also the way in which the final product emerges is emergent. This observation says that any attempt to standardize requirements engineering or architecture recovery methods is unlikely to succeed.

That being said, it should be emphasized that the artifacts produced by requirements engineering and architecture recovery efforts are not GTs as defined by GT academics. Neither requirements engineering nor architecture recovery practitioners work under the banner of a classic GT process. Important aspects of classic GT generation, such as the constant comparative method, conceptualization, and the interchangeability of indicators have not been discussed in this paper. However, we found it a valuable exercise to compare similarities between the classic GT process and the problem solving that occurs in software engineering's requirements engineering and architecture recovery.

Author Berry has often said in his requirements engineering courses that each problem seems to beget its own requirements engineering method. Certainly, he never predetermines how he will discover any particular client's requirements. He listens and

adapts his methods to the emerging situation. Our reading of the requirements engineering textbooks by Gause and Weinberg (1990) and by Robertson and Robertson (2006) suggests that each of these authors operates in the same way. Cockburn (2000) agrees for the entire lifecycle, not just requirements engineering.

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Book Review:
Ditching Description: From Data to Abstraction

Susan Stillman, Director of Ed for Six Seconds

Barney G. Glaser (2013). *Getting Out of the Data: Grounded Theory Conceptualization*, Mill Valley: Sociology Press

Overview

In the first chapter of this book, Glaser explains his purpose to help the researcher use the constant comparative method to discover and name patterns in the data, relate them to each other, generate a "conceptual hypothesis" (p. 2), and allow a multivariate substantive theory to emerge around a core variable. The first sentence demonstrates his intent to help the reader in "getting out of the data" into "conceptualization" (p. 1). In preparation for writing this review, I showed the book to a friend who has only a passing familiarity with grounded theory (GT). His immediate reaction upon reading the first sentence was to ask me whether the reader was already supposed to know what "getting out of the data" and "emergence of conceptualization" meant. "All is data" (p. 67) and what good data for me, the reviewer!

I had made an assumption that all readers who picked up this book would understand the language used, and my friend's comment made me realize this might not be the case. This small volume is probably not the book for a casual reader with some curiosity about GT. Glaser's stated audience is the dissertation researcher, whom he believes would have the most energy, interest, and motivation to preserve the fidelity of classic GT (p. 4), and, therefore, would be looking for additional insights and strategies from newer works. This current book is intended as a "synopsis" (p. 1), to be supplemented by reading Glaser's other works. Glaser's process, familiar to his readers, is to do GT, not just write about it. Glaser states, "This book will be a GT of GT use, as is my usual style" (p. 2).

In *Getting Out of the Data*, Glaser emphasizes, as he has done since 1965, the importance of constant comparative analysis for getting to conceptualization, and offers "help in getting out of the data" (p. 2). Help comes in the form of his always evolving thinking on both constant comparative methodological steps such as eliminating preconceptions, collecting data, coding and naming patterns, and in his discussion of the underlying competencies needed for GT method success, such as motivation, patience, and the ability to tolerate ambiguity. In this regard, Glaser shares his recent thinking on blocks to conceptualization, with specific suggestions and motivational support for getting through these obstacles successfully.

In preparing to write this review, rather than employ a linear chapter by chapter approach, I used the "skipping and dipping" (p. 75) method to memo and categorize ideas that caught my attention. I've called the first section Back to

Basics, as Glaser deepens aspects of constant comparative analysis familiar to many readers. In the second section, Blocks and Counter Blocks, I focus on these newer valuable additions to Glaser's established repertoire of directives to researchers.

Back to Basics

Term clarification: As an experienced teacher of GT methodology, I have often fielded questions on the meaning of common GT terms. Glaser provides a worthwhile clarification of these terms when he reiterates that code, category, property, and concept are all synonymous names for patterns. I have had students stressed by their attempts at distinguishing between them, and this clarification will help. Glaser also refutes the use of non-GT terms, such as findings. "Treating a code as a finding is a misnomer " (p. 61). Validity is another concept often misunderstood by GT students, and Glaser reminds the reader that GT is concerned only with grab, fit, relevance, workability, and integration, not proof. Similarly, Glaser does not skirt around QDA-like terms. He succinctly pronounces, "notions of objectivist, constructionist, subjectivist, reflexivist...are just irrelevant for GT. They are notions relevant only for QDA description" (p. 68).

