Following in the footsteps of others? A life-course perspective on mobility *trajectories* and migrant networks among Senegalese migrants

Introduction

International migration is still mainly analysed as a one-time, one-way movement from an origin country A to a permanent destination B. Yet migration trajectories are often more complex, as migrants may travel through and successively settle in several countries, or engage in circular mobility. However, the factors that shape individuals' migration trajectories remain little known. In particular, secondary intra-European migration is still an under-researched area, despite the fact that qualitative studies suggest that secondary movements have become a common mobility strategy (Schapendonk 2010; Paul 2011) increasingly adopted in times of crisis (Sacchetto & Vianello, 2012; Cingolani & Ricucci, 2013).

In the African migration context, for instance, qualitative research suggests there is an increasing complexity and fluidity of migration flows and routes towards Europe, with a subsequent fragmentation of migrants' journeys (Schapendonk 2010; Castagnone, 2011). Partly in response to border controls, *step-by-step* migration (Bredeloup, Pliez, 2005), is progressively developing as an emerging migration strategy with transit migration assuming an increasing role in the trajectories undertaken by migrants. Return and circular migration patterns are also common practices (Flahaux et al 2010; Dia, 2009). Finally, African migrants in Europe have also been argued to engage in further onward re-migration *within* the European space, yet research on this phenomenon remains scarce.

Taking advantage of recently collected longitudinal data on mobility between Africa and Europe, this paper attempts to contribute to this literature in several ways.

1. First, it aims to document the structure of mobility patterns among Senegalese migrants, by adopting a longitudinal view of individual *migration trajectories*.
2. Second, it focuses on the under-researched phenomenon of intra-European stepwise migration, examining its drivers.
3. Furthermore, the paper focuses on the role migrant networks play in the shaping of migration trajectories

The objective of the paper is to contribute to the study of intra-EU mobility patterns and determinants, taking the Senegalese migration as a case study.

Data

This paper uses a new set of biographic survey data collected between 2008 and 2010 in the framework of the MAFE project (Migration between Africa and Europe). The survey design rests on two principles:

(1) Longitudinal data, which is obtained through the collection of retrospective life histories covering the life of the respondents from their birth till the time of the survey. Life spheres covered include, for instance, employment, family formation and housing histories, as well as the migrations of members of the respondent's social network. The survey allows thus to identify and date all labour market transitions as well as all migration spells of the individual and of all other family members and close friends with migration experience.

(2) A transnational sample, collecting information on non-migrants and return migrants at origin, as well as on current migrants at destination. In a first stage, a household-level survey was carried out with approximately 1,200 households. Subsequently, life histories were collected in the biographic survey with 1,067 individuals, who were sampled within the households. In addition, 600 migrants were interviewed in the three main Senegalese destinations in Europe (Spain, Italy, and France).

Methods

This paper uses sequence analysis and optimal matching in order to construct a typology of migration trajectory, and event-history analysis to examine drivers of remigration.

As a first step, sequences displaying all migratory careers, undertaken by individuals, from the time of their first migration until the survey date, were produced. The different chronological sequencing of migration events according to their geographical location (countries where they occurred), and nature (out-migrations; further migrations; returns; re-departures; etc.) shape the mobility trajectories of each interviewee.

The next step consists in comparing trajectories through distance measures obtained via optimal matching analysis (OMA); and, based on the results of the comparison, of grouping similar sequences through cluster analysis (Brzinsky-Fay, Kohler, 2006). The latter technique aims to divide a set of objects (in this case individual migration paths), into a set of clusters or classes. The objective is to identify groups of objects that show similar characteristics, allowing to study the occurrence of patterns in different sequences (Billari, 2001).

