A realist approach to thematic analysis: proposing the use of empirical, inferential and dispositional themes

Abstract

Thematic analysis (TA) is the most widely used method for analysing qualitative data. Recent debates highlighting the binary distinctions between *reflexive TA* grounded within the qualitative paradigm and *codebook TA* with neo-positivist orientations have emphasised the existence of numerous tensions that researchers must navigate. This article attempts to resolve some of these tensions through developing an approach to TA underpinned by realist philosophy of science. Focusing on interview data, we propose the use of three types of themes (empirical, inferential and dispositional themes) and the use of corresponding validity indicators (empirical adequacy, ontological plausibility and explanatory power). Using an illustrative example, we outline the conceptual foundations of a realist approach to TA and present recommendations for conducting it in practice. This approach, we claim, reconciles several existing binaries between distinctive types of TA by incorporating the contributions of both for the development of different types of themes.

Keywords: *critical realism; paradigms; small q qualitative; big Q qualitative; data analysis; validity; study design; research quality; interdisciplinary research; methodology.*

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Introduction

Thematic analysis (TA) is the most widely used method for analysing textual data in contemporary qualitative research. Part of the popularity of TA could be that it is accessible to novice qualitative researchers and that it tends to produce clear and comprehensible findings that meaningfully make sense of otherwise complex data (Braun et al., 2016). Indeed, in contrast to analytic methods that comprise a more complete methodology (e.g., phenomenological analysis, Foucauldian discourse analysis or narrative analysis), TA can be seen as an intuitive method without deep theoretical commitments (Braun and Clarke, 2006). While qualitative research has long relied on some type of thematization during analysis, Boyatzis (1998) offered one of the first structured guidelines for conducting TA and considered it as a potential bridge between qualitative and quantitative research traditions. Although several versions of TA have since been introduced (e.g., Attride-Striling, 2001; Guest et al., 2012; Joffe, 2012; Lawless and Chen, 2019), the approach that has clearly become the most influential is attributed to Braun and Clarke (e.g., 2006; 2016; 2019a; 2019b). Their (2006) *Using thematic analysis in psychology* paper is highly cited – with over 70,000 citations recorded on Google Scholar – and has become the standard point of reference for TA.

Despite this breadth of application, engaging with TA is not entirely unproblematic. Recent contributions from leading proponents have highlighting the existence of paradigmatic disagreements between two broad approaches to TA. Braun et al. (2016) use the terms 'small q' qualitative research and 'big Q' qualitative research to make this point. 'Small q' TA follows largely in line with Boyatzis' (1998) early version which, with the ambition of being a bridge between qualitative and quantitative traditions, involved translating 'qualitative information

into a format amenable to statistical analysis' (viii) as well emphasising the need for interrater reliability. Boyatzis' approach – alongside Guest et al.'s (2012) approach – was described by Braun and Clarke (2019a: 594) as *codebook TA* (or *coding reliability TA*) and is partially characterised as being 'guided by a pre-determined codebook or coding frame' for the purpose of identifying material that is relevant to a particular 'data domain' (i.e., a theme). Indeed, codebook TA was also said to be grounded in 'neo-positivist' underpinnings and relies on 'a straightforward realist ontology' (Braun and Clarke, 2019b: 9-10).

In contrast, Braun and Clarke position their version of TA in line with the 'big Q' approach whereby qualitative methods are not merely techniques, but instead are seen as inseparable from the wider methodological process and hence faithful to a so-called 'qualitative paradigm'. Defining what characterises the qualitative paradigm may be a contentious task, but key authors have drawn on labels such as interpretivism, relativism and constructivism to signal the ontological, epistemological and axiological assumptions that are often considered to be interwoven within qualitative inquiry (Sale et al., 2002). Explicitly, Creswell and Miller (2000: 125) wrote: 'the qualitative paradigm assumes that reality is socially constructed and it is what participants perceive it to be'. This was echoed by Smith (2017: 138) who noted that 'often the qualitative researcher believes that reality is multiple and dependent on them' as well as that 'knowledge is constructed and subjective.'

