How do Migrants' Processes of Social Embedding Unfold Over Time?

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Abstract

In this article we investigate how migrants' processes of social (dis-)embedding in local and transnational contexts unfold over time and illustrate their driving forces. Drawing on unique longitudinal, mixed-methods social network data of 77 transnational migrants in Barcelona, Spain, we were able to capture changes in social relationships at a micro-level. We found that migrant embedding is far from a linear process. In many regards, the observed network dynamics are similar to those the literature observed for non-migrants; for example, the more substantial changes were typically caused by life events. We also found that migrants' opportunities to form new relationships with natives depended on their positions within their places of residence, which were structured by gender, race and class. These results call into question assumptions of individual agency in integration and assimilation debates. Furthermore, they call for a greater presence of temporality and life course scholarship in research into migrants' social networks.

Keywords: Embedding, life course, migrants, network dynamics, social networks, transnationalism

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Introduction

Research has long emphasized the importance of migrants' personal relationships for their settlement in the country of residence, (re-)migration decisions, and wellbeing (see introduction to this special issue). In classical assimilation theory, ties to natives have been regarded as an indicator of *structural assimilation*, defined as "entrance of the minority group into the social cliques, clubs, and institutions of the core society at the primary group level" (Gordon, 1964: 80), and considered a "catalyst" (Alba & Nee, 1997, p. 830) of other forms of assimilation. They would help blur ethnic boundaries, erase discrimination, lead to intermarriage, and shape a common identity.

Along with other criticisms on theories of assimilation – and of integration, a related term used more frequently in Europe (Schneider & Crul, 2010) –, scholars have questioned the methodological nationalism implicit in these theories, which focus only on that part of the migration experience that falls within the boundaries of the receiving nation states, reproducing states' projects (for example, Glick Schiller, Çaglar, & Guldbransen, 2006; Wimmer & Glick Schiller, 2002). They have also shown how these concepts naturalize ethnic categories and the migrant label (e.g., Dahinden, 2016), and ignore the internal heterogeneity of "ethnic communities".

Other ways of conceptualizing the migrant experience have therefore emerged. A concept that focuses explicitly on the "role of concrete personal relationships and structures (or "networks")" (Granovetter, 1985, p. 490) in individual action is *embeddedness*. In the context of migration, Korinek, Entwistle and Jampaklay (2005, p. 780; cf. Ryan, 2018) defined embeddedness as "social relationships that foster a sense of rootedness and integration", a definition that is neither specific for migrants, nor does it prescribe the type of persons or their places of residence that should give them a sense of rootedness.

> Embeddedness emerges through a variegated web of social ties, some of which link migrants to kin, co-villagers, and others with whom they are familiar and share a common background, and others of which link migrants to new, diverse, urban-based folks who share their new environment. (Korinek et al. 2005: 782).

Given the interest in migrants' embeddedness in local and transnational social systems however, it is key to understand the *processes* of becoming embedded in them, that is, *embedding* (Ryan 2018). A similar concept to embedding is *emplacement* (Glick Schiller and Çağlar 2016), defined as 'the social processes through which a dispossessed individual builds or rebuilds networks of connection within the constraints and opportunities of a specific city' (Glick Schiller and Çağlar 2016: 21), which again stresses network formation, apart from highlighting the inherent association they have with 'space, place and power' (2016: 21). Yet there is remarkably little empirical research into network embedding or emplacement of migrants. Classical and new assimilation theories have mostly assumed that assimilation is progressive in the long run (Alba and Nee 1997, 2003), for all dimensions, whether viewed as a linear function of time (Gordon 1964), a 'bumpy line' with ups and downs (Gans 1992), or a halted line, where it increases until it reaches a certain upper limit (Glazer and Moynihan 1963). Later models foresaw multiple trajectories or modes of assimilation (for example, Portes and Zhou 1993; Stepick and Stepick 2010; Zhou 2014), the optimal one being progressive. But what do migrants' processes of network embedding and dis-embedding look like in real life, and what determines their course?

This article aims to shed light on this issue based on longitudinal data from 77 trans-national migrants in Spain. We adopted an innovative mixed-methods, social network approach that captures how migrants' personal networks change at a micro-level, as well as respondents' narratives and meaning-making surrounding these changes. A network approach to embedding can overcome both the ethnic lens and methodological

nationalism (cf. Dahinden 2013), as we discuss in the next section. We address two exploratory research questions: first, how do migrants' processes of network embedding and disembedding unfold over time? Second, what factors weigh in on the direction or depth of (dis-)embedding? The following section briefly presents the theoretical framework and explains the novelty of our approach. After presenting the methodology, we first describe two cases in depth, to help readers understand the complexity of the data and the network processes at the micro-level, and then discuss transversally emerging patterns observed in the whole sample. Finally, we summarize our findings and discuss areas for future research.

A social network approach

Theories and methods of social network analysis for the study of embeddedness (for example, Granovetter 1985) have gradually been incorporated in migration research (for a review, see Lubbers et al. 2020, and the introduction to this special issue). Network tools, focused on relationships between actors, allow researchers to examine, qualitatively and/or quantitatively, the interpersonal relationships migrants have with kin, friends, and a wide array of others, and if and how these relationships are associated with migration decisions, trajectories, and outcomes. Rather than imposing artificial geographical boundaries on the networks as surveys do when they ask for example about migrants' friendships in a given country, social network analysis allows researchers to enquire about network members regardless of where they live, and to collect information about their places of residence and origin (Dahinden 2013). This focus on spatially unbounded networks of relationships supports the notion of transnationalism that for most migrants, 'aspects of life "here" and life "there" ... are constantly monitored and perceived as complementary aspects of a single space of experience' (Vertovec 2007: 154). The personal network, of ties geographically near and far, thus reflects an individual's 'small

world' (Bidart 2012: 268), in relational terms, and can give insight into sociability patterns while avoiding the pitfalls of ethnicity-centrism and methodological nationalism of earlier research (cf. Dahinden 2016).

However, if we aim to understand how individuals *become* more rooted in social systems, how they *maintain* transnational relationships, and how their *trajectories* are intertwined with those of others over time and space, it is crucial to explore the temporal dimensions of social networks (Ryan and D'Angelo 2018). Unfortunately, despite the recognition that networks are inherently dynamic, and that they both structure individuals' life histories and are structured by them, most empirical research into migrant networks is cross-sectional (but see for exceptions Hosnedlová 2017; Lubbers et al. 2010; Wissink and Mazzucato 2018). Temporality has been quantitatively studied by correlating individual indicators of assimilation or similar concepts with the years of residence in the country of settlement (for example, Harder et al. 2018), which gives us little insight into the individual evolution of embedding and its underlying causal mechanisms. Qualitative network researchers may adopt a life history approach to explore temporality, but its retrospective nature still limits an understanding of broader network processes, as it biases the narrative toward the present, and toward ties that are better memorized (stronger, more enduring, or more consequential ties; for example, Brashears and Quintane 2015). Consequently, the evidence of how and why migrants' network embedding in local and transnational social systems unfolds is scarce.