Preventing preconceptions: In Chapter 3, Glaser provides an extensive explanation of preconception through careful attention to open questioning, open coding, and temporarily setting aside both literature and professional or ideological biases. He highlights the joy and autonomy in staying open to what participants are really working on. He stresses the conflicts that may arise when one's GT analysis is not in sync with prevailing principles and beliefs in one's field of study. Glaser explains that the "jargonized multiple version view of GT" (p. 2) does not have the same directives, and by using preconceived concepts or questions, the researcher does not stay open "to what is really going on" (p. 27). Glaser reminds the reader of the importance of studying not "what ought to be" but "what is" (p. 28). One significant point for me regards the application of GT in the world beyond the dissertation. Glaser stressed that in many fields, such as education, health care, and management, effective leaders must be attuned to the importance of not preconceiving what their clients or customers want. The value of a GT trained analyst in any organization should not be underestimated.

Naming patterns: Throughout this book, and in the dedicated chapter 6, Glaser shares ways to sharpen skills in naming codes and expounds on what patterns are and how to name them, thus moving from descriptive to conceptual. He cites Simmons, who said, "codes are abstractions of patterns, not mere descriptive summaries" (p. 17). Having a repertoire of substantive code names aids in one's ability to "get it" and think conceptually. In our GT summer sessions at Fielding, one exercise we used to do involved having participants say their "favorite" core variable, from past GT studies. Not only did this encourage familiarity with published GT research, it also helped students become familiar with naming patterns and excited at the possibilities for their own theory development.

In chapter 6, Glaser discusses the use of gerunds in naming patterns and the danger of forcing gerunds or over-gerunding (p. 52). In the same chapter, Glaser explores issues associated with using in-vivo codes. Glaser ends by commenting on a question that students frequently ask. Once a core category is established, and selective coding begins, does the analyst use that named category in the grand tour question of future interviews? Glaser adamantly replies that one must keep to the respondent's "drift and emotion WITHOUT mentioning the name of the new core category to distract or bait them out of their venting" (p. 58). Appreciating the directness of his response, I feel this question could bear more discussion.

Trust in emergence: Knowledgeable readers will know that emergence means emergence of conceptualization and that the path to conceptualization is through constant comparative analysis (p. 1), but, in this volume, Glaser takes a fresh look at this important GT concept, a way out of the "fear zone" (p. 88). "Trust in emergence" (p.1) is a mantra that must continually be revisited. Students often tell me that when they return to a concept in one of Glaser's books, after not understanding it earlier, it gradually, or sometimes suddenly, begins to make sense. I believe that "trust in emergence" is not only trusting the constant comparative process, but trusting also one's training and one's ability to develop skills experientially and incrementally.

Resist succumbing to one-incident codes: In the first few chapters, Glaser repeats the familiar exhortation to look for interchangeable indicators that show a pattern and to not succumb to the descriptive proliferation of one-incident codes. Glaser emphasizes that one indicator does not a pattern make. In my experience, students often end up with dozens of codes, because they create them from single indicators, rather than using the constant comparative method to pare down to the relevant, precise pattern name that has the most imagery and grab. This advice helps students to not get mired down in particularistic qualitative data analysis (QDA)-like description; it gives students something to guard against.

