Routledge
Taylor & Francis Group

Journal of Ethnic and Migration Studies

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/cjms20

# Evolution of migration trajectories and transnational social networks over time: a study among sub-Saharan African migrants in Europe

Kim Caarls , Özge Bilgili & Sonja Fransen

**To cite this article:** Kim Caarls , Özge Bilgili & Sonja Fransen (2020): Evolution of migration trajectories and transnational social networks over time: a study among sub-Saharan African migrants in Europe, Journal of Ethnic and Migration Studies, DOI: 10.1080/1369183X.2020.1804195

**To link to this article:** https://doi.org/10.1080/1369183X.2020.1804195



Published online: 02 Sep 2020.

JOURNAL OF ETHNIC AND MIGRATION STUDIES
https://doi.org/10.1080/1369183X.2020.1804195

Routledge
Taylor & Francis Group



# Evolution of migration trajectories and transnational social networks over time: a study among sub-Saharan African migrants in Europe

Kim Caarls[a], Özge Bilgili[b] and Sonja Fransen[c]

[a]Independent Researcher; [b]Interdisciplinary Social Science Department / ERCOMER, Utrecht University, Utrecht, Netherlands; [c]University of Amsterdam, Amsterdam, Netherlands

**ABSTRACT**

The transnational social networks of migrants are extensively studied, but little is known about the associations between transnational social networks and individual migration trajectories over the course of migrants' lives. In this paper, we reconstruct the migration trajectories and transnational social networks of African migrants until their arrival in Europe and develop a typology that reflects the diversity of their trajectories. Based on unique retrospective life-history data of the MAFE project, our comparative perspective highlights the diversity of African migrants residing in Europe, the routes that they took before arriving in Europe and the types of transnational networks they had before, during and after migrating. Furthermore, we discuss the socio-demographic and socio-economic characteristics of migrants within each typology. Consequently, this paper challenges the singular African migration stereotype and draws attention to the associations between transnational social networks and migration trajectories.

**KEYWORDS**

Migration trajectories; transnational networks; sub-Saharan Africa; Europe; multichannel sequence analysis

## Introduction

The role of social networks in the lives of migrants has been long recognised (Bilecen, Gamper, and Lubbers 2018). Most studies describe how social networks contribute to the aspirations and capacities of potential migrants before leaving their origin community (e.g. Boyd and Nowak 2012; Massey and García España 1987). These studies highlight how social networks may shape migration plans and destinations and reduce the risks and costs associated with migration (Faist 1997; Massey 1987; Pries 2004). Accordingly, the migrant network hypothesis suggests that 'the migration of a person directly affects the migration likelihood of those in his or her social network' (Liu 2013, 1245). Previous research has consistently shown the role of social networks in different contexts including migration flows from Mexico to the U.S. (Curran and Rivero-Fuentes 2003; Palloni et al. 2001), between sub-Saharan Africa and Europe (Liu 2013; Toma and Vause 2013, 2014),

CONTACT Özge Bilgili o.bilgili@uu.nl

within South America (Parrado and Cerrutti 2003), and from Albania (Stecklov et al. 2010).

While we have substantial knowledge about the ways in which transnational social networks support migrants, we know less about how social networks relate to individual migration trajectories. In most studies, transnational social networks are measured at one point in time and treated as static entities (Somerville 2011). Yet, it can be argued that networks are both shaping and shaped by migration (Pathirage and Collyer 2011; Ryan 2011; Schapendonk 2014). In addition, little is known about the migration trajectories of migrants over their life courses, which is mostly due to a lack of longitudinal data. Most of our knowledge on international migration stems from census data that are used to estimate bilateral migrant stocks (Parsons et al. 2007). These data do not contain information on migration flows and can hardly inform us about the background characteristics of individuals on the move (Schoumaker et al. 2018). Another source of information consists of case studies on migration journeys that provide in-depth information on migration routes and the turbulent journeys that migrants often face. Also in this special issue, great importance is given to such in-depth understandings of im/mobility processes (see Schapendonk, Bolay and Dahinden (2020); Kuschminder (2020). While these studies provide a crucial nuanced view and push forward conceptualizations, they remain limited in highlighting general mobility patterns, the various profiles of migrants and providing longer-term perspectives. The contribution of our paper to the literature and to this special issue is to complement such studies, with a more generalisable analysis that reflects the evolution of migration trajectories over migrants' life course and their transnational social networks using quantitative data.

In this paper, we simultaneously study the geographic migration trajectories and the transnational social networks over the course of migrants' lives. Our main research question is: *how are the development, geographic location, and type of transnational social networks associated with the migration trajectories of African migrants residing in Europe*? By addressing this question, we aim to identify different types of migrants with varying migration experiences, to have a fuller understanding of sub-Saharan migration to Europe and the dynamic association between their transnational social networks and migration trajectories. This geographical focus is of great relevance as it allows us to go beyond intra-European migration flows and to take into consideration the migration journeys of those arriving in Europe.

We use unique survey data from the Migration between Africa and Europe (MAFE) project. This project collected large-scale quantitative data on migration *between* sub-Saharan Africa and Europe, emphasising that migration should not be seen as a one-way flow from Africa to Europe (Beauchemin 2014). The data consist of retrospective life history survey data of migrants from three sub-Saharan African origin countries (Ghana, DR Congo, Senegal) residing in six European destination countries (the Netherlands, UK, Belgium, France, Spain, and Italy).[1] These migration flows account for a quarter of all African migration to Europe. Due to their retrospective character, the data offer a unique longitudinal insight into the migration trajectories and transnational social networks of sub-Saharan migrants residing in Europe.

Our analytical strategy consists of three parts. First, we study the timing and sequencing of the migration trajectories of African migrants residing in Europe over their life course. Second, we study the evolution in the transnational social networks of migrants over the

course of their lives. Transnational social networks include all contacts that migrants have beyond the borders of their own country. We distinguish between strong ties (parents, children and siblings) and weak ties (extended family, friends and other network members) (Granovetter 1973), and the location where these networks are located (Europe versus Africa). We use sequence analysis to examine the migration trajectories and networks over time (Abbott and Tsay 2000; Robette and Thibault 2008). Finally, we look at the *associations* between these migration trajectories and transnational social networks. Based on the idea that migrants' social networks change over time as well as the expectations, motivations and needs throughout the migration process (Wissink and Mazzucato 2018), we aim to understand how migration trajectories and transnational social networks are simultaneously shaped in migrants' lives. In this part, we also develop a typology of migrants based on the associations between their migration trajectories and transnational social networks using multichannel sequence analysis (MCSA). Since this type of analysis requires sequences of equal length, we focus on migrants when they were between 21 and 35 years old (i.e. this sub-sample of migrants is at least 35 years old at the time of survey). Additionally, we examine which socio-demographic and socio-economic factors are associated with each type, using multinomial logistic modelling.

Our study contributes to the literature by adding a long-term and explorative perspective on migration trajectories and the transnational social networks over the life course of African migrants residing in Europe. The importance of taking a life course perspective is confirmed by our analyses, as the findings reveal that both migration trajectories and transnational social networks are susceptible to changes over the course of migrants' lives, in an interdependent fashion. Our findings also reveal the diversity across African migrants residing in Europe and the routes that they take before arriving in Europe.

## Migration trajectories and transnational social networks

Migrants are embedded in transnational social fields in today's networked societies (Castells 2011). That is to say, their interpersonal relations are not bound to a single space and their social lives span across borders. While this has been the reality of many migrants for decades, with the increased and cheaper opportunities to travel and the development of information and communication technologies (ICT), migrants are intensely and regularly connected to multiple networks more than ever before (Bilgili 2014). Social networks can reduce the costs of migration by providing financial support and information on migration journeys and destination countries, and can help migrants overcome cultural barriers (Wissink and Mazzucato 2018; Liu 2013). Particularly the contacts that individuals have with those who have already migrated are an important determinant of migration (Massey and Espinosa 1997; Curran and Rivero-Fuentes 2003; Curran et al. 2005). Migration patterns can become 'self-sustainable', meaning that acts of migration from, e.g. a certain community make additional migration from this community more likely. Massey and García España (1987) for example found that Mexican men were more likely to migrate to the United States if a previous household member had already migrated there. Other studies address the question of how social networks support incorporation processes in destination countries (e.g. Chelpi-den Hamer and Mazzucato 2010; Lubbers et al. 2010; Portes and Rumbaut 2001; Van Tubergen, Maas,

and Flap 2004), for example by assisting newcomers to find employment and accommodation and providing socioemotional support (Nagel 2005).

