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Interactional challenges and researcher reflexivity: Mapping and analysing conversational space

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Abstract
This paper argues that a combination of visual and textual information can help researchers engage critically with their interviewing practice, identify interactional challenges and advance their reflexivity. It proposes a mapping and analysis of conversational space in qualitative interviews based on the length of speech sequences and the speed by which these move from one party to the other. Such verbal exchanges are represented visually in a conversational space map (CSM) allowing researchers to identify moments for further textual analysis and explore their interviewing practice and wider research context. It sensitises researchers to their preferred patterns of verbal interaction and the effect of these on the continuing interview, enabling them to engage more meaningfully with research participants. The process proposed here may be particularly valuable for doctoral training and supervision as well as for research teams.

Keywords: Co-constructing interviews; interactional challenge; interviewing practice; qualitative interviewing; researcher reflexivity; researcher development.

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Introduction

Amid critique of qualitative interviewing (e.g. Potter and Hepburn, 2012; Silverman, 2013), there has been significant methodological interest in interactional challenges (e.g. Roulston, 2011; 2014) and the role of researcher reflexivity in addressing them (Finlay, 2003; Roulston et al., 2008). Interactional challenges refer to those actions by researcher and/or participant that jeopardise the continuing interview. They typically stem from a lack of alignment between the parties (Nairn et al., 2005; Prior, 2014), the researcher’s way of questioning and listening (Kahn and Carnell, 1957; Partington, 2001) and/or the participant’s engagement or lack thereof (Adler and Adler, 2002; Dundon and Ryan, 2010). Reflexivity means that researchers are aware of their role in the research (Cassell et al., 2009) and the way in which they influence the conduct and outcomes of their work (Cunliffe, 2003). It is built through critical engagement with (Bott, 2010) and amendment of one’s research practice (Hibbert et al., 2010). As such, researchers can learn much by critically engaging with their interviewing practice (Roulston, 2016).

Recent work has focused on practical means through which researchers ‘do’ reflexivity in line with their philosophical stance (Finlay, 2002) and personal preference. These include reflective (Mauthner and Doucet, 2003; Nadin and Cassell, 2006), engagement (Haynes, 2012; Kalou and Sadler-Smith, 2015), relational (Cunliffe and Karunanayake, 2003; Hibbert et al., 2014) and conversation analytic strategies (Mazeland and Ten Have, 1996; Roulston, 2006; Prior, 2014). However, these are based on textual or oral materials and therefore ill suited for visual learners, who best engage with pictures and diagrams (e.g. Paschler et al., 2008) and make up more than half of an adult population (e.g. Barbe and Milone, 1981). I am such a visual learner and have struggled with ‘doing’ reflexivity using these means: reflective strategies provided insufficient
focus on my interviewing practice, engagement strategies distracted my attention from interactional aspects, relational strategies required input by others which I failed to secure, and conversation analytic strategies were too technical for me. I was thus looking for a different way.

The result is a mapping and analysis of the conversational space in which researcher and participant interact verbally as part of a qualitative interview and which is taken up by the parties at different points. It starts with a visual representation of the verbal interview interaction on the basis of the length of speech sequences (utterances) measured in the number of words called conversational space map (CSM). Visual analysis of CSMs enables researchers to identify the overall interview dynamics (the flow of the interview), patterns of interaction (the configuration of utterances in terms of their comparative length) and turning points (the moments in which interview dynamics and patterns of interaction change), which allow for identification of key moments. Focused textual analysis of interview transcripts enables researchers to examine such moments of interactional challenge and/or desired practice by scrutinising how they have phrased questions (Roulston et al., 2003) and established (or failed to establish) mutual understanding (Roulston, 2011; Prior, 2014), when either party has dominated the interview (Vähäsantanen and Saarinen, 2013) or when participants refused to engage (Dundon and Ryan, 2010). It helps researchers explore their preferences, participants’ needs and wider contextual factors as the analysis below will show.

The contribution of this paper is three-fold. Firstly, it contributes to methodological analyses of research (e.g. Finlay, 2012; Roulston, 2016) by proposing conversational space as a level of analysis that is situated between largely unstructured reflective and engagement strategies and very structured conversation analytic strategies and that examines the sequential construction of qualitative interviews. As such, it provides deeper insights than the former without requiring the sophisticated technical knowledge of the latter and can therefore be applied more readily.
Secondly, this paper contributes to the practice of reflexivity (e.g. Finlay, 2002) by demonstrating that a combination of visual and textual information can deepen researchers’ critical engagement with their interviewing practice while complementing the established strategies. The novelty of the process proposed here is the CSM as a starting point, which sensitises researchers to their preferred ways of interacting and enables them to engage more meaningfully with participants. Finally, this paper contributes to researcher development (e.g. Cassell et al., 2009) by facilitating retrospective analysis of one’s interviewing practice, individually and/or with a peer or mentor without that person having to be present in situ. This may be particularly valuable for doctoral training and research teams.

Next, I provide an overview of the key characteristics of qualitative interviewing, summarising common interactional challenges, explaining how reflexivity is understood in this article and how it is commonly applied. I will then describe my research as well as the development of the mapping and analysis of conversational space before outlining the analyses. The discussion identifies generic interactional patterns that readers may find in their own interviewing practice and outlines how the process proposed here may be developed further. A critical evaluation of the mapping and analysis of conversational space is also provided.

