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A STRATEGY FOR CONSTRUCTING MULTIPLE GROUNDED THEORIES: THE CONSTRUCTIVIST APPROACH

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Abstract:

Grounded theory methodology is perceived as challenging due to its systematic and rigorous process. However, this is because most people do not realize that the strategies used in the grounded theory data analysis process are used by laypeople and professionals regularly, if not daily. This article aims to help others interested in grounded theory with a background in qualitative data analysis feel comfortable engaging in the methodology and constructing multiple theories in the same study. It shares my latest experience incorporating various data analysis strategies with the constructivist approach: holistic and systems thinking, situational analysis, dramaturgical analysis, perspective taking, and abstraction. The examples remove the mystery from abstraction and abductive reasoning.

Keywords: Abductive reasoning, abstraction, constructivist grounded theory, holistic thinking, systems thinking

Introduction

It has always been of interest to me to engage in grounded theory methodology. I initially used grounded theory to contribute to an existing but novel theory. Consequently, less time was spent finding a research gap, reading, and authoring the dissertation. By completing the Methods chapter first, I delayed the literature review until after the data analysis. The arrangement of this article is unusual. It will begin with a brief introduction to the constructivist grounded theory tradition and what grounded theory looks like. Readers can understand the constructivist tradition by understanding how Charmaz meant the tradition to be used. According to Charmaz (2006, 2016), a theory must explain a process, discuss power elements, and provide multiple perspectives. Next,

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trustworthiness is discussed to establish consciousness during the abduction process. Grounded theorists can access examples from their lives, professional careers, and current affairs for credibility, usefulness, originality, and resonance. Theoretical sampling and coding will be discussed last because the constant compare and contrast process is unclear to people interested in grounded theory. Future grounded theorists may be better prepared for theoretical sampling and coding if introduced to data analysis strategies before engaging in theoretical coding and theoretical sampling. Furthermore, by summarizing the grounded theory process as I experienced it, albeit incorporating several data analysis strategies, the task could inspire those interested in trying grounded theory.

Selected Tradition: Constructivist Grounded Theory

Despite several grounded theories, classical/positivist, interpretivist, and constructivist, they follow a common set of grounded theory principles: abstraction, abductive reasoning, theoretical sampling, constant comparison, theoretical coding, discretionary use of sensitizing concepts, memoing, categorizing, generation of plausible theory, and multiple explanations (Bryant & Charmaz, 2007; Corbin & Strauss, 1990; Glaser & Strauss, 1967). Despite common principles, Charmaz's grounded theory was the most appropriate approach in light of the inquiry topic: democracy and social change. Charmaz's constructivist tradition is open to critical inquiry, power analysis (Charmaz, 2016), exploration of processes and cultures, and promoting social change (Bryant & Charmaz, 2007). Systems thinking, multiple perspectives, reflective skepticism, and problem-posing are all components of critical inquiry (Bermudez, 2015) and strategies used when examining power, inequality, and marginality. Moreover, the constructivist grounded theory allows the introduction of "questions concerning social justice" (Charmaz, 2016, p. 3) into the data analysis process, as well as exploring implicit meanings (Mills & Francis., 2006). Moreover, constructivist grounded theory is suitable for exploring democracy, social change, and "power, inequality, and marginality" (Charmaz, 2016, p. 11). In addition, the researcher becomes a research instrument by using her knowledge and experience during data analysis (see Charmaz, 2006). Researchers' backgrounds, values, positions, and privileges are revealed through constructed theoretical codes and the constructed grounded theory (Bryant & Charmaz, 2007).

Theory in Constructivist Grounded Theory

The interpretivist perspective, which is the tradition that constructivist grounded theory is a part of, calls for imagination, emphasizes understanding patterns and associations, allows for indeterminacy, assumes subjectivity and multiple realities, and "articulate[s] theoretical claims on scope, depth, power, and relevance" (Charmaz, 2006, p. 127). Interpretivists assume the truth is provisional, social life is a process, and "facts and values are inextricably linked" (Charmaz, 2006, p. 127). However, whether the theory follows the positivist or interpretivist tradition, theories are constructed of "arguments about the world and relationships within it" and attempt to persuade readers that the argument made leads to a logical conclusion (Charmaz, 2006, p. 128). The constructivist grounded theory design explores how or why meanings are constructed in a particular

situation. In discovering how meaning is constructed, the analyst may discover or pursue the "why" (Charmaz, 2006). Innate to the constructivist grounded theory tradition is the pursuit of hidden structures, processes, and communication that reveal social distinctions, power, and how "differences and distinctions arise and are maintained" (Charmaz, 2006, p. 131). Although the rendition of the grounded theory depends on the researcher's values and positionality (Charmaz, 2006), the constructivist approach is used to demonstrate the "complexities of particular worlds, views, and actions" (Charmaz, 2006, p. 132) by looking for substantive processes and relationships and establishing connections between "conceptualized relationships and experiences and events" (Charmaz, 2006, p. 136).