Migrant networks are not only defined by the contacts that migrants have in their country of origin and settlement, but also by the contacts they have with those in other places. These may include contacts that migrants have while in transit or contacts in third countries where they physically do not reside. In the lives of migrants, there are varieties of individuals in their network who may impact their migration trajectories. Moreover, as also emphasised by Snel, Bilgili, and Staring (2020) in the introduction of this special issue, transnational social networks do not exclude other crucial and relevant actors who constitute the so-called 'migration industry' such as civil society representatives, human smugglers, international organisations, the police, etc. (Hernández-León 2013).

Apart from the mere existence of transnational networks, it is import to take into account the quality of contacts or ties in the network. Social network influence varies with its tie strength (Granovetter 1973; Liu 2013). Interestingly and perhaps counter-intuitively, it is not just strong ties that are important for migration decisions. For example, research in the context of Senegalese migration to Europe has shown that weak ties are especially important for innovative and useful information (Liu 2013). Similarly,Garip (2008) found that weak ties, such as those with village members, made migration more likely than intra-household – strong – ties. The effects of social capital on migration may differ depending on the strength of the network and the contexts (sending and receiving country) between which migration takes place (Garip 2008).

Recent research in the field has paved the way to understanding the changing and dynamic nature of transnational social networks. Social networks are often shaped by opportunities and needs associated with different stages of migration, such as emigration, transit, immigration, settlement, integration and return (Chelpi-den Hamer and Mazzucato 2010; Haug 2008; Hiller and Franz 2004; Massey 1987; Muanamoha, Maharaj, and Preston-Whyte 2010; Van Meeteren, Engbersen, and van San 2009). However, there is limited information on potential changes in social networks over time. Wissink and Mazzucato (2018) studied the migration journeys of individuals transiting from Turkey and Greece in a longitudinal manner. The authors analysed how critical events are associated with changes in migrants' social networks and the reasons behind these changes. More specifically, they have observed the social and institutional environments of individuals and how events such as marriage, childbirth (Bidart and Lavenu 2005), divorce (Terhell, Broese van Groenou, and van Tilburg 2007) and widowhood (Morgan, Neal, and Carder 1997) or societal transitions (e.g. economic recession, political transformations) relate to development of social networks with regards to network size, members and sources of support. Schapendonk (2014) also emphasises that timing and opportunities to connect with others contribute to the dynamics in migrants' social networks, on top of the critical events. Also in this special issue's introduction, Snel, Bilgili and Staring emphasise the dynamism and time-dependence of the different types of roles that individuals and institutions take within someone's social network and the different levels of reciprocity within these social relations. In this paper, we bring a further elaboration to this picture by focusing on the strength of ties and the geographic location of the social networks.

Changes in the strength and geographic location in the social networks of migrants most likely affect the migration trajectories of migrants, and vice versa. However, we

know little about how social networks of migrants develop over time and how these changes are associated with changes in migration trajectories. To build on these previous works we study the simultaneous evolvement of migrant transnational networks and migration trajectories of African migrants to Europe. By studying this longitudinally, we will offer new insights in the association between migration networks and trajectories over time. Based on the literature, we expect that the transnational social networks of African migrants in our sample will vary across time and space and that not all migrants necessarily had strong ties in Europe before arriving.

## Background: migration between Africa and Europe

Existing data show that African migrants mainly live in sub-Saharan Africa. In 2000, around 70% of the 17.5 million African migrants lived in sub-Saharan Africa, and often in neighbouring countries (Lessault and Beauchemin 2009; Özden et al. 2011). However, when we consider intercontinental migration from Africa, we see that it is largely directed towards Europe (Lucas 2006), despite variations across countries. For example, the United States and Canada have also attracted a growing number of African migrants over recent decades (Zeleza 2002; Zlotnik 1993; Zong and Batalova 2014).

According to the global bilateral migration database (Özden et al. 2011), the number of sub-Saharan African migrants living in Europe was close to 3 million in 2000, almost 1 million more than in 1990 (Lucas 2006). More recent OECD data indicate that as many as 3.9 million migrants from sub-Saharan Africa were living in Europe in 2011 (OECD 2014), representing two-thirds of sub-Saharan migrants in OECD countries. This concentration in Europe (and to a large extent in France and the UK) is partly due to historical ties (former colonial powers being European countries) and geographical proximity as well as economic, political and linguistic reasons (De Haas 2007).

Despite restrictions, the size of African populations in Europe may continue to grow, which may facilitate further migration through the development or consolidation of transnational social networks. Turning our attention to our three origin countries (Senegal, DR Congo and Ghana), we observe that migration from these countries is a relatively common phenomenon. The patterns of movement and the composition of these migration flows differ between the three African origin countries (Mazzucato et al. 2015). Emigration from DR Congo is mainly towards Belgium, while the majority of Ghanaians and Senegalese move to the UK and France, respectively. And whereas women and men are equally visible in migration patterns from DR Congo and Ghana, Senegalese migration is primarily male dominated. This diversity in migration characteristics makes the country case studies particularly suitable for our study on the relationship between transnational social networks and migration trajectories.

## Data and methods

We use biographical data on migrants in Europe from the MAFE project, covering three migratory systems: (1) migrants from Senegal in France, Spain and Italy; (2) migrants from DR Congo in Belgium and the UK; and (3) migrants from Ghana in the Netherlands and the UK. Data collection in the three European destination countries took place

between 2008 and 2011. In these countries, adult migrants from the three African origin countries were interviewed. Migrants who participated had to be between 25 and 75 years old and had to be born in either Ghana, Senegal or DR Congo. In the three European destination countries, major cities were selected where high shares of migrants from the origin countries resided. An exception is Spain, where sampling took place throughout the entire country. Sample sizes for each origin group in each European destination country were approximately 200 respondents. The lack of suitable sampling frames on migrant populations in these European destination countries resulted in the use of a quota sampling strategy, based on gender and age. To ensure variability of the samples, recruiters from various backgrounds as well as multiple gateways (e.g. churches, mosques, markets, shops, community organisations) were used. Spain was the exception, where the Padrón (Municipal Population Register) did allow for a nominal random sample, as both documented and undocumented migrants are registered in the Padrón. For more details about the data collection procedures, see Beauchemin (2014) and Schoumaker and Diagne (2011).

Migrants in the three European countries were interviewed using retrospective life history surveys. These surveys captured detailed information on a yearly basis on many different life domains, such as migration, housing, education, social networks, and family life. This means that we have information on these different life domains from birth until the time of survey. These data allow us to reconstruct the migration histories of the survey participants as well as the development of their social networks over the course of their lives.

## Analytical strategy

Our analysis consists of three parts. For the first two parts, we use descriptive statistics to understand some of the basic characteristics of migrants' migration trajectories and their transnational social networks. We combine this with sequence analysis to examine these migration trajectories (part 1) and transnational networks (part 2) over the course of migrants' lives from birth until time of survey (Abbott and Tsay 2000; Robette and Thibault 2008). By using sequence analysis, we are able to study relevant dimensions of migration trajectories and transnational social networks using a life course perspective by considering the duration, frequency, timing and type of trajectories and the strength and geographic location of networks. From the perspective of sequence analysis, these trajectories and networks can be seen as an ordered list of states, with the states representing the status of individuals at a given point in time (i.e. in each year of a migrant's life).