Preliminary findings

A. Three main patterns of mobility among Senegalese migrants

From the first set of analysis, based on the analysis of migration sequences, three main mobility patterns were detected, almost entirely mutually exclusive:

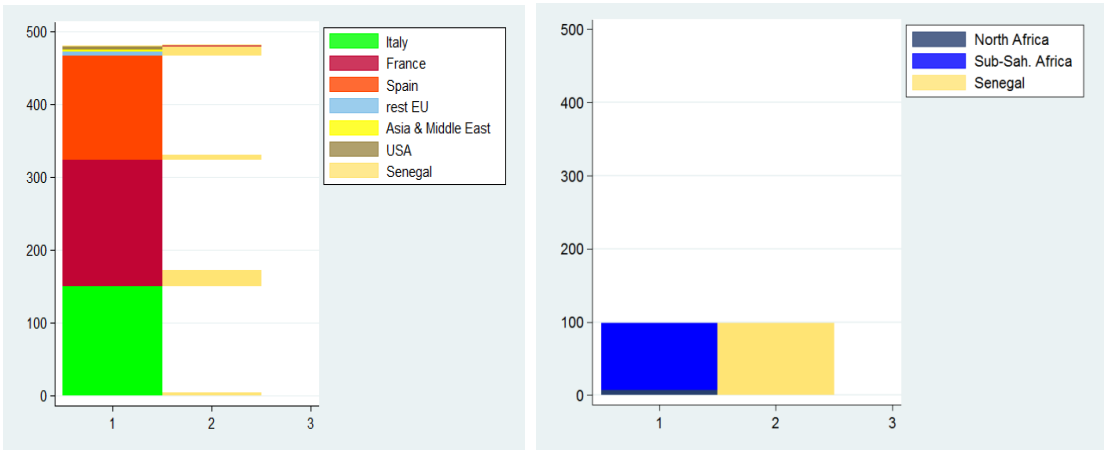
1) **"linear migration"**

Linear migration entails direct, one-way moves from Senegal to destination countries. Migrants from this group leave the origin country, Senegal, and settle in a foreign destination, for shorter or longer periods, without further re-settlement. This first mobility pattern representing 71.6% of all migratory careers fits within a more conventional understanding of migration as transition from a place A (departure country) to a place B (destination country) and, eventually, a permanent return back to point A (in the case of returnees, represented by sequences ending with yellow spells)[1].

[1] It should however be noted that we are working with a right censored process, i.e. with observations stopping in 2008, with a limited retrospective observation window, which will be longer for migrants who begun their migration career longer ago, either because they were born earlier or migrated at an earlier age. Thus, having undertaken only one migration so far does not necessarily exclude further movements to other countries, such as returns to Senegal for the European sample, or future re-emigrations for returnees in the Senegalese sample. Linear migration may in fact potentially evolve in circular (for the returnees in Senegal, who may decide to leave again in migration) or in step-wise (for

Within the linear migration pattern, a further distinction was made between the trajectories towards Europe and those in Africa, as shown in graph 1. The sequences displaying two episodes, with the second episode indicating a return to Senegal, are the ones undertaken by returnees, who were settled back in Senegal at the time of the survey. As previously mentioned, due to the survey design, European destinations, and in particular Italy, Spain and France, prevail over African destinations, representing 481 and 98 of all 579 individuals in this cluster, respectively.).

Graph 1: Linear migration



Source: MAFE-Senegal Survey (own calculations)

2) **"step-wise migration"** comprised out-migration and secondary migration episodes with no intermediate returns.

The transition from linear to step-wise migration marks the distinction that Ma Mung (2009: 144) underlined between "international mono-migration", which are built on linear migration patterns between the country of origin and the migratory destination, and "pluri-migration", entailing the crossing of several subsequent countries. Step-wise migration consists in fact of fragmented mobility steps across different countries out of Senegal, both in the African and/or in the European space. These paths are characterized by a more or less high level of "migration turbulence", in which multiple moves (from 2 to 9 different spells) lead to the composition of step-by-step migration. Step-wise migration accounts for 16,1% of all sequences within the sample.

Within the step-wise cluster, three sub-groups of step-wise movement were distinguished through optimal matching and cluster analysis (graph 2).