To depart from the conception of migrants' networks as static, deterministic structures, we adopted a longitudinal, mixed-methods network approach that allowed us to track the changes in networks over time at the micro-level, while also capturing the narratives of respondents regarding the changes they perceive in their lifeworlds, as well as regarding *networking* (Schapendonk 2015), namely, the changeability and

mobilization of social relationships. This empirically demanding combination of the structured measurement of larger personal networks and semi-structured interviewing, in each of up to three waves, allows us to appraise temporality in networks in an unprecedented way, shedding new light on network embedding and disembedding among migrants.

An important observation in the literature about personal network formation and maintenance in the general population is that humans often form relationships around *social foci*, defined as 'social, psychological, legal, or physical entit[ies] around which joint activities are organized (e.g., workplaces, voluntary organizations, hangouts, families, etc.)' (Feld 1981: 1016). This concept connects networks with specific places, which is useful in the study of embeddedness and emplacement. Foci give opportunities for repeated interactions that allow people to create new relationships and to maintain existing ones. Often, foci attract people who are somehow similar (Wimmer and Lewis 2010); for example, in work environments, individuals mostly meet people with similar educational levels, and neighbourhoods are often rather homogeneous in income level.

A second observation is that life events, such as job loss, widowhood, or divorce, have major effects on the structure and composition of personal networks (for example, Wrzus et al. 2013), because they create different needs for social support and/or imply attendance to new social foci or withdrawal from old ones. This causes network change. We therefore argue that it is relevant to take the life course into account when studying personal network dynamics. But even among people who do not experience major life changes over a certain period, personal networks tend to be highly fluid in the general population. For example, Marin and Hampton (2019) found a turnover of 47 per cent in active network members over a year for people with relatively stable lives, suggesting that networks are in constant flux even among non-migrants.

Finally, related to social foci, Ryan (2018) stressed that embedding may be uneven across different layers or sectors of society, such as family, work, and neighbourhood. In each, she suggested that a person's embeddedness may range from 'hollow' to 'functional' and 'full' at any moment, depending on the type, strength, and duration of individuals' relationships in that sector. Conceptualizing embedding as multi-layered can more realistically represent the migrant experience.

Methodology

Our research took place in Spain. Traditionally an emigration country, Spain experienced a steep increase in the percentage of immigrants between 2000 and 2010 (namely from 2 to 12 per cent of the overall population (Instituto Nacional de Estadística 2019)). Between 2004 and 2006, when the rate of immigration surpassed 7 per cent (Instituto Nacional de Estadística 2019), a team of researchers interviewed approximately 300 transnational migrants residing in the province of Barcelona, Spain, using snowball and other sampling techniques.[1] In 2007/08,[2] 77 of them were re-interviewed. Finally, in 2012/13,[3] 28 respondents of previous rounds were re-interviewed (and 22 respondents of another project, not included here). Twenty-five people were interviewed three times.

We selected the 77 respondents from Wave 2 for whom we had longitudinal data over two or three waves and who were born in Argentina (N = 25), the Dominican Republic (N = 15), Morocco (N = 21), Senegal and Gambia (N = 16). Moroccans were the largest group of immigrants in Spain between 2005 and 2007, and the second largest group in the other years of data collection (Instituto Nacional de Estadística 2019). Young men arrived first, but women and children came later (Cebolla Boado et al. 2009). Sub-Saharan immigration, primarily from Senegal, Nigeria, Mali and Gambia, has a smaller volume and is predominantly male (Instituto Nacional de Estadística 2019). In contrast, Dominican migrants in Spain are more often female (Instituto Nacional de Estadística

2019). These groups tend to be employed in the lower segments of the Spanish labour market. In contrast, Argentinean immigration is balanced in gender terms and more diverse in occupational status (Esteban 2013). Argentinean respondents in our study also reported lower levels of racism and discrimination than others. In Wave 1, respondents' average length of residence in Spain was 5.4 years, and 43 per cent were women.

We used a mixed methodology. First, we administered a structured CAPI interview, implemented in EgoNet.[4] We started with questions about respondents (for example, year of arrival in Spain, occupation, age). Subsequently, respondents elicited a list of 45 active network contacts, responding to a freelist name generator (Lubbers et al. 2007):

> Please give us the names of 45 persons you know and who know you by sight or by name, with whom you have had some contact in the past two years, either face-to-face, by phone, mail or email, and whom you could still contact if you had to. These can be any persons. Please try to include those people who are close and important to you. You can also include persons who are not that close, but you are seeing a lot.

With the fixed, high number of persons (45), we intended to capture a wider part of respondents' social contexts, including not only strong contacts (for example, partner, relatives), but also people whom respondents contacted frequently or who were otherwise important to them. The high number ensured the inclusion of people from different social and geographical contexts. As the question is open, respondents easily came up with 45 names. Previous studies have shown that the number of network members respondents freely mention depends on their energy level, collaboration, memory, and on interviewer skills, and is thus not a good measure of network size. Fixing the number of names means that unobserved differences in size become visible in observed differences in the proportion of emotionally close relationships (Lubbers et al. 2007).

After eliciting a list of network members, respondents reported the countries of origin and residence of each network member, the type of relationship, the emotional proximity they felt toward him/her on a scale from 1 (not close at all) to 5 (very close), and the relationship duration in years. Finally, to visualize network structure, we asked about the relationships among network members.

Subsequently, we displayed the network visualization to respondents (comparable to the figures in this article, but with labels displaying the names of network members). This formed the starting point for a semi-structured interview, which was tape-recorded with consent. Respondents were first asked to reflect narratively about selected network members 'How did you know X?', relationships (for example, 'How come that Z [living in the respondent's country of origin] knows your colleagues?'), groups ('Could you tell me a little bit more about this group of four: who are they?') and networks ('You mentioned Spaniards in your work environment. Do you know any other Spaniards?'). The answers helped us validate and interpret networks and understand their meaning to respondents, bringing the networks 'to life'. Other questions concerned the migratory trajectory, transnationality, identity formation, and sense of belonging.