Methodological analyses of qualitative interviews

Qualitative interviewing and interactional challenges

Qualitative interviewing has been defined as largely unstructured conversational encounters between researcher and participant about a topic of mutual relevance (see Bjerke, 2007). Interviews are co-constructed through verbal interaction (Holstein and Gubrium, 1995; Mishler, 1986; Rapley, 2007; Deppermann, 2013) that is ‘shaped by previous discussions and responses’ (Koro-Ljungberg, 2007, p. 434) and interpreted through the parties’ personal background (Johnson and Rowlands, 2012). As such, interviews are a complex accomplishment
and rely on a shared understanding of the interview frame (Prior, 2014; Mann, 2016), on recognition that interviews are subject to power differences (Kvale, 2006; Vähäsantanen and Saarinen, 2013) and that the parties have multiple, simultaneously held roles (Cicourel, 1964). Furthermore, they are shaped by taken-for-granted assumptions about the respective other (Nairn et al., 2005), both parties’ experiences, roles, motivations, expectations and agendas (Dundon and Ryan, 2010; Potter and Hepburn, 2012; Prior, 2014) as well as their way of interacting verbally with one another (Partington, 2001; Roulston, 2014). Interactional challenges in qualitative interviews are, therefore, common and those most pertinent to my argument are summarised in Table 1.

There is debate about the effects of interactional challenges: do they jeopardise research quality (e.g. Briggs, 1986; Potter and Hepburn, 2012) or do they raise researchers’ self-awareness (see Nairn et al., 2005; Jacobsson and Åkerström, 2012; Prior, 2014, for analyses of ‘failed’ interviews)? Interactional challenges are certainly unpleasant for researchers and participants alike and may affect the continuation of an interview (Koro-Ljungberg, 2007; Johnson and Rowlands, 2012; Silverman, 2013). Researchers should therefore make time for examining their interviewing practice to identify how they may connect more meaningfully with participants. Yet, researchers have to realise that they can never be fully aware of the interview interaction in situ (Alvesson, 2011) because their attention will largely be taken up by listening to participants and thinking about the next question (Mann, 2016). Therefore, retrospective analysis of interviews is required.

**Researcher reflexivity and its advancement**

Despite differing conceptualisations and categorisations (e.g. Lynch, 2000; Cunliffe, 2003;
Johnson and Duberley, 2003), there is consensus that reflexivity is a reflective and recursive process. Reflection distances researchers from the immediacy of fieldwork (Mann 2016) and recursion affects how they perceive, reflect upon and interact in the field (Hibbert et al., 2010). In the context of qualitative interviewing, reflexivity so understood is about researchers’ critical engagement with their interviewing practice to identify how they interact verbally with participants, enabling them to gain critical insights about themselves and their work and to amend their interviewing practice accordingly as depicted in Figure 1.

Hence, reflexivity has a crucial impact on research practice and, arguably, is particularly pertinent in qualitative interviewing as a popular yet problematic research technique (see Cicourel, 1964; Briggs, 1986; Kvale, 2006; Potter and Hepburn, 2012; Silverman, 2013). While most qualitative researchers seek to advance their reflexivity, they need ‘a time, a space, a context and a method for operationalizing’ it (Mauthner and Doucet, 2003, p. 418). The following four practical strategies are widely used:

(1) **Reflective strategies** involve contemplating how researchers shape their work (Finlay, 2002) through introspection and/or dialogue (Mann, 2016). They are based on the assumption that researchers can thereby learn as advocated by theories of reflective learning (Boud et al., 1985). Their main tool is reflective diaries or journals (Etherington, 2004) that researchers interrogate regularly (Nadin and Cassell, 2006) to maintain dialogue with their theoretical and methodological preconceptions, their emotions and both parties’ socio-cultural context (Haynes, 2012). Since reflection is an innate human trait, it can be used at any time and place without specialist knowledge although its informal nature means that it can be easily deferred. Moreover,
reflections often only capture what researchers are already aware of and risk becoming excessively focused on the researcher.

(2) *Engagement strategies* involve the researcher’s immersion in the data by repeatedly watching video recordings, listening to audio recordings and/or reading interview transcripts (Haynes, 2012) as well as analysis of the ‘immediate situated and interactive context of language use’ (Kalou and Sadler-Smith, 2015, p. 635). Rooted in ethnography, they are based on the assumption that researchers can learn through deep involvement with data and context. While researchers get to know their work extremely well, the focus on data may distract their attention from interactional aspects.

(3) *Relational strategies* involve enlisting research participants in reflexive dialogue, enabling researchers to scrutinise the relationships in their work (Hibbert *et al.*, 2014). In line with their ethnographic roots, relational strategies are based on the assumption that researchers can learn by examining jointly with participants how they respond to conversations and actions in the field (Cunliffe and Karunanayake, 2013). While researchers can gain novel insights through third party feedback, not all participants are willing to invest time beyond participating in an interview.

(4) *Conversation analytic strategies* involve detailed examination of the interview interaction to analyse its structure and accomplishments (Schegloff, 1979; Sacks, 1989) as well as the parties’ cultural and interpretive resources (Hutchby and Wooffitt, 1998). They are based on the assumption that researchers can learn by analysing their talk in detail (Roulston, 2006; 2016). Rooted in ethnomethodology, their main tool is the interrogation of detailed interview transcripts (see Jefferson, 2004) in terms of turn-taking, repairs, overlapping talk and response tokens (Ten Have, 2007). Emphasising talk-in-interaction, these strategies provide elaborate insights into different types of interviews (Mazeland and Ten Have, 1996), how the parties orient to the turn
of the respective other (Roulston, 2016) or seek to redirect the other’s attention (Prior, 2014) but require specialist knowledge that takes a long time to acquire.

