

Qualitative analysis of migrants' network data: Using conceptual reflexivity to reveal the 'magic trick'

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Abstract

While in recent years, qualitative social network analysis (SNA) has advanced considerably – particularly in migration research – there is still an overall tendency to focus more on issues of network structure and on the generation of data, rather than on how data can be interpreted and analysed qualitatively in practice. In this article, we discuss how a genuinely qualitative SNA should not only apply qualitative techniques in generating visual and oral network data but also in the analytical processes. Building on our earlier work, we advance methodological debates by presenting the idea of 'conceptual reflexivity': an awareness of how our thinking about networks and the ways in which we interact with participants – and the wider field – inform layers of meaning making. Using two recent examples from our migration research, we explore the inter-subjectivity of the research encounter, offering insights into the 'craft' of qualitative SNA and the epistemological issues underpinning it. In doing so, we aim to make analytical processes more open and visible, to reveal, so to speak, what goes on behind the curtain: the 'magic trick' of how qualitative SNA is performed.

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INTRODUCTION: MOVING FORWARD WITH QUALITATIVE SNA

While social network analysis (SNA) has been dominated for a long time by quantitative approaches – associated with increased computational capacities and innovations in big data (Amoruso et al., 2020; Hogan et al., 2020; Tubaro et al., 2021) – in recent years there have been significant advances in the field of qualitative SNA (Heath et al., 2009; Herz et al., 2015; Töpfer & Behrmann, 2021). This is particularly so in relation to mixed-methods research (D'Angelo & Ryan, 2021; Domínguez & Hollstein, 2014). This approach allows us to reconcile two dimensions of social networks: their structure and their meaning (Crossley & Edwards, 2016); the emphasis, however, is often on the former. Moreover, when discussing how network data can be analysed qualitatively in practice, scholars have tended to examine issues of 'accuracy' (Hollstein et al., 2020) and focus on structural analysis (Altissimo, 2016). Notably, Herz et al. (2015) explicitly talk of 'qualitative structural analysis', while Brandhorst and Krzyzowski (2022) suggested ways to combine interpretivism with a highly structured, deductive procedure to visualise ego-centric networks.

These approaches are, of course, perfectly valid and can lead to important insights into complex patterns of relations. We are not building a 'straw men' argument against quantitative or other structure-focused approaches. As with all sound research, different methodologies serve different purposes, answer different research questions and provide different insights. Indeed, we have written about the opportunities of combining quantitative and qualitative methods to undertake mixed-methods 'network mapping' (D'Angelo et al., 2016) and visualise network structures (Tubaro et al., 2016). Here, however, we want to advance the discussions on a 'genuinely qualitative' SNA (Töpfer & Behrmann, 2021), aligning data collection, analysis and the ontological assumptions behind these (Ibid.). We propose an approach to social network research which not only applies qualitative techniques in the generation of network data (oral or visual) but also their interpretation and presentation, especially focusing on 'meaning-making'. This latter aspect has seen some innovative contributions recently. Dobbie et al. (2018: 208), for example, have suggested practical ways to use visual tools (coloured egocentric sociograms) in order to better understand meaning making within 'the philosophical tradition of interpretivism and social constructivism'. Alongside others such as Bernhard (2018), they have reminded SNA scholars of the importance of narratives and storytelling as part of this process.

Engaging with this emerging literature and building on our earlier work, in this paper we bring further layers of complexity, drawing on reflexivity to shed light on the role of the SNA researcher. In so doing, we aim to make qualitative analytical processes more open and visible; to reveal what goes on behind the curtain – the 'magic trick' of how qualitative SNA is performed. As explained below, this approach is deliberately non-systematic. It is research as a 'craft', more than as a process; it focuses on reflexivity and intersubjectivity and on meaning more than structure.

PROPOSING CONCEPTUAL REFLEXIVITY IN MIGRANTS' NETWORKS ANALYSIS

Much has been written about the role of social networks in migration (Bilecen et al., 2018) and the potential of using a networks' perspective to understand migrants' experiences. As Boyd observed 'Social relations both transmit and shape the effect of social and economic structures on individuals, families and households' (Boyd, 1989: 642). However, discussions of migrant networks often have been criticised for using networks in a rather generic and metaphorical way (Bilecen et al., 2018).

As noted by Ryan et al (2021), to move beyond the metaphor, we must be more precise about how networks are analysed and understood. Rather than taking for granted migrants' access to networks, more attention is needed to interpersonal relationships and the kinds of resources that can be generated and shared through these connections (Bernhard, 2018; Bilecen, 2022; Erel, 2010; Ryan et al., 2015). Furthermore, the tendency within

migration studies simply to assume the role of co-ethnic networks also is increasingly challenged (Dahinden, 2016; Eve, 2022). Another area of innovation is temporal dynamism. Taking account of how networks evolve and change over time (Lubbers et al., 2021; Ryan & D'Angelo, 2018) is particularly important in migration research but raises methodological challenges. The act of mapping social networks – for example, through sociograms¹ (Ryan & D'Angelo, 2018) – risks crystallising a network snapshot into an apparently definitive interpretation of someone's relationships. Instead, 'it is the dynamism of networks that is particularly relevant to the study of migrants' social ties' (Ryan et al., 2008).

In our previous publications, both separately and together, we have explored various aspects of social networks, particularly in contexts of migration, migrants' journeys, processes of integration and their lives in the countries of settlement. Methodologically, we have examined the value of longitudinal research to map network change over time (Ryan & D'Angelo, 2018) and the importance of intersubjectivity in approaching ethical challenges in network research (D'Angelo & Ryan, 2021). We have argued that the use of a network lens can bring alternative perspectives to understanding migrants' experiences. This requires a serious engagement with the SNA toolkit and the concepts underpinning it. However, we contend, this should not lead to fetishising 'the network' (or its visualisation) as an objective reality – to be measured and quantified – or as an end in itself, but rather as narratives to draw upon through interpretative and contextual analysis (Ryan & D'Angelo, 2018).