Despite the initial description of TA in their 2006 paper as an approach that is 'essentially independent of theory and epistemology, and can be applied *across* a range of theoretical and epistemological approaches' (Braun and Clarke, 2006: 78), qualitative paradigmatic framings increasingly play a more leading role in the most recent reflections and guidelines. For them, 'qualitative data analysis is about telling "stories", about interpreting, and creating, not discovering and finding the "truth" that is either "out there" and findable form, or buried deep within, the data' (Braun and Clarke, 2019a: 591). More specifically for TA, they

reflected that 'we expressly developed TA as an approach embedded within, and reflecting the values and sensibility of, a qualitative paradigm' (Braun and Clarke, 2019a: 9). Indeed, these explicit demarcations have been made manifest with the introduction of the label *organic TA* (Braun and Clarke, 2016) and more recently *reflexive TA* (Braun and Clarke, 2019a). Appealing to framings of this kind, Braun and Clarke 2019b: 10) positioned their version of TA as being 'incompatible' with assumptions of codebook TA.

Highlighting the binary distinctions between reflexive TA (grounded within the qualitative paradigm) and codebook TA (with neo-positivist orientations) presents researchers – particularly novice researchers – with two 'incompatible' paradigmatic options for conducting TA, with the former being overwhelmingly the most popular choice. As such, we suggest that a gap in the literature has become apparent for qualitative researchers who wish to adopt an alternative paradigmatic perspective altogether. Often seen as a path through the polarised traditions of positivism and interpretivism, realist philosophical assumptions (Bhaskar, 1975; 1978; Sayer; 1984; Archer, 2007; Danermark et al., 2002, 2019; Maxwell, 2012; Pawson, 2013) may offer such an alternative.

This present article intends to make an original contribution to the qualitative research literature by proposing a realist approach to TA. In what follows, we justify the need for such an approach beyond merely highlighting its absence by identifying several tensions in reflexive TA as it is currently described. Key realist concepts are then defined and explained before situating this article within the existing literature attempting to translate realist philosophical principles into methodological practice. The bulk of this article is then dedicated to outlining the conceptual foundations of a realist approach to TA and clarifying one way of conducting it in practice using an illustrative example with interview data. Ultimately, we claim that this approach reconciles and moves beyond the existing paradigmatic binaries in the TA literature.

Why might a realist approach to thematic analysis be useful?

Tensions in reflexive TA

Beyond the absence of a conscientious engagement with realist philosophy of science in the existing TA landscape, there may be other reasons for seeking an alternative approach to TA. First, notwithstanding the aforementioned benefits of reflexive TA, we suggest that tensions can arise for some researchers because of its explicit alignment with the qualitative paradigm. While this alignment, no doubt, engenders a sense of coherence for some, an obvious tension may arise for those wishing to integrate reflexive TA with quantitative methods as part of a broader study and, indeed, while collaborating with primarily quantitative-oriented colleagues. Amidst ongoing calls for greater methodological border-crossing (Danermark et al. 2019; Wiltshire, 2018) as well as movements within contemporary policy environments that support it (McLeish, 2016) it is likely than many researchers will find the 'incompatibility' framing of the qualitative paradigm increasingly challenging.

Second, it could be argued that framing different versions of TA in binary terms is constraining and limiting if it happens to be the case that they are not actually in conflict. Examining some points of contention between the two strands of TA has led us to question this claimed incompatibility in various places. For example, one distinction between the two strands of TA is highlighted when Braun and Clarke critique codebook TA's focus on 'surface-level' descriptions of patterns which they associate with quantitative-oriented analysis, as opposed to seeking 'deep reflection on, and engagement with, the data' (Braun and Clarke, 2019a: 593) which characterises reflexive TA. This *surface/deep* binary, we claim, need not be seen as characteristics of opposing approaches because both may be needed in building knowledge about a particular phenomenon of interest. Similarly, on the topic of using multiple coders, it was suggested that,

> if more than one researcher is involved in the analytic process, the coding approach is collaborative and reflexive, designed to develop a richer more nuanced reading of the data, rather than seeking a consensus on meaning (Braun and Clarke, 2019a: 595).