Formal and Substantive Theories

Data-driven grounded theory methodologies generate both formal and substantive theories. Substantive theories are limited to empirical areas of inquiry and are group- and place-specific (Bryant & Charmaz, 2007; Glaser & Strauss, 1967). Formal theory, however, is not bound to a group or space. Formal theory transcends the subject area and has broad social applications (Glaser, 2002; Glaser & Strauss, 1967), addressing "concerns and problems across situational contexts" (Bryant & Charmaz, 2007, p. 246). On the other hand, substantive theories can lead to formal theories (Glaser & Strauss, 1967). Theory generation uses abstraction and abductive reasoning.

Abductive Reasoning in Theory Construction

Abductive reasoning is an intellectual act that helps researchers pursue novel discoveries (Bryant & Charmaz, 2007). The term "abduction" was coined by Pierce, an American founder of pragmatism (Bryant & Charmaz, 2007; Pfister, 2022) in the early 1900s. Although there is no consistent definition of abduction, it is considered an explanatory reasoning power that can generate or justify a hypothesis (Zalta, 2021a). Abduction is believed to generate or justify an inference (Zalta, 2021a). It, therefore, plays a significant role in theory generation (Bryant & Charmaz, 2007). It is one of the three types of inferential reasoning: induction, deduction, and abduction (Halpin & Richard, 2021). As a cognitive process, abduction creates associations between things that had not been associated with each other before and allows for inferring implied facts from a given fact (Bryant & Charmaz, 2007; Pfister, 2022) to generate the best plausible theory (Halpin & Richard, 2021). In this way, abductive reasoning can be summarized as a "reasonable explanation."

Deductive analysis relies on prior knowledge to construct a grounded theory to evaluate abductive discovery and preference (Plutynski, 2011). This prior knowledge drives the emergence of concepts and generates the hypothesis. Abductive reasoning does not guarantee discovery. Nevertheless, it provides significant value in developing plausible grounded theories that lead to answering research questions. I have found that allowing explanations to emerge in this way is less stressful and laborious than brainstorming.

Abductive Preference and Discovery

The constructed theory that answers the main research question is an abductive preference, the preferred plausible explanation. All other plausible explanations that come close to answering the research question but are not as parsimonious are called abductive discoveries. Abductive discoveries are alternative grounded theories constructed using the theoretical codes that emerged during data analysis (see Plutynski, 2011). The abductive discovery of one research question may be the abductive preference of another research question (see Figure 1).