Starting from this premise, we have drawn on the seminal work of Goffman (1959), Krackhardt (1987) and others to offer critical insights into the processes through which networks are co-constructed within research encounters between interviewers and interviewees. We have argued that there is a crucial step between participants' perceptions of their relational ties and the collection and visualisation of network data – that is, what we call 'the presentation of the networked self' (D'Angelo & Ryan, 2021). In other words, the data that we, as researchers, generate are not only based on how participants perceive their networks but also on how they choose to present them in a particular (research) encounter. That is not to suggest that participants can construct their networks in any way they like. As researchers, we impose boundaries (Heath et al., 2009) and a structure to network data (e.g. by generating a sociogram). Therefore, from an epistemological perspective, we must be mindful of the dramaturgical context of the research interview as a stage on which performer (interviewee) and audience (researcher) interact, in bounded ways, that shape meaning making and hence co-produce the resultant data (D'Angelo & Ryan, 2021). Thus, rather than 'collecting data', we see data as generated and crafted in the research process (White & Drew, 2011). It is a co-production which sees the researcher actively (and potentially personally) involved, with the responsibilities, and a need for reflexivity, that derive from this.

In this paper we go further by adopting 'conceptual reflexivity'; by which we mean becoming aware of how our epistemological traditions, intellectual baggage, training and academic literature shape our thinking about networks and how we interact with participants and engage with data through processes of meaning making. Beyond how reflexivity is usually understood – taking account of the researcher's personal positioning (e.g. as a man, woman, middle class, middle-aged, etc.) – we are interested in our conceptual positioning. Hence, we aim to reveal how network data are generated, analysed and crafted.

Through conceptual reflexivity, we seek to advance the field of qualitative social network analysis. The overall approach presented here, we argue, can bring a different perspective not just on the generation and analysis of network data but also on our understanding of the nuance and richness of networking as a social process and on 'social network' as a concept. This can help us to revisit and complicate important analytical categories such as 'weak ties' or 'positive/negative' ties. Such epistemological insights are relevant also for mixed-methods and quantitative research. In turn – and in the specific context of migration research – it allows us to bring new perspectives on the relational experiences, perceptions and narratives of migrants, opening new avenues for research as well as contributing to ongoing debates on ethics, reflexivity and positionality (Moralli, 2023).

In the following sections, drawing on our own research experiences, we apply conceptual reflexivity to explore how we analysed network data. We show the crafting of data to reveal the 'magic trick': what happens between the research encounter and the publication of findings.

REVEALING THE 'MAGIC TRICK' – TWO EXAMPLES FROM OUR OWN RESEARCH

Of course, it is often said that a magician should never reveal how a trick is done because it undermines the mystique of artist and performance. This analogy can apply to social science researchers and may explain in part why the analysis process is often summarised briefly in publications, especially journal articles, even when the research methods and the actual data collection techniques are explained in detail (see Bernhard, 2018, as an exception). In many SNA research publications, the methods employed are presented as highly technical, procedural and even formulaic processes. Specific accounts of how data are analysed are much rarer than explanations about data 'collection'. The authors may report that data were cleaned, and a software package was used for coding, identifying themes and 'mapping' nodes and ties. In narrative-based research, the most relevant quotes are said to be selected, and the findings 'emerge'. This approach is partly due to tight word limits of academic publishing (including this article). So papers tend to focus, quite appropriately, more on findings than the analytical processes producing them.

However, there may be more to this ubiquitous approach than meets the eye. Even in cases where researchers provide some additional detail about how they undertook data coding, informed by grounded theory, for example, much of the process and layers of interpretation remain obscure, with little acknowledgement of the messiness and craft of meaning making. The description of formal, seemingly mechanical step-by-step processes conveys professionalism and supports ideas of scholarly 'success stories'. As we discussed elsewhere (Tubaro et al., 2021), this can also relate to the tendency in contemporary academia to follow institutional and professional frameworks – for example, with regard to ethics – where the priority is often to present a 'tick box approach' as the premise for a smooth production from the data to the findings.

In practice, all this can come across as some sort of 'magic trick'. Research tools are applied to data to 'conjure up' outputs, results and, in this particular field, network analyses and their visual representations. Clearly, every good academic knows there is much more than a magic trick at play; but this is rarely discussed. Shedding more light on these analytical processes, as well as encouraging more open reflexivity among scholars with regard to the concepts and ideas informing their analysis and their own positioning, do not just have important implications in terms of intellectual transparency and strengthening the SNA 'research community' but also can improve the inclusivity of this research field and, for example, benefit early-career researchers.

Below, we present two case studies from our research. Adopting conceptual reflexivity, we critically consider how our epistemological traditions, and embeddedness in SNA literature and techniques, alongside our engagement with topic-specific theories and socio-political discourses, shaped how we approached data and attached meaning to them. We show how research findings emerge through different stages of interactions and interpretations in actual research encounters and subsequently through the analytical process. While focusing on two individual interviews,² we also note how transcripts are analysed in relation to each other as part of wider sets of data including research notes and visualisations.

Applying reflexivity, in these two sections we switch pronouns to the first person singular; allowing us to report the research process from the perspective of the individual author, respectively, Louise Ryan and Alessio D'Angelo.

EXAMPLE 1 – ANALYSING MIGRANTS' WEAK TIES

Dominik, originally from Poland, arrived in London in 2004 with his girlfriend. I interviewed him in 2014 for a project researching how migration plans of Polish migrants evolved over time during the 10 years since accession to the EU.³ Twenty participants were interviewed. Given my established work on social networks (Ryan et al., 2008), a key part of the interviews was to understand the role, meaning and dynamism of interpersonal

relationships through migration processes. Thus, the interviews included many questions about networks as well as a tool (paper-based sociogram – see Hogan et al., 2007) to visually map social ties. In analysing the data, I read each transcript many times, looking for patterns within individual stories as well as across the wider data set. I was guided by migration literature as well as network literature. Aiming to publish something innovative, I was particularly looking for patterns in the data which might offer new insights into networks in contexts of migration.

Upon arrival in London, Dominik spoke no English and so he and his girlfriend turned to personal networks for practical support with accommodation and employment.

