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Conducting Thematic Analysis on Brief Texts: The Structured Tabular Approach

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In this article, I present a structured approach to thematic analysis that is designed for working with brief texts. It is grounded in both the ecumenical thematic analysis of Boyatzis (1998) and the reflexive thematic analysis of Braun and Clarke (2006). The process of structured tabular thematic analysis (ST-TA) is best conducted in spreadsheet software such as Microsoft Excel. As with other forms of thematic analysis, it permits inductive, deductive, or hybrid approaches to theme development and analysis. Its logistical processes are well suited to working with the large samples that can be achieved when gathering brief text data. It can be used to conduct purely qualitative analyses and can also elicit frequency data that can, in principle, be analyzed quantitatively too. The process of checking agreement between analysts is an integral feature of the method. I discuss the practical implications of the approach and its applicability to various qualitative and mixed-methods research designs.

Keywords: thematic analysis, brief texts, short stories, mixed methods

The development of qualitative research methodologies in psychology and the social sciences has, from the outset, been bound up with an emphasis on gathering in-depth data. This emphasis has presented an important counteractive to the reductionist tendencies of quantitative psychology. Qualitative research initially emerged in psychology in conjunction with analyzing individual cases or critical incidents in depth. Examples of early work include Erik Erikson's biographical case studies of Gandhi (Erikson, 1958) and Luther (Erikson, 1969); Festinger, Riecken, and Schachter's (1956) quasi-ethnographic case study of a UFO cult; and Flanagan's (1954) work developing the critical incident technique. From the 1980s, as qualitative methodology became explicitly recognized within psychology and the social sciences, early sourcebooks on qualitative methods all focused on in-depth data collection (Glaser & Strauss, 1967; Lincoln & Guba, 1985; Miles & Huberman, 1984; Reason & Rowan, 1981). Interviews and focus groups subsequently became the most widely used data-collection methods in qualitative psychology (Howitt, 2016).

This focus on long texts (i.e., thousands of words per person or per conversational interaction) has remained integral to qualitative methods in the intervening decades. Analytical approaches such as grounded theory, the comparative method, conversation analysis, and interpretative phenomenological analysis were all developed with the aim of analyzing these in-depth texts. Until recently, little has been provided by way of methodological injunctions for how to work analytically with brief texts and what the theoretical and practical arguments are for doing so. To meet this need within a flexible epistemological framework, in this article I set out a version of thematic analysis entitled *structured tabular thematic analysis* (ST-TA), which offers an adaptable technique for working with brief qualitative data in a relatively structured way.

My own epistemological stance is informed by the middle-ground approach of critical realism, which allows for multiple interpretations of a phenomenon but clearly

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distinguishes between better and worse interpretations by the relationship of those ideas to a reality beyond words and texts (Robinson & Smith, 2010). This critical realist stance is combined with an emphasis on dialectical reasoning. Thus when I investigate any topic that has debate and disagreement within it, I actively explore whether a consensus, synthesis, or unity can be found behind the plurality of viewpoints (e.g., Robinson, 2020a). This dialectical reasoning process involves critically examining and deconstructing apparently opposing presentations of complex matters to seek hidden but often unarticulated common assumptions. Finding a synthesis or unity in this way does not override plurality and difference; these often happily coexist, like multiple notes in a single piano chord.

In the context of methodology, I contend that taking a dialectical approach to qualitative and quantitative methods shows that both emerge from a complex range of overlapping epistemologies, all of which are founded on the central importance of resorting to evidence when asserting facts or generalities. This means that the incompatibility thesis, which argues that (a) positivism undergirds quantitative research, (b) interpretivism is the foundation of qualitative research, and (c) these are incompatible (e.g., Wiggins, 2011), is wrong. I elaborate on this point later in the article and in the Appendix, but first, I consider why brief texts matter to psychology and the social sciences.

The Forms and Functions of Brief Texts in Qualitative Psychology

There are various theoretical and practical arguments for acknowledging the important role that brief texts (i.e., texts that are typically one paragraph or less in length) currently serve in the social sciences and why they are likely to become even more important to research in the future. The first argument is the sheer growth in their prevalence since the rise of social media. Qualitative studies have already been conducted on brief texts from social media in the form of YouTube comments (Carpentier, 2014; Mejova & Srinivasan, 2012), Facebook posts (Vraga, Thorson, Kligler-Vilenchik, & Gee, 2015), Twitter feeds (Giles, 2017; Lyles, López, Pasick, & Sarkar, 2013), and forum-based online discussions (Giles, 2014, 2016). These accounts of life events and experiences that are conveyed in social media are referred to by some theorists as *small stories* (Georgakopoulou, 2014). They have some advantages over data that are elicited in autobiographical interviews. For example, compared with the generally retrospective nature of interviews, social media postings typically represent events and experiences that have happened that very day or may be ongoing; hence, they are less heavily filtered by memory. Furthermore, the socially interactive nature of social media postings, being composed as initial texts with subsequent comments and replies, can convey how experiences can be interpreted within an intersubjective frame (Georgakopoulou, 2017).