The first sub-group obtained within the step-wise macro-cluster (cf. graph 2, picture at the top on the left and cf. table 1) displays step-wise migration within the European space and is the most prominent within the linear pattern. Once in Europe, first places of arrival may or may not be the ones where migrants settle for good. **The second sub-cluster** in graph 2 (at the top on the right) shows preliminary steps in North African and Sub-Saharan countries leading to Europe. Step-wise migration is strongly associated with transit movements, as an emerging strategy used by migrants in an era of tightening entry procedures in European destination countries (Castagnone, 2011).

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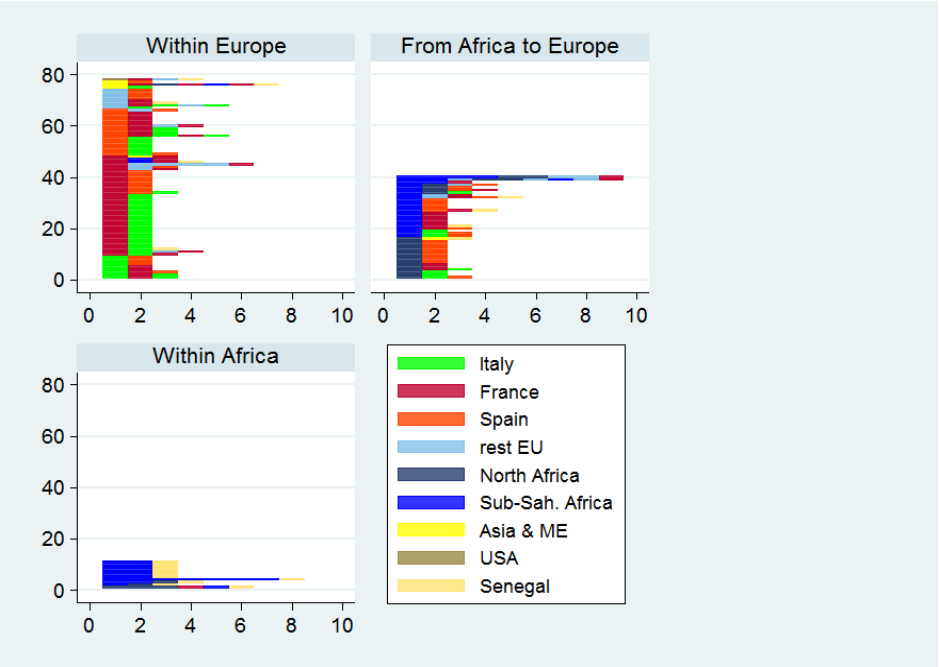
actual migrants, who could decide to embark onto secondary migration) patterns. The results presented here are thus dependent on the age compositon of the sample and the length of the observation window.

Such movements mainly - albeit not exclusively - take place in African intermediate countries and in North Africa. Finally, **the third group** (at the bottom on the left) depicts intra-African (mainly within Sub-Saharan and in particular West African countries) step-wise mobility mainly leading back to Senegal as a final outcome.