We came and we stayed for a few nights with a girl who my girlfriend had met in America, so we had a place to stay and this girl was working on a market stall, but she was leaving and then she told the guys who owned the stall that she had a friend – my girlfriend – who could replace her. She told them about me and that I did not speak English, but they told me to come anyway. So I did all the heavy lifting and stuff.

Listening to Dominik, during the interview, I was struck by this statement which seemed to conform to text-book descriptions of migrants' reliance on ethnic-specific ties. Nonetheless, because of my curiosity about network dynamics, I wanted to understand how Dominik's reliance on social ties, especially to access jobs, may have shifted over time. So, I asked several questions about this issue. As he went to English classes and developed language confidence, Dominik spoke about changing jobs several times. His story offered a clear, and apparently linear, account of moving from casual cash-in-hand employment to formal employment at a large supermarket chain. This suggested a gradual shift from informal employment through personal contacts to formal recruitment via job advertisements without any apparent need for networks. This linear progression seemed to conform to specific notions of how migrants' reliance on networks may shift, as they gradually improve labour market opportunities.

Adopting a reflexive approach, at this point in the interview, I confess to feeling disappointed as Dominik seemed to confirm wider network theories. I was hoping to uncover something more interesting and potentially innovative. Continuing to probe how his career developed over time, my efforts were rewarded when Dominik related an anecdote. At a party, a casual conversation with someone he had not previously met, later resulted in a job offer. I was immediately excited to observe a classic weak tie (Granovetter, 1973) in action:

I went once for some sort of a party with the people from my wife's work and I met the owner of the company she worked for at this point. And it was just a conversation we had you know, who you are, what you're doing, you know, what you like, and so on... And it sort of stopped there. We probably seen each other like once or two times more, more socialising than anything else. But then at some point towards end of 2009 it was, my wife came back from work and she said: 'the boss approached me to ask you if you would like to come and join company'.

The significance of this particular story will be explored in detail below in my reflections on the analytical process. As part of the interview encounter, I also asked Dominik to complete a simple paper-based sociogram.

Dominik's interview was fully transcribed and, on receiving the written text, I began the analysis. In line with my usual analysis process, I read each transcript, explored the accompanying sociogram and read my notes as a discrete set of data. Informed by narrative analysis (Plummer, 1995), I sought to understand each 'network story' (Ryan, 2021, 2023) in its own right. Narratives contain key defining features of character, plot line and transformation revealing: 'the significance of context, contingency, constraint and opportunity' (Mason, 2004:166). But these are not individualised plot lines; on the contrary, narratives are usually 'grounded in changing webs of relationships' (Mason, 2004:167). Later, as a second stage in the process, working with the wider data set of 20 interviews, I undertook thematic coding, including both a priori and newly emerging themes, using NVivo. This combination of analytical frameworks enabled

coding both within and across transcripts and sociograms to identify both whole narratives and themes shared among participants.

In his narrative, Dominik presented his migration story as a success, particularly in the field of employment. Arriving in London with no English, 10 years later, he was a manager in a large catering company: 'It is amazing, when I look back, it is hard to believe actually... The person I am now, that is someone I wanted to be when I first came here... to have a decent job, rent a nice flat, have respect at work'.

However, the sociogram (Figure 1) offered a more nuanced image. I observed in Dominik's story not only the complementary but also the potential tensions between how networks are presented orally and visually. The picture presented a small circle of mainly Polish friends. Working long hours, Dominik had little time for hobbies and his only leisure activity was occasional hiking trips with Polish friends. The sociogram indicated no ties to neighbours. Dominik explained that he lived in an apartment building where most tenants were busy professionals, working long hours and rarely at home. Moreover, he was wary of forming personal relations with people he managed and hence did not socialise with work colleagues. On the sociogram, work colleagues appeared as a nameless group in the outer circle. Although people spend considerable time at work, relationships in the workplace do not necessarily become friendships (Wellman, 1984).

Taking the interview and sociogram together, I speculated that sparse ties depicted in the visual image may reflect Dominik's recent marital breakdown. Divorce can fracture network ties (Greif & Deal, 2012). His wife was central to his migration project and his employment opportunities in London, but interestingly, he only mentioned