As well as social media, another important phenomenon that has boosted the availability of short forms of qualitative data is the online survey platform, such as Qualtrics, Typeform, or QuestionPro. Through these, participants can write brief stories and reflections or respond to open-ended questions. Such data are important for qualitative psychology for at least the following reasons. First, such data allow access to hard-to-reach sample groups or geographically dispersed populations that standard depth methods struggle to reach (Terry & Braun, 2017). Second, this type of data collection allows for total anonymity, which can be an ethical strength when asking individuals to disclose information about highly personal or sensitive topics (Slepian & Moulton-Tetlock, 2019). Third, using online platforms allows for gathering a larger and hence potentially more representative sample than in-depth methods. This can be an advantage if the aim of a qualitative study is to make inductive claims about a broader population group from which the sample is drawn. Such an aim is, for example, often the case in qualitative evaluation studies that make claims about intervention efficacy (Thomas, 2006).

For an extensive exposition of the functions and potentials of qualitative surveys, the reader is directed to Terry and Braun (2017). These authors present a theoretical and practical guide to this form of data collection, exemplifying their approach with a qualitative survey study on views about body-hair removal, which was conducted using a sample of over 600 participants from New Zealand.

Another technique for eliciting data that can be captured via online survey platforms is the story-

completion method. In this method, the first sentence of a story is provided about a specific topic. This must then be completed by participants, typically with a short story of a few hundred words in length (Clarke, Hayfield, Moller, & Tischner, 2017). This method has recently been used in a study that explored parents' perceptions of the future for a child with a chronic pain syndrome termed *complex regional pain syndrome* (Coningsby & Jordan, 2019).

Along with the pragmatic benefits of working with brief data, there is a pluralist epistemological argument for working with brief data alongside depth data. According to this argument, the more varied the forms of qualitative data that can be meaningfully analyzed, the more effectively we can grasp the complexities of human behavior, inner life, and interpersonal interaction that can be conveyed through words and text (Frost et al., 2010). Put another way, much meaningful qualitative data are available in small texts, so to include them fully within the auspices of qualitative methods is to ensure that psychology and the social sciences reach out to all possible forms of textual data and the potential insights they contain.

Structured Tabular Thematic Analysis: A Conceptual Analytic Comparison With Existing Methods

ST-TA locates itself in a currently unoccupied niche between (a) existing approaches to thematic analysis, most specifically those of Boyatzis (1998) and Braun and Clarke (2006), and (b) existing approaches to analyzing brief texts, such as the narrative analysis of small stories (Bamberg & Georgakopoulou, 2008). In order to justify that such a niche exists and is worth occupying, I here present a conceptual comparison with these other methods, focusing on key differences and similarities. Central to this discussion is my contention that doing qualitative research does not entail negating the language of numbers as a key tool for science. Numbers are symbols and signs that assume meaning via complex cultural and cognitive networks of sense-making, just as words do (Osbeck, 2014). The language of numbers that we use today has evolved over millennia from a combination of Arab, Hindu, and Roman systems, and as such, it has a cultural-linguistic heritage just as written language does (Seife, 2000). Numbers in the context of scientific data never interpret or explain themselves. Turning numerical data into scientific understanding entails complex abductive conceptual leaps and inferences that are typically located in the discussion section of a journal article. I argue that to support qualitative research with the judicious use of numbers, particularly in calculations of researcher agreement and theme frequencies, gives additional clarity, precision, and meaning to an analysis.

The development of ST-TA has been influenced by two established approaches to thematic analysis: the ecumenical approach set out by Boyatzis (1998) and the reflexive approach devised by Braun and Clarke (Braun & Clarke, 2006; Braun, Clarke, Hayfield, & Terry, 2018). Both approaches embrace a pragmatic ethos in which the research *problem* is paramount. They both also concur that the objective of thematic analysis is seeking recurrent patterns that can help understand a class of phenomena or events. In both methods, inductive and deductive research can be legitimately conducted. The approaches both allow for themes to be extracted at a descriptive/manifest level or latent/inferential level, via a defined yet flexible series of analytical phases. ST-TA stands on these foundations, which together can be summarized as a problem-focused commitment to the flexible seeking of patterns and meaning in data that serve clearly defined research problems, according to clear and explicit parameters of transparent and rigorous research.

As well as these similarities, ST-TA also has points of difference with both approaches. Braun and Clarke (2019) have recently argued that formal processes for establishing agreement across analysts dilute or pollute qualitative research by drawing in a positivist agenda that ultimately denies the contextualized subjectivity of the researcher conducting the thematic analysis. In contrast, ST-TA includes the importance of using processes for establishing agreement, including using a simple quantitative benchmark for determining adequate agreement.

This process of agreement checking has been referred to previously as checking *interrater reliability* (Boyatzis, 1998), but this term is problematic for several reasons: First, thematic analysts do not *rate* data, and second, *reliability* is a term that comes laden with meanings from psychometrics and classical test theory. To call

the process of seeking agreement in a qualitative analysis a *reliability* process conflates it with the very different process of ensuring that psychometric questionnaires and tests give the same response over time and across item sets. The term that I use instead for ST-TA is *inter-analyst agreement*.