In Waves 2 and 3, new lists of names were elicited, and only afterwards did the interviewers and respondents compare the new list with the one(s) elicited in the previous interview(s), prepared beforehand by the researcher, to distinguish between repeated, no longer nominated and newly nominated ties. This allowed us to compare different 'snapshots' of the individual's network over time to detect changes. In addition, the reported duration of newly nominated relationships allowed us to distinguish between new ties (namely, met *after* the previous interview) and (re)activated ties (first-time nominees known *before* the previous interview). In the semi-structured interviews, respondents were asked to reflect narratively on network changes (for example, 'Do you

no longer have a relationship with Y?'), which helped us understand the development between snapshots.

Interviews lasted between 40 minutes and 4 hours. Variation in interview time was mainly caused by the semi-structured part and the wave of data collection. To protect the identities of respondents and network members, names were replaced by pseudo-nyms, and some characteristics were intentionally left out (for example, precise age or time of residence, place of living).

Two cases

This section describes how the networks of two respondents changed over time. We selected two cases that together best illustrated the transversally emerging themes in the data (see next section), among the ones that participated in all three interview waves.

Elena

Elena, a young Argentinean woman, came to Spain after meeting David, a Spaniard she fell in love with and married the year upon her arrival. At her first interview, she had lived in Spain for just a few years and she had become a mother. Having work experience in education, she was in the process of getting her credentials recognized in Spain.

Her husband and two Argentinean friends living in Spain formed the core of her network (triangle in Figure 1). They were connected to most of her other relationships in Spain and abroad. Although she mentioned nine, primarily strong contacts in Argentina, most contacts were locals. Interestingly, Elena nominated no fewer than 12 in-laws with whom she felt close or very close. In Ryan's (2018) terms, she had a 'full' embeddedness in the local family. In addition, she nominated friends of her husband, so her social life depended quite strongly on him. Her own local contacts, beyond the core, were classmates

from a Catalan language class, and seven Argentineans living in Spain, with whom she had mostly weak relationships (indicated by node size).

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–Figure 1 about here–

Two years later, Elena was struggling. As a mother, she was disappointed with the lack of support of her in-laws (except her mother-in-law) with raising her toddler. Consequently, she nominated considerably fewer in-laws than before (see Figure 2). Elena missed the presence and support of her own family. She recalled that she and her sister had been pregnant simultaneously, but they had not seen each other during pregnancy. It had been a while since she visited Argentina, because it was expensive to travel. 'It is hard to return [to Argentina]', she said, 'Every time I see my mother older, it is harder for me to leave her behind.' To Elena's frustration, her diploma had not been recognized in Spain, so she could not secure a job in education. She hoped to find work soon, but for jobs that matched her level of education and experience, she would need to speak Catalan, which she found incomprehensible because 'everyone speaks Spanish [in Catalonia]'. She also found it difficult to keep studying Catalan being a mother, as classes were held in the evenings. Elena's network had changed in composition: 58 per cent of

the ties mentioned in Wave 1 were not nominated in Wave 2. Nonetheless, the overall structure was comparable, with her husband and two friends again occupying the core, bridging local and transnational relationships. Yet this time, most network members resided in Argentina (26 persons, versus 9 in Wave 1). When asked how she maintained all those contacts in Argentina, she responded: 'A pile of letters. My students keep sending me letters. For my birthday, when I got married, when I was pregnant. ... My mom knows them.'[5] However, she did not feel close at all with 9 newly nominated Argentineans.

–Figure 2 about here–

Elena's emotional bond with Spain was still weak:

> I like the people there [in Argentina]. If I must go, I return with peace of mind. I would miss the comfort, the organization is better [in Spain], everything's cleaner, but, on a sentimental level ... I miss the feeling, the touch, the contact and here I have nothing.

She and David had been thinking about living in Argentina, a country David loved, but Elena rejected it for his sake and his mother's:

> We have always thought of going to live there with [David], but I cannot allow my husband to kill his mother, I don't want him to suffer what I suffered. ... I have a house [in Argentina], we can return. ... I could go back to work in a [indicates type of school] there, we [her former employer and she] are very close friends.

Nonetheless, her effort to maintain the friendship with her former employer (blue node in Figures 2 and 3) kept the window of opportunity for remigration open.

Almost five years later, we interviewed Elena again, and found that 56 per cent of the ties mentioned in Wave 2 were not nominated in Wave 3. Elena now had a second child, but what had really transformed her social life was her firstborn's entry to primary school. Her network (see Figure 3) showed the emergence of a new local cluster of parents (on the upper right hand), all but one Spanish, whose children attended the same school

as her firstborn. Seeing these people daily for two years, meeting them weekly for coffee, and arranging opportunities for their children to play together made them important to her, as expressed by the label she used for many ('friends') and the reported emotional closeness ('very close'). The child's school thus allowed her as a mother to become more fully embedded in local networks and more independent of her husband's social life. School-related sociality is often performed by women (cf. Ryan 2018; Ryan and Mulholland 2015).

Again, the same three persons formed the core of her network, although now only David bridged local and transnational contexts. Her two Argentinean friends, who had also become more settled, were now mostly related to other local ties, resulting in a higher network modularization. Elena still nominated many ties in Argentina: fewer than in Wave 2, but more than in Wave 1, mostly friends and relatives. Her mother (the dark green node) was central in her overseas network.

In sum, Elena's individual migration trajectory and marriage with David emplaced her directly in contact with Spaniards. A comparison between the three snapshots of Elena's network shows that her embedding is not linear nor unidirectional, but rather oscillating or 'bumpy' (Gans 1992). Some of that fluctuation may be random, depending on who was and was not recalled. Yet Elena's life events caused the more substantial network changes, because they created new needs for support and new domains of sociability: her marriage created a new family context, motherhood increased the need for family support, and the child's transition to school gave access to a new socialisation

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Furthermore, obstacles of the structural context such as the recognition of credentials and language problems impeded Elena to become embedded in work contexts. Elena's case also illustrates that network members have dynamics of their own: they age, move or become more settled, which may bring them closer or distance them from respondents. Last, her network shows that contacts in the country of origin remain meaningful even after many years abroad, and despite the distance.

Khalid

We now turn to Khalid, a young man born in Morocco, who migrated to Spain as a teenager with his parents and siblings. They settled in a large Catalan town where they had relatives and where about a quarter of the inhabitants had foreign origins. There, Khalid went to secondary school. Initially, he had difficulties understanding the language and the system, but now he speaks fluent Catalan. At the time of his first interview, he had just graduated from secondary school and worked at a local restaurant. His network members (see Figure 4) formed two loosely related clusters, one (on the left) of Moroccan-born relatives, neighbours, a schoolmate, and one Spanish-born co-worker, and the other (right side) of Spanish-born bosses, colleagues, and people from the neighbourhood. The network was mostly local, except for two relatives who had recently moved from Spain to another European country and one person in Morocco. Although Khalid had relatives in Morocco and went there yearly, he did not nominate them.

