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Relationship Trajectories, Living Arrangements, and International Migration Among Ghanaians

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ABSTRACT

Despite the linked nature of life events, the existing literature mainly analyses union formation, living arrangements, and international migration separately. In this paper we explore how Ghanaian couples' relationship trajectories are related to international migration. Data come from the Migration between Africa and Europe-Ghana survey ($n = 868$) and capture unique retrospective life histories of Ghanaians between age 21 and 35 (migrants and non-migrants), enabling us to analyse relationship histories and their development over time in a context of international migration while taking the socio-cultural practice of non-residential unions into account. We applied sequence analyses to describe trajectories and optimal matching to identify clusters of typical trajectories. Using multinomial logit models, we investigated the association between migration and the four identified relationship paths.

Our results show that relationships and living arrangements evolve in a wide variety of ways, underlining the importance of a dynamic approach. The complexity in relationship trajectories is reflected in the four typical clusters that captured this diversity in a more simplified way: (1) co-residential marriages; (2) singles; (3) mixed trajectories; and (4) non-residential marriages. Our results further

suggest that socialisation and disruption of family behaviours are both occurring among migrants. We also found that non-residential unions are commonplace among migrants and non-migrants alike, demonstrating that this living arrangement is not necessarily related to international migration. However, non-residential relationships are most common among migrants, and migrant women in particular. Copyright © 2017 John Wiley & Sons, Ltd.

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Keywords: relationship trajectories; international migration; Ghana; sequence analysis; optimal matching; life course research

INTRODUCTION

Migration patterns between Africa and Europe have intensified over the last decades. While a large body of research has addressed the socio-economic consequences of migration for individuals (e.g. De Haas, 2005; Maimbo & Ratha, 2005), the outcomes for family life remain yet to be fully understood. International migration flows have resulted in living arrangements whereby couples live geographically separated across borders. These couples have been conceptualised as transnational families, who maintain 'a sense of collective welfare and unity, namely 'familyhood', even across national borders' (Bryceson & Vuorela, 2002, p. 3). Although the significance of these couples has been recognised by previous studies (e.g.

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Bryceson & Vuorela, 2002; König & De Regt, 2010), still little is known on how these couples are formed and how their unions evolve over time. Furthermore, most studies focus on transnational couples only, ignoring the relevant comparison to the group of couples without a migration experience. When we want to better understand transnational unions, it is crucial to include also those without a migration experience to point to similarities and differences between these unions.

Since the 2000s, transnational family studies have contributed to our understanding of migrants' family life by offering rich and detailed ethnographic accounts of couples arranging their lives across borders (e.g. Charsley, 2005; Gallo, 2006; George, 2002; Hirsch, 2003). Yet, questions about the prevalence and the different forms and development of these unions are often left unanswered (Clark, Glick & Bures, 2009; Mazzucato & Schans, 2011). To understand migrants' relationship trajectories (i.e. how relationships form, transform, or dissolve), and how they are related to migration, we also need to take living arrangements into account (i.e. whether or not spouses are living together). While relationship status is often narrowly classified as either single or married, both categories do not fully capture unions, and this holds especially for international migrants. Particularly, non-residential relationships need to be included, as couples need not always share a home (Antoine *et al.*, 2009).

These studies on international migration and family life typically focus on migratory flows between Latin America or Asia and the United States (US) (e.g. Landale & Ogena, 1995; Hill, 2004; Frank & Wildsmith, 2005), or on the integration of the 'guest worker' generation in Europe (Glick, 2010). Yet, migrants between Sub-Saharan Africa and Europe remain largely understudied despite their increasing numerical significance. Studying African migrants can benefit our understanding of familial relations in the context of international migration as these migrants typically come from origins where norms around living arrangements are very different from those in the countries where guest workers traditionally migrated from (e.g. Turkey). Particularly, norms about spouses living geographically separated ('living apart together') are common in many Sub-Saharan

African countries, unlike in other parts of the world including Europe.

In this paper, we investigate to what extent international migration is correlated with relationship histories by comparing Ghanaians with and without migration experience. We contribute to the literature by providing insight into the prevalence and variations of transnational couples, concentrating on patterns of relationship formation, transformation, or dissolution among Ghanaians in young adulthood (from age 21 to 35). We hereby explore whether there are differences between men and women, specifically, recognising the gendered nature of migration experiences (e.g. Hill, 2004; Gallo, 2006). We examine whether the effect of migration differs for men and women, and to what extent it matters which partner in the couple migrates.

To capture the ways in which couples' relationship trajectories can be affected by international migration, we need full information on these trajectories of both migrants and non-migrants. So far this data was scarcely available and only recently the Migration between Africa and Europe (MAFE) survey data allow carrying out this type of analyses. This paper uses data from the MAFE-Ghana project, using the biographic life history survey, which sampled current migrants in Europe, and returnees and non-migrants in Ghana. To explicitly deal with the sequencing and timing of events and how these are related to changes in context, we adopt a life course approach (Elder, 1985; Kulu & Milewski, 2007). While the majority of migration studies concentrate on a specific point in time, this approach explicitly deals with the dynamic nature of migrants' life to fully comprehend migrants' (family) behaviours (Wingens *et al.*, 2011).