For the third part, we analyse the development of migration and transnational network trajectories of current migrants simultaneously using multichannel sequence analysis (MCSA), and we use Optimal Matching (OM) to group together similar trajectories. OM allows for an identification of more or less homogenous groups based on both migration *and* network trajectories by comparing each individual sequence with all other sequences. To assess the similarity of sequences with OM requires a consideration of the 'costs' of matching sequences. While different methods of defining these costs are available, we use a cost matrix based on the transition rates, i.e. the probability to move from one state to another for each couple of states (see also Abbott and Tsay 2000; Anyadike-Danes and McVicar 2010; Brzinsky-Fay and Kohler 2010; Caarls and de Valk 2017;

Robette and Thibault 2008). To identify the ideal number of clusters, we apply the Partitioning Around Medoids (PAM) algorithm. Using a visual inspection of the clusters as well as considering the Average Silhouette Width (ASW), we decide on the optimal number of clusters (Kaufman and Rousseeuw 1990; Caarls and de Valk 2017; Kleinepier, de Valk, and van Gaalen 2015). The 'TraMineR' and 'WeightedCluster' packages in R are used for the calculations (Gabadinho et al. 2011; Studer 2013). Our typology of migrants is based on these clusters. We make use of multinomial logit modelling to understand further who belongs to each typology with respect to demographic (e.g. gender) and socio-economic (e.g. subjective wealth) characteristics as well as migration motivations (for a similar approach, see e.g. Caarls and de Valk 2017; Elzinga and Liefbroer 2007; Kleinepier, de Valk, and van Gaalen 2015).

### Measuring migration trajectories and transnational social networks

In this paper, we define international migration trajectories based on 9 possible states, referring to the migratory moves that our respondents experienced during their lives. These are: 1 'No move (No)', 2 'Move between African countries (other than origin country) (AF-AF)', 3 'Move between European countries (EU-EU)', 4 'Move from origin country to African country (O-AF)', 5 'Move from origin country to European country (O-EU)', 6 'Move from origin country to North America or other country (O-NA/Oth)' 7 'Return move to origin country' (RE), 8 'Move from African to European country (AF-EU)', and 9 'Other intercontinental move (INT)'. Although all migrants in our sample migrated at some point in their lives, periods until their first migration are captured with the 'No move' category. And although all migrants resided in Europe at the time of survey, they may have returned to their origin country and come back to Europe at some point in their lives. For example, a male who has lived in Ghana until the age of 28, after which he moved to Europe, where he stayed until he was 35, and who then migrated to another European country, where he was interviewed at the age of 45, has the following ordered list of states: No/28 - O-EU/7 - EU-EU/10.

Transnational networks are defined in line with notions about strong and weak ties. Strong ties refer to nuclear family members, which can include parents, siblings, spouse(s) and children. Weak ties refer to extended family members and friends. We also make a distinction between different locations of the network, i.e. whether these network members live in Europe or in Africa.[2] We distinguish between: 1 'No transnational network (NTN)', 2 'Only strong ties abroad in Europe (ST-EU)', 3 'Only weak ties abroad in Europe (WK-EU)', 4 'Strong and weak ties abroad in Europe (STWK-EU)', 5 'Only strong ties abroad in Africa (ST-AF)' 6 'Only weak ties abroad in Africa (WK-AF)' 7 'Strong and weak ties abroad in Africa (STWK-AF)', 8 'Only strong ties abroad in Europe & in Africa (ST-EU-AF)', 9 'Only weak ties abroad in Europe & Africa' (WK-EU-AF), and 10 'Strong and weak ties abroad in Europe & in Africa' (STWK-EU-AF). The order of these 'states' of the transnational network are also analysed over the life course of migrants.

### Sample characteristics

For the first two parts of the analysis, we use the full MAFE sample. For the third part we use a sub-sample, since OM is best suited for sequences that are complete and of equal

**Table 1.** Overview analytical strategy and samples.

| | *Objective* | Sample | Ghana n | DR Congo n | Senegal n | Total n |
|---|---|---|---|---|---|---|
| Part 1 | Study timing/sequencing of migration trajectories | Full | 418 | 426 | 601 | 1445 |
| Part 2 | Study timing/sequencing of transnational network trajectories | Full | 418 | 426 | 601 | 1445 |
| Part 3 | Identifying typology (OM) & the associations between migrants' characteristics and typology | Sub | 296 | 341 | 451 | 1088 |

length (Robette and Thibault 2008). Our sub-sample consist of migrants when they were aged between 21 and 35 years. This age bracket captures the respondents in their young adulthood, which is the age range during which the majority of individuals experience their first international migration. This restriction implies that migrants had to be *at least* 35 years old at the time of survey to be able to have experienced the period from 21 and 35 years old. This means that we dropped respondents who were aged 34 or younger at the time of the survey ($n = 125$ for Ghanaians, $n = 87$ for Congolese, and $n = 152$). Consequently, our analytical sample consists of 296 Ghanaians, 341 Congolese and 451 Senegalese migrants in Europe between the age of 21 and 35. An overview of the three parts of the analysis and the samples used in each part is presented in Table 1.

In Table 2 we present information on the background characteristics of migrants by their country of origin at the time of survey. The majority of Ghanaians were in the Netherlands, while Congolese migrants were in Belgium when they were interviewed. Senegalese respondents were equally distributed across France, Spain and Italy. In all migrant groups, the majority was born after 1971, and in Ghana and DR Congo a larger share of migrants was born before 1960. Male migrants are slightly more represented in the sample, with 53–55 percent of male migrants. Education varies considerably across the migrant sample. The share of migrants with tertiary education is much higher among Ghanaian (44.7%) and Congolese (51.4%) migrants compared to Senegalese migrants (15.6%). In fact, among the Senegalese migrants, about 52 percent had no or only primary education at the time of survey. Despite their lower educational background, Senegalese migrants had the highest share of paid work at the time of survey (79.4%), followed by Ghanaians (76.3%). Of the Congolese migrants, 49.8 percent were unemployed. Those who were employed primarily worked in unskilled jobs, and self-employment seemed to be a common form of employment among the Senegalese migrants. Unsurprisingly, considering the higher share of those with tertiary education among Ghanaians and Congolese, these migrants were more concentrated in skilled and high-skilled jobs. Yet, over-qualification seems to be an issue for the Ghanaians as 34.5 percent of them were in unskilled jobs while less than 20 percent had no or only primary education. Congolese migrants seemed to be the most satisfied with their subjective wealth status at the time of survey. 76.3 percent of Congolese migrants were absolutely satisfied with their wealth status, compared to 70.1 and 68.7 percent of Ghanaians and Senegalese migrants, respectively. The average number of children for Congolese and Senegalese migrants is 2.7 while it is 1.6 for Ghanaian migrants.

On average, the Ghanaian, Congolese and Senegalese migrants in our sample had first migrated internationally between the age of 27 and 29. While most of them had experienced only one international move, a considerable share of migrants had experienced two or more migratory moves. This is particularly the case among Ghanaians