Accepting one's limitations: Glaser (2004) wrote:

> A researcher requires two essential characteristics for the development of theoretical sensitivity. First, he or she must have the personal and temperamental bent to maintain analytic distance, tolerate confusion and regression while remaining open, trusting to preconscious processing and to conceptual emergence. Second, he/she must have the ability to develop theoretical insight into the area of research combined with the ability to make something of these insights. He/she must have the ability to conceptualize and organize, make abstract connections, visualize and think multivariately. (pp. 9-10)

The ability to conceptualize is a primary characteristic of a successful GT researcher. I have had many students struggle with conceptualization and others for whom it comes naturally. Conceptualization can be developed through incremental learning (Simmons, as cited in Glaser, 2011, p. 38). That's good news for students and their GT trained mentors. A caveat — learners must not get assistance from

non-GT supervisors, as this will derail their emergent understanding and process development.

While many people can be taught to conceptualize, Glaser insists that conceptualization is not for everyone. This is a powerful statement worth more discussion. Do people self-select to do a GT study? Do they do so because they know that they already conceptualize naturally? What if they are not aware of their limitations? In my experience, many students do not realize their conceptual shortcomings until well into their study. Glaser advises returning to QDA if one experiences continued difficulty in conceptualizing, but, for dissertation students who have already written proposals and IRBs, this is easier said than done. Students must also tolerate confusion and to tolerate "confusions [sic] attendant regression/depression at times" (p. 22). An experienced mentor may be needed to assist a student in evaluating his or her abilities in these three and other related abilities and accepting limitations.

Valuing the preconscious: Related to tolerating confusion and trusting in emergence, the preconscious is an important precursor to conceptualization. Glaser instructs researchers to, again, trust in emergence and allow the preconscious to do its work. According to Glaser, submitting to preconscious processing obviates the need to preconceive. Further discussion of this concept would be worthwhile in future works.

Jumping in and jumping out: The way to learn is to let go of preconceptions and jump in, or as Glaser says, " just do it" (p. 16). It takes courage to jump in and stay motivated through confusion and blocks. It also takes skill to terminate the constant comparative method when theoretical saturation is reached. After open coding, many GT researchers find themselves overloaded with potential core variables. I found it refreshing that in the discussion of code overload, Glaser advises the researcher overwhelmed by too many codes to "take a chance" on a core category to prevent "over-coding and to get to a parsimonious substantive theory" (p. 8). Glaser advises the researcher recognize the many codes that may not fit the core variable and file them away for a later study.

Writing it up: In a brief but powerful chapter, Glaser reviews some key points about writing. He directs the reader to earlier extensive literature on writing (1978) and to his Appendix, a detailed examination of conceptual writing issues, directives, and strategies, also found in Glaser (1998). Conceptual writing is a logical re-ordering of memos from a memo bank, sorted and related to each other and to a conceptual code, the core variable, and often to a theoretical code. Many a student can come up with excellent pattern naming and write conceptual memos, but will not carry over the conceptual rigor to the actual dissertation. Experienced GT mentors can help students keep their GT writing concise, logical, and focused on concepts not description. Glaser's two conceptual writing rules, "think theory write substance" (p. 109) and "relate concept to concept instead of concept to people" (p. 109) are worth further exploration.

Blocks and counter blocks

Recognizing blocks: In the second portion of this volume, Glaser addresses blocks to conceptualization, reiterating many earlier points in the volume. He provides a substantial list of blocks, with the intention to focus attention and thought and help readers avoid or handle them with a variety of GT-tested strategies. A partial list of blocks follows:

> Authoritative blocks, preconceptions, inability to adequately conceptualize, the initial confusion and regression, multi-version view of GT, QDA requirement blocks, data collection overload, peer reviews, dealing with jargonizing GT, and being a novice both in experience and in scholarship with GT. (p. 83)

The erosion of classic GT by remodeled GT is a familiar theme in Glaser's writing, yet here, Glaser alludes to its detrimental influence on conceptual coding. Glaser reiterates that not only researcher predilection for QDA, but also prior academic training, often makes the GT method more difficult and confusing for novices, due to the "many positivistic rules and methods procedures for description that inhibit their openness to knowing and that keep them preconceiving" (p. 40).

Glaser's responses to quotes from social constructivists are fascinating for elucidating the repeated concerns that may derail GT students. In one example, Glaser replies to the frequent QDA admonition that all meanings are co-created.