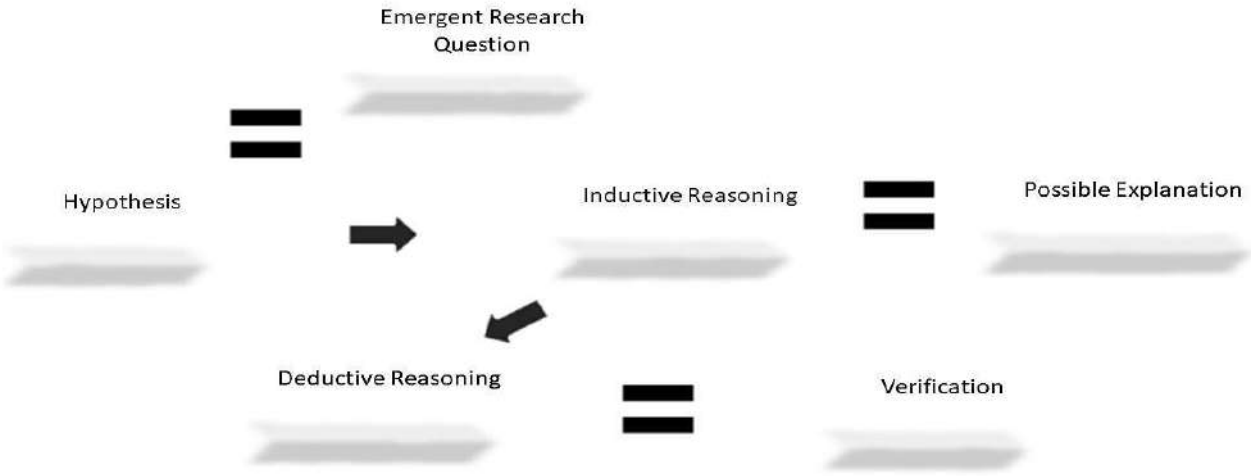

Fig. 1 Abductive Reasoning Process

An Example of Abductive Reasoning Using Apples.

Suppose all that is known is that one pound of apples, or 0.454 kilograms, is on the kitchen table. If the research question is: What is the most suitable use for apples? then abductive discovery would consist of all explanations for what can be done with apples. This is because "suitable" has not been defined. Abductive discoveries could include apple pie, apple sauce, apple juice, apple jam, and candy apples. Specific research questions reduce the number of abductive discoveries.

Similarly, substantive grounded theories generate fewer abductive discoveries when bound by less abstract theoretical codes (see Bryant & Charmaz, 2007; Glaser & Strauss, 1967). When asked about the most convenient way to administer medication to patients with difficulty swallowing, two plausible explanations might be identified: a pulverized pill or a whole pill in apple sauce. A better explanation could be the pulverized pill in apple sauce unless the patient refuses the mixture because of the bitter taste. If the patient refuses to take the medication due to the bitter taste, the abductive preference is the pill administered whole in the apple sauce. The other plausible explanation becomes the abductive discovery.

An even more specific research question might be: What is the most effective way to medicate someone prone to aspiration who cannot drink liquids? The abductive preference might be medication administered through an I.V., an injection, a suppository, or in apple sauce. These are all plausible. Refining the research question would make one the abductive preference and the rest

abductive discoveries. They are, of course, all suitable for selection as abductive preferences, with the researcher determining which plausible explanation is the most suitable to be featured as the grounded theory that answers the research question. The ability to generate multiple grounded plausible explanations (abduction) in order to understand various phenomena is my understanding of what Charmaz meant by multiple realities (Bryant & Charmaz, 2007; see Figure 2).

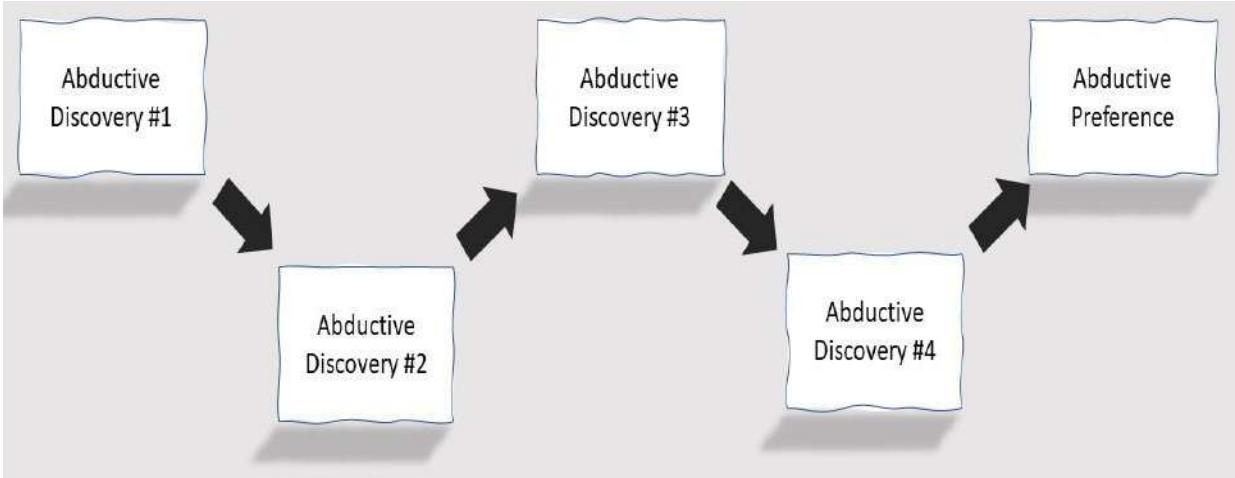

Fig. 2 Abductive Discoveries

Trustworthiness

The qualitative approach employs one set of rigor criteria, while the grounded theory approach employs a different set of trustworthiness criteria. Constructionist grounded theory uses four criteria to establish rigor: credibility, originality, resonance, and usefulness (Charmaz & Thornberg, 2021).