–Figure 4 about here–

Three years later, Khalid worked long shifts for another employer at night, six days a week. The turnover in his network (see Figure 5) was 62 per cent, comparable to that of Elena. He had lost contact with a few former school- and workmates after changing jobs, so the vast majority of network members was Moroccan-born. Two relatives and a neighbour had moved from Spain to the same European country where his other relatives lived. He saw them yearly because they passed through Catalonia on their way to Morocco. His brother was particularly central in his network, because "he chats with everyone". When asked about his sister marrying a cousin, he touched upon his own future:

> Many [Moroccan] parents want their child to get married in the family, to me they also want to do it ... they ask if you like one of them [girls] and ask for their hand, it's a custom of Morocco, a bit old-fashioned ... it's more usual that it's family there, you do them a favour, a country of the future. ... At the moment, I don't think about marrying, I'm [age]. If I fall in love, I don't mind if she's Catalan or Moroccan. I don't think about marrying, not at the moment. There, many girls want to marry you, because you're in Europe and they want to come here. It's different when you live there without a future.

–Figure 5 about here–

Four and a half years later, Khalid's network again showed a turnover of 62 per cent (see Figure 6). A few months earlier, Khalid had married Mounia in Morocco. She still lived there, but she would soon join him in Spain. Mounia and her relatives appeared as new nodes in his network, as did many of his own relatives in Morocco, whose presence and importance were strengthened with the wedding.

Khalid still worked with the same Spanish employers and co-workers, and over time, he had started to know people connected to them, and they had become more acquainted with his family. The larger presence of family and higher embeddedness of work contacts gave the network a high density.

Due to his night shifts, Khalid seldom went out, he only met up for a coffee. Most of his friends (beyond the elicited network), about half of them Spanish-born, were not connected to one another, rather 'one here, one there, I don't have a fixed group'. Again, Khalid had lost contact with people from previous interviews: quite a few Moroccans had gone back to Morocco in the context of the economic crisis. Also, he had stopped seeing others with whom he had little contact: friends from high school who got married, a local shop owner who closed shop.

In short, despite Khalid's household migration and emplacement in a town with considerable immigration, his network had 17 Spanish-born people in Wave 1, when he just graduated from high school. Over time however, he became more work- and family-centred (from 10 to 19 to 34 relatives), and his network presents a mixture of strong ties with Moroccans and somewhat weaker work ties with Spaniards, some of whom not mentioned in the network. The network also became considerably more transnational over time as a by-product of a life event (marriage) and temporal fluctuations (his recent time in Morocco). Khalid never contemplated remigration and identified consistently as Moroccan-Catalan.

–Figure 6 about here–

Micro-mechanisms of relational (dis-)embedding

Neither of the two cases shows a tendency toward increased local embedding or decreased transnational embedding, as classical assimilation theory would predict. Rather, Elena's embeddedness fluctuated over time: her local embeddedness was seemingly integrated, but uneven and highly dependent on her husband in Wave 1, weaker in Wave 2, and much more solid in Wave 3. Elena maintained her main transnational contacts. Khalid's local embeddedness was strong throughout, but his transnational embeddedness grew over time, or became cognitively more important. These changes responded to structural

conditions (for example, the inability to work in education, in Elena's case), life events (for example, marriage, new jobs, child's transition to school) and temporal events (summer holidays). Structural conditions and life events have gendered effects due to men and women's different socialization patterns. Moreover, life events tend to be specific for certain life stages. The two networks show a great complexity in terms of their evolving morphology and the micro-mechanisms guiding the dynamics.

In this section, we amplify our lens to the 77 cases for whom we observed network change over two or three waves, to discuss transversally emerging patterns.

Turnover

Network turnover was considerable: About three fifths of the 77×45=3,465 relationships observed in Wave 1 were not observed in Wave 2. However, most newly nominated ties in Wave 2 had a duration that exceeded the interval between the two interviews. Thus, they were reactivated ties, suggesting that ties that were no longer mentioned were also inactive, 'dormant', or less prominent, rather than lost. Interestingly, this level of turnover is not unusually high compared to that of non-migrants (cf. Marin and Hampton 2019), especially considering that the networks we elicited included core and non-core ties.

In our sample, strong ties, that is ties to people with whom respondents felt close or very close, stood the test of time better than weak ties, to people with whom respondents felt less close or not close at all: half of the former, and a quarter of the latter were nominated again. Weak ties depended more on the institutional settings where they were created (for example, school, workplace), and were more likely to dissolve when decoupled from these foci.

Ties that persisted over time fluctuated in *strength*: about a quarter became stronger and a quarter weaker. These changes may reflect measurement error, spontaneous fluctuations in relationships, or expected relationship dynamics. Weak ties

were more likely to be replaced with other weak ties, however, than to develop into strong relationships, although this occasionally happened.

Meeting new people

While on average approximately 1 in 5 network members were Spanish-born in Wave 1, 1 in 3 newly nominated network members in Wave 2 were native Spaniards. Most of these ties were weak however, equally weak as new ties with co-nationals, and thus more likely to be discontinued in the future. These findings may suggest a progressive, but slow trend toward higher local embedding. However, this average trend does not represent the trajectories of individual respondents well: some people added quite a few Spaniards to their networks and others none, or lost contact with Spaniards. This raises the question: How do migrants meet new acquaintances?

Almost all new ties (namely, first met in the interval between the current and prior interview) were formed in Spain (93 per cent). They were typically met through meeting opportunities created by socialization contexts (*social foci*: neighbourhoods, workplaces, children's schools), or via friends or acquaintances (transitivity). The meeting opportunities people had in these places depended on the positions they occupied in the place of residence upon arrival, as the concept of emplacement suggests, which depended on gender, race and class. Argentineans, who tended to have higher levels of education, encountered less discrimination, and had individualized migration trajectories tended to work in the primary labour market where they had Spanish co-workers, live in neighbourhoods with many Spaniards, and know people who had Spanish friends. In contrast, the other groups tended to work in the secondary labour market with other migrants, live in neighbourhoods with many migrants, and the people they knew in Spain before arrival had few social relationships with Spaniards. Furthermore, they encountered more discrimination by natives, which hindered the formation of personal relationships

with them. Meriem, a young Moroccan-born woman who made the transition from high school to work not long before the interview, expressed how this affected her sense of belonging (cf. Berry and Hou 2017):

> I used to feel I belonged here. In school they always told me: 'you're from here, you're Catalan'. But now ... many people who don't know anything about Morocco and who only have [a Moroccan] name are rejected for jobs. 'I'll call you'. And they make you feel Moroccan. ... There are people who don't let you feel Catalan. To me nobody ever said anything, but you just know they talk badly about Moroccans. Or about the culture. And I'm Moroccan. And it makes me feel bad, you know?