> Quote: "constructionists acknowledge the mediating role of how categories and concepts are constructed by the interviewer and respondents as co-producers of knowledge."
> My Comment: Thinking about this statement would block anyone from coding. It sews [sic] doubts about codes using the cc method for abstraction in favor of accurate description, if ever achieved without argument doubts. It puts more block on abstract coding by emphasizing coverage of descriptive data and worse yet, by emphasizing the particularism of each individual respondent, so impossible to generalize. If a bias exists in any one interview, it is just another variable to be conceptualized. It is hard to jump into GT conceptual coding thinking about all this, which has a series of descriptive concerns with no realization that GRT coding follows a pure, variable conceptual track. (pp.101-2)

Students will be familiar with many additional blocks noted by Glaser: "School PhD requirement structures, PhD formats, department structures and perspectives, inexperienced GT professors as supervisors or external critics, preconceptions from many sources, IRB requirements…tape recording..." (p. 100). Glaser's comments will be useful to students who have had to defend their codes to dissertation committees who demand quantifiable responses to "how many participants said this?" Having to report "findings" to dissertation committees is still a reality for many GT learners. The encouragement to GT students to keep away from "validity" and "proof" concerns and rather focus on "fit" and "relevance" may help writers prepare their dissertation drafts for committee review.

Glaser also responds to the perennial question about recording interviews, which he views as another block to conceptualization. Whether or not one records, Glaser urges the analyst to take field notes for immediate coding and not get bogged

down with waiting for transcriptions. He also invokes "all is data," and urges the student to use every opportunity for data gathering, whether in casual conversation, observations, or events, without worrying about IRB approval, which would be virtually impossible to get.

In my experience, skilled GT supervisors can help students shape their proposals and manuscripts into whatever preconceived university template is required, without sacrificing the basic tenets of GT. This concern could use even more detailed advice, perhaps in future volumes, from mentors who have shepherded GT dissertation students to successful completion at universities with strict structuring requirements.

Countering blocks: The inclusion of indicators of conceptual blocks is perhaps the most important contribution of this volume. Normalizing these issues, as Glaser has done, should help GT researchers to not feel personally at fault if they encounter a block.
Not only must one acknowledge blocks, one must be able to overcome them. The following list of attitudes and strategies summarize the skills needed.

1. skill of tolerating ambiguity; willingness to not know
2. ability to let go of preconceptions
3. acceptance of the occasional depression/regression when one feels stuck
4. ability and motivation to conceptualize
5. patience
6. ability to overcome fear
7. willingness to put aside issue orientations of everyday life (p. 83)
8. orientation to resist authoritative guidance
9. personal pacing
10. avoidance of speculation and meaning making
11. seeking out knowledgeable GT mentoring

Motivational support

Motivation to do GT begins with excitement for discovering what is really going on, yet, to sustain it, one must be aware of potential blocks and adopt strategies to avoid and overcome. Glaser explains that success in generating preliminary codes seems to aid most researchers in developing confidence. Glaser references Holton's cogent explanation of how successful attempts generate motivation (p. 41) and Simmons, who wrote "the 'aha' moments of experiential coding generate excitement and a feeling of satisfaction that provide motivation and keep the learner moving forward in the learning process" (p. 38). Another source of motivation is the idea that people pattern naturally. Glaser might expand on this concept, exampling and encouraging practice in naming daily patterns, to give additional comfort to those who are less sure of their coding ability.

I was pleasantly surprised to note Glaser's strong support for online GT groups. Several years ago, Glen Gatin and I, both former students of Odis Simmons, initiated an online group to support GT students at our university. As students completed their dissertations and new students joined, the group evolved into a self-directed, self-empowered learning community, able to provide sound, consistent assistance and clarity to its members as they navigate doing GT. Yalof (2012), a group member, discovered the core variable, Marshaling Resources that explains the process whereby online learners create their own supports, in direct relation to the absence of institutional resources, as many students do who join online groups. "Exampling makes for strong motivation to code and generate discoveries" (Glaser, 2011, p. 21). This group's work together constitutes a form of exampling, wherein students learn from each other's struggles to navigate the constant comparative method. Motivation is lent further momentum by the successful completion of other students in the group and their continued resourceful support.