Credibility and Originality

Credibility in grounded theory is achieved using the same means as in the qualitative methodology. To establish credibility in my research study, I used an all-inclusive approach, including a diverse sample, memos, and methodological self-awareness (Charmaz, 2016; Charmaz & Thornberg, 2021, p. 315) as well as internal, external, and methodological triangulation (Lincoln & Guba, 1982, 1985). Thick in-vivo codes demonstrate empirical grounding across documents (see Glaser, 2002). Originality is determined by assessing whether grounded theories contribute to new ways of conceptualizing and recognizing problems (Charmaz & Thornberg, 2021) and how constructed grounded theories challenge, extend, or refine "current ideas, concepts, and practices" (Charmaz, 2006, p. 182). Thus, originality could assist with establishing the significance of grounded theories (see Charmaz & Thornberg 2021).

Resonance and Usefulness

Charmaz and Thornberg (2021) assert that resonance provides an in-depth and transferable insight into the "fullness of the studied experience" (Charmaz, 2006, p. 182) by revealing the

concealed and identifying connections between individuals, communities, and institutions (see Charmaz, 2006). Various scenarios common in daily life could illustrate the fullness of the studied experience (see p. 182) to laypeople and professionals (Glaser & Strauss, 1967). The theoretical frameworks were extended to different scenarios to demonstrate resonance. For example, the social change theory (the empowerment and disempowerment categories) was adapted to intimate partner violence, workplace violence, and school bullying as a framework that explains interpersonal conflict and social change. When applied to the National Security Strategy of the United States or as a means to analyze the latent consequences of social policies, the framework becomes a surveillance and policy analysis strategy. The empowerment category was applied as a normative framework, a business strategy, the first principles of democracy, and a conceptual framework. Disempowerment strategies continue to serve the framework as a basic understanding of anything against the principles that would contradict the empowerment strategies. Resonance may often facilitate meeting the usefulness criteria. Understanding local experiences, establishing a foundation for policy application and practice, contributing to positive social change, and creating new avenues for research and sensitivity to conditions that can facilitate "social movement organizations in mobilizing crowds" (Charmaz & Thornberg, 2021, p. 317) are factors that determine the usefulness of grounded theory. Moreover, the usefulness, or the practical utility, of a grounded theory can be demonstrated in the Implications for Practice section of the dissertation, as I did, by applying the framework to one or more scenarios or across different domains of knowledge (see Charmaz & Thornberg, 2021; see also Glaser & Strauss, 1967). The democratic social change theory was applied in my dissertation: *The American Founding Documents and Democratic Social Change: A Constructivist Grounded Theory*.

Analysis of the Research Question

It is often stated that the research question determines the research design. While generally true, and one approach can be better suited than another approach, various qualitative research designs could be employed to answer a research question. For example, I could have utilized the general qualitative approach, the case study method, the narrative approach, Foucault's genealogical method, or the other two traditions of grounded theory. The researcher is responsible for developing and deciding which approach to use to answer the research question. The constructivist approach was selected because it is the most suitable approach to explore democracy and social change because it requires its users to take a critical approach.

Additionally, researchers decide how to contribute to theory. A meaningful contribution to existing theory, particularly when using the grounded theory approach for theory construction (see Martinovic & Manizade, 2017), requires the deconstruction of the research question I initially explored for my dissertation: How do the polarities of democracy theory contribute to or detract from achieving the promise of democracy as encapsulated in the nation's founding documents? Answering this question required (a) exploring the substantive data related to democratic constructs, as opposed to existing definitions of democracy, (b) defining democracy from the substantive data, as opposed to how political philosophers define democracy, (c) defining democracy as a promise

based on the substantive data rather than the claims of others, (d) exploring what contributes to democracy, (e) exploring what detracts from democracy, and (f) selecting which founding documents to analyze. Abandoning assumptions and defining concepts from the substantive content support Glaser & Strauss's (1967) blank slate requirement. The concept of a blank slate is reflected in my dissertation in the theoretical codes. Some questions are nested, so answering one question leads to answering others. Because the research question requires answering what contributes to or detracts from democracy, there must be two categories, groups that represent the common relationship of the codes a specific group contains: the category with theoretical codes—often referred to as subcategories—that detract from democracy and the category with theoretical codes that contribute to democracy. The following section will summarize the data analysis strategies I used in my dissertation. The strategies added depth and breadth of perspective.