As such, conversation analytic strategies aim at the ‘study of conversation as an activity in its own right’ (Schegloff and Sacks, 1973, p. 290). Extant work has examined interactional challenges (e.g. Roulston, 2011; 2014) and contextual factors (e.g. Rapley, 2012), leading to better understanding of the organisation of speaker turns (particularly where non-verbal cues were included, see Prior, 2014), the role of social science categories and the parties’ interest and stake (e.g. Potter and Hepburn, 2012). However, such level of detail is not needed for identifying interactional challenges and advancing researcher reflexivity: ‘to recognize the importance of the sequential organization of … conversation does NOT mean that qualitative research can only properly follow [conversation analysis]’ (Silverman, 2013, p. 55, emphasis original). Indeed, examinations of verbatim transcripts have shown how both parties construct an interview, create social roles and cultural premises (Briggs, 1986) and how they can be transformed (Koro-Ljungberg, 2007). Similarly, but with a stronger focus on reflexivity, Finlay (2012) demonstrates that even interview fragments consisting of the participant’s voice only can be insightful. These examples indicate that conversational space as a level of analysis and the patterns of interaction therein may suffice for identifying interactional challenges and advancing researcher reflexivity.

Developing the mapping and analysis of conversational space

My research is social constructionist and assumes that knowledge is jointly created by researcher and participant (Koro-Ljungberg, 2007). Interviews are ‘a product of the here-and-now interaction’ (Rapley, 2012, p. 549) as researchers can never know beforehand how participants will respond to their questions and what the interaction will be (Cicourel, 1964). Since my main interest is in what participants say about the topic in question, interview transcripts largely exclude non-verbal or minimal utterances (such as silence, uh-huh) because
more sophisticated transcription would be superfluous for what it would add to the inductive thematic analysis I employ. It is such transcripts rather than conversation analytic ones that I have used for the mapping and analysis of conversational space to spend little time on preparation and much time on critical engagement with my work. While criticised for producing ‘clean’ representations (Rapley, 2012) and creating a distance to participants (Potter and Hepburn, 2005), such transcripts nevertheless allow for critical and reflexive examination of one’s interviewing practice (Oliver et al., 2005; Koro-Ljungberg, 2007; Finlay, 2012).

Despite having conducted around 150 qualitative interviews, I found that I usually had a fair grasp of the interview content while my impressions of the interviewing process remained vague. Reflecting on what I experienced as challenging interviews, I realised that the conversational space in which researcher and participant interact verbally is partly created through the length of questions and answers and the speed by which such utterances alternate from one party to the other (see Kahn and Cannell, 1957). Since it is difficult to judge from a transcript who speaks how much and when, I developed a visual representation – a CSM – which highlights the unique interview dynamics, key patterns of interaction and turning points at a glance and, due to the absence of text at this stage, also without distraction from the process.

While visualisation allowed me to identify key moments, it did not provide insights into what was happening. So I consulted the interview transcript to examine the highlighted key moments through focused textual analysis. Combining visual and textual information helped me examine critically how I ask questions, follow up on responses, change topic and how participants respond to my questions. This approach is resonant with conversation analysis (e.g. Ten Have, 2007) and generated useful and at times uncomfortable questions about myself, my research and the way in which I interact with participants as my commentary below indicates.
Mapping and analysing conversational space

Step 1: Visual analysis of CSMs

To illustrate the application of the mapping and analysis of conversational space, I have selected two CSMs deriving from my research into storytelling in management practice (Reissner and Pagan, 2013) called CSM11 (depicting Interview 11) and CSM24 (depicting Interview 24) that are shown in Figure 2; a technical description of how to construct a CSM is provided in the appendix. Both interviews were conducted by myself in a higher education institution and selected because of their relatively short length with around 30 minutes of audio recording and differences in interactional structure. I completed the fieldwork before developing the mapping, so there is no evidence of amended interviewing practice or advanced reflexivity between them.

In Figure 2, the unique interview dynamics become immediately apparent. In Interview 11 with IT specialist Dean ii, the first half is dominated by utterances of less than 100 words (the exceptions are utterances (U) 18 and U40) with both parties doing similar amounts of talking. In the second half, Dean started to talk more freely as exemplified by longer participant utterances and less interviewer input. I will examine this shift through focused textual analysis below. Interview 24 with administrator Sibyl, in contrast, is dominated by comparatively long participant and comparatively short interviewer utterances. However, there is a marked shift after about three quarters of the interview that will also be investigated below.

I found it useful to divide CSMs into different sequences (S) using blocks of utterances that exhibit a similar structure in terms of their comparative length, which can be described through four generic interactional patterns: short-short, short-long, long-short and long-long.
(each pattern beginning with an interviewer utterance for consistency), which I will develop further below. Such sequencing is particularly helpful when analysing longer interviews so that phases can be identified and examined in their own right. Summary information about the sequences adopted for Interviews 11 and 24 is depicted in Table 2.

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**INSERT TABLE 2 ABOUT HERE**

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The patterns of interaction reflect different purposes (Kvale and Brinkmann, 2015). For instance, at the beginning of an interview there are often short utterances by both parties as information is exchanged (short-short pattern) or, if the participant is reluctant, by comparatively longer interviewer utterances as an explanation is offered (long-short pattern). Once the participant has settled (which is by no means given), utterances tend to become longer with the participant doing most of the talking as exhibited in S3 of both interviews (short-long pattern). Towards the concluding part, utterances may become shorter (see CSM11, S4) or there may be a shift to the interviewer (long-short pattern) (see CSM24, S5). In other words, visual analysis of CSMs provides relevant information about which party takes up the conversational space at different points and indicates possible interactional challenges. But since CSMs do not provide an explanation for such patterns, analysis of the interview transcript is required as developed next.

**Step 2: Focused textual analysis of interview transcripts**

*Illustrative example 1: Interview 11, transition from S2 to S3*

This transition is of interest because in S3 utterances become longer (73 words on average in S3 compared to 22 in S2) and interviewer input decreases from 48 to 21 per cent; there is a shift from a short-short to a short-long pattern (see also Figure 2). Since the latter
exemplifies what many qualitative researchers (including myself) are looking for, it is important to understand the dynamics behind the shift.