**Table 2.** Background characteristics by migrant group at the time of survey.

| | Ghanaian | | Congolese | | Senegalese | |
|---|---|---|---|---|---|---|
| | n | % | n | % | n | % |
| Country of settlement | | | | | | |
| *The Netherlands* | 296 | 64.4 | | | | |
| *UK* | 149 | 35.6 | 148 | 34.7 | | |
| *Belgium* | | | 278 | 65.3 | | |
| *France* | | | | | 198 | 33.0 |
| *Spain* | | | | | 198 | 33.0 |
| *Italy* | | | | | 205 | 34.0 |
| Birth cohort | | | | | | |
| *<=1960* | 126 | 30.1 | 126 | 29.6 | 121 | 20.1 |
| *1961–1970* | 103 | 24.6 | 137 | 32.2 | 214 | 35.6 |
| *>=1971* | 189 | 45.2 | 163 | 38.3 | 266 | 44.3 |
| Gender | | | | | | |
| *Male* | 220 | 52.6 | 228 | 53.5 | 332 | 55.2 |
| *Female* | 198 | 47.4 | 198 | 46.5 | 269 | 44.8 |
| Level of education | | | | | | |
| *No/primary* | 85 | 20.3 | 74 | 17.4 | 314 | 52.3 |
| *Secondary* | 146 | 34.9 | 133 | 31.2 | 193 | 32.1 |
| *Tertiary* | 187 | 44.7 | 219 | 51.4 | 94 | 15.6 |
| Employment status | | | | | | |
| *Employed* | 319 | 76.3 | 212 | 49.8 | 477 | 79.4 |
| *Unemployed* | 98 | 23.4 | 212 | 49.8 | 122 | 20.3 |
| *Missing* | 1 | 0.2 | 2 | 0.4 | 2 | 0.3 |
| Occupational level | | | | | | |
| *Skilled* | 100 | 23.9 | 89 | 20.9 | 139 | 23.1 |
| *Unskilled* | 143 | 34.2 | 74 | 17.4 | 217 | 36.1 |
| *Self-employed* | 34 | 8.1 | 24 | 5.6 | 99 | 16.5 |
| *High-skilled/employer* | 42 | 10.1 | 25 | 5.9 | 22 | 3.7 |
| *Unemployed* | 98 | 23.4 | 212 | 49.8 | 122 | 20.3 |
| *Missing* | 1 | 0.2 | 2 | 0.5 | 2 | 0.3 |
| Subjective wealth status | | | | | | |
| *Absolutely satisfied* | 293 | 70.1 | 325 | 76.3 | 413 | 68.7 |
| *It depended* | 75 | 17.9 | 79 | 18.5 | 148 | 24.6 |
| *Not at all satisfied* | 43 | 10.3 | 14 | 3.3 | 30 | 5.0 |
| *Missing* | 7 | 1.7 | 8 | 1.9 | 10 | 1.7 |
| Number of children (Mean(SD) / range) | 1.6 (1.4) | 0–7 | 2.7 (2.2) | 0–12 | 2.7 (2.7) | 0–14 |
| Age at first international migration (Mean(SD) / range) | 28.9 (7.1) | 6–60 | 29.6 (9.5) | 4–70 | 27.9 (7.4) | 1–57 |
| Number of international moves | | | | | | |
| *1* | 306 | 73.2 | 302 | 70.9 | 500 | 83.2 |
| *2* | 86 | 20.6 | 87 | 20.4 | 66 | 11.0 |
| *3 or more* | 26 | 6.2 | 37 | 8.7 | 35 | 5.8 |
| Motivation to migrate to current destination | | | | | | |
| *Family* | 55 | 18.6 | 43 | 12.7 | 73 | 16.3 |
| *Work* | 29 | 9.8 | 22 | 6.5 | 138 | 30.7 |
| *Study* | 28 | 9.5 | 64 | 18.9 | 22 | 4.9 |
| *Better opportunities* | 74 | 25.0 | 15 | 4.4 | 72 | 16.0 |
| *Political reasons* | 3 | 1.0 | 53 | 15.6 | 35 | 7.8 |
| *Other* | 30 | 10.1 | 35 | 10.3 | 101 | 22.5 |
| *Missing* | 77 | 26.0 | 107 | 31.6 | 8 | 1.8 |
| *Total* | 418 | | 426 | | 601 | |

Note. Information provided for at the time of survey.

and Congolese, as one in every four Ghanaian and Congolese migrants had moved two or more times before they were interviewed (27% and 29%, respectively, compared to 17% for Senegalese). Finally, migrant groups show variation also regarding their motivation to migrate. Among Ghanaians the major reasons for migration included family and seeking better life opportunities whereas for Congolese migrants political reasons and study were the most prevalent motivations. Finally, one in every three

Senegalese migrants left to find a job abroad, a reason that is much less frequently mentioned in other groups.

For every international move, respondents were asked to indicate whether they considered the country of their arrival as their final destination, a transit country, or whether they had no clear idea yet about their future migration. Looking at the first international move, the majority of migrants in our sample considered this first country of arrival as their final country of destination. However, in reality, a substantial share of this group migrated onwards. For example, 77 percent of Ghanaian migrants considered their first country of stay as their final destination, but about 64 percent only made just one international move. Similarly, among Congolese migrants, 87 percent indicated their first country of stay to be their final destination, but only 65 percent migrated only once. The reverse is true for Senegalese migrants, where 71 percent considered their first stay abroad to be their final destination, compared to 64 who made one move. These figures indicate that migratory intentions are not set in stone, and plans often change considerably along the way.

The size of transnational networks at the time of survey varies between the three origin groups. On average, Ghanaian respondents knew about 4.1 persons (2.8 SD), Congolese respondents knew about 5.7 persons (3.0 SD) and Senegalese respondents knew about 3.6 persons (2.8 SD) abroad at that point in time. The majority of these contacts can be considered as strong ties for all groups. It is also interesting to note that for all individuals their transnational network at the time of survey is primarily based in Europe rather than in other countries in Africa or the rest of the world.

## Results

### *Part 1. Migration trajectories by migrant group*

In this part, we reconstruct and describe the migration trajectories of the migrants over their life courses, until the time of survey. We used sequence analyses to examine the most common migration trajectories for the three migrant groups in our sample (see Table 3). The top five trajectories represent more than 90 percent of all trajectories in all three cases, which indicates that there is little variation in the migration trajectories. In all three groups, a direct migration from the country of origin to Europe was the most common trajectory (ranging from 65.7% for Congolese to 81.4% for Senegalese).

**Table 3.** Five most frequent migration trajectories, by country of origin.

| Ghanaian | | | Congolese | | | Senegalese | | |
|---|---|---|---|---|---|---|---|---|
| | n | % | | n | % | | n | % |
| NM / GH-EU | 291 | 69.6 | NM / C-EU | 280 | 65.7 | NM / S-EU | 489 | 81.4 |
| NM / GH-EU / EU-EU | 48 | 11.5 | NM / C-EU / EU-EU | 41 | 9.6 | NM / S-EU / EU-EU | 38 | 6.3 |
| NM / GH-EU / RET / GH-EU | 23 | 5.5 | NM / C-AF / AF-EU | 34 | 8.0 | NM / S-AF / RET / S-EU | 16 | 2.7 |
| NM / GH-AF / AF-EU | 15 | 3.6 | NM / C-EU / RET / C-EU | 24 | 5.6 | NM / S-AF / AF-EU | 15 | 2.5 |
| NM / GH-AF / RET / GH-EU | 13 | 3.1 | NM / C-AF / RET / C-EU | 10 | 2.4 | NM / S-EU / RET / S-EU | 12 | 2.0 |
| Total | 390 | 93.3 | Total | 389 | 91.3 | Total | 570 | 94.8 |

Note: NM = No move; AF-AF = Move between African countries (other than origin country); EU-EU = Move between European countries; GH/C/S-AF = Move from origin (GH/C/S) to African country; GH/C/S-EU = Move from origin (GH/C/S) to European country; GH/C/S-NA/Oth = Move from origin (GH/C/S) to North American/Other country; RET = Return move to origin country; AF-EU = Move from African to European country; INT = Other intercontinental move

The second most common trajectory for migrants is intra-European migration (EU-EU), meaning that the respondents migrated to another European country before arriving to their current destination (i.e. survey country) (11.5% for Ghanaians, 9.6% for Congolese, and 6.3% for Senegalese).

Finally, even though most migrants in our sample travelled directly to Europe, the prevalence of stepwise migration (e.g. via another African or European country) or circular migration (including return migration, or return from Europe to another African country) is substantial, particularly for Ghanaians and Congolese, where 12.2 and 16.0 percent had such trajectories, compared to 7.2 percent for Senegalese.