Thus, in societies with a dual labour market and segregated neighbourhoods and sociability, the *same* meeting mechanisms (social foci and transitivity) helped some people become embedded in networks with natives, namely, to 'integration', and others in networks of co-ethnics or 'parallel societies' (Nannestad et al. 2008; Schneider and Crul 2010), namely, to 'segregation'.

Apart from participating in social contexts as part of going about one's life, respondents also consciously joined contexts of socialization to meet new people. Quite a few joined cultural associations to meet and socialize with compatriots, who are an important source of emotional support. Senegalese respondents also participated in 'tontines', informal rotating savings and credit systems that are also common in Senegal. This practice is instrumental, but it also aided solidarity and enforced community norms. Language classes were taken to integrate more fully in Catalonia/Spain, but initially generated more ties with other migrants.

While many socialized with compatriots, some intentionally avoided them, like Francisco from Argentina:

> Definitely, there are two groups of Argentineans, those who take charge they're here and those who plan to return or don't know. ... Emotionally they unbalance

me. I'm looking in one direction and they're looking in the other. I feel more comfortable with a Spaniard than with an Argentinean.

Of course, this was only an option because he had sufficient opportunities to develop meaningful ties with Spaniards.

Although new ties were predominantly created in Spain, the country of origin is by no means a context in decay, where relationships only dissolve. During visits to the country of origin, respondents reactivated dormant transnational relationships. Occasionally, they also met new people, often via relatives and friends.

Maintaining distant relationships

Maintaining transnational ties requires effort in terms of communication and periodic travels, and the latter was easier to arrange when the distance with the country of origin was smaller and with sufficient income. Maintaining transnational contacts was instrumental when further mobilities were anticipated. Both Elena, who was friends with her former employer, and Khalid, discussing marriage arrangements from the perspective of families in Morocco, indicated this, as did others. Whether migrants or their network members truly mobilized the opportunities embedded in their networks also depended on migration regimes, as Santiago expressed, a Dominican man in his late forties, whose brothers lived in the USA.

Interviewer: And [brother's name]'s the one who offered you to stay there in [US city]?

Santiago: Yes.

Interviewer: And why didn't you accept, if you already could have had a steady job [at brother's successful enterprise]?

Santiago: Let's see, I live here legally, I have documentation, I have a work permit and I have everything here, and I'm going to stay in the United States illegally without the hope of having the documentation to work? Unless I succeed in getting

> a woman to marry me who would facilitate the work permit, with my age ...? I'm sorry, but I stay here.

Of course, relationships that persisted over time also changed in nature. Souleymane, a Senegalese man, mentioned the *social pressure* exerted by people in the country of origin since he migrated and how he had become careful in treating with them:

> There are people who didn't know I was here. We had contact in Senegal, but not that much, and now they contact me to ask me for help ... I do what I can. [Before living in Spain] I called my sister [who already lived in Spain] and when she told me that she didn't have money I got angry myself, but now I understand. ... You need to take care when you go back, because the people there think you have a lot of money. I still haven't gone back to Senegal.

Network members also changed. Like respondents, they aged, which changed their needs for support. Respondents who had elderly parents in the country of origin, like Elena, felt pulled toward them. Furthermore, like respondents, network members (re-) migrated, settled, or circulated, between the country of origin, Spain and other countries. Some respondents had a highly mobile social environment, which affected them: contacts living in other places offered new opportunities for mobilities, whereas people who came to Spain became local contacts.

Interdependence of dyadic processes in networks

The dyadic processes described in the previous sub-sections clustered in networks, such that some networks showed a higher and others a lower turnover, or some decreased, and others increased in transnationality. Reasons for this interdependence are respondents' life histories, the intersection between structural conditions (for example, migration regimes, characteristics of places) and individuals' social class, gender, race, and other characteristics (for example, personality, language skills) – as touched upon earlier – and network structure.

Networks changed most substantially in response to critical life events (such as marriage, divorce, childbirth) and transitions. Such events (re-)activated some sets of relationships either temporally or structurally, or they created new meeting opportunities. As argued before, life events have deep impacts on personal networks among non-migrants too, yet migrants' networks are geographically more dispersed and more diverse in nationality, so these events can alter the spatial dimensions or composition of their networks. For example, divorce can generate a loss of network contacts (Wrzus et al. 2013), but for migrants, divorce from a Spanish partner can cause a loss of Spanish contacts, while the divorce from a same-origin partner may lead to the loss of same-origin contacts. Similarly, starting a family business and childbirth strengthened local family (same-origin) ties.

Fluctuations were also caused by cyclical events such as Ramadan or summer holidays in the country of origin. Ramadan increased solidarity and sociability among Muslims periodically, temporarily activating co-religious ties. Visits to the country of origin, often implying participation in feasts and celebrations, re-embedded respondents in the local context and reactivated distant ties at least temporarily, although they could also highlight the differences between respondents and their transnational contacts. Volatility in networks could also be due to chance (for example, one respondent explained how the loss of a cell phone led to a loss of contact with weak ties).

Consequently, networks were dynamic, but we did not observe a linear or non-linear tendency toward higher local embedding, at least not on the short run, or toward lower transnational embedding, after an initial period. Although networks were highly fluid (cf. Ryan 2018), most were permanently transnational.

Network *structure* also created interdependencies between dyadic processes. For example, a person can be said to be embedded within a transnational social field if his/her

network members in different countries know one another, while if only (s)he connects contacts residing in different countries, (s)he bridges the two worlds, and the effort to maintain distant ties is largely individual. In transnational social fields, the daily hassles of relatives, friends, and acquaintances in the country of origin was a source of conversation among compatriots living in Spain who shared these relationships, strengthening their ties. Also, some people were structurally important in respondents' networks, like Elena's mother, who acted as a gatekeeper (cf. 'kin keepers', Rosenthal 1985) between Elena and the family and wider community in Argentina. Consequently, their death can have cascade effects, as respondents more quickly lose touch with other relatives or friends. In most cases however, despite high turnover, network structure changed strikingly little over time.

Conclusion

This article investigated processes of network (dis-)embedding among transnational migrants in Spain over a period of maximum eight years. We analysed (1) how such processes unfold over time, and (2) what factors weigh in on the direction or depth of migrants' embedding in different sectors. We adopted a mixed-methods, longitudinal network approach and visualized a large part of migrants' immediate social contexts (45 network members each), and their spatial and temporal dimensions.