INTERNATIONAL MIGRATION AND FAMILY BEHAVIOURS

Several 'partly complementary, partly contradictory hypotheses' about the effect of international migration on family behaviours prevail (Kulu, 2005). While these hypotheses are mainly drawn from studies on migration and fertility (Kulu, 2005; Milewski, 2007), several scholars have studied the relationship between migration and union formation and dissolution

(e.g. Landale, 1994; Frank & Wildsmith, 2005; Jampaklay, 2006). The *socialisation hypothesis* states that current family behaviours are shaped by norms and behaviours encountered during the early socialisation period, meaning that migrants and non-migrants from the same origin country exhibit similar family patterns as they were part of a similar socialisation process. Contrary, the *selection hypothesis* starts from the assumption that migrants differ on specific observed and unobserved characteristics from non-migrants, which in turn determines their family behaviours after migration, suggesting that family behaviours can be delayed or accelerated.

According to the *adaption hypothesis*, migrants' alter their behaviours so that they mirror the behaviours of the majority population at destination. The *disruption hypothesis* argues that migration implicates a disruption in the social and physical context, which causes family behaviours to be delayed among migrants compared to non-migrants. Yet, studies on the timing of union formation in relation to migration have also found that migration can accelerate family formation (Landale, 1994; Jampaklay, 2006). This is mainly explained by the higher incomes that are often generated by migrants, making them more attractive on the marriage market (Jampaklay, 2006).

The observed links between migration and family behaviour are also suggested to hold for union dissolution. Migration, as a stressful life event, can strain relationships to the extent that they result in divorce, but few studies have actually investigated the role of international migration on divorce (Glick, 2010). Some existing studies show that migration increases the risk of union dissolution (Landale & Ogena, 1995; Hill, 2004), while others did not find this relationship. Frank and Wildsmith (2005) found that Mexican couples in which the men migrated were not necessarily at a higher risk of union dissolution compared to couples without migration experience; only extensive migration between the US and Mexico resulted in higher probabilities of union dissolution. A previous study on Ghanaians showed that it matters which of the partners migrates: the probability of divorce is found to be larger for Ghanaian couples where the wife migrated independently, but not for couples where the

husband migrated independently (Caarls & Mazzucato, 2015).

It is clear from the literature that union formation (or dissolution) and migration are interrelated events (e.g. Hill, 2004). Most work, however, has addressed only the occurrence and not the interrelatedness, the latter being the aim of this paper. Scholars have acknowledged the importance of studying transitions in the life course, not only as separate events but also as a sequence of events that evolve over life. The latter allows for a better understanding how lives evolve, recognising that events in the life course are linked, influenced by significant others, and taking place in a specific historical, geographical, and institutional context (Elder, 1985; Billari & Piccarreta, 2005; Kohli, 2007; Wingens *et al.*, 2011).

Also for the current study, where we aim to link migration, relationship trajectories, and living arrangements, a more integrated view on the linkages between these choices seems useful. In addition to revealing the dynamic nature of relationships of Ghanaians during young adulthood, we explore the relation between international migration and these trajectories. We expect that if migration has a disruptive effect, individuals with migration experience are likely to form unions at later ages compared to individuals without a migration experience. If migration accelerates the formation of unions, individuals with migration experience are expected to experience union formation at earlier ages compared to individuals without migration experience.

RELATIONSHIPS AND MIGRATION IN GHANA

The Ghanaian case is particularly interesting for studying the relation between migration and relationship trajectories, because it allows us to explore the relationship between the effects of existing socio-cultural practices in the country of origin (i.e. spouses practicing multi-local residence) on the one hand, and the effect of international migration on the other hand. First, previous studies (e.g. Mazzucato & Schans, 2011; Caarls *et al.*, in press) have argued that transnational relationships are not necessarily difficult for migrants from Ghana, considering that this may be a continuation of their previous lifestyle of living-apart-together. In Ghana, as in

many Sub-Saharan African countries, multi-local residence practices are frequent (Oppong, 1970; Clark, 1994; Manuh, 1999; Coe, 2011). Consequently, couples do not necessarily co-reside, and spouses typically each live with their own family, stressing the importance of lineage ties over conjugal bonds (Oppong, 1970; Clark, 1994; Manuh, 1999). The occurrence of married household heads that are not living with their partner in Ghana are estimated to be between 31% (Demographic and Health Survey (DHS), 2008) and 41% (Beauchemin *et al.*, 2015). Because union formation processes are likely to be influenced by the specific socio-cultural practices in the country someone grew up in, even for those that did not experience this practice first-hand, they are part of a culture where norms about living arrangements include multi-local residence.

Second, Ghana has a long history of both internal and international migration (Anarfi *et al.*, 2003; Twum-Baah, 2005). Although both migration streams are significant, we focus on international migration here. While reliable numbers are lacking, Twum-Baah (2005) estimated that approximately 1.5 million Ghanaians lived overseas in 2003. Consequently, many Ghanaian families are transnational, and almost half of the Ghanaian urban households have a household member residing overseas (Caarls *et al.*, in press). Ghanaian migrants are extensively practicing their transnational lives (Orozco, 2005), and this context has resulted in couples living apart together *across* borders (LATAB), a phenomenon that is being addressed by an emerging body of literature. Existing studies, using qualitative research methods, have shown that maintaining a relationship across borders takes effort of both the migrant and the left-behind spouse (Pribilsky, 2004; Gallo, 2006). Although transnational relationships are predominantly considered as difficult, or as second-best options, some scholars stress that couples can manage long-distance separations quite well and for long durations (Pribilsky, 2004; Landolt & Wei Da, 2005).