### *Part 2. Transnational network trajectories by migrant group*

Using sequence analysis, we examined the most common developments in the transnational networks of the respondents over their life courses until the time of survey (see Table 4). Compared to the migration trajectories, there is much more heterogeneity among the networks over time, since the top five represent a much smaller share of all network developments (ranging from 32.6% for Congolese to 62.1% for Senegalese). For all three groups, most transnational networks develop over time, from having no transnational network (NTN) to a transnational network with strong ties in Europe (23.9% for Ghanaians, 15.0% for Congolese, and 32.1% for Senegalese). Around 5 percent of Ghanaian and Senegalese migrants have no transnational networks at all. Also noteworthy is that among the Senegalese trajectories, we only find networks located in Europe. In comparison, Ghanaians and Congolese, have larger shares of transnational networks in other African countries.

### *Part 3. Identifying a typology of migrants*

In order to arrive at a typology of migration trajectories and transnational networks, we used multichannel sequence analyses with OM to explore which trajectories are most similar, using a combination of migration trajectories and transnational networks simultaneously. As conventionally done with OM, we ensure sequences of equal length and we therefore focus on migrants during the period they were between 21 and 35 years of age. At age 35, about 80 percent of Ghanaians and Senegalese and 75 percent of Congolese had experienced their first migration experience. This means that the majority of migrants,

**Table 4.** Five most frequent transnational network trajectories, by country of origin.

| Ghanaian | | | Congolese | | | Senegalese | | |
|---|---|---|---|---|---|---|---|---|
| | n | % | | n | % | | n | % |
| NTN / ST-EU | 100 | 23.9 | NTN / ST-EU | 64 | 15.0 | NTN / ST-EU | 193 | 32.1 |
| NTN / WK-EU / STWK-EU | 22 | 5.3 | NTN / WK-EU / STWK-EU | 24 | 5.6 | NTN / WK-EU | 70 | 11.7 |
| NTN | 20 | 4.8 | NTN / ST-EU / STWK-EU | 20 | 4.7 | NTN / WK-EU / STWK-EU | 41 | 6.8 |
| NTN / ST-EU / ST-EU-AF | 20 | 4.8 | NTN / ST-EU / ST-EU-AF | 19 | 4.5 | NTN | 39 | 6.5 |
| NTN / ST-AF / ST-EU-AF | 17 | 4.1 | NTN / ST-AF / ST-EU-AF | 12 | 2.8 | NTN / ST-EU / STWK-EU | 30 | 5.0 |
| Total | 179 | 42.8 | Total | 139 | 32.6 | Total | 373 | 62.1 |

Note: No = 'No transnational network'; ST-EU = 'Only strong ties abroad in Europe'; WK-EU = 'Only weak ties abroad in Europe'; STWK-EU = 'Strong and weak ties abroad in Europe'; ST-AF = 'Only strong ties abroad in Africa'; WK-AF = 'Only weak ties abroad in Africa'; STWK-AF = 'Strong and weak ties abroad in Africa'; ST-EU-AF = 'Only strong ties abroad in Europe & Africa'; WK-EU-AF = 'Only weak ties abroad in Europe & Africa'; STWK-EU-AF = 'Strong and weak ties abroad in Europe & Africa'

but not all, in our sample had experienced their first migration during our chosen observation period.

Pooling the data of Ghanaian, Congolese and Senegalese migrants, we identified five clusters that represent different types based on our combined analysis of migration and transnational network histories (Figure 1). The left panel of each graph shows the distribution of migration trajectories for each year in our sample, and the right panel presents the distribution of transnational network trajectories during the same period (i.e. the period when migrants were between 21 and 35 years old). Table 5 presents the size of each cluster, as well as the modal trajectory within the two panels. Here we focus on the most common trajectories to identify the types of migrants. In Annex 1, we present the marginal effects of multinomial regression models using the five-cluster solutions from OM as the dependent variable. This allows us to say more about the background characteristics of the migrants who belong to each cluster. The coefficients presented refer to the relative probability of belonging in that cluster vis-à-vis the other clusters. We also control for the origin country of the migrants to identify potential differences between the migrants from the three origin countries.

The first cluster (11.1%) of migrants, '*Older migrants with weak ties in Europe*', consists of migrants who migrated to Europe later in life (early thirties) and who predominantly had weak ties in Europe between the age of 21 and 35, and also before they migrated. These migrants are more likely to be from Senegal, more likely to be male and from the youngest birth cohort, implying that they migrated recently. This group does not differ significantly from the other groups in terms of employment status or education level, but is more likely to have migrated in search of better life opportunities.

The second cluster (30.0%) *Younger migrants with strong ties in Europe* is the largest group and refers to migrants that experienced their first international move to Europe relatively young (mid-twenties), and who had strong ties in Europe, also before they left. They are more likely to be female and to have migrated for family reasons.

The third cluster (27.4%), *Non-migrants with no transnational network*, also representing a large share, includes migrants who did not yet migrate at the age of 35, and who also did not possess a transnational network. These are therefore individuals who made their first move after the age of 35. They are also most likely to originate from Ghana. While they were on average most likely to have received no or only primary education and be unemployed, they were more satisfied with their subjective wealth status at age 35. Migrants in this group are most likely from the oldest birth cohort (born before 1960). Whereas cluster 2 migrants are on average women who moved early in life for family or study purposes, cluster 3 migrants consist of both men and women who moved later in life for a variety of reasons, study being the least likely reason.

The fourth cluster (21.0%), *Younger migrants with no transnational network*, is composed of migrants who moved to Europe relatively young (mid-twenties), but who had no transnational network before moving. On the contrary, migrants in the fifth cluster (10.5%), *Younger migrants with weak and strong ties in Europe*, also moved to Europe at a relatively young age (mid-twenties), but this group did have access to a transnational network in Europe composed of both strong and weak ties. Neither of these groups differ significantly from migrants in the other clusters based on the characteristics we have controlled for in our models.