Here, we see a binary presented with *richness and nuance* on the one hand and *seeking consensus* on the other. Our view is that seems desirable to seek both richness and nuance *and* consensus.

Furthermore, when considering what constitutes quality TA, Braun and Clarke (2019a: 594) tend to downplay or reject the use of practical activities such as following a defined procedure, using a codebook or checking the reliability of analysts' coding (see Boyatzis, 1998; Guest et al., 2012; Joffe, 2012), stating that:

> Quality reflexive TA is not about following procedures 'correctly' (or about 'accurate' and 'reliable' coding, or achieving consensus between coders), but about the researcher's reflective and thoughtful engagement with their data and their reflexive and thoughtful engagement with the analytic process.

Once again, a distinction is made between *procedures, accuracy, reliability and consensus* on the one hand, and being *reflexive and thoughtful* on the other despite it being possible that the values of reflexivity and thoughtfulness are complimentary to – rather than incompatible with – the stated codebook TA procedures.

The final related point that we raise here is that reflexive TA is unclear about the principles used to sort out more trustworthy 'nuanced readings' of the data from the less trustworthy ones. This is especially problematic if diverse and even contradictory interpretations are offered by analysts. That is, being 'reflexive and thoughtful' is undoubtedly necessary for reaching trustworthy findings, but they are no guarantee of this any more than following a defined procedure, using a codebook and checking levels of agreement between

analysts. This is because a deep, reflexive and thoughtful engagement with data and the analysis process does not entirely mitigate the risk of prejudicial, manipulative and plainly mistaken engagements that are inherent to science. We hope to address some of these issues in the approach we develop in this present article.

Advancing realist methodology

We use the term 'realism' here for simplicity and because it is inclusive of different traditions of realism, but we acknowledge that much of our understanding is informed by authors associated with the label of critical realism (e.g., Bhaskar, 1975; 1978; Archer, 2007; Danermark et al., 2002; Sayer, 1984). Notwithstanding the various divergencies between traditions, realism broadly assumes that there are things that have a real, objective existence 'out there' in the world and these things become the intended objects of study for the natural and social sciences. However, reflecting the long history in the philosophy of science claiming that knowledge is fallible and that a complete apprehension of the objective world is naïve, realism makes an important distinction between epistemological assumptions (referring to knowledge) and ontological assumptions (referring to being). Specifically, realism respects the epistemological idea that reality cannot be apprehended directly because it is processed through our brains, language, culture, methods and so on (Westhorp et al., 2013: 13) yet simultaneously subscribes to the idea that 'there is a state of the matter which is what it is, regardless of how we do view it, choose to view it or are somehow manipulated into viewing it' (Archer, 2007: 195).

After assuming this basic position, many realists draw inspiration from Bhaskar's 'stratified ontology' (Bhaskar, 1975; 1978; 1989). Bhaskar claimed that phenomena in the world can be differentiated into three overlapping domains: observed experiences and events

168 in the ‘empirical domain’ (i.e., things that really exists and are captured in data and noticed by
169 the researcher); unobserved but occurring experiences and events in the ‘actual domain’ (i.e.,
170 things that really exists but may not be captured in data or noticed by the researcher); and
171 unobservable causal powers and potential mechanisms in the ‘real domain’ (i.e., things that are
172 not observable but have the potential to produce events).

173 While various metaphors have been used to help understand this stratified ontology
174 (Jagosh, 2019), we have found it helpful to imagine looking down at a flower from directly
175 above. The petals are in relatively clear view (the empirical domain) but much of the rest of
176 the flower (the actual domain) is not, although we can reasonably infer that it is actually there
177 and that we could see it if we were to look from another angle. The soil in which the flower is
178 growing and the nutrients that it contains (the real domain) are out of the reach of our visual
179 field. This means that we can only know anything about its predisposed properties – such as
180 the quality of the soil – by observing the real effects that they have on the flower and building
181 a theory about it. Making these distinctions is seen as important for research activities because
182 it helps ‘clear the ground’ by defining the different kinds of things that investigations should
183 be seeking to shed light on. In the context of qualitative data analysis, the assumption of
184 ontological depth suggests the need for researchers to engage in empirical as well as a highly
185 theoretical and speculative activities.