Regarding our first question, we found that post-migratory embedding is far from a linearly evolving process. Embedding is bumpy, uneven, and it seems to have as many variations as there are migrants. Indeed, each network is a small world. This finding confirms Ryan's (2018) observation of dynamic and multi-layered embedding among intra-EU migrants and highlights the potential of social network analysis to contribute to a better understanding of migrant experiences.

Regarding the second question, we observed that this process is largely shaped by factors beyond individuals' agency. This is an important contribution vis-à-vis static (for example Braun and Glöckner-Rist 2012), more individualistic (for example Martinovic et al. 2015) or agentic 'social capital' studies (for example Nannestad et al. 2008), which predict embeddedness on the basis of personal characteristics or see it as a personal achievement. We discuss four such factors.

First, to build social relationships with locals, migrants must have meeting opportunities with them. However, for the place of residence, such encounters depend heavily on local emplacement in the labour and housing markets, the cohesiveness of the primary networks of local migrants and natives in the place, and their intersection with factors such as race, gender, and social class. Due to these initial conditions upon arrival, some migrants can build relationships with local natives, whereas others, using the *same* mechanisms for building relationships (shared meeting contexts and transitivity), only become acquainted with other migrants. In this regard, networks lead to cumulative disadvantage, and researchers must be cautious not to oversee these structural factors that affect network formation. In contrast, in the country of origin, meeting opportunities seemed to depend mostly on existing social contacts: our respondents typically met new contacts via their networks ('friends of friends'), if at all, rather than in specific entities.

Second, for non-migrants, processes of (dis-)embedding are heavily marked by life events: Life events change individual needs, resources and participation in social settings, and therefore personal networks. This is well-known for non-migrants: for example, entry to the labour market increases the number of co-workers, and parenthood has people concentrate on kin ties (Bidart and Lavenu 2005; Wrzus et al. 2013). As migrants' networks can be expected to be more diverse in nationality and geographically more dispersed than those of non-migrants, life events can more easily change sources of

embeddedness. The dependence on life events also implies that embedding is structured by gender and life stage.

Third, embedding suffers from temporal fluctuations related to cyclical events (for example, summer holidays in the country of origin, Ramadan), aging, or just to chance. Again, this source of dynamics is a by-product of living one's life. Apart from spontaneous changes, networks also have endogenous, expected processes, explaining, for example, that the longer one knows someone the more embedded (s)he becomes in one's network.

Fourth, dyadic relationships involve two persons, and the changing attributes of network members (age, residential mobility) influence individuals' lives. This impact can be larger (for example, aging or migration of close network members), or smaller.

In sum, the results question the individualistic assumptions of assimilation and integration debates (Spencer 2011). Processes of migrant embedding seem to resemble network dynamics observed among non-migrants (for example, Bidart and Lavenu 2005; Wrzus et al. 2013), and we therefore suggest investigating these processes for migrant and non-migrant populations in a single study to further contribute to the 'demigrantization' of migration research (Dahinden 2016). Transcending social cleavages is a two-way process, yet research hardly focuses on the presence of migrants in the networks of natives, nor on natives' practices to build relationships with migrants. Research into migrant networks should also engage more with theories of temporality that consider the non-linearity of time, such as different phases, rhythms, cycles, and turning points often associated with life events (Bidart 2012; cf. Griffiths et al. 2013). Additionally, migration research should engage more with life course research. Our work shows that not taking life events into account and simply considering the number of native friends as a sign of 'assimilation' or 'integration' is erroneous.

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Notes

[1] National Science Foundation, project BCS-0417429 'Development of a social network measure of acculturation and its application to immigrant populations in South Florida and Northeastern Spain.'

[2] European Science Foundation, project EJ2005-25683-E 05 ECRP FP026 'Dynamics of actors and networks across levels: individuals, groups, organizations and social settings.'

[3] Ramón y Cajal fellowship of the Spanish Ministry for Science and Innovation of the first author (RYC-2010-06081).

[4] http://sourceforge.net/projects/egonet/.

[5] It is interesting to note the enduring power of letters, despite of the existence of communication technologies.