Recent studies of transnational couples using a more quantitative research approach all noted that LATAB often is a long-term arrangement, particularly for West Africans (González-Ferrer, 2011; Baizan *et al.*, 2014; Beauchemin *et al.*,

2015). Additionally, not all transnational couples desire to reunify (Landolt & Wei Da, 2005). This points to the prevailing social-cultural practices in the origin context that might make West Africans more inclined to endure long-term relationships across borders than migrants coming from countries where this is less common. We therefore expect that living apart arrangements are common among Ghanaian migrants and non-migrants alike.

Third, Ghanaian migration has traditionally included substantial shares of women. This specific feature enables an exploration of how relationship histories and migration evolve differently across life for men and women. Ghanaian women, from both matrilineal and patrilineal lineages, are reputedly independent (Oppong, 1970; Manuh, 1999). Women that work outside the households are no exception in Ghana. The combination of this independence and the common practice of multi-local residence has resulted in relationships that are not necessarily egalitarian, but that can be characterised by a great degree of autonomy of both spouses (Oppong, 1970; Takyi & Gyimah, 2007; Coe, 2011). This autonomy of both partners shapes a context in which geographical separation is not necessarily resulting in relational tensions.

Greater independence of Ghanaian women, compared to women from more patriarchal neighbouring countries (Oppong, 1970), the feminisation Ghanaian migration (Anarfi *et al.*, 2003), and the different family outcomes depending on which partner migrates (Caarls & Mazzucato, 2015) make it relevant to study how relationship trajectories are shaped differently for men and women in the context of Ghanaian migration.

DATA AND METHODS

Recent data from the MAFE-Ghana survey carried out in 2009–2010 among Ghanaians in Ghana, the United Kingdom (UK), and the Netherlands were used. This survey collected retrospective information (annually) on different life domains, such as housing, education, migration, and marital status. Respondents between the ages of 25 and 75 years old, born in Ghana, were sampled. Current migrants were interviewed in the

Netherlands and the UK, and non-migrants, migrant spouses, and returnees were interviewed in Ghana. The collection of the data took place in the urban areas both in Ghana (Accra and Kumasi) and in Europe (Amsterdam, The Hague, and Almere for the Netherlands, and London for the UK). In Ghana, 1,246 respondents were surveyed, and 273 and 149 migrants in the Netherlands the UK, respectively. The pooled dataset thus includes 1,665 respondents (for more details about the data collection procedures, see Beauchemin, 2012; Schoumaker & Diagne, 2011).

Analytical Sample

To study relationship trajectories for Ghanaians with and without migration experience, we analyse the relationship histories of individuals between the ages of 21 and 35 years. Retrospective information was used to capture transitions that were reported on a yearly basis. Because for sequence analyses that we apply here, all sequences must be complete and have equal length (Robette & Thibault, 2008), meaning that not all individuals could be included.

The studied age bracket between 21 and 35 captures Ghanaians in their young adulthood. Secondary data on demographic behaviour show that in these years most Ghanaians enter their first marriage (on average 21.1 years for females and 25.4 years for males (Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro, 2009)). We take the 35-year upper age limit as we expect both migration and relationship trajectories to differ substantially after age 35. At age 35, the likelihood of different previous relations, partners, and children increases, and this may have different implications for migration decisions than is the case for those who are making these transitions to adulthood for the first time. Based on these considerations we restricted our sample to respondents for whom we had information about the 15-year period (between ages 21 and 35).

Polygamous couples, couples that ended through the death of the spouse, and couples whereby the spouse was the only one in the couple that migrated (i.e. the respondent did not experience migration) within our observation

period, were excluded because the size of these groups was insufficient to enable specific analysis. Of our initial sample of 1,665, we had full 15-year information on 1,107 respondents. We then had to drop 239 (21.6%) individuals of which 46 (4.2%) were polygamous respondents, 114 (10.3%) were widowed, and 83 (7.5%) respondents had a partner who migrated but did not experience migration themselves; as for the latter group, we did not have complete biographical information about relationship and migration histories of their partners. These restrictions resulted in a total sample size of 886 respondents that are analysed here.¹

Estimation Strategy

To examine relationship trajectories over time, we applied sequence analysis (Abbott & Tsay, 2000; Robette & Thibault, 2008). A trajectory is an ordered list of states, and states refer to values of a categorical variable that describe the status individuals at a given point in time. This categorical variable can take a finite set of possible values. In this paper, we studied relationship trajectories and identified six possible states our respondents could experience in the course of the 15-year period of observation.

The analyses consisted of several parts: first, we explored which relationship trajectories were most prevalent. Second, we applied optimal matching (OM) to identify clusters of most similar trajectories (Abbott & Tsay, 2000). Similarity in OM is calculated by considering the 'costs' of matching sequences. We opted for a cost matrix that is based on the transition rates (for more details, see e.g. Abbott & Tsay, 2000; Anyadike-Danes & McVicar, 2010; Brzinsky-Fay & Kohler, 2010; Robette & Thibault, 2008). Transition rates refer to the probability to move from one state to another, between each couple of states (e.g. the probability to move from 'Single' to 'Union, Living Together').