Graph 2: Step-wise migration

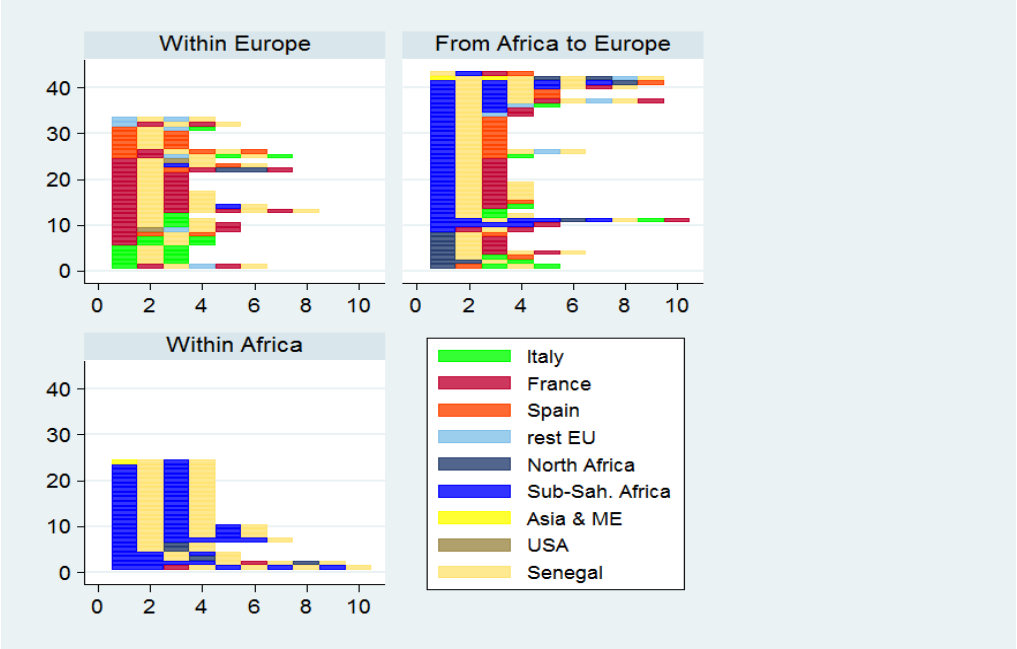


Source: MAFE-Senegal Survey (own calculations)

3) **"circular migration"** includes trajectories with one or more return to Senegal and subsequent re-departures.

Circular migration is the third migratory pattern, which entails repeated out-migrations and temporary long-term (longer than a year) returns to the country of origin (the "pendulum migrants" evocated by de Haas, 2010). This pattern develops in three possible forms of mobility: a bi-polar circularity within European Union, involving returns from European destinations and re-departures to Europe; a multi-polar circular migration, from African countries back to Senegal and re-emigration to Europe; and, finally, a repeated mobility between African destinations and the country of origin.

Graph 3: Circular migration



Source: MAFE-Senegal Survey (own calculations)

B. Determinants of re-departure and return: results from the multi-variate analysis

Next, our analysis turns to the determinants of the decision to leave the country of destination, either in order to move elsewhere in Europe or in order to return to the origin country. Given that the data is longitudinal, the best way to do this is to employ **discrete-time event history analysis.** This technique allows measuring the "risk" that an event occurs (i.e. migration) and following the evolution of this risk in time, while taking into account the variables that may interact with it. In other words, the method estimates not only whether the event occurs but also when it occurs (Le Goff 2003).
Using the respondents' detailed migration histories, a categorical measure is constructed, indicating whether the individual is still in the country of destination (0), whether he or she has re-migrated to another European country (1) or returned to Senegal (2). The 4 cases of remigration to other destinations are excluded from the analysis. The individuals enter the risk set at the beginning of their European migration spell and are followed until either the time of the survey (if still at destination) or until their departure for another destination (Senegal or another European country).

Our population of study consists of all respondents having carried out at least one migration within Europe and who may or may not be at destination at the time of the survey. The unit of analysis is any European migration spell. Our sample consists of 670 individuals and 806 migration spells. By the nature of the MAFE survey design, most of these spells are taking place in France, Italy or Spain, the countries where the survey was conducted (besides Senegal). However, since the survey is retrospective, the respondents are also reporting on previous migration spells which may have taken place in other European or African countries. While in a first set of analyses we consider all European migration spells, we also check whether our results are robust when only including the ones located in France, Italy or Spain.

Co-variates

One of the main independent variable is *access to migrant networks in Europe*. One of the innovative features of the MAFE survey is the longitudinal information it collects on the respondents' migrant network. Interviewees are asked whether any of their parents, siblings, children, partners have a migration experience (either a past experience or still currently abroad). In addition, they are asked whether anyone else from their more extended family or friendship circle has also had a migration experience and to whom they might have turned (or might turn) for help with migrating. The questionnaire suggests a limit of 20 persons, though one respondent named 21 persons. The total constitutes ego's migrant network. Furthermore, the questionnaire records for each member named by the respondent his or her migration trajectory, with the years and destinations of each move. The relationship to ego, the gender, the year of acquaintance (if spouse or friend) for each member are also recorded.