186 Grounded in these metaphysical assumptions, numerous other principles have come to
187 characterise realist approaches. Firstly, realist research recognises the inherent value in both
188 qualitative and quantitative methods through the idea of ‘critical methodological pluralism’
189 (Danermark et al., 2002). In addition, contrary to the qualitative paradigm, realism values the
190 concept of validity, although it is important to amend it for some aspects of qualitative research
191 (Maxwell, 2012). Causal explanation is central to scientific activities in the realist approach
192 and is seen as a demarcation from empiricist research that focuses on predicting observable

phenomena (Clark et al., 2007). Indeed, in the context of life-story and biographical research, Steensen (2006: 11) suggested that:

> research should be carried out not just to document how people's lives evolve in the subjective sense, but also in order to explain life trajectories as they take place in modern societies.

This emphasis on explanation requires that researchers approach research with an intention to answer explanatory questions which, according to Sayer (1984, 104/5) necessarily invokes causal language such as 'what "makes it happen", what "produces", "generates", "creates" or "determines" it, or, more weakly, what "enables" or "leads to it".'

While the principles and characteristics of realist philosophy of science have been thoroughly developed, it has been suggested that they have yet to be fully realised as a scientific project. Both Ackroyd and Karlsson (2014) and Fletcher (2017) highlighted the need for critical realism in particular to move from methodology to method given that few researchers have yet to demonstrate how philosophical principles ultimately contributed to their findings. A number of methodological developments have now been established, including realist interviewing (Mukumbang et al., 2019), realist grounded theory (Hoddy, 2019) and realist case studies (Wynn and Williams, 2020). Furthermore, the methods of Realist Evaluation and Realist Synthesis are increasingly being utilised (Pawson and Tilly, 1997; Pawson, 2013; Westhorp et al., 2013) and the integration of realism the much revered (in evidence-based medicine at least) method of randomised controlled trials is being considered (van Belle et al., 2016). In proposing a version of TA grounded in realist philosophical ideas, we hope that this article adds to this growing body of work.

Generating themes and enhancing rigor in a realist approach to TA

This section uses an illustrative example to outline what a realist approach to TA might look like (see Table 1 for a summary of the full process). As we will demonstrate, some of the characteristics of a realist approach to TA are distinctive from existing approaches while others are already apparent in existing approaches, either implicitly or explicitly. We propose that the generation of themes from a realist approach could be structured around the three domains outlined in Bhaskar's conception of a stratified ontology. As such, a realist approach to TA can translate philosophical principles into methodological practice by explicitly using three different types of themes which are different, yet reliant upon each other:

- Empirical themes, referring to intentions, hopes, concerns, beliefs, and feelings captured in the data;
- Inferential themes, referring to inferences and conceptual redescriptions using more abstract language; and
- Dispositional themes, referring to theories about the properties that must exist in order to produce the phenomena being studied.

Generating these themes requires data-driven coding, deductive thinking and inductive thinking (which are currently used in other approaches to TA) (Braun and Clark, 2006) as well as abductive and retroductive thinking (which are advocated in realist methodology) (Jagosh, 2020; Emmel et al., 2018). For the most part, our process progresses through the themes sequentially as they appear here, but it should be acknowledged that all three themes are likely to be simultaneously present in the minds of researchers throughout the process and this can be helpful. While these themes are being generated, we also propose that the rigor and quality of the analysis can be enhanced through considering Maxwell's (1992; 2012) types of validity (descriptive, interpretive and theoretical) as well as broader indicators of validity such as empirical adequacy, ontological plausibility and explanatory power.

The data we are using for illustrative purposes were collected as a part of the second author's research on athletics (track and field) coaches' careers and the meanings that coaches assign to their involvement with sport (see 2nd author et al., 2019). The data set consists of 23 semi-structured narrative interviews (35-89 minutes, average 59 minutes) with sports coaches residing in Finland and the UK (aged 22-86 years), but only two transcripts were analysed to maintain clarity for the illustrative purposes of this article. The interviews started with the question "please tell me about your story of becoming a coach" and the topics that were explored in each interview also included participants' involvement in athletics, club culture and their coaching philosophy. We chose this data set primarily because it was readily available to us and we were familiar with the research context which allowed us space to concentrate on the process of analysis. In hoping to allow readers to be able to draw parallels with their own work, we also felt that the experiences of sports coaches would resonate with numerous other qualitative researchers working in diverse social science fields such as education, management, community development and leisure studies among others.