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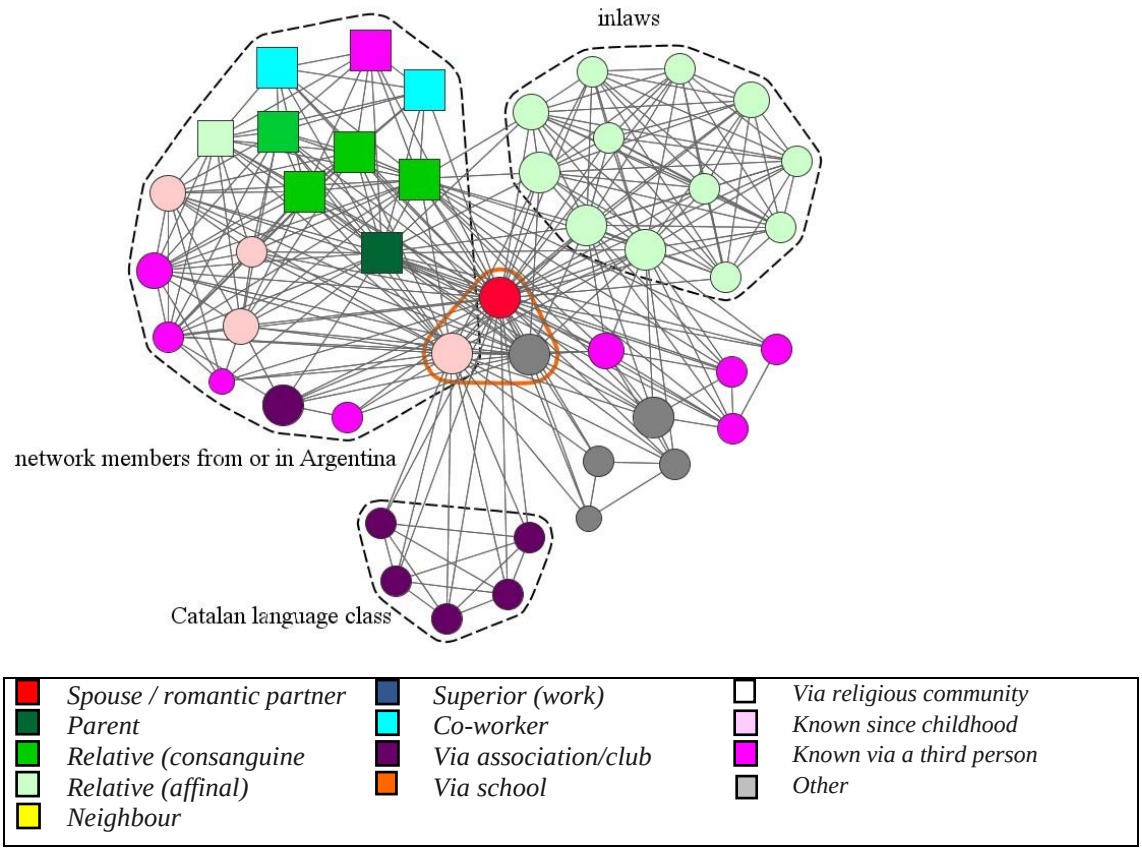
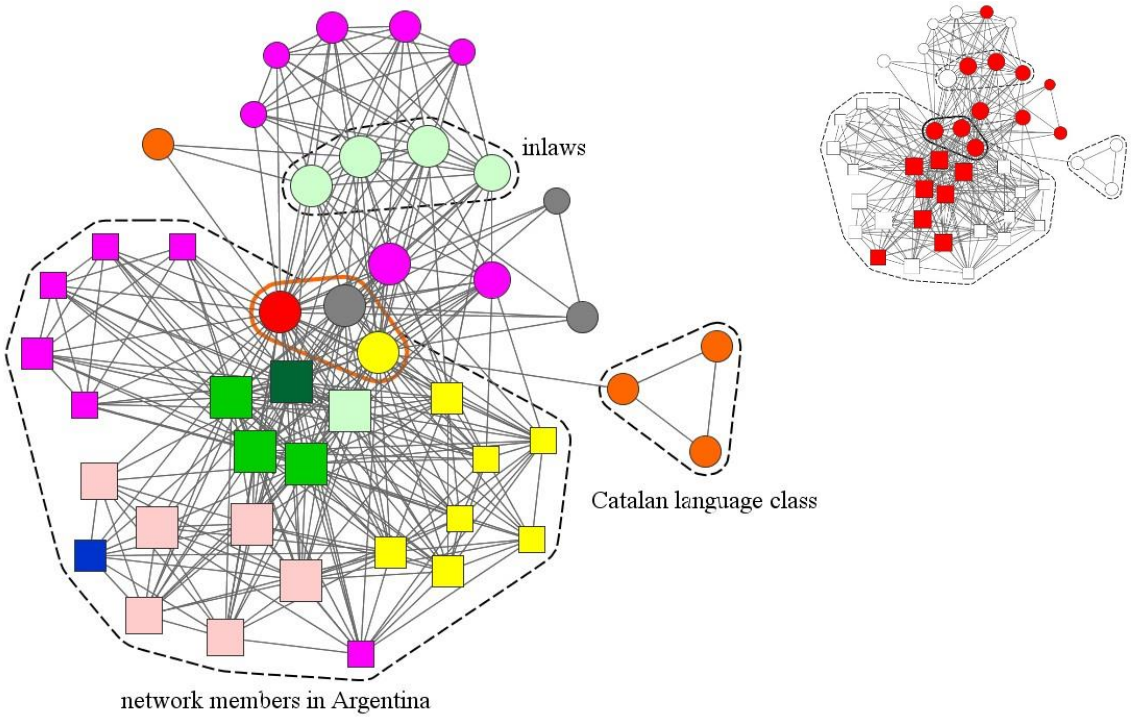
Figures

Figure 1. Elena's personal network in 2006



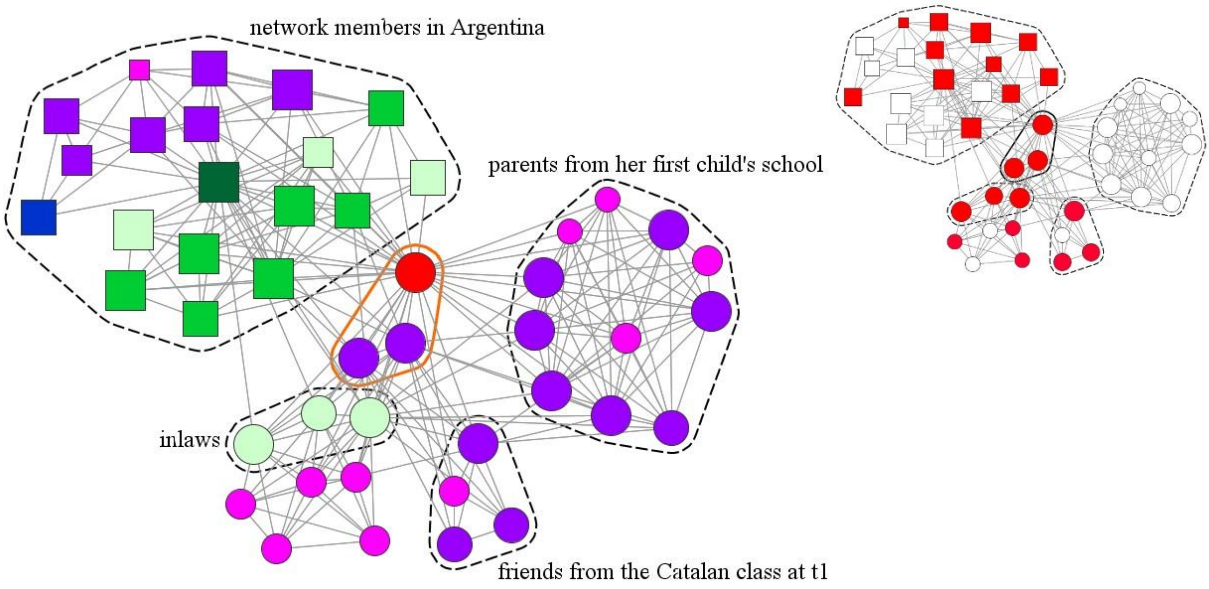
Note: The nodes visualize the 45 network contacts that Elena elicited (Elena is not depicted as a node). Node size represents emotional closeness with the network member (larger nodes are closer), node shape the country of residence of the network member (circle is Spain, square is the country of origin-Argentina in this case), and node colour the type of relationship with each person (see legend; only categories chosen by Elena or Khalid -Figures 4-6- are represented). Edges were drawn between nodes if the persons were in contact with each other, according to the respondent. The dotted lines have been used to show groups of network members. The orange triangle in the centre indicates Elena's core nodes.