Based on this information, four variables are constructed, capturing ties located in the country of settlement (*networks at destination*), in other countries in Europe (*networks same region*), *networks elsewhere* (mostly Africa) and *returnees* (network members who returned to Senegal after at least one year abroad). We construct dummy variables, taking the value 1 if the respondent has at least one such tie. Furthermore, three aspects of the composition of networks located in other countries in Europe are taken into account: the type of relationships (close family ties vs. extended kin and friends), the gender of the tie and the level of migration experience (recent, experienced and long-term migrants[2]).

The models also *control* for several time-varying contextual and individual characteristics which have been shown to shape mobility, such as period, country of settlement, duration since arrival, educational level, age, legal status, family status. We perform a series of multinomial logistic analyses using the cases of *no migration* as our reference. Coefficients are presented as Odds Ratios. Sampling weights are used in all models.

Table 1 presents the results from the first two models. Model 1 introduces only the network variables as well as a duration variable counting the years since the respondent arrived in Europe. Confirming descriptive results, both returns and remigrations are less likely to occur as time spent at destination increases. Having kin or friends in the country of destination (excluding the partner or children) has a strong and significant discouraging effect on the likelihood of leaving the country. On the other hand, having ties located in other countries in Europe increase the chances of subsequent moves on the continent.

Model 2 takes into account a set of other individual and contextual characteristics, but network effects remain overall the same, with one exception. Having ties at destination is no longer significantly deterring moves. It is the presence of the spouse in the country of residence that substantially diminishes the likelihood of a remigration within Europe; the effect of having children at destination goes in the

[2] Recent migrants have migrated for under 3 years, experienced migrants between 4 and 10 years, long term migrants have been abroad for at least 11 years.

same direction but is not significant. Interestingly, chances of returning to Senegal are not significantly influenced by the presence of one's spouse or children at destination.

Confirming results from the sequence analysis, we see that both remigrations and returns are more likely to take place from France than from Italy and Spain, reflecting also the older nature of the Senegalese flows to France. Retrospective data is quite limited when assessing historical trends, but findings seem to confirm previous work. Remigrations appear to have increased in the 1990s and to have peaked in the first half of the 2000s, while decreasing afterwards, but these results are not statistically significant. Return migration from Europe illustrates a completely opposite trend as it significantly decreased in recent periods, as also found in other work (Flahaux et al. 2013). This may reflect the paradoxical effect of the increasingly restrictive migration policies adopted by European governments that encourage permanent migration and thus increase overall stocks of immigrants (other citation Massey?; de Haas and Czaika 2013).

Individual-level variables play a lesser role in explaining the likelihood of moving within Europe, with the exception of migrants' legal status. Those who have a visa (in addition to other documents or not) and those with no legal documents are more likely to move within Europe than those who have a residence permit in the country of settlement. Migrants who do not need a permit, mostly for having the nationality of the country, appear less likely, though not significantly so, to leave the country of settlement than those with a residence permit.

Women are initially found to be less likely to engage in remigration within Europe and to return to Senegal than to stay in the country of settlement, but this result is no longer significant once taking into account migrants' educational level and employment status. Interestingly, the level of education does not seem to influence remigration chances, while those with a university-level degree have a higher rate of return, though not significantly so.

Employment status influences secondary mobility, in the expected direction. Those least attached to the (primary) labour market, such as the self-employed or the unemployed, are most likely to re-migrate or return, whereas having a skilled or semi-skilled position or being a student significantly discourages from leaving the country of settlement. Low skilled wage employment is only significant with respect to decreasing the likelihood of *return*, in comparison to self-employment.