We applied the Partitioning Around Medoids (PAM) algorithm to identify clusters and carried out a visual inspection of the clusters combined with the reported Average Silhouette Width (ASW) to decide for the optimal number of clusters (Kaufman & Rousseeuw, 1990; Kleinieper *et al.*, 2015). The 'TraMineR' and 'WeightedCluster' packages in R were used for the calculations (Gabadinho *et al.*, 2011; Studer,

2013). After identifying the optimal number of clusters, we applied multinomial logit modelling, with the clusters as the dependent variable to estimate which factors are associated with which typology (for a similar approach, see e.g. Elzinga & Liefbroer, 2007; Kleinepier *et al.*, 2015; Schumacher *et al.*, 2013).

Unfortunately, this approach cannot identify causality between relationship trajectories and migration, leaving open the question whether migration shapes the relationship trajectory, or whether the relationship trajectory influences the decision to migrate. The life course perspective we adopted refrains from making assumptions about the direction of causality; instead, we concentrate on identifying whether relationship trajectories are related to international migration. We did, however, also carry out additional analyses, looking at the simultaneous occurrence of migration and a relationship transition to explore whether certain relationship transitions are more likely to occur at the same time as migration. As we show in Table 1, this is not very common: simultaneous transitions of migration and relationship change occur in 3% to 7% of all cases only.

Although Table 1 does not solve the issue of causality per se, it provides at least an additional indication that relationship change and migration rarely coincide. We have additionally looked at wider time spans (e.g. 1 or more years before or after migration), which yielded similar results (results not included but available upon request). Despite the fact that this causality issue as such cannot be solved with the data, we do show correlations between migration and partnership relations by taking migration as an independent variable in our multivariate analyses.

Measures of Variables

In order to analyse relationship trajectories, we combined two variables. The first variable annually measures **relationship status** distinguishing between single, in an unmarried union, in a married union, and separated (either through separation or divorce). We used self-defined measures of marital status; 'married' can imply customary, religious, and civil marriages, or a combination of these. Second, we considered a couples' **living arrangement**, that is whether the spouses live in the same household or not. Integrating these two variables resulted in six different states for our sequential analyses: (1) being single (S); (2) being in a union and living together (UT); (3) being in a union and living apart (UA); (4) being married and living together (MT); (5) being married and living apart (MA); and (6) being out of a relationship (D).

Our main variable of interest is the **migration experience**, measured in two ways. First, we included whether or not the respondent migrated internationally at any time between ages 21 and 35. We only include long stays, i.e. a stay abroad that lasted for at least one year. Second, we captured migration experience of the couple: 0 = *no migration*, 1 = *only male migration*, 2 = *only female migration*, 3 = *both male and female migration*. For the few respondents that have remained single from 21 to 35 years, this variable refers to the person (gender).

Additionally, we controlled for several variables that are known to influence relationships in Ghana (see e.g. Takyi, 2001; Takyi & Gyimah, 2007). First, we take into account the respondents' **gender** (0 = *men*, 1 = *women*). The **educational level** was

Table 1. Transitions around relationship status in the year of migration.

	Relationship status transition					
	Migrants				Non-migrants	
	No		Yes			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
From single to union	337	38.8	37	4.3	494	56.9
From union to single	348	40.1	26	3.0	494	56.9
Any kind of relationship transition	312	35.9	63	7.3	493	56.8

included by measuring the highest level attained at age 35, with 1 = *no schooling/primary level*, 2 = *secondary level*, and 3 = *tertiary level*. We further included the *total number of children* the respondent had at age 35 (range 0–8).

There are many different ethnic groups in Ghana, which have different marital customs and traditions. Previous studies on Ghana have indicated that matrilineal family ties, which are mainly prevalent among those belonging to the ethnic group Akan, play a role when considering in particular union dissolution (e.g. Takyi & Gyimah, 2007). To account for this, we included whether or not the respondent belongs to the matrilineal lineage group *Akan* (0 = no, 1 = yes). Respondent's birth **cohort** was distinguished in three categories: 1 = ≤ 1950 , 2 = *between 1951 and 1960*, and 3 = ≥ 1961 .

Subjective wealth status captured retrospective information about the subjective wealth status of the respondent for each year. The following question was asked: '*Would you say that during this period you had enough to live on?*' This resulted in three response categories, 1 = *yes absolutely*, 2 = *it depended*, and 3 = *not at all*. For our multinomial analyses, we recorded the number of years that the respondent indicated to be *absolutely satisfied* between ages 21 and 35, creating a continuous variable where higher scores indicate more periods of being financially satisfied. Similarly, we created the variable **economically active** referring to the number of years the respondent was *economically active*. To further examine the gendered nature of migration, we included an **interaction term between gender and migration experience**.

Table 2. Overview of independent variables.