Boyatzis's (1998) method incorporates a similar process. He is of the view, as am I, that undertaking a process of reaching a high level of coding agreement between two or more researchers means that the eventual description and labeling of themes are more likely to be based on a consensual and transparent understanding of the subject matter (Hill, Thompson, & Williams, 1997). Braun and Clarke (2019) have incorrectly labeled Boyatzis's injunction to calculate an agreement metric as *quasi-positivist*, but this is based on the assumption that quantification is itself positivist. In the Appendix, I discuss why that assumption is faulty. Boyatzis does not actually construe the process of reaching agreement as a means of determining objective fact but, rather, as one of bringing about a working consensus that is helpful (a) when conducting research as a team and/or (b) when research is to be replicated or extended in new directions by different researchers in the future. Using a constructionist or an interpretivist framework, which is common in thematic analysis, does not mean giving up on reaching agreement with others but instead involves interpreting agreement across analysts as the reaching of intersubjective consensus within an agreed interpretive or discursive framework, rather than the discovery of an objective "fact." Analysis does not end when agreement is reached, for new questions may arise in the process of reaching a consensus that lead to new avenues of inquiry (Ballesteros & Mata-Benito, 2018).

Another area where ST-TA entails the use of numbers is in the calculation of theme frequencies. The frequency of a theme refers to the number or proportion of participants who have text allocated to it in analysis. Brief texts allow for larger samples than depth approaches, which in turn provide for more meaningful statements of a theme's potential prevalence within a target population than smaller samples do. Neither Boyatzis (1998) nor Braun and Clarke (2006) provide protocols for calculating such frequencies; hence, the process within ST-TA is a clear point of difference with existing thematic analysis methods. Frequencies in qualitative reports convey *some* information on the salience and importance of a theme to the study's message. The relationship between aims, research questions, and themes is also key in discerning theme salience during an analysis (Braun & Clarke, 2016). With that caveat in mind, theme frequencies do provide important information. If they are misrepresented or not included, it can lead to major issues of interpretation for the reader. For example, in qualitative research that evaluates the experience of an intervention across multiple participants, the proportion of participants who refer to the intervention as leading to positive rather than negative experiences is essential information for the reader. Another example is in the growing domain of qualitative research into the experience of psychedelic drugs. It is important for the transparency of such studies to convey what proportion of participants reported enlightening or distressing subjective experiences (Davis et al., 2020). Theme frequencies provide that information to the reader, and it is up to the reader or future researcher how to use that information in conjunction with other the information provided.

ST-TA is well suited to mixed-methods research. For example, it can be used to analyze open-ended questions within a survey that can, in turn, be linked to quantitative data gained within the same survey. A common criticism of mixed-methods research is that qualitative and quantitative methods are philosophically incompatible, given that the former is interpretivist and the latter is positivist, and that these paradigms have discrepant epistemological assumptions (Wiggins, 2011). In the Appendix to this article I present an argument against this contention, based principally on the point that quantitative research is based on a plural combination of epistemologies, of which positivism is, at best, a minority player.

As well as overlapping with existing forms of thematic analysis, ST-TA finds itself in methodological proximity to other methods devised to work with certain kinds of brief texts.

Bamberg and Georgakopoulou (2008) have devised a form of narrative analysis for working with short stories. Short stories are brief written accounts of events or happenings in a person's life. These have become the standard currency of many social media platforms that are based

on brief autobiographical reflections and comments from others (Georgakopoulou, 2017). The form of analysis that Bamberg and Georgakopoulou have devised to analyze short stories focuses specifically on identity construction in short stories and takes the form of five steps:

1. Who are the characters, and how are they relationally positioned?
2. The interactive accomplishment of "narrating"
3. How is the speaker positioned within the interactive flow of turns that constitute the situation as "research"?
4. How are relationships between all characters managed?
5. How is the self portrayed in this brief storytelling?

Bamberg and Georgakopoulou's (2008) approach to short story narrative analysis is an exemplar of taking an existing broad approach to analysis (narrative analysis) and then making it bespoke to the challenges of working with brief texts. Its approach is anchored specifically in the tradition of narrative analysis developed by Labov (1997) and also a model of identity positioning that involves the analysis of the self as presented in relation to other characters (Bamberg, 1997). It differs from ST-TA insofar as the former requires brief autobiographical reflections as its data, whereas the latter can be used with any kind of brief text, including, for example, answers to open-ended questions in surveys that may not have any self-reference, characters, or story.

Although not specifically devised for brief data, content analysis has been used extensively for analyzing brief qualitative data. To give one recent example, Davis et al. (2020) conducted a qualitative content analysis of 2,561 brief written descriptions of memorable experiences of taking the psychedelic dimethyltryptamine (DMT). The methodological processes of such content analysis studies show notable similarities with ST-TA; however, the outcome of this kind of content analysis is a list of codes and frequencies with little by way of theme description, example quotes, and discussion of patterns found. In contrast, ST-TA places a strong emphasis on conveying the meaning and context of qualitative themes, with verbatim examples taken from the data to support and illustrate any general concepts conveyed. Its embracing of some quantification is done *in addition* to this fundamental qualitative process, rather than instead of it.