In conclusion

Some of the most interesting aspects of this book are not necessarily new ideas, but strengthened, reflective sections on many topics that Glaser has previously written about. The focus on conceptualization, pattern naming, and the motivation and skills needed to overcome blocks are the highlights of this work. Glaser's response to comments about both the GT process and QDA methods are extremely enlightening.

The processes of online group support might well be expanded in further work. As additional assistance to the struggling conceptualizer, I would like to see descriptive codes and conceptualization displayed side by side next to the same passage of text, with Glaser's expert commentary. An index and editing to correct typos would be a worthwhile addition to this inspiring, highly recommended book. In my opinion, not only dissertation researchers, but also all GT readers, who want to deepen their conceptual understanding, experience Glaser's matchless tone, and enjoy his response to comments and questions, would do well to delve into this volume.

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Book Review: Stop, Write

Hans Thulesius, University of Lund

Stop, Write: Writing Grounded Theory. Barney G. Glaser (2013). Mill Valley: Sociology Press

This book on writing grounded theory is intended for the empirical GT researcher who wants to pursue his/her research until publication. It is the first book devoted entirely to such a crucial issue as writing grounded theory. Thus, Stop, Write: Writing Grounded Theory, is a practical book that fills a gap in GT methodology. In the first chapter of the book, Dr. Glaser says, "Stop unending conceptualization, unending data coverage, and unending listening to others who would egg you on with additional data, ideas and/or requirements or simply wait too long". The book teaches the reader how to actually write a grounded theory by "simply" writing up the sorted memos. This requires efficient sorting that is dealt with in chapter two on Sorting Memos, which includes precious repetition from Theoretical Sensitivity (1978). How writing can be done effectively is outlined in chapter three, The Working Paper. Then follows chapter four on how to rework the first draft with the different tasks of editing for language and professionalism. Thereafter, Dr. Glaser discusses Writing Problems in chapter five where he gives useful guidance on how to overcome writing blocks and problems with supervisors and dissertation committees. The book also deals with publishing and with collaboration as experienced between Barney Glaser and the cofounder of grounded theory, Anselm Strauss.

Another book from Dr Barney G. Glaser. So, why should I read this one when I haven't read all the others, the reader might ask himself. From my perspective, one should read those books that one's grounded theory interests require. And if you do grounded theory research or if you teach grounded theory, the requirements may be different. Yet, both doers and teachers should get this book in order to optimize their GT skills. Eventually this book is a necessity for the committed GT scholar.

Glaser analyses field notes taken during seminars and in his communication with grounded theorists worldwide. That is why this book eventually was written up from memos generated during years of seminar and mail interactions with grounded theory researchers. Dr. Glaser has apparently, in his data, seen a void that needs to be filled regarding writing GT, instead of just going on collecting data and generating concepts. Many are those PhD students using grounded theory that "outgrow their substantive GTs" (a pattern presented in this book), "grapple with worrisome accuracy," restraints of dissertation committees and keep collecting data and generating new concepts instead of pursuing the write up in order to get their PhD ready.

If it takes too long to reach the stage of writing, the joy of doing research risks getting lost and researchers may tell themselves – never again a research project using GT, which they sense is tedious and hard. Many researchers with grounded theory PhDs later lose the motivation for pursuing another project because it took too long to finish the first one. But

since the learning curve of the method is quite long, the best way to get over a post PhD low is to start a new project. This is emphasized in the chapter on writing problems, and is a way to avoid "outgrowing one's SGT." The best way to learn grounded theory is to do it. But, doing requires knowledge on how to, and that is where Dr. Glaser's books come in.