**Excerpt 1: Interview 11, utterances 35–43**

35  **Stefanie**  [...] So your manager’s your direct report. How much contact do you have with those further up the hierarchy?

36  **Dean**  Not a great deal really. I know where their offices are and I know they’re available if I want to go and talk to them, but on day-to-day work-related stuff I don’t have a great deal of contact with them in person. I write reports which get sent to them and sometimes there’s some feedback, but not a great deal day-to-day.

37  **Stefanie**  What form does that feedback take?

38  **Dean**  Usually just email.

39  **Stefanie**  And what would it look like? You know, is it being sent out when something’s gone wrong or is it sent out when something’s gone particularly well or is it a mix of both?

40  **Dean**  The reports that I am referring to, again going back to this major incident process, there’s a part of that, that’s when something goes wrong can you fix it. Afterwards we have a review meeting to find out what happened and if we could do things better, and I write a report after the review meeting. I have to write everything up, and that gets sent to everyone who was involved, but also to the senior managers as well, so it’s kind of on the back of something bad that’s happened. But in handling that we can have done things very well or at other times we haven’t done things well, so that’s kind of how it was handled. So the feedback, it could either be something about what happened, which isn’t really feedback to me, but it’s feedback to the group of people who were involved, or sometimes it might just be a couple of words saying ‘good report’ or something.

41  **Stefanie**  Which is nice, I suppose?

42  **Dean**  It is, yes. I mean that comes, the [head of department] often says things like that whereas most of the [assistant heads of department] don’t feed back at all.

43  **Stefanie**  And have you raised it with them?

44  **Dean**  We’re not particularly asking for feedback on this … I mean there are other occasions when you do want feedback and we don’t get it, I mean I personally haven’t raised it but my manager has, and basically the line we take now is if
there’s no feedback then it’s acceptable, so as long as we say what we are going
to do, if no one says don't do it, we do it.

This excerpt starts with reference to a previous statement (‘so your manager’s your direct
report’) before the actual question is asked. Dean responds in some length and detail (U36),
introducing ‘report-writing’ and ‘feedback’. U37 is a follow-up questions to learn more about
forms of feedback and the very short answer in U38 suggests that Dean is not interested in this
line of questioning. U39 is a probing question about feedback that is very similar to the previous
question; I seem to recognise this and give three possible answers introduced by ‘you know’. It
triggered an unexpectedly long response with 162 words (U40) as Dean redirects the exchange to
report writing; the topic seems to be important for him and later in this utterance he returns to
‘feedback’. In U41 I show that I have understood, showing empathy by referring back to ‘good
report’. Dean then qualifies his earlier statement about positive feedback and highlights that not
all managers in his department do so (U42). In U43 I interpret this as regret and ask in a closed
question how Dean deals with the lack of managerial feedback, which he explains in U44.

Considering this excerpt, I became aware of two main interactional issues. Firstly, the
question in U39 is potentially leading the participant towards what may be perceived as a desired
answer, which seems to be due to it being clumsily phrased. Yet, I began to wonder what ‘leading
a participant’ actually means. Clearly my questions in U41 and U43 are phrased in a way that
invites agreement but they may also be interpreted as demonstrating empathy and understanding;
researchers clearly have different situational roles that may stand in conflict (see Cicourel, 1964).
Secondly, U40 appears to be Dean’s response to my questions in U37 and U39 about feedback.
The way in which the term was introduced in U36 (and also how I understand it) is behavioural,
while in U40 Dean seems to be referring to a technical definition. Is this a simple
misunderstanding between a social scientist and an IT specialist? Should I have realised earlier in
this exchange that there is an apparent mismatch in our respective understanding? Should I have
defined what feedback means earlier? More generally, I recognised the limitations of my ability to fully listen in situ (see Alvesson, 2011) and also of being fully present in the interview – in body, mind and spirit. Had interviewing become a routine item in my busy work schedule, which prevented me from giving it the due care and attention?

Illustrative example 2: Interview 24, transition from S4 to S5

This transition constitutes a shift from conversation (59 per cent interviewer input) to interviewer dominance (82 per cent), a shift from a long-long to a long-short pattern (see also Figure 2). Not only is this rare in qualitative interviews, it is potentially also problematic because the interviewer takes over the conversational space (Vähäsantanen and Saarinen, 2013).

Excerpt 2: Interview 24, U55-68

55  Stefanie Are you aware of any sort of little introductions that your manager uses before he tells an anecdote? So it’s either your line or your section manager.
56  Sybil No, no.
57  Stefanie The one I use a lot with my students is “let me give you an example”, others have mentioned [interruption]
58  Sybil No, that’s not something I have ever picked up on that they would do.
59  Stefanie Or “I remember when” or “there was a case there and then”, or [interruption]
60  Sybil No.
61  Stefanie I think the one you’ve just mentioned is “in my previous job”.
62  Sybil Yes, “in my previous job”, other than “across the road”, which was the standard beginning of what he did across the road in terms of [role]. Certainly, my section manager doesn’t do something so repetitive that I remember it, so no.
63  Stefanie Okay, that’s great, I think we’re through my sort-of list.
64  Sybil Excellent.
65  Stefanie We’ve been very quick. Have you got any final thoughts, comments, questions?
66  Sybil No, I don’t think so. No. I think it’s a very interesting study that you are doing and it will be interesting to see the results. I mean this team is so different from others, because I used to work in [Section 2], I worked in [Section 2] for 14 years, completely different structure up there, very good at communicating, very good meeting structures. You know, daily, not daily, weekly. You didn’t get all
the information you needed but in a completely different way. Here it’s a bit more sort of laid back, which considering we are part of [name of section], is a completely different set-up. And I don’t know which is the best, I have to say.