Variables			Full sample		Non-migrants		Migrants	
			N	%	n	%	n	%
Migration experience*	No		495	57.0				
	Yes		373	43.0				
Couple migration experience*	No migration		495	57.0	495	100.0	0	0.0
	Male migration		125	14.4	0	0.0	125	33.5
	Female migration		50	5.8	0	0.0	50	13.4
	Male and female migration		198	22.8	0	0.0	198	53.1
Gender	Men		413	47.6	194	39.2	219	58.7
	Women		455	52.4	301	60.8	154	41.3
Highest level of education attained*	$\leq$ Secondary		634	73.0	404	81.6	230	61.7
	Tertiary		234	27.0	91	18.4	143	38.3
Akan	No		324	37.3	200	40.4	124	33.2
	Yes		516	59.5	274	55.4	242	64.9
	Missing		28	3.2	21	4.2	7	1.9
Cohort	≤ 1950		105	12.1	72	14.6	33	8.9
	1951–1960		248	28.6	126	25.4	122	32.7
	≥ 1961		515	59.3	297	60.0	218	58.4
Survey country	Ghana		620	71.4	466	94.1	154	41.3
	Netherlands		165	19.0	21	4.3	144	38.6
	UK		83	9.6	8	1.6	75	20.1
Continuous variables								
Variable	Range	Mean (s.d.)	Range	Mean (s.d.)	Range	Mean (s.d.)		
Number of children*	0–8	2.21 (1.53)	0–8	2.45 (1.55)	0–8	1.89 (1.44)		
Subjective wealth status**	0–15	12.29 (3.63)	0–15	12.73 (3.60)	0–15	11.72 (3.60)		
Economically active**	0–15	9.33 (6.09)	0–15	8.60 (6.55)	0–15	10.29 (5.28)		

Source: MAFE-Ghana data, 2009–2010.

Notes:

*Referring to the period of observation, that is, between 21 and 35 years of age.

**Referring to the number of years the respondents has experienced episodes of being satisfied with the financial situation/being economically active.

We present an overview of these independent variables in Table 2. All variables used in the analyses change over time, although not all changes are equally substantial. For example, around 10% of the sample changes their educational status and their subjective wealth status between ages 21 and 35. On average, the number of children increases with 1.82 between these ages. Respondents do become economically more active, noted by a 20% change between 21 and 35 (details of these changes available upon request).²

FINDINGS

We first examined the prevalence of living apart together in our sample for migrants and non-migrants. In Table 3, we show that remaining single is uncommon for both migrants and non-migrants (7% and 5%, respectively). Additionally, living-apart-together in Ghana is very common among non-migrants (62%), which is in line with the historical-anthological literature suggesting the prevalence of this phenomenon (e.g. Oppong, 1970; Clark, 1994; Manuh, 1999; Coe, 2011). Of all migrants, 37% lived apart together only in response to migration. For 20%, living apart together was a continuation of previous arrangements. Among migrants, 32% either migrated jointly, or formed a couple while abroad.

Because each trajectory consists of 15 states, this implies that we could theoretically identify six¹⁵ different trajectories. We identified 480 different sequences in our sample, and 384 (44%) are distinct sequences. Next, we examined the diversity of states in our sample at each given age. We compare these transversal state distributions between migrants and non-migrants, men and

women, and a combination of migration experience and gender.

We examined the most common trajectories for migrants and non-migrants. Both migrants and non-migrants moved most often from a single status to a non-residential marriage, although this trajectory occurred more frequently among migrants (25.4% for migrants and 18.8% for non-migrants). The second most popular trajectory for non-migrants was to already be married and living apart at age 21, and remaining so at least until age 35 (15.8%). Migrants, on the other hand, were more likely to move from being single to a co-residential marriage and then to a non-residential marriage (23.2%). This indicates that migrants on average entered into marriage at a later age compared to non-migrants. For many migrants, a co-residential marriage was followed by a non-residential marriage. This pattern occurred among non-migrants too, although to a lesser extent (15.2%). The prevalence of non-residential marriages among migrants and non-migrants alike exemplifies that this type of arrangement is not necessarily the outcome of international migration. In terms of the 10 most common trajectories, migrants were also more often engaged in unmarried unions: 17.3% compared to 11.4% for non-migrants.

Figure 1 shows the distribution of states for migrants and non-migrants between ages 21 and 35 (differences are statistically significant, $p \leq 0.000$). We find that the share of singles at age 21 is a little over 50% for both groups. Those with a migration experience are more often in an unmarried union compared to their non-migrant counterparts, while non-migrants are more frequently in a married union. In general, we see that the duration of being in an unmarried union

Table 3. Number of people who lived apart or not and whether this is because of migration, by migration status.

Respondents' living arrangements:	Full sample		Non-migrants		Migrants	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
...always single	53	6.1	34	6.9	19	5.1
...never LAT	273	31.4	153	30.9	120	32.2
...LAT in Ghana only	328	37.8	308	62.2	20	5.4
...LAT only because of migration	138	15.9	0	0.0	138	37.0
...LAT in Ghana and because of migration	76	8.8	0	0.0	76	20.4
Total	868	100.0	495	100.0	373	100.0

Source: MAFE-Ghana data, 2009–2010.

Source: MAFF-Ghana data, 2009-2010

Figure 1. State distributions for migrants and non-migrants.

Source: MAFF-Ghana data, 2009-2010

Figure 2. State distributions for (non-)migrant men and (non-)migrant women.

is longer for migrants than for non-migrants. Non-residential marriages appear to be a significant relationship type for both migrants and non-migrants. Migrants have more often experienced separation (either through divorce or separation from unmarried union) than their non-migrant counterparts.