Writing grounded theory is different from writing other types of research since in grounded theory you write theory already in your first memos. The beauty of GT is that you may use written ideas that have come up during coding your field noted data already from day one. In grounded theory, written ideas are called theoretical memos. They are often modified at later stages but nevertheless the written ideas in the memo bank are the most important properties of grounded theory data. So, writing grounded theory starts with writing memos, but writing up a grounded theory first demands that these memos be sorted. Thus, how to sort is a very important part of this book. In fact, a subtitle could have been added, "Sorting and Writing Grounded Theory." Proper sorting is such a vital requisite when writing up a grounded theory explaining with much variation how people in a substantive area resolve their main concern.

And sorting is not easy. It can be hard and confusing. The sorting confusion might be even worse than the confusion at the open coding stage. Part of the sorting confusion can be overcome by reading this book. Just be aware that not all confusion can be eliminated, since confusion is part of the method. Confusion triggers the preconscious processing that takes care of assimilating ideas and parts of ideas into an integrated whole. And the preconscious processing is eventually tapped, developed and registered in memos.

The sorting chapter of this book contains modified sections of the sorting chapter in Theoretical Sensitivity (Glaser, 1978). The section on analytical sorting rules is almost entirely taken from Theoretical Sensitivity and it helps to try some of these rules when sorting your memos. I say try, since in grounded theory these analytic sorting rules are emergent as you sort. That is why Dr. Glaser calls his list of rules guides and the researcher is encouraged to "skip and dip through the obvious rules." Eventually, new rules will emerge applying to the researcher's particular study.

This book also deals with overcoming writer's blocks. One way of overcoming blocks is to write a working paper without any constraints re style and language. The chapter on the working paper is therefore vital for hesitant writers. A working paper is good for a sorting goal and the sorting levels rule comes in handy here. The sorting levels rule means to sort concepts on at least three different levels depending on type of publication. For a traditional scientific paper in the nursing and medical fields the sorting is then done for the abstract, the introduction, methods, results and discussion sections.

Problems of writing are divided into personal and structural blocks in the chapter of Writing Problems. Personal blocks of writing primarily present the pattern "outgrowing of one's substantive GT," which is closely related to writing as having a "love affair" with one's SGT, which then never gets written. The best recipe on how to overcome the outgrowing block is to start a new SGT project. I never forget the advice Dr. Glaser gave me in 2003 after I had finished my first grounded theory on balancing cancer care as a part of my PhD. He told me

to go on generating new concepts, doing new GTs, and so I did. Dr. Glaser recognized that I had fallen in love with my GT and the best way to move along was to start a new project.

Then Glaser deals with fear of writing and performance anxiety. The section on structural blocks guides the reader on how to overcome dissertation committees, deal with authoritarian supervisors, and how to pick an appropriate supervisor with examples from Dr. Andy Lowe, one of Glaser's most ardent students. The chapter on publishing gives advice on where to publish, writing tips on format and style, and discusses different peer review procedures. It also includes a section on how to bring in the literature in the written grounded theory product.

The last chapter, on collaboration, contains a 12-page section on properties of the collaboration between Barney G. Glaser and Anselm Strauss. Apart from advice on how to collaborate in research, the chapter provides treasured insights into the history of the development of grounded theory as a sociological project. Glaser learned from Strauss that a book is just part of a larger "program" or "work" that requires several books over a period of twenty to thirty years. This grounded theory project, program or work is now by far the most cited in the world when it comes to research using qualitative data. On June 19, 2013 "The Discovery of Grounded Theory – Strategies for qualitative research" by Glaser & Strauss yielded 52.452 citations in Google Scholar. As a comparison, Strauss & Corbin (1990) gets 31.888, Patton (2005) 24.856, and Denzin & Lincoln (2005) 23.129 citations. This does not mean that grounded theory is good for everything or liked by everyone. In the chapter on publication Glaser reminds the GT researcher to be prepared for the 1/3, 1/3, 1/3 phenomenon. 1/3 will like the paper, 1/3 will not care, and 1/3 will brutally criticize it. The trick is to find a large enough audience who likes your written GT product. This book will help you with that endeavor!

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