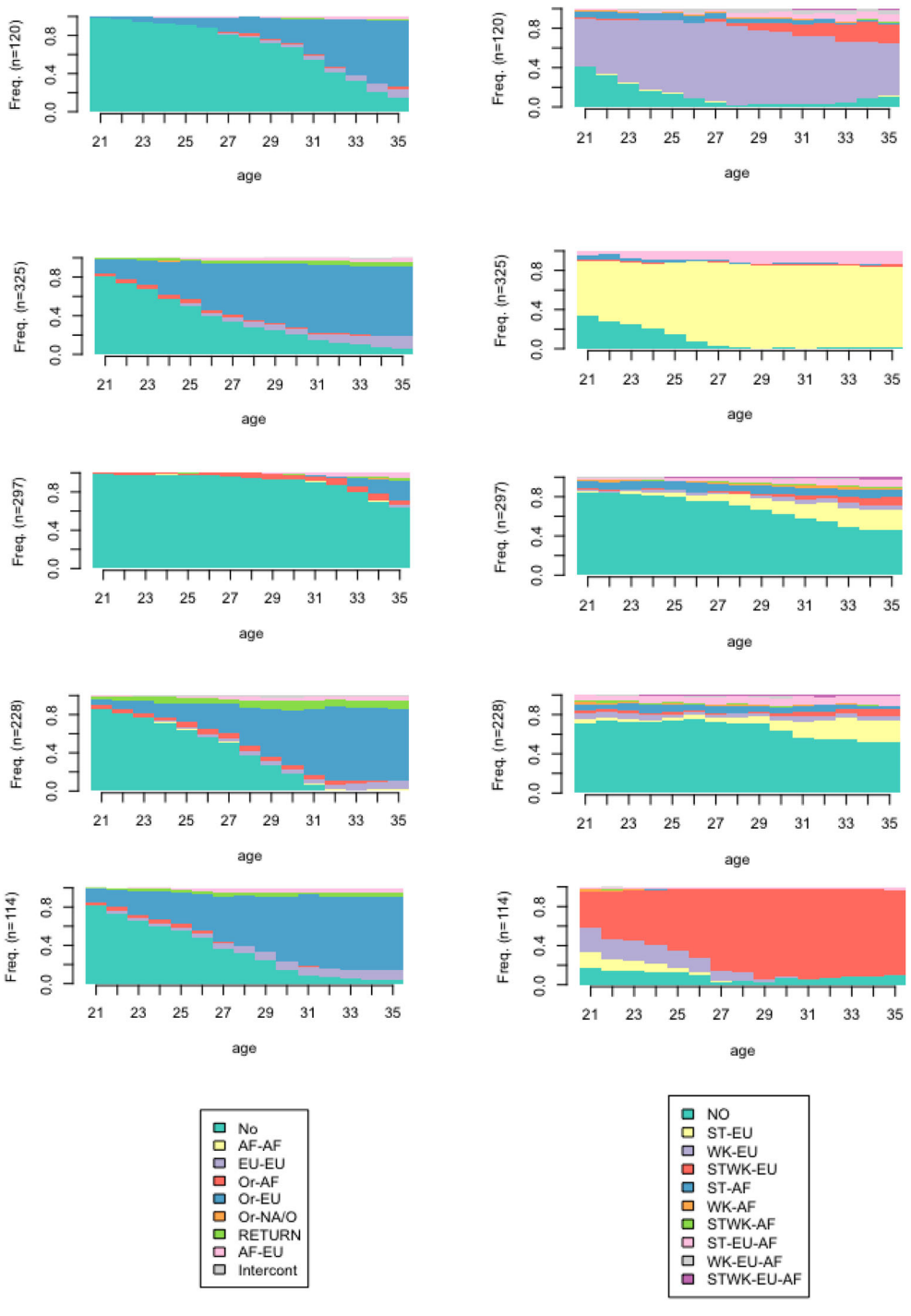


**Figure 1.** Multichannel sequence analyses, 5-cluster solution.

Another interesting finding that we can derive from the typology is that migrants without transnational networks (types 3 and 4) seem to have had a more stepwise migration trajectory, which mainly includes moves from their origin country to

**Table 5.** Cluster sizes and modal trajectories: migrants aged between 21 and 35.

| | Cluster size | | Modal trajectory | |
|---|---|---|---|---|
| Clusters | n | % | Migration trajectories | Network trajectories |
| 1 – Late movers with weak ties in Europe | 120 | 11.1 | NM/11 – OR-EU/4 | WK-EU/15 |
| 2 – Young movers with strong ties in Europe | 325 | 30.0 | NM/5 – OR-EU/10 | ST-EU/15 |
| 3 – Non-movers with no transnational network | 297 | 27.4 | NM/15 | NO/15 |
| 4 – Young movers with no transnational network | 228 | 21.0 | NM/7 – OR-EU/8 | NO/15 |
| 5 – Young movers with weak and strong ties in Europe | 114 | 10.5 | NM/6 – OR-EU/9 | STWK-EU/15 |
| Total | 1084 | 100.0 | | |

Notes: **Migration trajectories**: NM = No move; AF-AF = Move between African countries (other than origin country); EU-EU = Move between European countries; GH/C/S-AF = Move from origin (GH/C/S) to African country; GH/C/S-EU = Move from origin (GH/C/S) to European country; GH/C/S-NA/Oth = Move from origin (GH/C/S) to North American/Other country; RET = Return move to origin country; AF-EU = Move from African to European country; INT = Other intercontinental move

**Network trajectories**: No = 'No transnational network'; ST-EU = 'Only strong ties abroad in Europe'; WK-EU = 'Only weak ties abroad in Europe'; STWK-EU = 'Strong and weak ties abroad in Europe'; ST-AF = 'Only strong ties abroad in Africa'; WK-AF = 'Only weak ties abroad in Africa'; STWK-AF = 'Strong and weak ties abroad in Africa'; ST-EU-AF = 'Only strong ties abroad in Europe & Africa'; WK-EU-AF = 'Only weak ties abroad in Europe & Africa'; STWK-EU-AF = 'Strong and weak ties abroad in Europe & Africa'

**Interpretation**: 'NM/11 – OR-EU/4' – this modal trajectory refers to immobility until age 31 (11 years), and a move from origin country to Europe at age 32, where the migrant stayed until age 35 (4 years).

another African country before moving to Europe. This finding should be treated as tentative as only few individuals in type 3 and 4 displayed this step-wise pattern. Finally, younger migrants without a transnational network (type 4) seem to have returned to their origin country more often than the other types of migrants between the ages of 21 and 35.

Overall, five distinct typologies were discerned in the sample of African migrants residing in Europe, and migrants belonging to these five typologies differ significantly in terms of gender, age, level of education, migration motivations, and origin country. These findings thus highlight the heterogeneity in the migration trajectories, transnational social networks, and background characteristics of African migrants residing in Europe.

## Conclusion & discussion

In this paper we looked at the transnational social networks and migration trajectories of sub-Saharan migrants residing in three European countries. Using longitudinal data, we were able to observe the changes over the migrants' life courses and develop a typology of migrants aged 21–35 based on a combination of their international migration trajectories and their transnational social networks. The findings revealed five distinct types of migrants across the three African migrant groups residing in Europe: (1) *older migrants with weak ties in Europe*, (2) *younger migrants with strong ties in Europe*, (3) *non-migrants with no transnational network*, (4) *younger migrants with no transnational network*, and (5) *younger migrants with weak and strong ties in Europe*.

This typology challenges some of the stereotypical views on sub-Saharan migration to Europe. For example, only one in five migrants fits the 'adventurer' sub-Saharan African migrant who is young, male and has no prior connection to the EU. In fact, significant shares of the migrants in our sample moved to Europe while having weak ties (for the older movers), or a combination of strong and weak ties (also for the young movers) there. This finding highlights the importance of not only strong but also weak ties for

international migration, which is in line with previous studies (Garip 2008; Liu 2013). The sequence analysis showed how transnational networks develop over time and the variation in these social network developments in terms of regional focus and quality of ties.

Moreover, in contrast to common perceptions about migration to Europe consisting of multiple, step-wise moves, most migrants in our sample had migrated from their origin country to Europe directly. Between 20 and 30 percent of migrants, particularly Ghanaians, had engaged in step-wise migration before arriving to their current destination in Europe or had engaged in circular migrations. Ghanaians and Congolese migrants also displayed significant intra-European migration. We have also shown that migrants without transnational networks (type 3 and 4) more often seem to have had a stepwise migration trajectory. These results also have implications on the ways in which we relate to the internal and external control mechanisms supported by European countries. Having a better understanding of the general trends and taking into account migrant realities are crucial for implementing an evidence-based policy approach rather than approach based on security.

In conclusion, the chosen methods provided a holistic view on migrant trajectories and transnational networks from a life course perspective. We were able to show *combinations* of transnational social networks and migration trajectories over the life courses of migrants, rather than to make causal claims. The order in which changes take place, as well as under which conditions, should be explored by future research. Moreover, the analyses revealed that migrants belonging to one of the five types have different characteristics. Considering the crucial effects of transnational networks as well as migration trajectories on integration processes, it is important to identify in more detail who belongs to these groups and to investigate how migrants' socio-cultural, economic and political experiences in destinations countries are influenced by the unique evolution of their transnational social networks and migration trajectories. Furthermore, in line with common practice, our cluster analysis focused on migration trajectories and transnational networks of equal length. We opted for a period when the migrants in our sample were between the ages of 21 and 35. Although the 21–35 age range captured the majority of migratory moves within our sample, potential later migratory moves could nevertheless be interesting for future investigation.

Notwithstanding these limitations, our findings highlight the importance of taking a life course perspective as both migration trajectories and transnational social networks were found to be susceptible to changes over the course of migrants' lives, in a likely interdependent fashion. This is in line with what is highlighted in the introduction of this special issue and by other authors (see for example Schapendonk, Bolay and Dahinden (2020)) with regards to the dynamic nature of social networks, their different levels of resilience to changing environmental conditions and their associations with migrants' movements. While in our study we made a pragmatic decision on how we define and categorise strong and weak ties, future research can take into account the quality and the activation of these networks. Schapendonk, Bolay and Dahinden (2020) in this issue have rightfully mentioned how these networks we take for granted may be suspended unpredictably or activated when necessary depending on emotional investments, reciprocities, expectations and other relevant contextual factors.