When I’ve spoken to members of staff from probably the majority of [departments], and I do think there are differences within them, just in the way people interact with each other, meeting structures and I think for some there is a technical language, you know, around the finance stuff, the IT stuff, where you’ve got your legal bits that come into the research grant side, where you’ve got your shortcut to communicating where things are much dryer, and you’ve got jargon and everybody understands that shared language. Where I think with others it’s a bit more organic, bit more happening and – probably laid back describes it quite well, but then I suppose [the organisation] to me always seems to be a bit more laid back than a private-sector organisation. And also one thing that’s come out, it’s very much the diversity of the [organisation], you probably have very limited contact with academics, but other people have really spoken about, you know, “academics are really difficult to manage”.

Oh no, we do deal with academics because obviously we need to get their teaching requirements off them, and yes, they are a different breed completely.

The utterance in U55 reflects my attempts to reveal if Sibyl’s managers use any introductory wording before telling a story, but she did not seem to be aware of any (a common feature in the study, see Reissner and Pagan, 2013). In U57 I offer an example to see if she recognises something similar, but Sibyl interrupts and negates. In U59 I continue to offer examples, but again Sibyl interrupts and negates, impatiently. In U61 I try to appease her by referring back to an earlier statement in which she had mentioned introductory wording in her manager’s storytelling. In U62 Sibyl recognises the example and states that she cannot remember her other manager using ‘something so repetitive’. In U63 I comment that there are no further questions on my part, which Sibyl greets with ‘excellent’. I then invite her to comment (U65), following which Sibyl recognises the potential value of the study and reflects on her experiences of working in different teams (U66). In U67 I affirm my previous utterances by referring to the findings to date, reflecting on and interpreting them. In U68 Sibyl partly confirms my commentary. The interview continues in a similar vein.
Reflecting on this, I became aware of two main interactional issues. Firstly, my probing questioning in U55-61 was uncomfortable for Sibyl. She got impatient, interrupted, reasserted herself; there was little mutual understanding. I wondered if I may have persisted unnecessarily on this line of questioning; Sibyl’s use of ‘excellent’ in U64 may an indication. Was I sufficiently attuned to Sibyl? Was she sufficiently prepared for such probing questioning? Secondly, I wondered if Sibyl really wanted to hear my reflections starting in U67. The cues prompting me to share them may have been non-verbal (I have no way of confirming this) or I may have misinterpreted U66 as an invitation to talk. I began to question how I interpret participant utterances and how much conversational space I take (over). More generally, I wondered to what extent I recognise and respond to participants’ needs and give them sufficient space to talk, if the interview introduction prepares them for probing questioning and, in this case, for discussion of the emergent findings.

**Conversational space, critical engagement and research practice**

The previous section has shown how mapping and analysing conversational helps researchers identify interactional challenges and engage reflexively with their work – their listening and questioning, their relationship with participants and their research practice and approach. Visual analysis of CSMs reveals the interactional patterns of short-short, short-long, long-short and long-long. Each of these has typical uses at different points in qualitative interviews (see Kvale and Brinkmann, 2015) but can also indicate interactional challenge if used excessively or otherwise inappropriately as summarised in Table 3.

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**INSERT TABLE 3 ABOUT HERE**

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None of these patterns is better \textit{per se} than any other; each has a role in qualitative interviewing as researchers seek to connect with participants while shaping the interview to meet their needs (e.g. Cicourel, 1964; Koro-Ljungberg, 2007). As such, no specific shape of CSM is better \textit{per se} than any other as each reflects the unique conversational space that the parties create through their verbal interaction, even though some interviews are perceived to be ‘better’ than others. Visual analysis of CSMs supports researchers’ reflections on the different shapes by drawing attention to the interview dynamics, patterns of interaction and turning points, representing such information in a format that is particularly well suited for visual learners. For me, the value of CSMs is that I find them interesting, enabling me to ‘zoom in’ on how interviews are co-constructed (see Holstein and Gubrium, 1985) and to query why the parties may have interacted in a particular way (see Johnson and Rowlands, 2012; Silverman, 2013).

Hence, each interview, each CSM, each transcript needs to be examined as a unique artefact (see Cicourel, 1964). The role of mapping and analysing conversational space – and particularly the CSM – is to hold up a mirror to give researchers a different view on their interviewing practice (see Etherington, 2004), allowing them to question its appropriateness and to identify areas for development (see Hibbert \textit{et al.}, 2014). Despite being focused on the verbal interaction between researcher and participant, the analyses can generate questions about the set-up and conduct of interviews as shown above. It is therefore an exploratory process in which there are few definitive answers about the ‘why’ – why the parties interacted in a particular way, why a certain question was met with a certain answer, etc. Yet, researchers can learn much about themselves, their role in the research and their relationship with participants (e.g. Roulston, 2016). The mapping and analysis of conversational space provides them with another tool but has four main limitations:
Firstly, the level of detail included in the interview transcript has a significant impact on the depth of researchers’ engagement with their interviewing practice. I have used verbatim transcripts, partly for pragmatic reasons as outlined above (see also Oliver et al., 2005) and partly because overlapping talk is difficult to represent visually – and it is the visual element that I have found most valuable (see Paschler et al., 2008). Yet, this means that ‘we lose some degree of contact with how the participants made sense of each other’s talk’ (Silverman, 2013, p. 53), missing out on potentially relevant information about the interview interaction. Indeed, conversation analytic analyses of interviews have highlighted the role of non-verbal or minimal utterances for encouraging participants to sustain their turn of talk (e.g. Potter and Hepburn, 2012), negotiating questions and answers (e.g. Roulston, 2011), formulating answers (e.g. Roulston, 2014) and reorienting talk (Prior, 2014), which are largely excluded here. Yet, the insights gained from the mapping and analysis of conversational space can readily be extended to examine both parties’ talk-in-interaction (Ten Have, 2007), particularly if conversation analytic transcripts are used for data analysis.