To examine the interplay between migration and gender, we plotted the state distributions for migrant and non-migrant men and women in Figure 2 (differences are statistically significant, $p \leq 0.000$). While men are more often single than women, this seems to be particularly the case for non-migrant men. Migrant men are more often in an unmarried union compared to non-migrant men. Non-migrant men are more likely to be involved in co-residential marriages than migrant men. Similarly, non-migrant women are more frequently in co-residential marriages than migrant women. In line with Figure 1, we see that those with migration experience are more often divorced or separated. Being married and living apart is much more common for women, but for migrant women in particular.

Finally, we explored to what extent it matters who of the partners in the couple migrates. In line with the previous findings, most singles are found among independent male migrants (Fig. 3, differences are statistically significant, $p \leq 0.000$). Independent female migration is more often associated with divorce or separation. While living apart together is frequent in general, it does seem that independent female migration and joint migration more often resulted in this living arrangement.

We applied OM to explore which trajectories are most similar. We identified four clusters (ASW 0.43) that represent different types of relationship trajectories for young Ghanaian adults (Fig. 4). The first cluster refers to young adults that follow a trajectory that is predominated by 'co-residential marriages' that came about in their early 20s, and 25% of Ghanaians in our sample belonged to this type. A second cluster is composed of Ghanaians that are mostly 'single' until age 35, or who entered relationships later in life (mostly in their early 30s), representing 18% of our sample.

Source: MAFE-Ghana data, 2009-2010

Figure 3. State distributions by migration experience and sex.

Source: MAFE-Ghana data, 2009-2010

Figure 4. Four relational trajectories clusters identified through optimal matching.

The third cluster is the most heterogeneous, capturing trajectories that are characterised by unmarried unions, as well as by separation. Twenty per cent of our sample belongs to this cluster, which we labelled 'mixed trajectories'. Finally, in the fourth cluster we distinguished trajectories with 'non-residential marriages'. Almost all respondents in this cluster experienced non-residential marriages, and some did so over the entire period of observation. In total 37% of our sample belongs to this category making it the most common cluster.

Using the four-cluster solution from OM as the dependent variable, we estimated multinomial logit models, taking the cluster *co-residential marriages* as the reference category, to examine which factors are associated with which cluster (Table 4). The coefficients on the explanatory variables should be interpreted as the likelihood of belonging to that cluster vis-à-vis the cluster *co-residential marriages*. First, we compare the likelihood of the 'Singles' cluster to the 'co-residential marriages' cluster in Models 1. Our key variable of interest, whether or not the respondent experienced migration during the ages 21 to 35, is not

significantly related with singlehood. In Model 1B, we included our sociodemographic and socio-economic variables. The likelihood of being single during most of young adulthood does not significantly differ by sex. Singles are also not less likely to have children, to be from younger cohorts, to be financially satisfied, or economically active. In Model 1C, we included an interaction effect of migration experience and gender, but this also yielded no significant results. Finally, we considered who migrated in Model 1D. No significant results were found regarding independent male or female migration. Although a significant effect was found for those where both spouses have migrated, this result should be treated with caution, as it likely reflects the fact that a few respondents in the singles cluster did experience a short period in which they were in a couple (see also Fig. 4).

Concerning Cluster 3 compared to Cluster 1, migrants are more likely to be in mixed trajectories compared to co-residential marriages, and this effect remains after controlling for the other characteristics (Models 2 in Table 4). Model 2B shows that women are more likely to be in the

Table 4. Multinomial models of the four relationship trajectories clusters.

Cluster 1: Co-residential marriages (ref.)								
Cluster 2: Singles								
	Model 1A		Model 1B		Model 1C		Model 1D	
	RRR	S.E.	RRR	S.E.	RRR	S.E.	RRR	S.E.
Migration experience (No = ref.)	1.251	0.336	0.914	0.277	0.75	0.26		
Migration experience by gender (None = ref.)								
Male migration							1.224	0.454
Female migration							2.166	1.284
Male and female migration							0.351***	0.151
Gender (Male = ref.)			0.798	0.205	0.656	0.208	0.753	0.218
Education ($\leq$ secondary = ref.)			1.359	0.377	1.355	0.376	1.395	0.392
Number of children			0.374***	0.041	0.376***	0.041	0.372***	0.041
Akan (No = ref.)			1.07	0.274	1.065	0.274	1.096	0.284
Cohort ($\leq$ 1950 = ref.)								
1951–1960			0.438**	0.173	0.442**	0.175	0.418**	0.167
$\geq$ 1961			0.553*	0.201	0.569	0.208	0.552*	0.203
Financially satisfied			0.966*	0.02	0.965*	0.02	0.968	0.02
Economically active			0.924**	0.032	0.922**	0.032	0.922**	0.032
Gender##Migration experience					1.875	1.004		
Cluster 3: Mixed								
	Model 2A		Model 2B		Model 2C		Model 2D	
	RRR	S.E.	RRR	S.E.	RRR	S.E.	RRR	S.E.
Migration experience (No = ref.)	2.153***	0.554	2.439***	0.695	2.588***	0.926		
Migration experience by gender (None = ref.)								
Male migration							2.982***	1.091
Female migration							2.537*	1.361
Male and female migration							1.950*	0.697
Gender (Male = ref.)			1.520*	0.35	1.669	0.54	1.633*	0.421
Education ($\leq$ secondary = ref.)			1.112	0.297	1.109	0.296	1.124	0.301
Number of children			0.692***	0.06	0.694***	0.06	0.689***	0.06
Akan (No = ref.)			0.691*	0.159	0.697	0.161	0.697	0.160
Cohort ($\leq$ 1950 = ref.)								
1951–1960			0.638	0.277	0.636	0.276	0.644	0.280
$\geq$ 1961			1.817	0.721	1.803	0.717	1.822	0.723
Financially satisfied			0.938***	0.017	0.938***	0.017	0.938***	0.017
Economically active			0.996	0.034	0.995	0.035	0.995	0.035
Gender##Migration experience					1.038	0.495		
Cluster 4: Non-residential marriages								
	Model 3A		Model 3B		Model 3C		Model 3D	
	RRR	S.E.	RRR	S.E.	RRR	S.E.	RRR	S.E.
Migration experience (No = ref.)	1.632**	0.364	2.095***	0.499	1.382	0.409		
Migration experience by gender (None = ref.)								
Male migration							1.874**	0.620
Female migration							1.488	0.739
Male and female migration							2.594***	0.778