The Process of Conducting ST-TA on Brief Texts

ST-TA is conducted in spreadsheet software such as Microsoft Excel and is designed to meet the challenges and opportunities of working with brief texts. It requires no specialist qualitative analysis programs and thus is accessible to all researchers, no matter their budget or technical knowledge.

At a procedural level, ST- TA follows a hybridized process approach that incorporates elements of Braun and Clarke's (2006) thematic analysis phases and Boyatzis's (1998) thematic analysis phases. In the following sections, I describe each phase in turn and whether it applies to inductive research, deductive research, or hybrid inductive–deductive designs. Table 1 summarizes the phases for inductive, deductive, and hybrid options. To illustrate some points, I use data, tables, and a figure based on a study of how perceptions of parenting relate to authenticity in young adults (Ayoola & Robinson, 2017).

Phase A: A Priori Theme Selection (Deductive and Hybrid Only)

Thematic analysis that is purely deductive commences with a set of themes prior to data collection and analysis, taken directly from a previous study in the topic area, and then seeks to apply those to a new sample. Research objectives suitable for a deductive approach include (a) replicating an existing thematic analysis study or (b) developing, extending, or testing an existing thematic framework or theory. In order to develop a set of themes for a deductive study, one can take either a broadly theory-based approach, in which themes are inferred from a theory, or a prior-research-based approach, in which themes are taken from the findings of an existing thematic analysis study (Boyatzis, 1998).

Deductive and inductive approaches can be combined in hybrid designs (Robinson & Smith, 2010). A hybrid approach is appropriate where there is (a) substantial qualitative literature on the topic of study to draw on, meaning a purely inductive approach would potentially

Table 1
Analytical Phases for Deductive, Inductive, and Hybrid Research Studies

Deductive	Hybrid	Inductive
Phase A: A priori theme selection	Phase A: A priori theme selection	*SKIP PHASE A*
Phase B: Deep immersion in the data	Phase B: Deep immersion in the data	Phase B: Deep immersion in the data
SKIP PHASE C	Phase C: Developing revised codes and themes in context of, and influenced by, a priori themes	Phase C: Generating codes and themes (as uninfluenced by existing theory as is possible)
Phase D: Tabulating themes against data chunks	Phase D: Tabulating themes against data chunks	Phase D: Tabulating themes against data chunks
Phase E: Checking agreement	Phase E: Checking agreement	Phase E: Checking agreement
Phase F: Exploring theme frequencies	Phase F: Exploring Theme Frequencies	Phase F: Exploring Theme Frequencies
Phase G: Thematic maps	Phase G: Thematic maps	Phase G: Thematic maps
Phase H: Producing the report	Phase H: Producing the report	Phase H: Producing the report

omit existing insights and knowledge, but also (b) a clear sense that existing knowledge is partial, and hence there is a need for the continued development of thematic frameworks and theory.

In such a hybrid approach, the analyst will first deploy an initial set of themes or concepts from existing work to orientate the analysis process. These provide a starting point as *orientating constructs*. The process of generating codes and themes is then worked through with this opening set of constructs or themes in mind, and these are modified or added to depending on whether the data fit the scheme or not. For example, in a study on admiration in young adults, my colleagues and I used this hybrid approach to organize our analysis of brief written descriptions of an admired individual provided by young adults from three cultures (Robinson et al., 2016). We employed a thematic framework from an existing qualitative study (Schlenker, Weigold, & Schlenker, 2008) and then refined this set of themes as we analyzed the data. So, the final set of themes only partially drew on the initial themes.

In summary, if you are intending to conduct a deductive or hybrid analysis, you will need to select a set of constructs or themes from existing literature and provide a robust rationale for why you have done so.

Phase B: Deep Immersion in the Data (Deductive, Inductive, and Hybrid)

For this phase, you will need to transcribe or import your data into Excel in such a way that each brief text occupies one cell in a column, as illustrated in Table 2. You will also need to include a column with a participant number and columns with demographic details. Two key injunctions that Braun and Clarke (2006) emphasize in their methodology, which are also essential to this first phase of the structured tabular approach, are (a) repeated reading of the data and (b) taking initial notes for codes. To facilitate repeated reading of the data in Excel, make sure to select the "Wrap Text" option (right-click > Format Cells > Alignment > Wrap Text). This ensures that all text is shown in each cell. To facilitate taking notes, next to the column of brief text data, create a column labeled "Initial Notes." See Table 2 for an illustration of the layout of the spreadsheet. Carefully and slowly read each data segment, adding notes for possible codes or other initial analytical ideas as you go. If you have started with an a priori theme set, you might make notes on any cases that you think do not fit the scheme. You can either do this electronically or print the spreadsheet out, depending on your preference. Follow this process of immersive reading of the entire data set *at least twice*, until you feel a strong familiarity with all the data and start to get an early sense of any patterns therein.