[Insert Table 1 around here]

Generating empirical themes

We see empirical themes as attempts to describe participants' intentions, hopes, concerns, feelings and beliefs as they are evident in the data. With the notion of validity in mind, implying that it is possible that we could get it wrong, we started to work on the analysis separately in the knowledge that we would later compare and contrast our lists of empirical themes. Taking our illustrative example, we each began generating empirical themes by reading through the first interview for familiarity while annotating the transcript with tentative ideas about participants' intentions, hopes, concerns, feelings and beliefs. This first reading was also a good opportunity to pick out 'objective' contextual information about each participant such as their

demographic characteristics, their circumstances and the relevant events that have impacted them. On the second reading, instead of annotating notes on the transcript we each listed 'nascent' empirical themes as we progressed through the transcript using a simple spreadsheet or table (see Figure 1). Nascent empirical themes were listed vertically (each theme as a new row) and were written as plain-English descriptions of the particular type of intention, hope, concern, belief or feeling expressed by the participant and observed in the transcript. We used the sentence starter 'The participant expresses that…' as a way of structuring our ideas with consistency and we usually used the language used by participants themselves. For example, an early part of the first interview transcript read;

> I think I had an inspirational PE teacher myself. And that had a big influence on me. They were very much keen on their athletics as well and I think a lot of that rubbed off on me. Therefore, when I started teaching, I think I started coaching around about the same time.

This was coded by researcher A as:

> The participant expresses that he felt inspired to coach by his own experience of being coached himself.

This 'data-driven'[1] coding was carried out by each of us for the whole of the first transcript before copying the complete list of nascent empirical themes to a master list. This process was repeated for the second transcript but with the additional task of 'deductively'[2] checking whether or not the intentions, hopes, concerns, beliefs and feelings expressed by the

[1] Other descriptions of qualitative data analysis refer to this process as 'inductive' coding (see Braun and Clarke, 2006). However, we later use the term 'inductive' to refer to a type of logical reasoning so we use 'data-driven' to avoid confusion.

[2] Other description of qualitative data analysis refer to deductive coding as 'theory-driven' or 'top-down' thinking (Braun and Clarke, 2006). We use the term 'deductively' as it is used in logic to refer to the process of testing the truth of an emerging premise based on the truth of an observable conclusion (e.g., Sports coaches generally experience X (premise 1). This particular participant is a sports coach (premise 2). Therefore, this participant experiences X (conclusion).)

first participant were also true for the second participant. To assist this, we added a new column to the table of themes (adjacent to the themes and data from the first transcript) and recorded our decision using the terms 'also true for this participant', 'not true for this participant', and 'no evidence available'. The new data-driven findings that were not already identified in the first transcript were added to the master list. Our illustrative example stopped at two transcripts, but the process can be repeated for as many transcripts as are required in a wider study. At this point, it is also possible provide interview participants with a list of nascent empirical themes generated from their interview. Although 'member checking' for eventual analytic findings has raised a number of concerns (Smith and McGannon, 2018), we see no in-principle reason why nascent empirical themes that are descriptive and in lay-terms would not benefit from being reported back to participants.

Once complete, the nascent empirical themes on the master list were re-phrased to reflect their existence in the data set with the sentence starter "Data show that…"At this stage, it was possible to make an evidence-based judgement about the strength of each nascent empirical theme as well as look for potential patterns based on the contextual information available such as, for example, gender differences between participants. We see frequently-occurring themes as 'demi-regularities' because they indicated that an interesting pattern of events was occurring but without restricting us to making law-like judgements about those patterns (Jagosh et al., 2012). Here, we found it useful to draw on quantitative-type information about how frequently each theme arose in the data (across the two transcripts) which is commonly implied when studies report findings with phrases like 'many participants in our study' or 'a common theme in our data was', but rarely made transparent.