Secondly, the background and characteristics of researcher and participant as well as the setting and context of an interview may have a significant effect on the way in which the parties interact (see Johnson and Rowlands, 2012; Potter and Hepburn, 2012). These have been largely excluded here since my research question and design did not require such details. Yet, it means that we lose an understanding of who the parties are and why and where they are interacting. Studies of ethnography of communication, for instance, take into account the interview setting (space and physical orientation), participant characteristics (age, gender, ethnicity, hierarchy of authority) as well as goals and outcomes of an interview (see Kalou and Sadler-Smith, 2015), adding a further layer of analysis that may trigger additional questions. Yet, the process proposed here can easily be extended to include such contextual and socio-cultural factors to provide a more holistic approach, particularly if required by research question and/or methodology.
Thirdly, the mapping and analysis of conversational space may not be effective for all researchers, particularly those that engage readily with oral or textual data. However, I am not suggesting that it replace other strategies. Rather, the process proposed here is complementary: the combination of visual and textual information supports reflection on and engagement with one’s work as shown above, while researchers may seek to involve participants or other stakeholders in reflexive dialogue (see Hibbert et al., 2014) or analyse the interview interaction as a phenomenon in its own right (see Mazeland and Ten Have, 1996; Roulston, 2006). As such, the mapping and analysis of conversational space offers a novel starting point and may provide a different route into the established strategies.

Finally, producing a CSM is time-consuming and requires knowledge of two different, albeit widely used, software applications (see appendix for details), which may prevent wider appeal. A simpler way to derive at a visual representation of the parties’ verbal interaction is to reformat a verbatim interview transcript to (1) depict interviewer and participant talk in different colours, (2) format all text as centred and (3) make the font size as small as possible. While at first glance the reformatted interview transcript has a similar shape to a CSM, the layout does not work well for speech utterances that straddle across lines. Other disadvantages of this simpler method are that (1) the identification of key moments is harder as utterance numbers are less obvious and (2) basic statistical analysis as depicted in Table 2 is not supported. To facilitate the creation of CSMs, I advise the creation of a template into which the content of other interviews can be copied; such a template (a pre-formatted Microsoft Excel spreadsheet) will be made available on the journal website following publication of this article for use by researchers, doctoral trainers and supervisors.

So who may benefit from the mapping and analysis of conversational space? Novice researchers (including doctoral students) may understand their preferred patterns of interaction
and the impact of those on the continuing interview by drawing on a combination of visual and textual data. They can also learn about their generative role in the interview and the way in which participants perceive and respond to them as they co-construct the interview. To do so, they do not rely on an observer in situ (which distorts the interview interaction and can be difficult to organise), but can engage in critical examination of their interviewing practice in their own time and space. This enables them to discuss their insights with a peer or mentor retrospectively. As such, the mapping and analysis of conversational space may be particularly valuable in doctoral training and supervision, where appropriate in conversation with a trainer, supervisor or mentor (see Mauthner and Doucet, 2003).

Experienced researchers may benefit from the process proposed here either individually or with a peer / in a research team. For visual learners who, like me, struggle with ‘doing’ reflexivity using the established means it may be a naturally engaging way to identify interactional challenges and advance their reflexivity. For researchers working in a team, comparison of different members’ CSMs may be a catalyst for reflexive conversations about their respective interviewing practices and the implications, supporting better awareness of each members’ contribution. Moreover, the proposed process may enhance transparency of research (as critiqued by Potter and Hepburn, 2012; Silverman, 2013); for instance, when publishing from interview, CSMs can provide a helpful summary of interview data to support inferences.

Conclusion

Researchers can learn a lot about themselves and their work when critically engaging with their interviewing practice (Roulston, 2016) to identify interactional challenges (Roulston, 2011; 2014) and advance their reflexivity (Finlay, 2003; Roulston et al., 2008). Yet, despite a repertoire of strategies at their disposal, many researchers find ‘doing’ reflexivity challenging (Finlay, 2002;
Mauthner and Doucet, 2003). A major issue for visual learners is that the established strategies rely on oral material (audio-recordings) or textual material (interview transcripts), which are comparatively hard to access (e.g. Barbe and Milone, 1981; Paschler et al., 2008). To mitigate, I have proposed a process that has a visual starting point.

While this paper is personal, it has wider applicability as researchers are increasingly expected to engage in methodological analyses of their work and advance their reflexivity. The interactive patterns revealed in CSMs allow researchers to scrutinise interview transcripts, exploring the appropriateness of their interviewing practice and talking over their findings with a peer or mentor. As such, the mapping and analysis of conversational space makes three contributions to the extant literature.

1. This paper extends the literature on methodological analyses of interview research (e.g. Finlay, 2012; Roulston, 2016). It proposes conversational space as a novel level of analysis that provides both structure and flexibility while complementing the established strategies. Moreover, the process proposed here does not require specialist knowledge or third-party input while allowing researchers to engage in meaningful reflexive conversations.

2. This paper extends the literature on reflexive practice (e.g. Finlay, 2002) by combining of visual and textual information to support researchers’ critical engagement with their interviewing practice. The mapping and analysis of conversational space sensitises researchers to their predispositions and preferred ways of interacting, enabling them to adapt their interviewing practice.
3. This paper contributes to researcher development (e.g. Cassell et al., 2009) by proposing a systematic, retrospective approach to the critical engagement with one’s interviewing practice. The process proposed here supports reflexive conversations with oneself, research participants, peers and mentors and may therefore be particularly valuable in doctoral training and supervision.