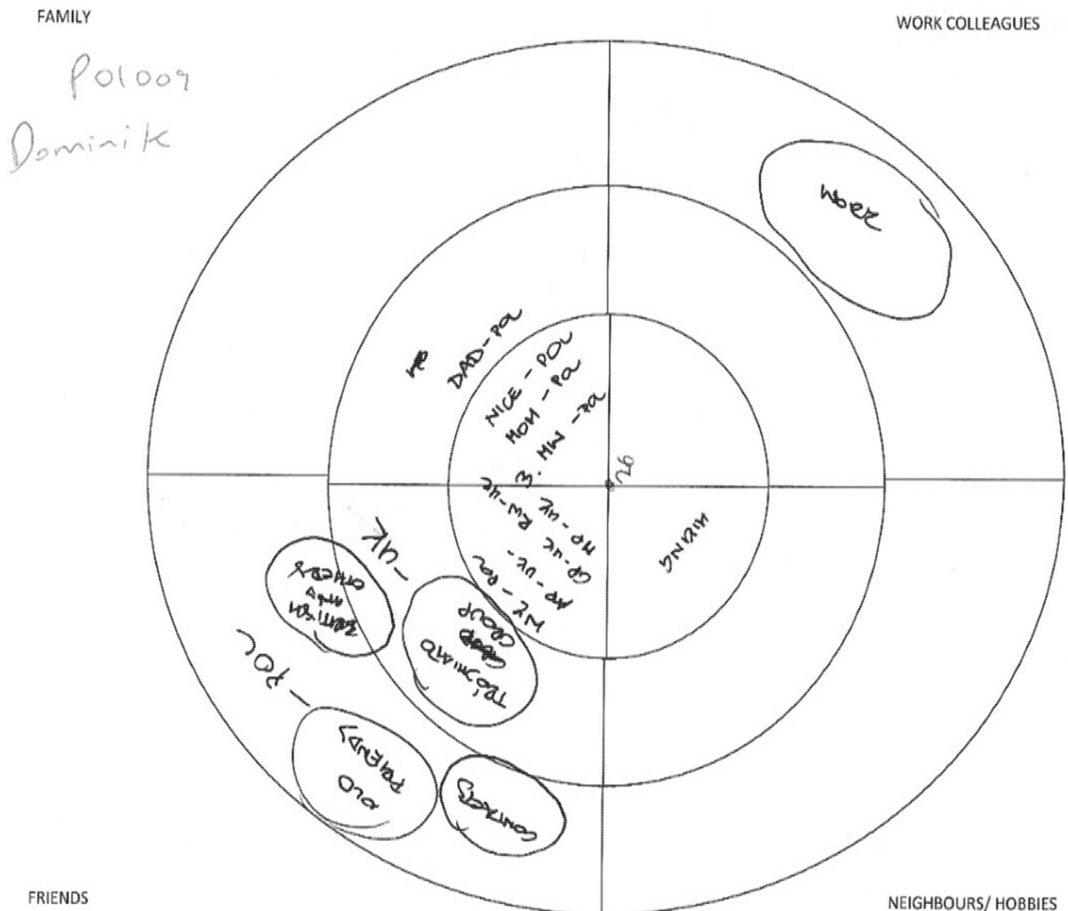


FIGURE 1 Dominik sociogram completed during our interview.

their recent divorce towards the end of the interview and seemed reluctant to discuss it. Sensing his unease, I did not probe.

While there are many rich themes in Dominik's story, for the purposes of this paper, I will focus on the role of weak ties in migrants' labour market opportunities. Analysing his set of data, I was struck by two observations. First, the role of networks in employment trajectory was not linear. Having gotten a job through formal application processes at a large supermarket chain, without network support, several years later he was offered a new and more senior job through a 'vertical weak tie' (Ryan, 2016). Analysing this story, I considered how the role of networks may be intermittent throughout a career trajectory. Some jobs are found via social ties, and others may be found via formal recruitment, but social ties cannot be discounted and may arise at any point as new opportunities emerge through particular social connections. Second, this weak tie was not an isolate. Far from a stranger at a party, the new employer was a colleague of Dominik's wife so she could be perceived as a broker who spanned a 'structural hole' (Burt, 2009) and provided some recommendations for Dominik. Trust and reputation are crucial in job offers (Burt, 2009). This observation led me to consider that the weakness of weak ties should not be exaggerated. Dyadic weak ties may lack sufficient trust to be beneficial. Instead of seeing weak ties as dyads, Dominik's account suggests that weak ties may be better understood in connection with wider social ties.

In the process of meaning making and making sense of Dominik's story, these two observations led me to think more about opportunity structure and social positioning (see Lin et al., 1981). How do migrants forge new ties in new places? As new arrivals, migrants may rely on horizontal ties to those occupying similar social positions to themselves. If they work in low-skilled, low-paid occupations with other migrant workers, if they live in disadvantaged areas and have limited proficiency in the local vernacular, it is difficult to make connections to people in higher-status social positions (Erel, 2010). Even if they have casual encounters with people with higher social status, it may be difficult to form meaningful or mutually trusting relationships (Ryan, 2011).

Analysing Dominik's narrative, I noted that it had taken several years, enhanced language proficiency and the accumulation of local employment experience before he could improve his social position. Therefore, I speculated that he needed time not only to meet a 'vertical weak tie' but also to achieve a position whereby he could benefit from opportunities presented by such an encounter. It was not simply a matter of meeting a vertical weak tie but also being able to engage in a mutually advantageous way. In other words, while the senior manager at the party had a job vacancy to fill, Dominik was able to demonstrate the necessary skills and experience to do that job. Moreover, far from a one-off casual encounter, this vertical weak tie only resulted in a job offer after several social meetings and with the added dimension of the wife's brokering role. Thus, I hypothesised from this example that migrants' ability to benefit from a tie to someone in a higher social position is not dyadic or fleeting (i.e. not so weak) but involves an element of trust, for example, via a recommendation from a mutual connection. Therefore, I considered if weak ties may be better understood not as isolates but as part of wider social connections.

Of course, in developing my thesis (Ryan, 2016), I did not rely on this one anecdote from Dominik. Sensitised by his story, I looked for similar patterns elsewhere in the data as part of the second stage of thematic analysis. I found that another participant (Oliwia) had described something very similar, although not as explicitly as Dominik. At this stage in the process, my data-generating phase was not yet complete. I still had one more participant, Adrianna, to interview. I took the opportunity of that interview to undertake some deeper probing around employment trajectories and the role of social ties. I was fascinated to uncover another very similar story about the role of vertical weak ties which reinforced my confidence in the emerging theory (Ryan, 2016).

EXAMPLE 2 – EXPLORING MIGRANTS' JOURNEYS AS MOVING NETWORKS

The second example is drawn from the 'anonymised project' on migration across the Mediterranean⁴ in the context of the so-called 'Refugee Crisis' of the mid-2010s. The study aimed to explore the journeys of migrants

from sub-Saharan Africa into Southern Italy and the supports and obstacles they encountered along the way. It included several qualitative interviews, which were part of a larger, multi-method approach. Most interviews were conducted by researcher assistants working for a local NGO. Before any interview took place, I had several meetings with the team, discussing their work and the wider migratory context – thus informing the design of the interview schedule and initial focus of the study. Since I was present only for some of the interviews, for all the others I had to look at verbatim transcripts. This raised particular issues about my own reflexivity while trying to go from the transcripts to the data analysis and, finally, the writing up of research outputs.

For this article, I focus on one interview which took place in Summer 2016 near Palermo (Sicily). This was undertaken by a research assistant with a 25-year-old man, originally from Ivory Coast, David. When starting the project analysis, I had the opportunity to read a full transcription as well as listen to an audio recording of the conversation (in English). Although here I am presenting only some excerpts, it is important to highlight that, like Louise Ryan in example 1 above, I went through the transcript several times and read it alongside the many others produced within the project. Thus, I often related these stories to other encounters I had in the field, including formal and informal discussions with, for example, local activists and other stakeholders, as well as to the prominent – and often heated – public debates taking place in Italy and across Europe, during those months. These wider socio-political contexts can influence how interview narratives are told and interpreted (Plummer, 1995). At the time, the 'Refugee Crisis' was perceived as major threat to political stability of the whole continent (Spijkerboer, 2016) and largely depicted as a mass exodus driven by macro-level factors (Albahari, 2015; Baldwin-Edwards & Derek, 2019) with limited consideration to the individual dimension.