Data Analysis and Strategies

Data analysis was conducted manually to facilitate coding and control of the process. Interacting with the data is similar to sharing intimate details in that explicit and implicit meanings are constructed. Printed memos, handwritten notes, and audio recordings facilitate data analysis and the selection of theoretical samples. Instead of relying solely on intuition during data analysis, the data analysis strategies made comparing incidents more systematic.

Memos and Methodological Self-consciousness

Memos are particularly useful. They allow the researcher to be focused on deconstructing concepts or to be free to record feelings about the topic and preliminary theories. The memos are later used during the constant compare-and-contrast process in which data and memos are analyzed iteratively (Charmaz, 2006). Methodological self-consciousness is recorded in memos used throughout the analysis. This nested process makes it possible to reflect on multiple perspectives. I recorded over 200 pages of memos, not including audio recordings. Memoing includes reflexivity. Methodological self-consciousness is a form of reflexivity. This critical inquiry involves examining data, analysis, and researcher actions (Charmaz, 2017). By bringing "power to purview," the process makes it possible to become aware of earned and unearned privileges and the "pervasiveness of Anglo-North American worldviews throughout inquiry" (Charmaz, 2017, p. 1). Moreover, the researcher becomes aware of how their principles, values, and beliefs interact with the data and its interpretation (Bryant & Charmaz, 2007).

Holistic and Systems Thinking

Holistic thinking involves looking at the whole picture to gain insight into a phenomenon instead of looking at its parts (Zhang & Christie, 2021). Holistic thinking was used to understand democracy and how Americans interact with the American democratic government. Two categories emerged: what contributes to the promise of democracy (the empowerment theoretical codes) and what detracts from the promise of democracy (the disempowerment theoretical codes). Holistic thinking was followed by systems thinking—exploring units, processes, and their relationships to the whole to understand a phenomenon better (Grohs et al., 2018). Systems thinking made it easier to understand concepts as processes, their relationship to each other, and the phenomenon being

explored. Holistic and systems thinking led to the discovery of species of theoretical codes and the overall utility of democracy. Systems thinking was augmented by situational analysis.

Situational and Dramaturgical Analysis

Situational analysis is a method of analyzing interpersonal processes based on situations (Bryant & Charmaz, 2007) and is represented empirically by three maps: relational, social world arena, and positional (Clarke et al., 2016). Several situational analysis questions were adopted to facilitate the emergence of theoretical codes, categories, and theories (see Bryant & Charmaz, 2007, pp. 370–374). Situational and dramaturgical analysis are not radically different. The dramaturgical analysis includes the theater metaphor to explain the presentation of self to others. During routine exchanges, individuals use their impressions to communicate the image they want to relay to their audience (Goffman, 1956). It allows the researcher to explore the perspective of interlocutors and the audience. In addition, clues and inconsistencies inform observers when the impression is managed (Goffman, 1956). This strategy was used for depth of perspective and detecting inconsistencies. For example, the dramaturgical analysis concluded that the Founders used political speech in the Declaration of Independence to proclaim, "All men are created equal," but the Articles of Confederation excluded "paupers, vagabonds, and fugitives from justice."

Perspective Taking

The phenomenon under observation can be explored through various filters, including the researcher's perspective. Perspective taking involves understanding a situation from another person's perspective, both cognitively and emotionally (Muradova, 2021). Taking a perspective involves putting oneself in the shoes of others. This involves assuming the skills, characteristics, and values of those whose perspectives are to be understood. Perspective taking allows exploring an individual's psyche and emotions, and reifying objects (see Heidegger, 2001, 1962). Documents can be analyzed for concepts, phrases, and behaviors that elicit an emotional response (see Saldaña, 2021). In my study, the exploration of emotional response in the founding documents, specifically in the Declaration of Independence, led to understanding the American Founders' reaction to unfairness. In addition, it led to understanding the king's reaction to the colonists' rebellion.