Figure 2. Elena's personal network in 2008



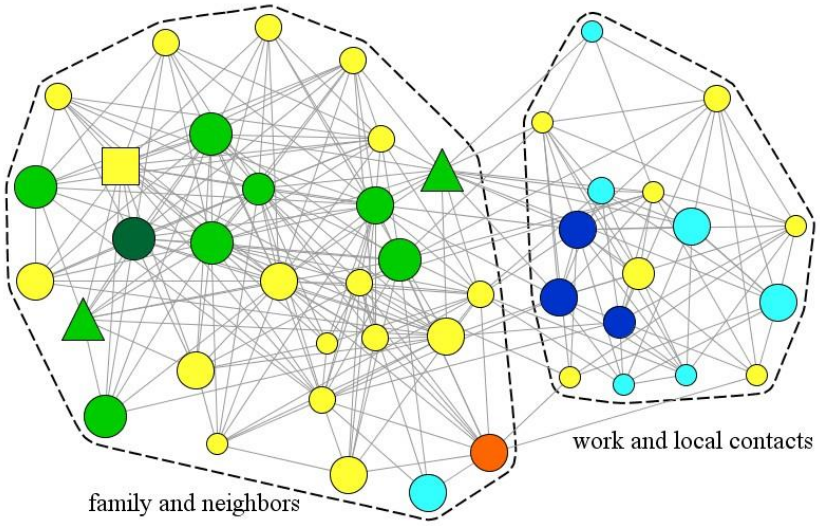
Note: See Figure 1 for an explanation of node colour, size, and shape. The inserted graph in the upper right corner represents the same network, but node colour now indicates whether network members had been nominated in Wave 1 (red=yes; white=no).

Figure 3. Elena's personal network in 2012



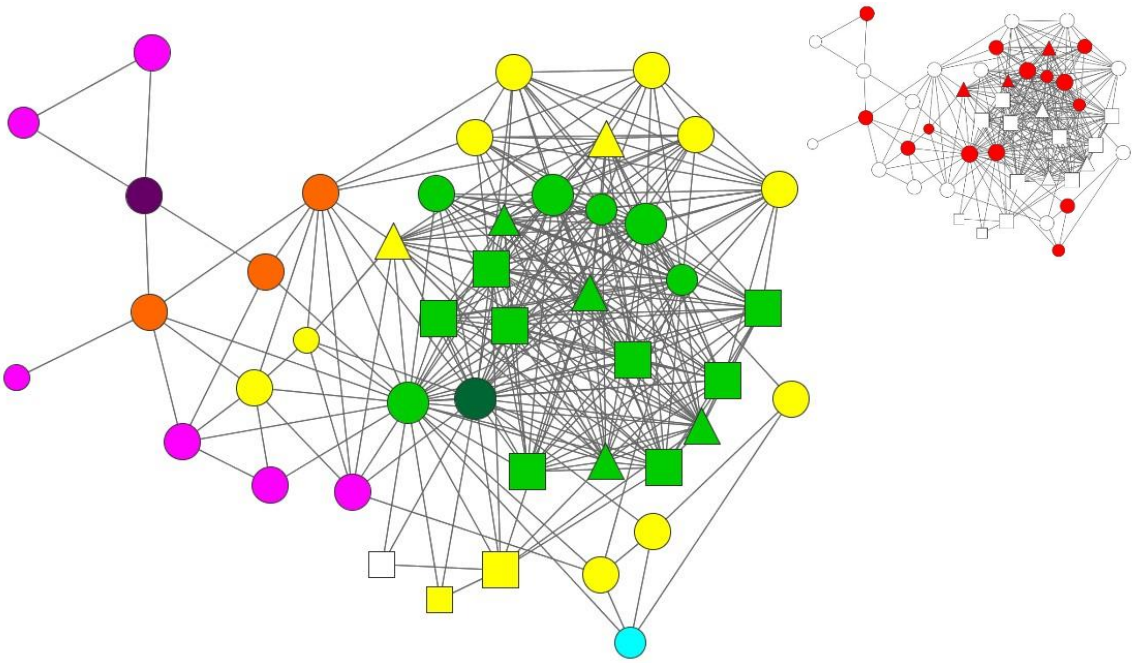
Note: See for details Figures 1-2. A new node colour ■ now represents friendship (included only in Wave 3).

Figure 4. Khalid's personal network in 2005



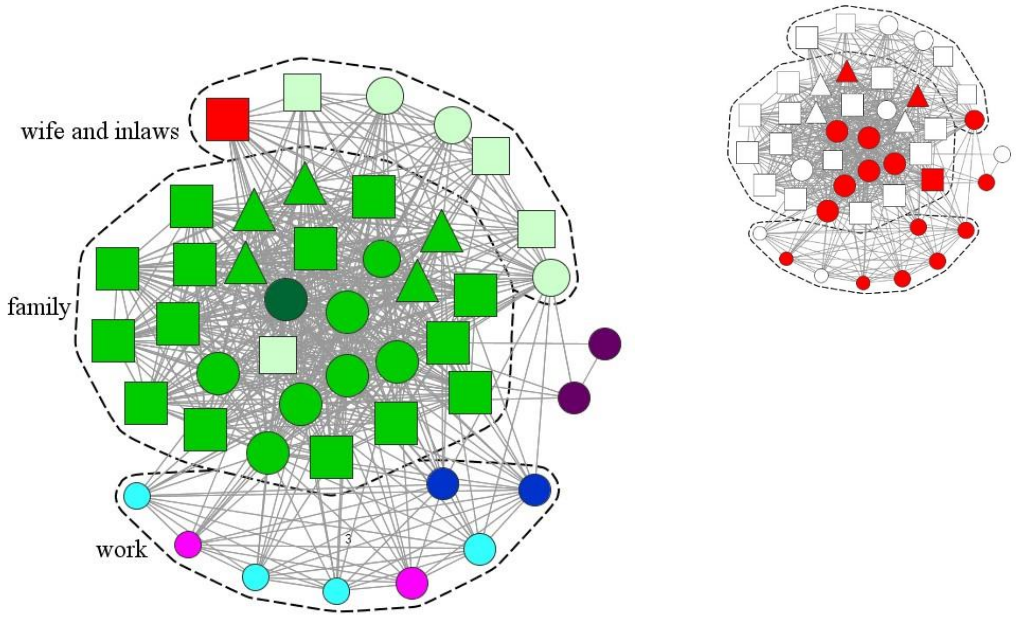
Note: The visualization follows the principles explained in Figure 1. Squares now represent Morocco and triangles other countries than Spain and Morocco.

Figure 5. Khalid's personal network in 2008



Note: See for details Figures 1, 2, and 4.

Figure 6. Khalid's personal network in 2012



Note: See for details Figures 1-4.