As interviews were analysed, our team also looked at findings emerging from other elements of the research. Going through this iterative process, I started identifying not only specific quotes that I intended to focus on for my analysis, 'quotable quotes', but also elements of the interview that could allow me to either make a key point about the wider experience of migrants crossing the Mediterranean or to highlight something that could bring to the fore the individuality of a particular interviewee.

Listening to David's interview for the first time, I found the very first seconds of the recording particularly powerful.

- Q 'Shall we start with you introducing yourself, how old are you? Where are you from? What do you do in your country?'
- A '*I am 25 years old right now, well, back home I used to work in mechanics. After working in mechanics, I stayed in the village to practice a bit of singing, well, way before I had all these problems that made me come here*'
- Q 'What was the situation in your country, before you took the decision to leave?'
- A '*When I left Ivory Coast, there was a war everywhere. I did not quit Ivory Coast because of the war, No. It wasn't my motive to come here. What made me come here was a family problem*'.
- Q 'Can you say about more about these problems? – if you want to'
- A '*It's a family custom which forced me to marry a woman that I was not willing to marry, so when I refused, my family tried to kill me, so that's the main reason why I left*'

This initial exchange struck me because it related directly to the ongoing public debates about Mediterranean migration; that is, the extent to which these people could be 'classified' as refugees (e.g. fleeing war) as opposed to economic migrants. David's account immediately problematises such simplistic distinctions and, for me, sets the tone of the whole interview, that is, challenging many of the parameters and assumptions informing even academic research at that time.⁵

Straight after, the interviewee moved to one of our key research questions: the way in which journeys had been undertaken and the specific pathways followed by each participant.

- Q 'How did you manage to [leave Mali]?'

- A 'Well, It's my mother who helped me flee to Mali, mainly because she had a friend who lived there and came regularly to Ivory Coast to deal with some merchandise, way before the war though. She was named "The Bazin", she used to come and sell bazins,⁶ so when the situation aggravated, my mother handed me to this woman and this woman send me to Mali. Once I arrived in Mali, about 6 months later, the Malian war had started there. As a result, I left to Algeria with this woman's son. [But] we couldn't get there because in Algeria there was a requirement to have a passport in order to live there. As we did not have any passport to get to Algeria, we had to go to Libya'

Unlike the opening exchange, initially, I found quotes like this interesting, but merely descriptive of very personal circumstances. Details about specific locations and the timing of each leg of the journey were often brushed over. Therefore, having to rely on transcripts felt frustrating because I was not in control of the interview process, I could not ask probing questions and shift the direction of the conversation: an interaction of which I was less than a witness. It is only in a second moment, when comparing this interview with many other highly personal and seemingly serendipitous accounts that I had a eureka moment about a precious insight hiding under the surface. That is, trans-African journeys were not described so much in terms of geographical coordinates and travel times, rather, they were presented as a succession of encounters which significantly affected key decisions, directions of travel, and the extent to which people stayed in a place for a short period or for a significant amount of time (whether willingly or forcibly). In this respect, David's interview was particularly telling, even archetypal.

It is important to highlight that a 'Social Network Analysis' was not initially part of the study. Rather, the use of networks emerged 'naturally' when analysing the transcripts and as I developed a wider understanding of these migration processes. Hence, in this study, networks were not a (pre)formalised method, but an analytical lens which I decided to employ for at least some of the papers and articles I subsequently wrote. Of course, the extent to which this process was properly 'natural' and inductive must be considered from the perspective of a researcher who had a prior interest in SNA and was therefore geared into 'seeing networks'.

Unlike other studies of mine (e.g. D'Angelo, 2015), in analysing these interviews, even from a network perspective, I never produced visual outputs such as sociograms. Interestingly, however, at the time, migrant routes from Africa into Europe were depicted as maps of route networks, with lines connecting specific localities (see Figure 2). David's account made me reflect on how these networks of geographical routes could potentially be overlaid by – or understood as – sociograms 'on the move': networks of significant alters shaping the journey of migrants, where each node is a person (or set of people) and each tie is what links them to another node based somewhere else. Sometimes, these people were actually directly connected with each other (like David's mother and 'the Bazin'), in others, they are not – that is, they are only connected through the migrant's egonet. Thus, although I was not drawing networks, I was certainly 'thinking networks', using them as a visual metaphor informing my analytical process.

Later in his story, David ends up in a detention centre in Libya – a major, extremely difficult stage in his journey, which I am not covering here, but which echoes some of the powerful accounts presented elsewhere by other scholars (see, e.g. Baldwin-Edwards & Derek, 2019; Al-Dayel et al., 2021). David's captivity lasted for several months, although eventually, he managed to escape.

- Q 'After you escaped from jail, what did you do?'
- A 'Well, after we escaped from jail, we had to hide because we were too scared to be imprisoned again so what we did, we went to a district of Tripoli called Madina, there's a huge centre there in which we met some Ghanaians. We explained to them our troubled situation and they helped us found somewhere to stay. They said that they could not accommodate us in their home because there was two of us (a Somalian guy and I). However, they said that they could keep us for two days but after that we will have to continue our route. So we stayed for the two days, but then there was a guy who wanted to find work. He worked in a camel breeding, so we left and worked there two months for this guy. Then the guy told us that he will not be able to pay us. We told him that it was fine not to pay us but instead we urged him to take us to Tunisia as it was no longer safe for us to remain in Libya. He agreed but asked us to work for

Routes to a better life

Main migration routes into Europe from Africa and the Middle East.