That said, avoiding the temptation to fetishize the apparent precision that quantitative-type information allows, we also trusted in our natural, empathetic human capacities to recognise more or less significant themes based on the strength with which they were conveyed,

irrespective of how frequently they appeared in the data. Both of us sought emotional 'hot spots' in the data (Ringrose and Reynold, 2014) to help in this regard and one of us drew on the additional benefit of having conducted the interviews and hence having witnessed the strength of feeling about each theme *in situ* (Ezzy, 2010). Based on this judgement, the nascent empirical themes on the master list were re-phrased again to reflect the presence of the theme across the data set with the sentence structure used in the following example:

> Data show that [some/many/most] participants in this study [strongly] intended to find success as a coach from the athletes that they coached.

Efforts to enhance the quality of our analysis at this stage were guided by the concepts of empirical adequacy (is there sufficient data to support the claims made?), and Maxwell's (1992; 2012) descriptive validity (how well the researcher's description corresponds to the available facts) and interpretive validity (how well the researcher's interpretation of experiences corresponds with the participant's interpreted experiences). Thinking with these ideas, we attempted to remain sensitive to noticing whether nascent empirical themes fell short of being defensible. We see these as important, fundamental principles which are especially relevant to claims that are novel, unexpected and surprising and hence may require greater levels of empirical verification. Even though enhancing empirical adequacy, descriptive validity and interpretive validity is possible for a single researcher we found that comparing and combining our analysis was a valuable exercise. Using a consensus document (see Figure 2), we reviewed each others' themes in turn for accuracy – checking the original transcript in the case of disputes – and arrived at a decision to keep, combine, discard or rename themes. This resulted in a combined list of 31 mature empirical themes (see Table 2).

Generating inferential themes

A realist approach to TA ought also to be sensitive to the notion that some aspects of the social world are not empirically observed but can be inferred through our empirical investigations. In this sense, inferential themes are different to empirical themes because they attempt to take this step by moving beyond the 'data-driven' and 'deductive' thinking used to develop empirical themes to instead utilising a dual combination of 'inductive'[3] and abductive thinking as an extension of the empirical themes. Returning to working independently, thinking inductively involved moving from a descriptive statement about the participants in this particular data set (i.e., "Data show that some participants in this study may feel…") to a plausible statement about the broader population or practice of interest (i.e., "It is plausible to claim that sports coaches may feel..." or "It is plausible to claim that the practice of coaching could involve…"). This was a relatively straight forward move, although the key judgement about the kind of probabilistic language to use (i.e., "sports coaches *may* feel…", "sports coaches *commonly* feel…" or "sports coaches *are likely to* feel…") and the use of general/particular indicators (i.e., "male sports coaches…", "young sports coaches…") was contentious as a result of only analysing two transcripts for our illustrative example. In this way, our example shows that enhancing the quality of these inferences can usefully be guided by empirical adequacy as well as ontological plausibility (i.e., can this claim reasonably be considered as a plausible reflection of what occurs in the world?).

Following as we do from existing realist scholarship, we consider the notions of abstraction entailed within abductive thinking to be highly valuable. While inductive and deductive reasoning are useful thought processes, they are of limited value because neither contribute to the development of new explanatory theories (Decotaeu, 2017). This is because

[3] We use the term inductive to mean the reasoning involved in generating a more general claim from what is known about a particular case.

deductive statements preserve the knowledge contained in their assumptions and inductive statements produce generalisations of the properties that are already observed in the data (Danermark et al., 2002). Abduction, in contrast, is a conceptual 'redescription' (Fletcher, 2017; Hoddy, 2019) or 'recontextualisation' (Danermark et al., 2002) of empirical data that gives a more abstract and general form to the phenomenon in a way which acknowledges the early presence of conceptual framings while also allowing empirical data to inform such conceptual framings (Lusted, 2018). As Danermark et al. (2002: 91) explained,

> The revolution of recontextualizations is that they give a new meaning to already known phenomena. Social science discoveries are to a large extent associated with recontextualization. Social scientists do not discover new events that nobody knew about before. What is discovered is connections and relations, not directly observable, by which we can understand and explain already known occurrences in a novel way.