Table 1: Multinomial logistic regression of the likelihood of intra-European remigration and return (ref: remain in country of settlement)

Variables	M1	M2	M1	M2
	No migr = reference	Remigration		Return
Duration since migration	0.71***	0.82**	0.82***	0.95
Duration squared	1.01***	1	1	1
Has NTW[a] same country	0.63*	0.83	0.54**	0.87
Has NTW[a] same region	2.62***	1.86**	1.03	1.06
Has NTW[a] elsewhere	0.93	0.82	2.06	1.16

Has Returnees[a]		0.85	1.01	1.22	2.16
Partner location (ref=Single)					
All partner(s) in Senegal			0.69		0.84
Partner(s) only same country			0.20***		0.46
Partner also Europe/Elsewhere			1.35		1.08
Child(ren) location (ref = No Child)					
All child(ren) in Senegal			0.99		1.73
Child(ren) only same country			0.28		1.22
Child also Europe/Elsewhere			2.08		0.00***
Woman			0.49		0.93
Period (ref=bef. 1990)					
1990s			1.76		0.92
2000-2004			2.19		0.49
2005 or after			0.89		0.15***
Country of destination (ref=France)					
Italy			0.32***		0.32**
Spain			0.15***		0.36**
Other Europe			4.38***		5.96***
Education level (ref: no degree)					
Primary level			0.9		1.07
Secondary level			1.04		1.72
Tertiary level			1.21		2.15
Employment status (ref: self-employed)					
Not working			0.60		0.80
Skilled worker			0.31**		0.24***
Unskilled worker			0.60		0.15***
Student			0.20**		0.26***
Legal status (ref: Residence Permit)					
Visa or no docs			2.54**		1.57
Visa and RP/WP			2.43**		1.69
Work Permit			1.17		1.31
Permit not required			0.29		0.39
Person-years	8238	8238	8053	8238	8053
N events	608	96	96	102	102

p < 0.10, ** p < 0.05, *** p < 0.01

[a] Excluding the partner or children.

Findings so far suggest that having a network in other countries in Europe increases chances of subsequent mobility within the continent, a result that is robust to controlling for other factors. Table 2 investigates whether the role of these networks depends on their composition or, in other words, whereas different ties have different influences. Models 3 to 5 include different specifications of the network variables, while controlling for the same set of factors in Model 2.

We find that it's only the weaker ties – friends or extended kin – that significantly increase the likelihood to re-migrate (Model 3), while close kin - siblings or parents – have no effect. Gender does not appear to matter, as both male and female network

members in Europe encourage re-migration (Model 4). Lastly, and somewhat surprisingly, it's only network members that have recently migrated – for less than 3 years – that affect chances of intra-European mobility.

Table 2. Network effects on the likelihood of intra-European remigration or return (reference: remain in country of settlement)

	Remigration	Return
Model 3: Type of relationship		
Has close kin same region	1.32	0.87
Has friends/ext fam same region	2.32**	1.16
Model 4: Gender		
Has men same region	1.67*	1.03
Has women same region	2.15*	1.28
Model 5: Migration experience		
Has recent migrants same region	1.93*	0.44
Has experienced migrants same region	1.09	0.84
Has long term migrants same region	1.17	2.33**

p < 0.10, ** p < 0.05, *** p < 0.01 ; All network variables exclude the partner/children

Preliminary conclusions

A descriptive view of the MAFE data shows that mobility trajectories are more complex than is implied by the hypothesis still underlining a lot of research that migration is a one-off, permanent phenomenon from country A to country B.

Stepwise & circular patterns of migration are revealed, and while they seem to only represent about a third of the migrants it should be remembered that

- linear migrations are "**censored** observations" and may evolve into such complex trajectories
- Our data are collected before 2009, but the share of complex trajectories is expected to have risen with the **economic crisis** ; qualitative work documents increasing intra-EUR circulation of Morrocan migrants, for ex, that left Italy/Spain for more stable western & northern Eur dest (reversal of trends?)

Looking in an event-history framework at the drivers of re-migration we found that

- Those who are more likely to move within Europe do not fall in the categories that have the **formal right** to do so – students, highly-skilled workers, long-term residents → it's rather the low skilled, unemployed & those who hold temporary documents (visa)
- Yet we can't say either that it's the most precarious & those most deprived of human capital that move → all levels of educations are similarly likely to move → question of a mismatch between education & employment seems

Finally, networks appear as one of the most important drivers of secondary mobility
Stepwise intra-EU migrants are more likely to have larger and more dispersed European networks, with a higher composition of weak ties and recent migrants.

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