In summary, I hope to have shown that the mapping and analysis of conversational space supports identification of interactional challenges and advancement of researcher reflexivity. The visual information offered by CSMs combined with textual information of the interview transcript allows for deep engagement with one’s interviewing practice and enables researchers to interact more meaningfully with participants.
References


Bott, E., 2010, “Favourites and others: Reflexivity and the shaping of subjectivities and data in qualitative research”. Qualitative Research, 10: 159-173.


Nairn, K., J. Munro and A. B. Smith, 2005, “A counter-narrative of a 'failed' interview”. *Qualitative Research, 5*: 221-244.


Appendix: Technical guide to developing a CSM

Developing a CSM involves three steps and the use of a spreadsheet programme. Here, Microsoft Excel 2010 has been used and readers’ working knowledge of word-processing and spreadsheet programmes has been assumed.

1. Copying the interview transcript into the spreadsheet programme

If an interview has already been transcribed in a word-processing programme, the interview content needs to be copied into the spreadsheet programme as outlined below. In the example, I have dedicated column B to interviewer utterances and column E to participant utterances, but columns can be defined differently. Each utterance is to be put in alternate rows to reflect that both parties take turns in speaking as depicted in Figure 3.

Highlight the first utterance in the word-processing programme, switch to the spreadsheet programme and paste it into the appropriate cell. If the interviewer started the interview, paste the first utterance in cell B2 (as in the example above). The second interviewer utterance would be pasted in B4, the third in B6, etc. In this case, the participant utterances would feature in cells E3, E5, E7, etc.

If the participant started the interview, paste the first utterance in cell E2. The second participant utterance would be pasted in E4, the third in E6, etc. In this case, the interviewer utterances would features in cells B3, B5, B7, etc. I would recommend that interviewer utterances be put in column B and participant utterances in column E regardless of who starts the interview since it will make comparisons between CSMs easier.
Repeat this process with all subsequent utterances until the end of the interview. Researchers who have yet to transcribe an interview can do so directly in the spreadsheet programme, typing each utterance in the respective cells using alternate rows.

2. Calculating the number of words for each utterance

Once the interview content has been pasted in the spreadsheet programme, the word count for each utterance can be calculated. In the example presented here, the word count for interviewer utterance features in Column A and that for participant utterances in Column D. To ensure that the graph is produced correctly, type ‘Interviewer’ in cell A1 and ‘Participant’ in cell D1. The formula for calculating the word count of interviewer utterances is 

\[=\text{IF}(\text{LEN}(	ext{TRIM}(B2))=0,0,\text{LEN}(	ext{TRIM}(B2)) - \text{LEN}((\text{SUBSTITUTE}(B2,"\ \",\"\\")))+1)\times1\]

with B2 referring to the cell in which the word count was calculated in this example. For other utterances, it needs to be substituted with the cell number in which the word count is to be calculated – three times per formula. The formula has been suffixed with -1 to ensure that interviewer utterances are represented to the left in graph prepared in Step 3.

The formula for calculating the word count of participant utterances is 

\[=\text{IF}(\text{LEN}(	ext{TRIM}(E3))=0,0,\text{LEN}(	ext{TRIM}(E3)) - \text{LEN}((\text{SUBSTITUTE}(E3,"\ \",\"\\")))+1)\]

with E3 referring to the cell in which the word count was calculated in this example. It needs to be substituted with the cell number in which the word count is to be calculated, three times per formula. The result of this is shown in Figure 4.

--------------------------------------------------------------------------------------------------

INSERT FIGURE 4 ABOUT HERE

--------------------------------------------------------------------------------------------------
A prepared template (Microsoft Excel spreadsheet) will be provided on the journal website following publication of this article. The content of other interviews can be copied and pasted into the respective cells automatically updating the word count for each cell.

3. Creating a chart for the interview interaction

Once the word count has been calculated, a bar chart is created. Highlight the content of columns A and D (the columns with the word count of interviewer and participant utterances) by clicking on the column letter. Then click on the ‘insert’ tab, select ‘bar chart’ and ‘clustered bar’ from the 2D bar chart menu (see Figure 5).

The figures in the middle of the chart refer to the utterance number. To increase ease of reading, they can be removed as follows: Click on the chart. Select ‘format chart’, ‘chart tools’, ‘layout’ and ‘axes’. For ‘primary horizontal’ choose ‘default’ and for ‘primary vertical’ choose ‘none’. To add the word count to each corresponding bar in the chart, click on the chart. Use the ‘chart tools’ function, click on ‘layout’ and select ‘data labels’. Then select ‘outside end’ to have the word count feature at the end of each bar.

Microsoft Excel automatically provides a legend for the chart, which can be moved to a different position or removed altogether. To move the legend, click on the chart, go to ‘chart tools’, select ‘layout’ and ‘legend’ and then choose the new preferred position. To remove the legend, click on it and press the ‘delete’ key. The CSMs in Figure 2 have been amended manually to include the title, column names and sequences; thus the CSMs created through the process described here will not look exactly the same as those provided above.
Table 1: Common interactional challenges in qualitative interviewing