In our illustrative analysis, we attempted to draw on existing concepts that we were aware of in the literature and which helped to reach past the lay-language used for the empirical themes. Take, for example, the following empirical theme:

> In with the crowd: Data show that some participants in this study felt like coaching kept them 'in' the sporting community.

Thinking both inductively and abductively, this was eventually developed into the following inferential theme:

> Belonging to a community: The practice of coaching [could/often/is likely to] provide coaches with a sense of belonging, feeling cared for, a social identity and way to maintain relationships.

Developing these inferences relies on a researchers' knowledge of the conceptual landscape as well as, potentially, the original and creative invention of new concepts. For us,

this emphasised the importance of researchers' specialist knowledge as well as being able to access literature that opens up and clarifies key concepts. That said, we again used the notion of interpretive validity to resist the temptation to over-extend our abductive thinking because we noticed a potential risk in being drawn to interesting (and popular) concepts at the expense of fairly representing the experiences of participants.

As with the empirical themes, we used a consensus document to compare and combine our ideas in order to move from nascent inferential themes to mature inferential themes (see Figure 3). The main value in this process was to adding concepts that were missed by a single researcher and further exposing ideas to disputes about empirical adequacy, ontological plausibility and interpretive validity. Additionally, it was possible at this stage to collapse two or more of the empirical themes that were underpinned by a shared concept. This resulted in a list of 21 mature inferential themes (see Table 2).

Generating dispositional themes

Reflecting the deepest domain in Bhaskar's stratified ontology, we see dispositional themes as attempts to theorise about the potential powers that must exist in order for the phenomena in the world to manifest. Dispositional themes rely necessarily on the previous levels of themes but move beyond them by thinking 'retroductively.' The thought process of retroduction entails thinking about the mechanisms – that may be 'latent' or 'dormant' – but have real causal influence on the world because of their intrinsic properties (Jagosh, 2020). Themes at this level are 'dispositional' in this sense precisely because they do not always produce actual events in the real-world as their causal power is dependent on the context in which they reside (Hoddy, 2019; Decotaeu, 2017). According to Danermark et al., (2019) retroductive thinking can be guided by asking questions like 'what must be the case in order for X to happen?' and 'can we

imagine X without Y existing first?' Indeed, as a reasoning process that moves from concrete to abstract and back again, retroduction is the 'central mode of inference' in critical realism (Lawson, 1998: 156, cited in Fletcher) and is also widely used in social sciences more broadly even though it is not always made explicit (Danermark et al., 2002). In order to achieve its aims, retroduction draws on grand theoretical narratives about why the world is as it is, as well as so-called middle range theories (Astbury, 2018) that are deliberately more local and limited in scope.

In our illustrative example, we again worked independently on nascent dispositional themes before bringing our ideas together in a consensus document (see Figure 4). Thinking primarily from memory and secondarily from scanning the literature, various theories, concepts and propositions were put forward using the following sentence starter to structure our thinking: "The inferred phenomenon is dependent upon the existence of…". For example, one dispositional theme that we arrived at was:

> Traditional volunteer ideology: The inferred phenomenon is dependent upon the existence of a traditional volunteer ideology of mutual aid whereby members of a community organisation have a responsibility and obligation to 'return the favour.'

We arrived at this dispositional theme after noticing that three different inferential themes could be partially explained because of the existence of this common underlying structure. These inferential themes were:

> In service to others: It is plausible to claim that coaches [could/often/are likely to] feel compelled to respond in service to the perceived needs of others.

> It is plausible to claim that coaches [could/often/are likely to] believe that athletes' goals take priority over their own goals.

It is plausible to claim that coaches [could/often/are likely to] feel a sense of commitment to and solidarity with their club.