In short, this study has highlighted the different trends related to the evolution of migration trajectories and transnational social networks among sub-Saharan African

migrants who arrived and live in Europe, and created a relatable conversation with qualitative in-depth studies on migrant trajectories. We find this dialogue to be of great importance for moving the research field forward and develop a better understanding of im/mobility processes beyond the European borders. The comparative perspective that we took highlighted the diversity of African migrants in Europe and the routes that they took before arriving in Europe, which are highly diverse. Moreover, we were able to uncover the sociodemographic and socioeconomic characteristics of migrants within each typology, uncovering the heterogeneity in the backgrounds of African migrants in Europe. Our findings highlight the usefulness of a longitudinal and dynamic perspective on both migrant routes and networks, and of studying the interdependent nature of these phenomena.

## Notes

1. For more information on MAFE, see: https://mafeproject.site.ined.fr/en/
2. We refer here to networks located in Africa, even though a very small share of these network members live in other countries outside Europe or Africa.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## References

Abbott, A., and A. Tsay. 2000. "Sequence Analysis and Optimal Matching Methods in Sociology: Review and Prospect." *Sociological Methods & Research* 29 (1): 3–33.

Anyadike-Danes, M., and D. McVicar. 2010. "My Brilliant Career: Characterizing the Early Labor Market Trajectories of British Women From Generation X." *Sociological Methods & Research* 38 (3): 482–512.

Beauchemin, C. 2014. "A Manifesto for Quantitative Multi-Sited Approaches to International Migration." *International Migration Review* 48 (4): 921–938.

Bidart, C., and D. Lavenu. 2005. "Evolutions of Personal Networks and Life Events." *Social Networks* 27 (4): 359–376.

Bilecen, B., M. Gamper, and M. J. Lubbers. 2018. "The Missing Link: Social Network Analysis in Migration and Transnationalism." *Social Networks* 53: 1–3.

Bilgili, Ö. 2014. "Migrants' Multi-Sited Social Lives." *Comparative Migration Studies* 2 (3): 283–304.

Boyd, M., and J. Nowak. 2012. "Social Networks and International Migration." In *An Introduction to International Migration Studies: European Perspectives*, edited by Marco Martiniello, and Jan Rath, 79–106. Amsterdam: Amsterdam University Press.

Brzinsky-Fay, C., and U. Kohler. 2010. "New Developments in Sequence Analysis." *Sociological Methods & Research* 38 (3): 359–364.

Caarls, K., and H. A. G. de Valk. 2017. "Relationship Trajectories, Living Arrangements, and International Migration among Ghanaians." *Population, Space and Place* 23 (6): 1–18.

Castells, M. 2011. *The Rise of the Network Society: The Information Age: Economy, Society, and Culture*. Chichester: John Wiley & Sons.

Chelpi-den Hamer, M., and V. Mazzucato. 2010. "The Role of Support Networks in the Initial Stages of Integration: the Case of West African Newcomers in the Netherlands." *International Migration* 4: 31–57.

Curran, S. R., F. Garip, C. Y. Chung, and K. Tangchonlatip. 2005. "Gendered Migrant Social Capital: Evidence From Thailand." *Social Forces* 84 (1): 225–255.

Curran, S. R., and E. Rivero-Fuentes. 2003. "Engendering Migrant Networks: The Case of Mexican Migration." *Demography* 40 (2): 289–307.
De Haas, H. 2007. "Turning the Tide? Why Development Will Not Stop Migration." *Development and Change* 38 (5): 819–841.
Elzinga, C. H., and A. C. Liefbroer. 2007. "De-standardization of Family-Life Trajectories of Young Adults: A Cross-National Comparison Using Sequence Analysis." *European Journal of Population* 23 (3-4): 225–250.
Faist, T. 1997. "The Crucial Meso-Level." In *International Migration, Immobility and Development: Multidisciplinary Perspectives*, edited by T. Hammar, G. Brochmann, K. Tamas, and T. Faist, 187–217. Oxford: Berg.
Gabadinho, A., G. Ritschard, N. S. Müller, and M. Studer. 2011. "Analyzing and Visualizing State Sequences in R with TraMineR." *Journal of Statistical Software* 40 (4): 1–37.
Garip, F. 2008. "Social Capital and Migration: How do Similar Resources Lead to Divergent Outcomes." *Demography* 45 (3): 591–617.
Granovetter, M. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 76 (6): 1360–1380.
Haug, S. 2008. "Migration Networks and Migration Decision-Making." *Journal of Ethnic and Migration Studies* 34: 585–605.
Hernández-León, R. 2013. "Conceptualizing the Migration Industry." In *The Migration Industry and the Commercialization of International Migration*, edited by T. Gammeltoft-Hansen, and N. Nyberg Sorensen, 42–62. London: Routledge.
Hiller, H. H., and T. M. Franz. 2004. "New Ties, old Ties and Lost Ties: the use of the Internet in Diaspora." *New Media Sociology* 6: 731–752.
Kaufman, L., and P. J. Rousseeuw. 1990. *Finding Groups in Data*. New York: John Wiley & Sons.
Kleinepier, T., H. A. G. de Valk, and R. I. van Gaalen. 2015. "'Life Paths of Migrants: a Sequence Analysis of Polish Migrants' Family Life Trajectories.'." *European Journal of Population* 31 (2): 155–179.
Kuschminder, K. 2020. "Before Disembarkation: Eritrean and Nigerian Migrants Journeys Within Africa." *Journal of Ethnic and Migration Studies*. doi:10.1080/1369183X.2020.1804192.
Lessault, D., and C. Beauchemin. 2009. "Ni Invasion, ni Exode: Regards Statistiques sur les Migrations D'Afrique Subsaharienne." *Revue Européenne des Migrations Internationals* 25 (1): 163–194.
Liu, M.-M. 2013. "Migrant Networks and International Migration: Testing Weak Ties." *Demography* 50 (4): 1243–1277.
Lubbers, M. J., J. L. Molina, J. Lerner, U. Brandes, J. Ávila, and C. McCarty. 2010. "Longitudinal Analysis of Personal Networks. The Case of Argentinean Migrants in Spain." *Social Networks* 32: 91–104.
Lucas, R. 2006. "Migration and Economic Development in Africa: A Review of Evidence." *Journal of African Economies* 15 (AERC Supplement 2): 337–395.
Massey, D. S. 1987. "Understanding Mexican Migration to the United States." *American Journal of Sociology* 92: 1372–1403.
Massey, D. S., and K. E. Espinosa. 1997. "'What's Driving Mexico-U.S. Migration? A Theoretical, Empirical, and Policy Analysis.'." *The American Journal of Sociology* 102 (4): 939–999.
Massey, D. S., and F. García España. 1987. "The Social Process of Migration." *Science* 237: 733–738.
Mazzucato, V., D. Schans, K. Caarls, and C. Beauchemin. 2015. "Transnational Families Between Africa and Europe." *International Migration Review* 49 (1): 142–172.
Morgan, D. L., M. B. Neal, and P. Carder. 1997. "The Stability of Core and Peripheral Networks Over Time." *Social Networks* 19: 9–25.
Muanamoha, R. C., B. Maharaj, and E. Preston-Whyte. 2010. "Social Networks and Undocumented Mozambican Migration to South Africa." *Geoforum; Journal of Physical, Human, and Regional Geosciences* 41 (6): 885–896.
Nagel, C. 2005. "Skilled Migration in Global Cities From 'Other' Perspectives: British Arabs, Identity Politics, and Local Embeddedness." *Geoforum; Journal of Physical, Human, and Regional Geosciences* 36: 197–210.