Phase C: Generating Initial Codes and Themes (Inductive and Hybrid Only)

After the initial process of familiarizing yourself with the data, you can move on to the development of codes, if you are using an inductive design. For the process of generating

Table 2
Spreadsheet Format for Phase A With Illustrative Textual Data From Parenting and Authenticity Study

No.	Gender	Qualitative data segment	Initial notes	Initial codes
1	Male	Yeah. I think so. My parents were honest with me and about themselves, and I think it fostered that in me, too . . . So, I try to stay true to myself as much as I can.		
9	Female	My mum made it very easy to be whoever I wanted to be, and I saw how she accepted all my friends growing up in spite of anything that could make them different/stand out. She took an interest in me and who I was, and so I had a strong sense of self from an early age.		
27	Female	I believe that it helped a lot. My mum always encouraged me to be myself, and it was fun to sometimes shock my dad with who I am. So, I have learnt to know myself and to be myself.		
33	Male	The love my parents have for me shows that I don't need to pretend to be someone else as they love me just the way I am.		

Note. The cases selected for this table represent the main theme of perceived positive effects of parenting on authenticity.

initial codes, add an additional column to your spreadsheet, and add the title "Initial Codes" in the top row, as shown in Table 2. Based on your immersive reading and initial notes, add the names of codes to this new column. Enter terms or words that you think, based on your repeated reading, subsume or describe content in multiple data segments or texts. By so doing, you are taking the first step toward finding common patterns, words, or ideas, which is always your ultimate goal in a thematic analysis.

Once the process of code development is complete, you will have at least one code entered in every row. For the next step, copy and paste the full column of code words into another worksheet in the same Excel file (click the ⊕ button at the bottom to do this). On this new sheet, use the copy-and-paste function to move codes around and group them into clusters. You can use different columns for different clusters to aid in visualizing the process. Each cluster of codes is a prospective theme. Then, you need to name your clustered codes using phrases or terms that are clearly anchored in the data and are as idiosyncratic to your study as possible (that can sometimes mean using a longer, rather than shorter, theme name). A common error is to name themes with terms that are so short or generic that they have no clear relationship to your specific study or research question. For initial codes and subthemes, using the words and phrases that participants use is key to ensuring that the process of thematic abstraction is grounded in the language of participants. For higher-order themes, it is the avoidance of the ambiguity that comes with excessive concision that is key to idiosyncrasy. An example is shown in Table 3; the theme name "Perceived negative effect of parenting on authenticity," at seven words long, is longer than most themes that one sees in most thematic analysis studies. However, by using a phrase like this for the theme name, the meaning is far less ambiguous than if one were to attempt to reduce it to one or two words.

You can continue to move codes between clusters, combine clusters, and rename themes until you have a thematic set that you are satisfied will allow all, or nearly all, of your brief texts to be linked to at least one theme. A popular way of creating an additional layer of order in your themes is to have two levels of themes: main themes and subthemes. Main themes are more abstract and therefore include more semantic content than subthemes, and hence they provide the additional quality of analytical parsimony, should that be desired. Whether or not two levels of themes are appropriate to your study depends on the research questions you pose and whether a more abstract level of thematizing helps to convey clear and coherent answers to your questions.

ST-TA is open to searching for semantic or latent themes (Braun & Clarke, 2006). Semantic themes are manifest in the surface meanings of the data; they are descriptive and minimize inference from the textual content. Latent themes require further interpretation because they are not manifest in the data but are implicit beyond or below the surface content.

Table 3
Spreadsheet Format for Phase D—Five Illustrative Cases, One Main Theme With Three Subthemes

			Main theme: Perceived negative effect of parenting on authenticity		
No.	Gender	Qualitative data segment	Subtheme 1: Cultural/Generational disconnect	Subtheme 2: Parents as negative role models	Subtheme 3: Criticism or disapproval of characteristics
10	Male	I feel I am true to myself, but there are some parts of who I am I feel I have dismissed or choose to hide from my parents as I feel that they would disapprove or not fit the image that they have of me.			1
15	Female	I think they gave me a foundation. However, I've come to being my own adult sometimes in disagreement with my parents. I think it's because they were born and raised in Africa and I in London.	1		
35	Female	Being criticized for my personality by my family has caused me to feel insecure as an adult. If I was ever feeling upset about something that my parents didn't believe to be a big deal, they would brush it off, leaving me to feel like I was too sensitive.			1
41	Male	My parents are very particular people, and so the parts of myself that do not match their picture of me have to be hidden. I try to be as authentic as possible, but it is not always possible, but only in some aspects of life.			1
48	Female	Seeing how much my father neglected his own emotions and needs completely, I feel obligated not to make the same mistakes and live a life being as authentic as possible but find it difficult as I feel the impression my father gave has stuck with me and is difficult to counterbalance.		1	
SUBTHEME FREQUENCY			**1**	**1**	**3**

Note. The cases selected for this table represent the main theme of perceived negative effects of parenting on authenticity.