(Continues)

Table 4. (Continued)

	Cluster 4: Non-residential marriages							
	Model 3A		Model 3B		Model 3C		Model 3D	
	RRR	S.E.	RRR	S.E.	RRR	S.E.	RRR	S.E.
Gender (Male = ref.)			2.204***	0.431	1.525*	0.38	2.188***	0.466
Education ($\leq$ secondary = ref.)			0.952	0.221	0.946	0.22	0.941	0.219
Number of children			1.209***	0.083	1.219***	0.084	1.212***	0.084
Akan (No = ref.)			1.028	0.203	1.034	0.204	1.034	0.204
Cohort ($\leq$ 1950 = ref.)								
1951–1960			0.781	0.25	0.802	0.258	0.759	0.244
$\geq$ 1961			1	0.305	1.051	0.322	0.977	0.298
Financially satisfied			1.004	0.016	0.951*	0.028	1.003	0.016
Economically active			0.953*	0.028	1.004	0.016	0.953*	0.028
Gender##Migration experience					2.473**	0.999		
Observations	868		840		840		840	
Log likelihood	−1153.759		−964.78377		−961.2676		−952.88102	
DF	9		33		36		39	
Chi ²	24.62		326.89		333.93		350.70	
Pseudo R-squared	0.011		0.145		0.148		0.155	

Source: MAFE-Ghana data, 2009–2010; Note: All models controlled for survey country.

*** $p < 0.01$.

** $p < 0.05$.

* $p < 0.10$.

mixed cluster: they are less likely to have children and are financially less satisfied. Although previous scholars indicated that being part of matrilineal descent groups increases the probability of divorce (Takyi & Gyimah, 2007), we did not find an effect of matriliney (i.e. Akan). The interaction between migration experience and gender reveals no significant differences between men and women concerning the effect of migration. Additionally, the variable capturing whom in the couple migrated (Model 2D) revealed significant results for all couples with migration experience compared to non-migrants, irrespective of who in the couple had migration experience.

In Models 3, we examined the probability of being in the cluster non-residential marriages versus co-residential marriages. Migration increases the likelihood of being in a non-residential marriage (Model 2A and 2B), although this only holds for female migrants (Model 2C). Model 3B shows that, in line with our descriptive findings (Fig. 2), women are more likely to be involved in non-residential marriages. These marriages are also more likely to have more children compared to co-residential marriages. Those in this

cluster are less likely to be economically active. Model 2D shows that the likelihood of being in a non-residential marriage is higher for couples that have experienced independent male migration, or where both spouses migrated.

As for our control variables, we found that educational attainment is not differentiating between any of the clusters. While larger family size is negatively related to the singles cluster and the mixed cluster, it is positively related to the non-residential marriage type. We also estimated the effects of having no children compared having at least one child (results not shown). The same significant effects were found, but because we found clear evidence of a linear relationship between the number of children and the respective clusters, we decided to use the latter variable. We find that respondents from older birth cohorts (born before 1950) are more likely to be part of the singles cluster, but no cohort effects were found for the other clusters. Subjective wealth status is negatively related to all three clusters, meaning that compared to those in a co-residential marriage, all others are more likely to have experienced periods where they were unhappy with

their financial situation. Singles and those with non-residential marriages are also more likely to have experienced periods of unemployment.

CONCLUSION AND DISCUSSION

In this paper, we studied relationship trajectories, and how these developed over time, of Ghanaians in young adulthood. We looked at relationship status and living arrangements simultaneously to gain insight into the relation between international migration and Ghanaian couples' relationship trajectories. Our contribution to the literature is twofold: first, we contribute to migration studies that typically study one aspect of migrants' behaviour at a specific point in time by exploring Ghanaian relationships over time using a dynamic life course perspective (Wingens *et al.*, 2011). Second, we contextualise our study of relationship trajectories by taking the practice of non-residential relationships into account. Our work purposefully links this practice at origin to migration by comparing Ghanaians with and without international migration experience. Additionally, we explored the gendered nature of both migration and relationship histories (e.g. Hill, 2004; Gallo, 2006).

First, we found that relationship trajectories of Ghanaian couples are very diverse. This indicates that just looking at relationships at one point in time is not sufficient to understand how they evolve over time and how they might differ for migrant and non-migrants. This also relates to our finding that non-residential unions, both married and unmarried, are commonplace irrespective of migration experience, exemplifying that this type of arrangement is not necessarily brought on by international migration. The frequent changes between co-residential to non-residential marriage are illustrative of a high mobility of Ghanaians, both in terms of internal moves and international migration (Anarfi *et al.*, 2003; Twum-Baah, 2005).