As with empirical and inferential themes, it was important to enhance the quality of the analysis and, relatedly, question the validity of dispositional themes both as individual analysts and then collaboratively. The concept of explanatory power was useful as a validity indicator in this regard as it helped us question the extent to which the postulated theory explains the inferential and empirical themes that related to it. Indeed, this is not dissimilar to Maxwell's (1992; 2012) notion of theoretical validity which is described as 'an account's function as an explanation, as well as description or interpretation of phenomena' (p. 291). Deciding which explanatory themes have more or less explanatory power entails a kind of judgemental rationalism (Bhaskar, 1989) intended to reveal logical inconsistencies, paradoxes and anomalies (i.e., 'holes in the argument').

To allow for further scrutiny of nascent dispositional themes we found it helpful to re-organise and re-articulate the analyse in a way which brought all three levels of themes together. We essentially 'reversed the order' of the themes and framed sentences in an explanatory way which clearly and transparently exposed our logic (see Figure 6). For example, bringing together dispositional, inferential and empirical themes, the following statement was put forward:

Because of the existence of…

the existentialist notion of the human disposition to make lives meaningful through serious commitments and concernful involvement…

there may be a tendency that…

coaches [could/often/are likely to] believe that commitment is important to coaching and that this forms part of it being considered 'serious leisure'.

This manifested in our data which showed that…

[some/many/most] participants in this study [strongly] believe that coaching should be a long-term, serious commitment.

Not only was this a useful way of exposing the logic of our propositions, but it also served as a helpful summary of the analysis as a whole. At the conclusion of this process we had generated 11 dispositional themes (see Table 2).

[*Insert Table 2 around here*]

Concluding remarks

Data analysis represents a crucial stage of knowledge production within qualitative research studies and TA is the most widely used method of data analysis for textual data. In the absence of an alternative to the polarised approaches of *reflexive TA* grounded within the qualitative paradigm and *codebook TA* with neo-positivist orientations, this article proposes an approach to TA grounded in realist philosophy of science. Indeed, such an approach was considered of interest within the ongoing and incomplete efforts to translate realist assumptions into methodological practice.

Given that reflexive TA (Braun and Clark, 2006; 2016; 2019a; 2019b), as the most widely used approach, is increasingly framed in qualitative paradigmatic terms as being incompatible with the assumptions of quantitative research, we hoped to develop an approach that is – in principle – compatible with a diverse range of methods and researchers. As realism is methodologically pluralist (Pawson, 2013; Danermark et al., 2002) we believe that the approach developed in this paper provides an effective platform for integrating TA into broader interdisciplinary projects. Specifically, it is feasible that empirical themes could be used in the

development of cross-sectional surveys, inferential themes may be particularly helpful in designing interventionist programmes for different social groups and dispositional themes could be further explored in participatory action research or case-studies in order to refute or refine theoretical explanations.

Additionally, having initially problematised the apparent binary distinctions between the characteristics of current approaches to TA (e.g., surface/deep, nuance/consensus, procedural/thoughtful), we sought to operationalise a conceptual and practical process to reconcile them. The realist approach presented here uses Bhaskar's stratified ontology to imagine three levels of themes and, in doing so, incorporates and values both surface and deep aspects of qualitative analysis. We have reflected on the use of a consensus document to bring together the ideas of multiple analysts and consider that reaching agreement need not be at the expense of nuance and that collaboration has additive (accumulating additional analytic insights) as well as subtractive (reducing errors and the threats to validity) qualities. Indeed, while our example analysis was by no means mechanical in its adherence to procedure, we found value in clarifying and delimiting our 'thoughtfulness' by explicitly using different modes of inference (data-driven, deductive, inductive, abductive and retroductive) at different stages for different reasons.

While we hope that we have provided a clear and accessible account of what a realist approach to TA might look like, there is, no doubt, room for further development and we welcome interrogation of both the principles and practices that we have proposed here. Namely, questions remain about the scope and limitations of this approach for at least two reasons: (a) because we have limited this article to interview data meaning that refinements are likely to be necessary when applied to different forms of data such as documents, visual data or ethnographic observations, and (b) because we have not yet attempted to produce a research article or report from an analysis of this kind meaning that the expectations for representation

499 are yet to be worked through. These opportunities for future development would be welcome
500 extensions of this new method.

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502 **References**

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