Phase D: Tabulating Themes Against Data Segments (Deductive, Inductive, and Hybrid)

Phase D involves attaching data segments to themes in a tabulated form, an example of which is shown in Table 3. This provides a foundation for the agreement-checking and frequency-calculation processes outlined in Phases E and F. The practical process of Phase D is as follows:

1. If you are working inductively or using a hybrid approach, open a new worksheet in your Excel file and copy a duplicated version of your Phase C spreadsheet, including participant number, demographic data, and qualitative text data in the left-hand

columns. Delete the notes and themes columns (make sure to keep the original worksheet with those notes and themes on file). If you are working deductively, use your Phase B spreadsheet.

2. Insert a row at the top of the new spreadsheet. Write your theme names across the top row, starting with the column to the right of your qualitative text column. If you have just one theme level, then one row at the top will suffice. If your themes are differentiated into main themes and subthemes, insert two rows at the top, and put the main themes across Row 1 and the subthemes across Row 2. For main themes, merge the cells across the columns that the main themes refer to, as shown in the example in Table 3. Keep the theme columns narrow so that you can fit many on the screen at once—this helps in the process of analytically allocating texts to themes.
3. Select the top row or top two rows (depending on whether you have one or two theme levels), then go to View > Freeze Panes > Freeze Panes (based on current selection). This will mean that your theme names remain visible as you scroll downward.
4. Once you are sure that you have your final set of themes, go down through each brief text, and wherever a subtheme is represented in the data, *add a 1 in the relevant column*. Do this until all have been allocated to subthemes. You can attach each text to multiple themes if appropriate. Table 3 shows an example in which the texts from five participants have been allocated to three themes, extracted from the authenticity and parenting study by Ayoola and Robinson (2017).

This process of tabulation allows the relationship between data and themes to be visually related in new ways, so it may lead to continued theme development. If themes are further developed at this point, make sure to keep a dated log of all changes. This helps your analytical process to be fully transparent to others. One option for keeping a log of thematic developments is by creating an additional worksheet in your Excel file and using it as a log. In this way, it will also be found in the same place as your analysis.

Phase E: Checking Inter-Analyst Agreement

Phase E involves the process of checking the level of thematizing agreement between yourself and another analyst. ST-TA is conducive to agreement checking because the unit of coding (i.e., the brief text) is clear, and the tabulation process of Phase D provides the foundation for an easy checking protocol.

One way of reaching agreement is through an informal, discussion-based approach where the two researchers discuss the themes they have attached to the brief texts and resolve differences and debates in order to end up with a more consistent, coherent, and clear set of themes. A more structured set of processes for checking agreement across analysts is as follows:

1. The second analyst is provided with a blank version of the Phase D data tabulation spreadsheet with no 1s entered. This person should ideally be familiar with the theme names and codes developed or employed for the study.
2. The second analyst should allocate texts to themes independently of the first.
   a. If the data set is large, an option is to select a subset of participants for this agreement check (20–30 is an appropriate number).
3. Having both done that, one of the analysts combines the two spreadsheets into one for checking, by inserting the theme columns from one next to the other.
4. For each row, the analysts must then calculate the number of agreements (where both analysts have a 1 in the same cell) and the number of disagreements (one analyst has a 1 in the cell, but the other does not).
5. The total number of disagreements and agreements should be calculated across all cases. A percentage level of agreement is calculated as follows:

$$\frac{\text{Total no. of agreements}}{\text{Total no. of agreements} + \text{disagreements}} \times 100$$

The aim of this process is to end up with a level of agreement that supports the proposition

that the analytical scheme and process is *transparent, rigorous*, *coherent*, and *trustworthy* (Nowell, Norris, White, & Moules, 2017; Yardley, 2000). If a thematic scheme is clear and coherent, and themes are described with rigor and transparency, analysts should have few problems in agreeing on which texts are allocated to which theme. Conversely, a weak analysis, in the words of Braun and Clarke (2006), is where "the themes do not appear to work, where there is too much overlap between themes, or where the themes are not internally coherent and consistent" (p. 94). If themes are vague, poorly defined, or poorly labeled, two analysts will find it difficult to tabulate themes against brief texts, and this will show up in the agreement-checking process.

An appropriate rule of thumb to aim for, originally put forward by Miles and Huberman (1984) based on extensive trialing of inter-analyst checking, is 80% agreement. If this level is not achieved, the two analysts can convene and discuss their disagreements and consider ways of adapting theme names or theme descriptions to come to a higher level of agreement. This final stage of reaching consensus need not be done blind but, rather, should be done as a discursive process of continued theme development between the two researchers until a consensus position is achieved. This may, of course, lead to theme redevelopment, in which case the process cycles back to Phase C.

Phase F: Exploring Theme Frequencies

The use of ST-TA provides for a relatively high degree of precision with which statements of a theme's prevalence across the sample can be made. Having such prevalence data increases the trustworthiness and transparency of the findings, in line with other injunctions for trustworthiness in thematic analysis (Nowell et al., 2017). It is, however, important to emphasize again that the frequency of a theme does not equate, on its own, to how relevant or salient a theme is within a study (Braun & Clarke, 2016).