Abstraction

The abstraction process is a component of theoretical coding. As a result, it aids in identifying themes, creating categories, and elevating theories from substantive to formal (Glaser, 2002). It has been found that moving from the concrete to a high level of abstraction enhances generalizability (Glaser, 2002) and eliminates the need to situate data in their context (Bryant & Charmaz, 2007, p. 36). High levels of abstraction facilitate theory construction and broader application of theoretical codes across knowledge domains. Blumer's (1969) sensitizing concepts, high-level abstractions, provide a "general sense of what is relevant" (p. 148). Sensitizing concepts facilitate the emergence of theoretical codes (Glaser & Strauss, 1967). It helps to understand sensitizing concepts as category labels used to describe related theoretical codes (see Glaser & Strauss, 1967). No matter how abstraction takes place, all efforts should be made to raise the abstract level of theoretical codes to improve the quality of constructed grounded theory to render

the concepts generalizable (Glaser & Strauss, 1967; see Figure 3). The process of abstraction involves exploring the similarities between seemingly different concepts and advancing the essence of commonality to the highest level possible. For example, birds, moths, airplanes, and hot air balloons (people fleeing communities and prison escapes) are all flight examples. They represent concrete and particulars of flight.

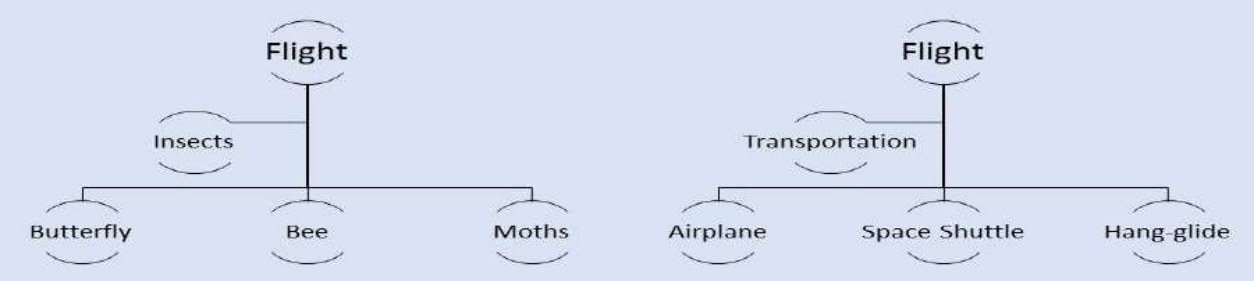

Fig. 3 Abstraction

Theoretical Coding

Data analysis strategies and memos guide the coding and constant comparison process. The process incorporates abductive reasoning. According to constructivist grounded theory, there are two levels of coding: initial and selective (Bryant & Charmaz, 2007). Data analysis involves separating, categorizing, analyzing, and synthesizing data using open, selective, and axial coding (Charmaz, 2006; Glaser & Strauss, 1967). I carefully considered explicit and implicit meanings associated with the cultural norms of the time. Charmaz's line-by-line technique was modified. Large sections were coded and designated a theme. The sections were then subjected to line-by-line and incident-by-incident coding. The general-to-specific process highlighted the dissonance between overall meaning and emerging concepts. Incident-by-incident coding (see Charmaz, 2006, p. 54) was followed by a detailed analysis of phrases and concepts (see Bryant & Charmaz, 2007) to capture critical details that could lead to new theoretical codes or help with abstraction. While analyzing the data, I searched for gerunds to understand actions and processes that could lead to constructing a social change theory (see Charmaz, 2006). One of the most critical skills for meaningful data analysis is recognizing implicit and multiple meanings. Codes with multiple meanings are coded and categorized under all meanings and in a category listing them as having multiple meanings. Doing so could facilitate the emergence of distinct subcategories and help with abstraction. As words caught my attention, I wrote memos about the emerging concept in a coding diary, engaging in methodological self-consciousness to explore biases (see Charmaz, 2016).

As coding continues, categories and subcategories emerge, as do novel research questions (Bryant & Charmaz, 2007; Charmaz, 2006). Categories are abstract concepts representing a common relationship of a specific group's emerged codes. Categories must be sensitizing and abstract enough to aid in recognizing particular incidents that represent the labeled category. For example, animal is the category label that represents all animal species. “Animal” acts as a sensitizing concept if the researcher can recognize species of animals or their descriptions.