OECD. 2014. *Database on immigrants in OECD countries*. OECD. www.oecd.org/els/mig/DIOC%202010-11Rev2.zip. Accessed September 17, 2018.
Özden, C., C. R. Parsons, M. Schiff, and T. L. Walmsley. 2011. "Where on Earth is Everybody? The Evolution of Global Bilateral Migration 1960–2000." *The World Bank Economic Review* 25 (1): 12–56.
Palloni, A., D. S. Massey, M. Ceballos, K. Espinosa, and M. Spittel. 2001. "Social Capital and International Migration: A Test Using Information on Family Networks." *The American Journal of Sociology* 106: 1262–1298.
Parrado, E. A., and M. Cerrutti. 2003. "Labor Migration Between Developing Countries: The Case of Paraguay and Argentina." *International Migration Review* 37 (1): 101–132.
Parsons, C., R. Skeldon, T. L. Walmsley, and L. A. Winters. 2007. "Quantifying International Migration: A Database of Bilateral Migrant Stocks." In *International Migration, Economic Development and Policy*, edited by Ç Özden, and M. Schiff, 17–58. Washington, DC: Palgrave Macmillan.
Pathirage, J., and M. Collyer. 2011. "Capitalizing Social Networks: Sri Lankan Migration to Italy." *Ethnography* 12: 315–333.
Portes, A., and R. G. Rumbaut. 2001. *Legacies: The Story of the Immigrant Second Generation*. Berkeley, CA: University of California Press.
Pries, L. 2004. "Determining the Causes and Durability of Transnational Labour Migration Between Mexico and the United States: Some Empirical Findings." *International Migration* 42: 3–39.
Robette, N., and N. Thibault. 2008. "Comparing Qualitative Harmonic Analysis and Optimal Matching. An Exploratory Study of Occupational Trajectories." *Population-E* 64 (4): 621–646.
Ryan, L. 2011. "Migrants' Social Networks and Weak Ties: Accessing Resources and Constructing Relationships Post-Migration." *Sociological Review* 59: 707–724.
Schapendonk, J. 2014. "What if Networks Move? Dynamic Social Networking in the Context of African Migration to Europe." *Population, Space and Place* 21: 809–819.
Schapendonk, J., M. Bolay & J. Dahinden. 2020. The Conceptual Limits of the 'Migration Journey'. De-exceptionalising Mobility in the Context of West African Trajectories. *Journal of Ethnic and Migration Studies*. doi:10.1080/1369183X.2020.1804191.
Schoumaker, B., and A. Diagne. 2011. 'Migrations between Africa and Europe: data collection report.' MAFE Methodological Note 2: http://www.ined.fr/fichier/t_telechargement/41100/telechargement_fichier_fr_note.2_schoumaker_diagne_2011.pdf.
Schoumaker, B., M. L. Flahaux, C. Beauchemin, D. Schans, V. Mazzucato, and P. Sakho. 2018. "African Migration: Diversity and Changes." In *Migration Between Africa and Europe*, edited by C. Beauchemin, 35–79. New York: Springer-Verlag.
Snel, E., Ö. Bilgili, and R. Staring. 2020. "Migration Trajectories and Transnational Support Within and Beyond Europe." *Journal of Ethnic and Migration Studies*. doi:10.1080/1369183X.2020.1804189.
Somerville, K. 2011. "Strategic Migrant Network Building and Information Sharing: Understanding 'Migrant Pioneers' in Canada." *International Migration* 53: 135–154.
Stecklov, G., C. Carletto, C. Azzarri, and B. Davis. 2010. "Gender and Migration From Albania." *Demography* 47 (4): 935–961.
Studer, M. 2013. 'Weighted Cluster Library Manual: A Practical Guide to Creating Typologies of Trajectories in the Social Sciences with R.' *LIVES Working Papers 24*.
Terhell, E. L., M. I. Broese van Groenou, and T. van Tilburg. 2007. "Network Contact Changes in Early and Later Post Separation Years." *Social Networks* 29: 11–24.
Toma, S., and S. Vause. 2013. "On Their Own? A Study of Independent Versus Partner Related Migration From the Democratic Republic of the Congo and Senegal." *Journal of Intercultural Studies* 34 (5): 533–552.
Toma, S., and S. Vause. 2014. "Gender Differences in the Role of Migrant Networks: Comparing Congolese and Senegalese Migration Flows.'." *International Migration Review* 48 (4): 972–997.
Van Meeteren, M., G. Engbersen, and M. van San. 2009. "Striving for a Better Position: Aspirations and the Role of Cultural, Economic, and Social Capital for Irregular Migrants in Belgium." *International Migration Review* 43: 881–907.

Van Tubergen, F., I. Maas, and H. Flap. 2004. "The Economic Incorporation of Immigrants in 18 Western Societies: Origin, Destination, and Community Effects." *American Sociological Review* 69: 704–727.
Wissink, M., and V. Mazzucato. 2018. "In Transit: Changing Social Networks of sub-Saharan African Migrants in Turkey and Greece." *Social Networks* 53: 30–41.
Zeleza, P. T. 2002. "The Politics of Historical and Social Science Research in Africa." *Journal of Southern African Studies* 28 (1): 9–23.
Zlotnik, H. 1993. "Women As Migrants and Workers in Developing Countries." *International Journal of Contemporary Sociology* 30 (1): 39–62.
Zong, J., and J. Batalova 2014. "Frequently Requested Statistics on Immigrants and Immigration in the United States." http://www.migrationpolicy.org.

## Annex 1.

**Table A1.** Multinomial regression results on the five clusters.

| | Cluster 1 | | Cluster 2 | | Cluster 3 | | Cluster 4 | | Cluster 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | dy/dx | Std. Err. | dy/dx | Std. Err. | dy/dx | Std. Err. | dy/dx | Std. Err. | dy/dx | Std. Err. |
| Sex (ref = male) | −.068** | .027 | .105** | .036 | −.054* | .027 | −.023 | .034 | .041 | .026 |
| Origin country (ref = Ghana) | | | | | | | | | | |
| *DR Congo* | −.006 | .042 | −.094 | .052 | .025 | .034 | .012 | .049 | .062 | .038 |
| *Senegal* | .093*** | .032 | −.050 | .046 | −.081* | .034 | −.021 | .043 | .059 | .035 |
| Education (ref = no/primary) | | | | | | | | | | |
| *Secondary* | .013 | .028 | .054 | .043 | −.060* | .030 | −.042 | .040 | .036 | .031 |
| *Tertiary* | .009 | .031 | .028 | .046 | −.067* | .032 | −.011 | .042 | .042 | .033 |
| Subj. wealth (ref = abs. satisfied) | | | | | | | | | | |
| *It depended/not satisfied* | .013 | .027 | −.014 | .042 | .052* | .026 | −.008 | .039 | −.043 | .033 |
| Employed | −.051 | .033 | .056 | .045 | −.083** | .029 | .046 | .043 | .032 | .032 |
| Nr of children | −.014 | .007 | .009 | .009 | .002 | .007 | −.003 | .009 | .007 | .006 |
| Birth cohort (ref <=1960) | | | | | | | | | | |
| *1961–1970* | .073* | .035 | −.008 | .043 | −.054* | .027 | −.029 | .039 | .018 | .033 |
| *>=1971* | .110** | .036 | −.047 | .046 | −.064* | .030 | −.057 | .042 | .058 | .033 |
| Motivation to migrate (ref = Family) | | | | | | | | | | |
| *Work* | .093 | .049 | −.192*** | .053 | .016 | .038 | .092 | .054 | −.009 | .039 |
| *Study* | .102 | .054 | −.087 | .062 | −.118** | .047 | .065 | .061 | .038 | .043 |
| *Better opportunities* | .135** | .048 | −.167** | .054 | −.038 | .040 | .084 | .055 | −.014 | .041 |
| *Political reasons* | .121 | .067 | −.191* | .083 | −.010 | .049 | .121 | .075 | −.041 | .059 |
| *Other* | .102 | .053 | −.181** | .062 | −.025 | .041 | .062 | .061 | .042 | .043 |

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.