To calculate the frequency of participants allocated to each theme, add a frequency calculation cell at the bottom of each column, as illustrated in Table 3. To calculate this automatically using an Excel formula, write = SUM() in the cell, with the parentheses containing the top and bottom cell code, separated by a colon. So, for example, if a theme is shown in Column D and there are 40 participants, the first of which is in Row 2 (because themes occupy Row 1), the formula would be = SUM(D2:D41). The resulting frequency data is primarily to provide accurate statements about the prevalence of themes when writing up the report in Phase H. You can also choose to explore frequencies by comparing them across key demographic groups, for example, comparing males and females, if that is considered appropriate to the research question.

Frequency data present the opportunity for further quantitative analysis beyond total-sample frequencies. For example, if a researcher had data from males and females and was interested in gender differences in terms of theme prevalence, the researcher could transfer the spreadsheet into a statistics package, insert 0 for all the instances where a theme has not been coded, enter gender in a column as a nominal variable, and run a frequency-based test such as chi square to test the difference. This process fits within a form of mixed-methods research design referred to as the *data-transformation model* (Creswell & Plano Clark, 2010).

Phase G: Developing Thematic Maps and Diagrams

Braun and Clarke (2006) emphasize the benefits of thematic maps and diagrams for thematic analysis. These can aid analysis by presenting a visual representation of relations among themes that stimulate an integration of themes into a model or a conceptual framework (Robinson, 2011). Maps and diagrams are also integral to ST-TA, both as a way of helping to develop and relate themes and as a way of presenting analytical patterns concisely and coherently. See Figure 1 for an example of a diagram developed from the Ayoola and Robinson (2017) study on authenticity and parenting in childhood.

Creating diagrams and maps involves examining relationships between themes and then using the arrows or lines in the diagram to represent those relationships. Through this process, a list of themes moves toward becoming a model, framework, or integrated scheme. It is recommended that once a list of themes has been provisionally developed, the themes can be written on sticky notes or small pieces of paper and combined in patterns, with potential relationships also written onto sticky notes and placed between themes. This process may lead

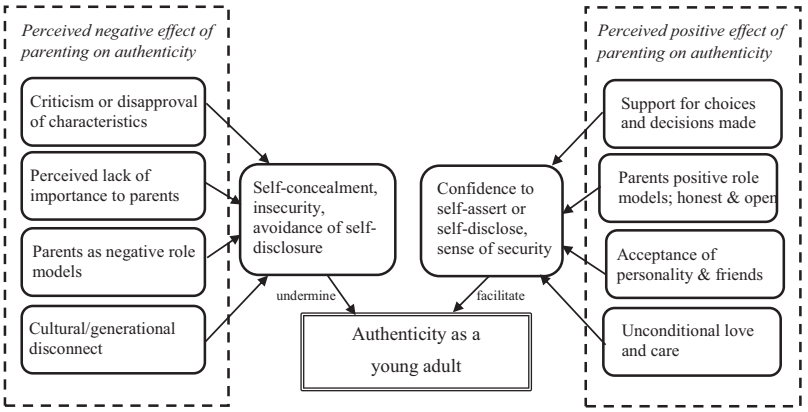

Figure 1. A map of themes developed in a study of how parents are perceived to influence adult authenticity in young adults.

to further insights in theme development because relationships between themes can inform the nature and labeling of the themes to some degree. Thus, there may be a recursive process between Phase G and going back to Phase C.

To support this process of relating themes to achieve integration, a "bolt-on" method called *relational analysis* (Robinson, 2011) can be used. Relational analysis presents 10 kinds of ways that themes can relate: *descriptive, comparative, semiotic, evocative, contingency, causal, reciprocal, dialectical, conceptual part–whole*, and *contextual part–whole*. These relational forms can be explored as candidates for making sense of how themes relate. Researchers can undertake this process of exploring relationships in dialogue or individually. The outcome of exploring intertheme relationships feeds directly into the process of creating a map or a diagram because lines or arrows in maps visually indicate such relationships.

Phase H: Producing the Report

In any thematic analysis study, writing the report is an active part of the analytical process, and this holds true of the structured tabular approach. The nature and structure of the report depend on whether a tabular thematic analysis is used (a) as a stand-alone analysis, (b) alongside in-depth qualitative methods, or (c) with quantitative methods. If brief texts are the sole form of data, the report will contain a singular results section that presents the themes using the typical structure of a qualitative results section. If forms of in-depth qualitative data have been collected concurrently as part of the study, it is recommended that the two are presented in two subsequent results sections, with an integrative discussion to compare the brevity-and-breadth findings of the structured tabular approach with the length-and-depth findings of the other method.

Another option for a report including an ST-TA is a mixed-methods paper that combines qualitative and quantitative findings. As mentioned earlier, a popular option in mixed-methods research is to concurrently gather numerical and brief textual data about a specific phenomenon by way of an online data-collection tool, then integrate these forms of data to inform the findings. For example, the Ayoola and Robinson (2017) study from which the data extracts in Tables 2 and 3 are taken included (a) brief texts on how parenting during childhood is perceived to influence adult authenticity and (b) psychometric data on trait authenticity and retrospective ratings of parental care and/or neglect during childhood. The qualitative and quantitative analyses were discussed in the report and interpreted in combination.