FIGURE 2 A classic representation of migration routes as geographical networks. Source: Moshinsky (2015). <https://www.businessinsider.com/migrant-route-maps-2015-9?r=US&IR=T>.

another 4 months. So we worked for the 4 months and he told us to work for another month, we ended up working 5 months in total until he told us that the day after he would find an arrangement for us to leave to Tunisia. At 4.00 AM, there was a car waiting for us, well, it was a dump truck, the guy embarked both of us in it'.

In this dense quote, David presents several more encounters and examples of networking in action. First, actively looking for people who can help (through networks of fellow sub-Saharan Africans, though not necessarily fellow nationals, in a Libyan context which most interviewees described as thriving with violent racism against

Black people); then negotiating short-term support; then again making serendipitous encounters which end up lasting for months and become decisive in allowing a further step into the migration journey.

In David's story, several 'friends' are mentioned, although for me it was noteworthy that the people (alters) who were usually associated with significant changes in fortune (and in the direction of travel) were not such friends but other (weak) ties, with whom David established very transactional relationships. In this sense, the next quote is also very telling:

Along the way, we stopped in a small secluded house where we found many other men, lost like us, they were all sitting on the floor, so we asked them about the reasons why they were waiting here. They all claimed that they wanted to leave Libya but they did not even know why they were kept waiting here and that they had idea about where they would be going. Finally, we stayed two days there and on the next day, at around 1 to 2 PM, they came and took us by the sea side.

In David's ever-fleeting set of social relations, people 'like us' tend to be presented as less powerful, often, like here, even passive. The resources which enable him to actually travel (and have access to support) are often depending on people 'other than us', and in a relatively more powerful position, a seemingly classic example of 'bridging capital'. David is also keen to present his journey has driven, at least partially, by his own decision making and agency. When comparing David's account to the way in which the 'Mediterranean Refugee Crisis' was described in public debates and dealt with at policy level, it struck me as a deliberate attempt to provide a counternarrative.

David's narrative also seemed powerful to me from a more methodological, SNA perspective. The juxtaposition between social relations (ties) and the way in which these embedded specific resources resonated with ideas of migrant social capital which I had explored elsewhere. Drawing on the work of Floya Anthias, my premise was a critique of any simplistic equation between social ties and social capital, adopting a more specific definition of social capital as '*mobilizable* social ties and networks' (Anthias, 2007:788). Thus, the initial frustration for not being an active player in David's interview was rebalanced by the excitement of discovering how much of his narrative came into fruitful dialogue with my own stream of thinking at the time – a connection was indeed established.

CONCLUSION: USING CONCEPTUAL REFLEXIVITY TO REVEAL THE 'MAGIC TRICK'

This paper builds upon our earlier contributions on the importance of reflexivity in social network research, particularly in qualitative analysis of migrants' networks. This methodological journey started with our work on network visualisation (D'Angelo & Ryan, 2021; Ryan & D'Angelo, 2018), from which we developed our ideas about the 'presentation of the networked self'. We also considered wider issues of ethics in SNA. Against a tendency to present apparently smooth research results, we encouraged the development of a community of practice based on collective reflexivity and the exchange of experiences among scholars (D'Angelo & Ryan, 2021). We now take one step further by proposing an approach that can fully reveal the 'magic trick' of SNA by adopting conceptual reflexivity to reveal the unfolding of meaning making throughout the entire research process: not only data 'collection' but also the analysis and presentation of findings. Our approach is especially useful in studying the migration experience, of which social networks are often regarded as a central element. Because of the widespread interest in how migrants access, build and utilise networks, it is imperative that more attention is paid to reflexivity not only on how we conduct research but also on how we, as researchers, make sense of these networks.

The two examples in this paper highlight the importance of being reflexive not just in terms of our personal positioning but also our conceptual positioning; recognising how our epistemological traditions, academic literature and training affect the generation, interpretation and analysis of data. Hence, we call for 'conceptual reflexivity': we 'think networks', thus we identify networks in the interview narrative (even when the interview was not

specifically designed to collect relational data). Therefore, data generation emerges as a dialogical process: an interaction between us and participants and their responses. This can be synchronous, for example, during the interview, or asynchronous, when we analyse the data later or even when we engage with transcripts collected by other team members. Also in these cases, we argue, researchers must reflect on our own position as 'observers' of social encounters, and on the extent to which the transcript is read within the wider context (included other sources of data).

Adopting this conceptual reflexivity, we become more conscious of the meaning-making process. By choosing certain elements and 're-packaging' them as network data, we are imposing a specific structure and understanding of the experiences and relational processes of migrants we encounter in the field. We select the elements of the story depending not just on how important they are for the interviewee but also on how useful they are for our particular analysis. Of course, acknowledging 'messiness' and positionality does not imply that we can impose any random meaning – or any conceptual 'framework' – onto the data. We are not arguing for data relativism. Quite the opposite: conceptual reflexivity is about recognising the steps we go through as part of research processes and balancing these with our responsibility of giving 'voice' to participants. This particular dimension in the process of meaning making interacts in complex ways with other elements that tend to be more 'visible' in published research, such as our focus on particular research questions or our engagement with literature as part of our declared theoretical framework.

Some of these issues resonate with wider debates about empirical sociological research (McKie & Ryan, 2015), but things had not been pushed this way in SNA yet, partially because of the dominance of structural approaches. As discussed in the introduction, these approaches are, of course, perfectly valid when the research questions underpinning a study – and the ontology informing it – are indeed about network structure. Here, however, we are arguing for the potential – and the opportunities – of a 'genuinely Qualitative', interpretivist and relational take to social network research. Through this approach, we are not trying to systematically 'map' patterns of ties or identify personal relationships into a snapshot. Even when data are visualised – for example, co-produced during interviews, or drawn later by the research – our aim is to reflect on how this is experienced, perceived and narrated during research encounters. Thus, qualitative SNA can bring to the fore 'the presentation of the networked self'.

In this sense, network data visualisation, whose advantages and challenges we discussed elsewhere (D'Angelo & Ryan, 2021), can become a tool of elicitation, an instrument to reconsider and challenge pre-established narratives about complex sets of relationships to summarise and represent particular stages of this process. The 'network' (as a map of ties) is not the aim, but a means, feeding into a broader research toolkit. Furthermore, narrative interviews can allow us to see ties overtime; fleeting connections do not reveal themselves in a 'snapshot' interview, they would not emerge in a name generator, but are a powerful part of the (presentation of the) networked self.