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Description</th>
<th>Key references</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phrasing and negotiating questions</td>
<td>Researcher asking questions that are subject to misunderstanding.</td>
<td>Roulston et al. (2003)</td>
</tr>
<tr>
<td>Researcher self-disclosure</td>
<td>Researcher offering participants his/her experiences, ideas and views.</td>
<td>Rapley (2007)</td>
</tr>
<tr>
<td>Mutual understanding</td>
<td>Researcher and participant fail to reach mutual understanding.</td>
<td>Roulston (2011)</td>
</tr>
<tr>
<td>Taken-for-granted assumptions</td>
<td>Researcher or participant assuming shared understanding of a key concept.</td>
<td>Roulston et al. (2003)</td>
</tr>
<tr>
<td>Dominating the interview</td>
<td>Researcher or participant dominating the verbal interaction through redirection of the interview or the amount of talk.</td>
<td>Vähäsantanen and Saarinen (2013)</td>
</tr>
<tr>
<td>Refusal to engage in the interview</td>
<td>Participants being unwilling to answer or elaborate on the questions asked.</td>
<td>Adler and Adler (2002)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dundon and Ryan (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roulston (2014)</td>
</tr>
</tbody>
</table>

NB: Studies such as those by Riessmann (1987), Reinharz and Chase (2002) and Schwalbe and Wolkomir (2002) examined interactional challenges relating to socio-cultural factors (ethnicity, gender) are beyond the scope of this article.
Figure 1: Advancing researcher reflexivity in qualitative interviewing

Interviewing practice

Amended interviewing practice

Critical engagement with interviewing practice (incl. identification of interactional challenges)

Reflection

Adoption of new insights to address interactional challenges

Recursion

Critical insights into interviewing practice and researcher’s role and position
Figure 2: Two illustrative CSMs
Table 2: Comparative structural analysis of Interviews 11 and 24

<table>
<thead>
<tr>
<th></th>
<th>11</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total No. of words</td>
<td>3,277</td>
<td>4,965</td>
</tr>
<tr>
<td>Total No. of utterances</td>
<td>77</td>
<td>81</td>
</tr>
<tr>
<td>Average length of utterance (words)</td>
<td>43</td>
<td>61</td>
</tr>
<tr>
<td>Total percentage of interviewer talk</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>No. of sequences</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

| **Sequence 1**         |     |     |
| Comprises utterances   | 1-18 | 1-24 |
| No. of words           | 833  | 2,021 |
| Average length of utterance (words) | 44  | 81  |
| Percentage of interviewer talk | 34  | 11  |

| **Sequence 2**         |     |     |
| Comprises utterances   | 19-38 | 25-29 |
| No. of words           | 434  | 65  |
| Average length of utterance (words) | 22  | 11  |
| Percentage of interviewer talk | 48  | 79  |

| **Sequence 3**         |     |     |
| Comprises utterances   | 39-70 | 30-52 |
| No. of words           | 2,329 | 1,611 |
| Average length of utterance (words) | 73  | 70  |
| Percentage of interviewer talk | 21  | 16  |

| **Sequence 4**         |     |     |
| Comprises utterances   | 71-77 | 53-65 |
| No. of words           | 94   | 167  |
| Average length of utterance (words) | 13  | 13  |
| Percentage of interviewer talk | 64  | 59  |

| **Sequence 5**         |     |     |
| Comprises utterances   |       | 66-81 |
| No. of words           |       | 1,099 |
| Average length of utterance (words) |       | 69  |
| Percentage of interviewer talk |       | 82  |
Table 3: Common interactional patterns, their uses and limitations

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Example in text</th>
<th>Typical use</th>
<th>Interactional challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-short</td>
<td>• Interview 11, Sequence 2</td>
<td>• Beginning of an interview, researcher collecting demo-graphic data.</td>
<td>Prevalence of this pattern indicates that the interviewer is unable to establish flow or that the participant refuses to engage. Further analysis of the interview transcript can identify whether this is to do with phrasing and negotiating questions and/or failure to reach mutual understanding.</td>
</tr>
<tr>
<td></td>
<td>• Interview 24, Sequence 4</td>
<td>• At any time of the interview when a party seeks clarification.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• At any time of the interview when a party interrupts.</td>
<td></td>
</tr>
<tr>
<td>Long-short</td>
<td>• Interview 11, U15-21</td>
<td>• Putting a question into context.</td>
<td>Prevalence of this pattern indicates interviewer dominance or excessive researcher self-disclosure.</td>
</tr>
<tr>
<td></td>
<td>• Interview 24, Sequence 5</td>
<td>• Reluctant participant.</td>
<td></td>
</tr>
<tr>
<td>Short-long</td>
<td>• Interview 11, Sequence 3</td>
<td>• Often regarded as the ideal in qualitative research interviews.</td>
<td>Prevalence of this pattern indicates participant dominance and/or interviewer inability to phrase and negotiate questions appropriately.</td>
</tr>
<tr>
<td></td>
<td>• Interview 24, Sequence 1</td>
<td>• Eliciting answers through follow-up questions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Talkative participant.</td>
<td></td>
</tr>
<tr>
<td>Long-long</td>
<td>• Interview 11, U54-56 and U64-68</td>
<td>• Establishing dialogue among equals.</td>
<td>Prevalence of this pattern indicates an exchange of ideas between interviewer and participant that may be contrary to the purpose of the interview.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Discussing key ideas.</td>
<td></td>
</tr>
</tbody>
</table>
**Figure 3: Screenshot of interview content arranged in spreadsheet programme (Interview 11)**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interviewer</td>
<td>Participant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Could you just tell me a bit what a [role title] does?</td>
<td></td>
<td>relatively new team and there's only a couple of us and we are basically looking at the processes that [Department 3] use to support them, customers and the user base across the [organisation], ways that we can improve the processes, that's the gist of it really.</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4: Screenshot of word count calculation (Interview 11)**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
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<td>1</td>
<td>Interviewer</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 5: Screenshot of newly created bar chart (Interview 11)

Notes

1 The focus of my argument is on verbal interaction because it is this aspect of qualitative interviewing that is most commonly recorded and analysed.

2 All names are pseudonyms to protect the participants’ identities.

3 The term ‘average’ refers to the mean.

4 The interview transcripts could not be accommodated in this article but are available on request.