Categories are at a higher level of abstraction than their theoretical codes, often called subcategories. Subcategories of animals include birds, mammals, insects, butterflies, bees, and moths. Theoretical codes are used to construct the grounded theory.

Grounded theorists are encouraged to follow emerging research questions because they could contribute to the next theoretical sampling. The next sampling could lead to abductive discoveries, grounded theories, or a combination. As a result, the constructed grounded theory could have depth and breadth that leads to multiple realities. While pursuing emerging research questions, the researcher should interrupt the data analysis with methodological reflexivity, memos, and meditation to gain multiple perspectives, analyze and explore multiple meanings of concepts, and elevate the theoretical codes to their highest level of abstraction without sacrificing their sensitizing effect. Another strategy I used was axial coding. Axial coding was implemented when categories reached saturation, the point at which no new contribution was made to the theoretical codes when new theoretical samples were analyzed (Bryant & Charmaz, 2007), to explore the relationship within and between categories further and to ground the categories. The primary goal of this additional coding stage was to facilitate theory construction (see Saldaña, 2021). However, after exploring their relationships, the axial coding process increased the theoretical codes' abstraction level.

Theoretical Sampling

In theoretical sampling, the researcher engages in a creative process through specialized purposive sampling (Charmaz, 2006). Theoretical sampling and analysis are successive processes guided by intuition (Bryant & Charmaz, 2007). The theoretical samples are analyzed using a variety of data analysis strategies. This is an iterative process in which the first and second theoretical samples are constantly compared, and the first, second, and third theoretical samples (see Figure 4). The cycle is repeated, followed by coding, analysis, memoing, meditation, abstraction, and abduction until theoretical saturation is reached.

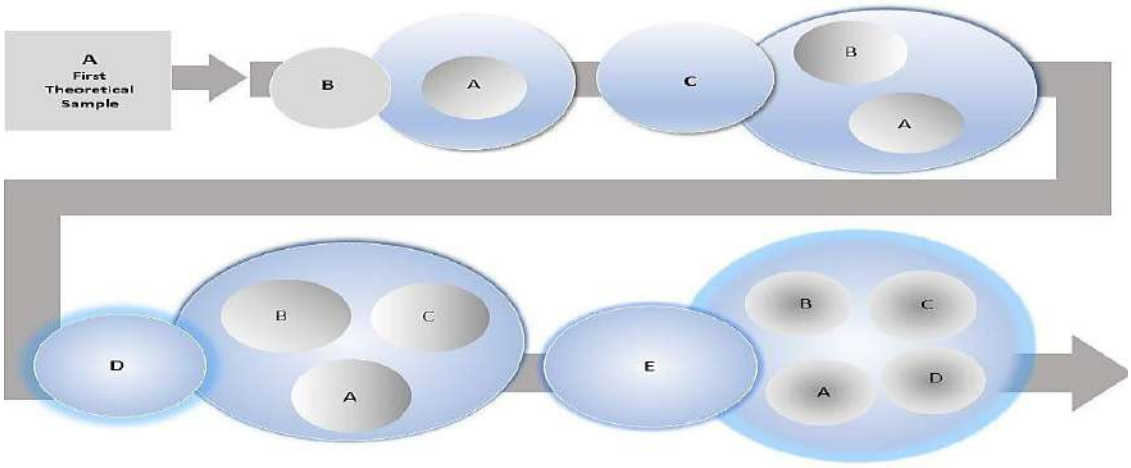

Fig. 4 Theoretical Sampling Process

Discussion

Glaser and Strauss's (1967) grounded theory principles were followed. Moreover, I trusted their process as outlined: delay the literature review, become a blank slate by abandoning assumptions, use substantive content to drive theory, and allow theory to emerge. However, I used Charmaz's tradition because it is the most suitable tradition to examine social change, "power, inequality, and marginality," and implicit meanings (Charmaz, 2016, p. 11). This article summarizes my experience with the constructivist grounded theory and the data analysis strategies that helped me construct six grounded theories. Although I enjoyed the methodology and the construction of grounded theories, I met with the challenge of deciding the presentation of data: the use of thematic versus the narrative approach. As the person who constructed the theory, there is an intuitive understanding of the interaction of theoretical codes with theoretical propositions that I could not assume others understood without resonance. Therefore, the framework was applied to various scenarios to resolve the conflict so that laypeople and professionals could understand the grounded theories through their applications (see Glaser & Strauss, 1967).

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