As we argued throughout, relations are fundamental to SNA. This emphasis on relationality must include a recognition of the relationships between researchers on the one hand and participants – and the data they generate – on the other. Being open and adopting a reflexive approach – showing our 'working out', the process hidden behind the scenes – can help reveal 'the magic trick' behind qualitative relational research. As acknowledged earlier in this article, the standard practice of academia does not allow us to discuss this at length in all publications, and this is not what we are calling for. However, we would argue for an acknowledgement of conceptual reflexivity in the more method-oriented SNA 'outputs' and strongly encourage the SNA research community to adopt conceptual reflexivity as a key element of their analysis and writing up.

DECLARATION

The authors declare that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere.

CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to declare.

DATA AVAILABILITY STATEMENT

Data available upon request (with some restrictions due to anonymity).

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ENDNOTES

¹In this article we use the term sociogram in the broad sense of a visual representation of a social network, whether this is computer aided, or done with pen and paper, and whether this visualisation is produced with/by the participant as part of the data collection process, or as a subsequent stage by the researcher. This aligns with the terminology used by, for example, Hogan et al. (2020) and Dobbie et al. (2018) and in our own earlier work (D'Angelo & Ryan, 2019; Ryan et al., 2015). Wider discussions on visualisation in Social Network Analysis are available, for example, D'Angelo & Ryan, 2016 or in the work of Hollstein et al. (2020), who also suggested terminological classifications of different types of network visualisations.

²All participants' names included in this article are pseudonyms.

³Details removed for anonymisation.

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⁵Much has been written since on the issues of classification and conceptualisation brought to the fore by the 'Refugee Crisis', see, for example, Crawley (2018), Wyss & Dahinden (2022), Schapendonk (2021).

⁶That is, a type of West-African cotton fabric.

REFERENCES

- Albahari, M. (2015) Europe's refugee crisis. *Anthropology Today*, 31(5), 1–2.
- Al-Dayel, N., Anfinson, A. & Anfinson, G. (2021) Captivity, migration, and power in Libya. *Journal of Human Trafficking*, 9(3), 280–298.
- Altissimo, A. (2016) Combining egocentric network maps and narratives: an applied analysis of qualitative network map interviews. *Sociological Research Online*, 21(2), 152–164.
- Amoruso, M., Anello, D., Auletta, V., Cerulli, R., Ferraioli, D. & Raiconi, A. (2020) Contrasting the spread of misinformation in online social networks. *The Journal of Artificial Intelligence Research*, 69, 847–879.
- Anthias, F. (2007) Ethnic ties: social capital and the question of mobilisability. *The Sociological Review*, 55(4), 788–805.
- Baldwin-Edwards, M. & Derek, L. (2019) Coping with the Libyan migration crisis. *Journal of Ethnic and Migration Studies*, 45(12), 2241–2257.
- Bernhard, S. (2018) Analyzing meaning-making in network ties—a qualitative approach. *International Journal of Qualitative Methods*, 17(1), 1609406918787103.
- Bilecen, B., Gamper, M. & Lubbers, M.J. (2018) The missing link: social network analysis in migration and transnationalism. *Social Networks*, 53, 1–3.
- Bilecen, B. (2022) Reciprocity within migrant networks: the role of social support for employment. In: Keskiner, E.R. (Ed.) *Revisiting migrant networks: migrants and their descendants in labour markets*. Springer International Publishing, pp. 159–178.
- Boyd, M. (1989) Family and personal networks in international migration: recent developments and new agendas. *The International Migration Review*, 23(3), 638. Available from: <https://doi.org/10.2307/2546433>
- Brandhorst, R. & Krzyzowski, L. (2022) Biographical reconstructive network analysis (BRNA): a life historical approach in social network analysis of older migrants in Australia. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 23(1). Available from: <https://www.qualitative-research.net/index.php/fqs/article/view/3715>
- Burt, R.S. (2009) *Structural holes: the social structure of competition*. Cambridge, MA: Harvard University Press.
- Crawley, H. (2018) Refugees, migrants, neither, both: categorical fetishism and the politics of bounding in Europe's migration crisis. *Journal of Ethnic and Migration Studies*, 44(1), 48–64.