The complexity in relationship trajectories is reflected in the four typical clusters that captured the wide diversity in a more simplified way: (1) co-residential marriages; (2) singles; (3) mixed trajectories; and (4) non-residential marriages. These clusters point out that there is a group of couples who are mainly in a co-residential

marriage and a group in which non-residential marriage dominates. The latter refers to the largest share of our study sample. At the same time the mixed trajectories-cluster is the most heterogeneous, capturing mainly unmarried unions and respondents that were divorced or separated. Our multinomial logistic regression on the factors associated with the four types of relationship trajectories did not show a correlation between being in the cluster that is predominated by singlehood and having experience with international migration. Migrants are more likely to be found in the cluster of non-residential marriages, in particular migrant women. Female migration is a significant phenomenon in Ghana, with around half of all migrants being women (Anarfi *et al.*, 2003). Additionally, there are a high number of female-headed households in Ghana (Manuh, 1997; Takyi, 2001; Takyi & Gyimah, 2007). Non-residential marriages might also be the outcome of migration, considering the fact that having a spouse abroad can provide more financial stability.

Furthermore, migration experience is also positively associated with the mixed-trajectories cluster. Two types of relationship trajectories are central in this cluster: trajectories characterised by divorce and by unmarried unions. Although information about divorce prevalence in Ghana is scarce, several studies have pointed to high divorce rates in general (Tabutin & Schoumaker, 2004; Takyi & Gyimah, 2007). Additionally, migrants are, under certain conditions, more likely to experience divorce or separation, either because of more unstable relationships as a consequence of international migration or because they migrate to escape unhappy marriages (e.g. Landale & Ogena, 1995; Hill, 2004; Frank & Wildsmith, 2005; Andersson & Scott, 2010). Compared to the other clusters, the mixed cluster captures relatively the most unmarried unions. Corroborating previous studies, migration experience is also associated with a greater likelihood of being in an unmarried union (e.g. Landale, 1994). This is in line with the results of our sequence analyses that show that migrants are more often in unmarried unions, and that they also remain in these unions for longer periods of time, entering into marriage at later ages. This indicates evidence for the *disruption hypothesis* (Kulu, 2005; Milewski, 2007), whereby migration results in a

postponing of family behaviours. To what extent our results are because of selection of migrants, with different (family) behaviours, is difficult to test with our data. Although we included individual characteristics in the analyses to account for compositional differences between the groups, there are potentially additional unobserved characteristics we do not account for but which may lead to support for the selection hypothesis. To further test this, future work needs to cover lives of migrants and non-migrants even more detailed in order to be able to differentiate between disruption and selection effects. Finally, non-residential marriages are prevalent among all layers of Ghanaian society, and it has been practiced historically as well as today (Oppong, 1970; Manuh, 1999; Coe, 2011). There is no link to international migration and non-residential relationships, indicating that *socialisation* to some extent shapes current family behaviours.

Being part of the singles cluster is related to belonging to the older age group. Additionally, respondents belonging to this cluster are mostly economically inactive and unsatisfied with their financial situation. Considering this and the fact that they were of marital age when the first economic crisis hit Ghana hard plausibly made them less attractive in the marriage market and, as such, increased the likelihood of being and remaining single.

Our study raises more questions on the interrelatedness of migration and family formation that should be addressed in future studies. While our sample size did not allow for carrying out separate analyses for men and women, future research could carry this study further by scrutinising gender differences. Additionally, our aim was to compare migrants and non-migrants, leading to a limitation in the migration specific characteristics of the individual that we could cover. It would, however, be an attractive avenue to investigate whether certain migration characteristics, such as the timing of migration, the specific country of destination, and the duration of migration, shape relationship trajectories. These characteristics could then shed light on the causality of the relationship between migration and relationship trajectories, something we were unable to tackle in our analyses. In addition to adopting a dynamic perspective to relationship trajectories, we incorporated both co-residential

and non-residential living arrangements in our study, which advances previous studies that assumed close physical proximity in studying relationships. However, we were not able to simultaneously disentangle between living apart together nationally and internationally. While we opted for the latter, we strongly encourage future studies on this topic to probe the mechanisms behind living apart together nationally versus internationally.

Admitting these limitations, this study is among the few that examined the linkages between union formation, living arrangements, and international migration. The MAFE-Ghana enabled us to do so, by offering detailed retrospective information relationships and living arrangements of migrants and non-migrants. This comparison between migrants and non-migrants showed that international migration shapes relationship trajectories to some extent, but it also reveals that some types of living arrangements are related to socio-cultural practices at origin. The latter emphasises the importance of taking the origin contexts into account when studying processes related to international migration.

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ENDNOTES

1. A small number of respondents ($n = 35$) returned to Ghana during the period of observation in our analytical sample. Their small number prohibited separate analyses, but a descriptive overview of our independent variables by migration status (not included in this paper, available upon request) indicated no problems with return selectivity.
2. We checked the sensitivity of our models through additional analyses with models that have only time constant variables (gender, Akan and cohort) (results not included in this paper, available upon request). The differences between these basic models and the subsequent models as reported in the paper are marginal. Particularly, no differences were found considering our key variable of interest.

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