Sampling Concerns

A pertinent issue that relates to ST-TA is the matter of sampling. Qualitative methods that have traditionally been associated with depth data have been associated with *purposive* sampling (e.g., Lincoln & Guba, 1985). Purposive sampling involves the intentional selection of specific kinds of participants from the target sample to ensure variability of the sample

among key parameters that may differ in their responses (e.g., ensuring a balance of males and females or young and old). It is thus designed to elicit a sample that represents a broader population when the *N* is low (Robinson, 2014b).

Brief text research gains its richness through the range and diversity of responses, rather than the depth of responses. Therefore, when ST-TA is used, the sample *N* will often be larger than that in in-depth qualitative studies. Thus, it can and should employ a different sampling approach than the purposive strategies of small-*N* interview studies. Random sampling is premised on the logic that the larger the number of participants in a sample, the more likely they are to be representative of a target population. Thus, samples of hundreds or thousands may well show representative parameters in ways that samples of 10 or 20 will not. However, certain factors mitigate against random sampling even with large samples. The voluntary nature of psychological research studies means that people who are *interested* take part. These psychologically curious individuals may well not be representative of the population. Another issue is that if recruitment processes are locally situated, for example, via a university or via recruitment posters, they may result in a convenience sample, limited by geography, social connections to the researcher, socioeconomic background, or a whole range of other factors, which may mean the sample is not truly random. Online recruitment agencies may have greater geographical access, but their participants are those who have signed up for getting micropayments through research participation. Such individuals are unlikely to be a random sample.

One solution to this is to combine random sampling with purposive sampling (Robinson, 2014b). For example, if it is considered important to have an equal distribution of males and females in a sample and also to have an equal distribution of younger adults and older adults, a researcher can purposively select to have 30–40 young adult males, 30–40 young adult females, 30–40 older adult males, and 30–40 older adult females in a sample, then randomly sample within each of these cells to reach that target. In sum, a problem-focused and flexible approach to sampling, which can incorporate purposive and random sampling or combinations of the two, is appropriate to accompany ST-TA.

Conclusion

I have presented the structured tabular approach to thematic analysis as a way of flexibly and rigorously analyzing brief texts. Such an approach is of growing importance given both the increasing availability of such data via social media and the rising popularity of open-ended survey response methods (Clarke, Braun, Frith, & Moller, 2019; Terry & Braun, 2017). ST-TA synthesizes injunctions from two approaches to thematic analysis and adds in a range of processes for working with brief texts, including the practical advantages of using a spreadsheet when dealing with a larger sample and a tabulated form of analysis that provides opportunities for theme frequency and agreement calculation. It requires no specialist analysis software, thus is widely accessible and user-friendly for researchers at any level. The protocols and processes I have described herein are flexible guidelines, and I encourage readers to adapt them to their needs and to innovate further as and when appropriate. Brief texts remain an important frontier for qualitative research and I hope this method will act as encouragement for researchers to explore the full potential of this type of data.

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(*Appendix follows*)

Appendix

The Epistemologies Underlying Quantitative Research: A Complex Picture

The assertion that quantitative research is positivist is discrepant with historical facts. The history of psychology shows that quantitative research is based on a plurality of epistemologies, with positivism being a minority player at best. The first of these paradigms is Popper's hypothetico-deductive approach to science (Popper, 2002). Popper was explicitly critical of positivism; whereas positivism conceives of science as eliciting true facts and objective truths, Popper's approach sees science as eliciting tentative and provisional hypotheses that are never actually true but can only be said to not yet be proved false. The second influential paradigm in quantitative methods is the pragmatism of William James (1907). James supported the use of qualitative and quantitative data. He based this on the reasoning that all research should primarily be directed toward some productive end and thus have an instrumental benefit. We should use whatever kind of empirical information can help solve that problem and not determine a priori if that evidence should be verbal or numerical.

A third paradigmatic foundation is the introspectionism of Wundt and his followers, which formatively influenced the development of psychometrics (Otto, Kröhne, & Richter, 2018). This paradigm provides a justification for self-observation and hence for self-report questionnaires. Self-report questionnaires are not only reliant on the validity of self-observation and introspection, but they also require substantial interpretation on the part of the participant. The individual completing a questionnaire must read a series of written statements or questions and then judge which number on the scale accords best to their character or experience in relation to the statements. This process is clearly a deeply subjective and hermeneutic one, albeit one that is not frequently recognized as such (Robinson, 2014a).

Although positivism has had little influence on psychology, one area where it has had some influence is in sociology, and crucially, positivists in sociology dismiss attempts at self-observation or self-report (Comte, 1974). This in turn means the rejection of the countless quantitative studies based on self-report, which are the foundation of much of neuroscience as well as psychology.

In sum, there is no neat allegiance between quantitative methods and positivism. Such an assertion appears to be an oversimplistic and distorting reinterpretation of history. The binary distinction of "qualitative–quantitative" hides a raft of commonalities and complexities. Rather than two islands with their own separate methodological ethos, qualitative and quantitative research are more like two intersecting paths through the same forest of evidence-based sense-making.

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