- Crossley, N. & Edwards, G. (2016) Cases, mechanisms and the real: the theory and methodology of mixed-method social network analysis. *Sociological Research Online*, 21(2), 217–285. Available from: <https://doi.org/10.5153/sro.3920>
- Dahinden, J. (2016) A plea for the 'de-migranticization' of research on migration and integration. *Ethnic and Racial Studies*, 39(13), 2207–2225.
- D'Angelo, A. (2015) Migrant Organisations: embodied community capital? In: Ryan, L., Erel, U. & D'Angelo, A. (Eds.) *Migrant capital. Networks, identities and strategies*. London: Palgrave Macmillan.
- D'Angelo, A. (2021) The networked refugee: the role of transnational networks in the journeys across the Mediterranean. *Global Networks*, 21(3), 487–499.
- D'Angelo, A. & Ryan, L. (2016) Social network analysis: a mixed method approach. In: McKie, L. & Ryan, L. (Eds.) *An end to the crisis of empirical sociology*. London: Routledge.
- D'Angelo, A. & Ryan, L. (2021) The presentation of the networked self: ethics and epistemology in social network analysis. *Social Networks*, 67, 20–28.
- D'Angelo, A., Ryan, L. & Tubaro, P. (2016) Visualization in mixed-methods research on social networks. *Sociological Research Online*, 21(2), 148–151.
- D'Angelo, A. & Ryan, L. (2019) The presentation of the networked self: ethics and epistemology in social network analysis. *Social Networks*, 67, 20–28. Available from: <https://doi.org/10.1016/j.socnet.2019.06.002>
- Dobbie, F., Reith, G. & McConville, S. (2018) Utilising social network research in the qualitative exploration of gamblers' social relationships. *Qualitative Research*, 18(2), 207–223.
- Dominguez, S. & Hollstein, B. (2014) *Mixed methods social networks research. Design and applications*. Cambridge: Cambridge University Press.
- Erel, U. (2010) Migrating cultural capital: Bourdieu in migration studies. *Sociology*, 44(4), 642–660.
- Eve, M. (2022) Networks in migration processes. In: *Revisiting migrant networks: migrants and their descendants in labour markets*. Berlin: Springer, pp. 179–204.
- Goffman, E. (1959) *The presentation of the self in everyday life*. London: Penguin.
- Granovetter, M.S. (1973) The strength of weak ties. *The American Journal of Sociology*, 78(6), 1360–1380. Available from: <https://doi.org/10.1086/225469>
- Greif, G.L. & Deal, K.H. (2012) The impact of divorce on friendships with couples and individuals. *Journal of Divorce & Remarriage*, 53(6), 421–435.
- Heath, S., Fuller, A. & Johnston, B. (2009) Chasing shadows: defining network boundaries in qualitative social network analysis. *Qualitative Research*, 9(5), 645–661.
- Herz, A., Peters, L. & Truschkat, I. (2015) How to do qualitative structural analysis: the qualitative interpretation of network maps and narrative interviews. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 16(1). Available from: <https://www.qualitative-research.net/index.php/fqs/article/view/2092/3905>
- Hogan, B., Carrasco, J.A. & Wellman, B. (2007) Visualizing personal networks: working with participant-aided sociograms. *Field Methods*, 19(2), 116–144.
- Hogan, B., Janulis, P., Phillips, G.L., Melville, J., Mustanski, B., Contractor, N. et al. (2020) Assessing the stability of egocentric networks over time using the digital participant-aided sociogram tool network canvas. *Network Science (Cambridge University Press)*, 8(2), 204–222.
- Hollstein, B., Töpfer, T. & Pfeffer, J. (2020) Collecting egocentric network data with visual tools: a comparative study. *Network Science*, 8(2), 223–250. Available from: <https://doi.org/10.1017/nws.2020.4>
- Krackhardt, D. (1987) Cognitive social structures. *Social Networks*, 9(2), 109–134.
- Lin, N., Ensel, W.M. & Vaughn, J.C. (1981) Social resources and strength of ties, structural factors in occupational status attainment. *American Sociological Review*, 46(4), 393–405. Available from: <https://doi.org/10.2307/2095260>
- Lubbers, M.J., Molina, J.L. & McCarty, C. (2021) How do migrants' processes of social embedding unfold over time? *Global Networks*, 21(3), 529–550.
- Mason, J. (2004) Personal narratives, relational selves: residential histories in the living and telling. *The Sociological Review (Keele)*, 52(2), 162–179.
- McKie, L. & Ryan, L. (Eds.). (2015) *An end to the crisis of empirical sociology?: trends and challenges in social research*. London: Routledge.
- Moralli, M. (2023) Research as care: positionality and reflexivity in qualitative migration research. *Qualitative Research*. Available from: <https://journals.sagepub.com/doi/abs/10.1177/14687941231176946>
- Plummer, K. (1995) *Telling sexual stories: power, change, and social worlds*. London: Psychology Press.
- Ryan, L. (2011) Migrants' social networks and weak ties: accessing resources and constructing relationships post-migration. *The Sociological Review*, 59(4), 707–724.
- Ryan, L., Erel, U. & D'Angelo, A. (Eds.). (2015) *Migrant capital: networks, identities and strategies*. Palgrave Macmillan.
- Ryan, L. (2016) Looking for weak ties: using a mixed methods approach to capture elusive connections. *The Sociological Review*, 64(4), 951–969.

- Ryan, L. (2021) Telling network stories: researching migrants' changing social relations in places over time. *Global Networks*, 21(3), 567–584.
- Ryan, L. (2023) *Social networks and migration: relocations, relationships and resources*. Bristol: Policy Press.
- Ryan, L. & D'Angelo, A. (2018) Changing times: Migrants' social network analysis and the challenges of longitudinal research. *Social Networks*, 53, 148–158.
- Ryan, L., Erel, U. & D'Angelo, A. (Eds.). (2015) *Migrant capital. Networks, identities and strategies*. London: Palgrave Macmillan.
- Ryan, L., Sales, R., Tilki, M. & Siara, B. (2008) Social networks, social support and social capital: the experiences of recent polish migrants in London. *Sociology*, 42(4), 672–690.
- Schapendonk, J. (2021) Counter moves. destabilizing the grand narrative of onward migration and secondary movements in Europe. *International Migration*, 59(6), 45–58. Available from: <https://doi.org/10.1111/imig.12923>
- Spijkerboer, T. (2016) *Europe's refugee crisis: a perfect storm*. Oxford Law Faculty.
- Töpfer, T. & Behrmann, L. (2021) Symbolic interactionism and qualitative network research—theoretical and methodological implications for the analysis of social networks. *Forum Qualitative Sozialforschung Forum: Qualitative Social Research*, 22(1). Available from: <https://www.qualitative-research.net/index.php/fqs/article/view/3593>
- Tubaro, P., Ryan, L., Casilli, A.A. & D'angelo, A. (2021) Social network analysis: new ethical approaches through collective reflexivity. Introduction to the special issue of social networks. *Social Networks*, 67, 1–8.
- Tubaro, P., Ryan, L. & D'angelo, A. (2016) The visual sociogram in qualitative and mixed-methods research. *Sociological Research Online*, 21(2), 180–197.
- Wellman, B. (1984) *Domestic work, paid work and network*. Toronto, ON: Centre for Urban and Community Studies, University of Toronto.
- White, J. & Drew, S. (2011) Collecting data or creating meaning? *Qualitative Research Journal*, 11(1), 3–12.
- Wyss, A. & Dahinden, J. (2022) Disentangling entangled mobilities: reflections on forms of knowledge production within migration studies. *Comparative Migration Studies*, 10(1), 33. Available from: <https://doi.org/10.1186/s40878-022-00309-w>

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