Unpacking transnational social capital and its effects: insights from an international study experience in Belgium

Reference:
Holvoet Nathalie, Dewachter Sara. - Unpacking transnational social capital and its effects: insights from an international study experience in Belgium
Journal of studies in international education - ISSN 1552-7808 - 27:3(2023), 10283153211070114
Full text (Publisher's DOI): https://doi.org/10.1177/10283153211070114
To cite this reference: https://hdl.handle.net/10067/1862070151162165141
This is the archived peer-reviewed author version of:

Understanding transnational social capital and its effects: insights from an international study experience in Belgium.

Reference:
DOI: 10.1177/10283153211070114
Unpacking transnational social capital and its effects: insights from an international study experience in Belgium

Word count: 6904

Abstract

This paper studies (trans)national social capital gained through an international study experience in Belgium. Drawing upon a multi-method alumni study, we explore different types of (inter)national networks of male and female graduates, the extent to which different networks remained after graduation as well as effects on personal and professional development and organizational performance. Findings show that graduates have particularly gained networks with non-co-nationals which evolve from bridging relations at the outset to bonding relations while particularly networks with the host population remain limited. After returning home, bonding social interaction relations remain most important, irrespective of the nationality of the graduates, whereas information sharing and collaboration networks survive better among co-nationals, particularly when these are triggered through national alumni chapters. Our study finds network effects on individual’s intercultural skills, knowledge and attitudes, their professional career and organizational performance, with intercultural gains being particularly high for networks with non-co-nationals from other continents.

Keywords: transnational social capital, networks, international students, alumni, post-graduation, mixed-methods

Introduction

It is increasingly acknowledged that transnational social capital (TSC), defined as “the actual and potential resources embedded within, available through and derived from a network of professional relationships and ties that span national borders” (Nahapiet & Goshal, 1998 cited in Levy et al., 2013, 320) has a significant impact on an individual’s personal and professional life. Having multinational and multicultural ties is thought to particularly benefit careers in international development, international business and diplomacy whereas there is also evidence of increased (trade) links amongst different countries (Murat, 2014; Rienties et al., 2015).

One way in which TSC can be created is through an international study experience where students from different countries and continents interact (Moon & Shin, 2019; Rienties et al., 2015). Whereas the focus of international study programmes has long been on human capital and changes in global competences, i.e. knowledge, skills and attitudes, the value of multinational/multicultural networking has increasingly come to the forefront. Widening international networks nurtures TSC and is considered one of the pathways through which the study exposure might create impact at different levels. While it can open new international job opportunities and career plans, international network formation might also benefit organizational performance in an increasingly globalised context and trigger collective action that contributes to societal change. In this way (transnational) social capital functions as a kind of transmission mechanism linking individual outcomes to more collective level impact (Dassin et al., 2018).

Whereas research on the transnational social network pathway in education is on the rise, there are still several gaps. First, more detailed research is needed on different types of (transnational) networking taking place during international study experiences. Second, against
a background of increased attention for gender equality in international scholarship programmes and evidence about gendered networking effects in other contexts (see McPherson et al., 2001), including a gender perspective in TSC studies is paramount. Third, so far, most studies have focused on networking during the study (Hendrickson et al., 2011; Schartner, 2015; Taha & Cox, 2016) whereas little is known about the evolution of different types of networks post-graduation. Fourth, many questions remain as to which functions different types of (international) networks deliver and at which level impact might be generated. Finally, there is still little research on international study experiences in non-English speaking host settings, notwithstanding some useful exceptions such as Moon and Shin’s study in a Japanese context (Moon & Shin, 2019).

Starting from the above gaps, our study draws upon evidence from a mixed-method alumni study related to an international study experience in Belgium to address the following research questions:

1. What different types of (international) networks do students of an international study experience in development studies gain during their studies?
2. Are there substantial gendered differences in different types of (international) networking?
3. To what extent are different types of networks sustained after graduation?
4. What is the value of different types of networks for individual graduates’ personal and professional development and, at a more collective level, the performance of the organizations in which they work?

The article is organized as follows. We first describe relevant literature and then discuss research methods, context and findings. The final section summarises our main contributions and zooms into implications for policy and future research.

**Literature Review**

**Different Networks during the International Study Experience**

Like social capital, transnational social capital (TSC), is a rather vague and multidimensional concept, plagued with problems of construct validity (Levy et al., 2013). One of the ways in which social capital has been made operational is through the focus on social networks (Lin, 1999). Whereas the importance of social networks is acknowledged in any educational experience (Dika & Singh, 2002; Lee, 2010), typical for international students is that they, temporarily and partially, loosen their ties at home and invest in new relationships for their own well-being and academic performance (Schartner, 2015).

In the context of international study programmes a distinction is usually made between three different kinds of networks, i.e. networks among co-nationals, networks with the host nationals and networking among non-co-nationals (Schartner, 2015). The first network is generally considered the primary social network involving social and emotional support and friendship relationships among individuals from the same cultural background who often experience similar ‘transitioning’ feelings (Bittencourt et al., 2019; Schartner, 2015; Hendrickson et al., 2011). This networking with similar others, also referred to as ‘homophily’ (McPherson et al., 2001) is not so surprising and generally associated with strong ties and ‘bonding’ social capital. The latter two networks, on the other hand, involve ‘bridging’ among individuals from different cultural backgrounds (Neri & Ville, 2008) and are most closely associated with TSC. In keeping with the bonding/bridging literature it are particularly these weaker ‘bridging’ ties that are thought to generate productive resources (Bodin & Crona, 2009). Through international and cross-cultural exchange, international students acquire new knowledge and insights and foster
intercultural skills that are valuable assets boosting their employability in an increasingly international and globalised world (Crossman & Clarke, 2010; Di Pietro, 2015). The effect of international study experiences on intercultural skills and attitudes is in line with the Intergroup Contact Theory which posits that face-to-face contact between individuals from different (initially ethnic) groups leads to reduced prejudice. Research has shown that impact might particularly be triggered if groups have equal status, common goals and when there is institutional support (Allport, 1954; Pettigrew & Tropp, 2006), conditions which are generally satisfied in international study programmes that typically cater for intense exchange amongst a highly diversified student population that all satisfy the same entry requirements.

Over time, studies have nuanced the importance of different networks and the association with bonding/bridging social capital. In their research on different types of networks among graduates of an international UK study experience, Taha and Cox (2016) indicated that factors such as language and culture which are shared by co-nationals proved important for bonding at the outset of the programme but their influence evolved over time. Interestingly, they observed that learning motives became more important, with students from different cultural backgrounds clustering based on their intrinsic learning motivation. A similar evolution over the course of an academic year was observed by Schartner (2015) in her qualitative study of a group of 20 international postgraduate students at a UK university. Whereas relationships with co-nationals peaked around 2-3 months, they went down significantly afterwards as students started to avoid contact with co-nationals which they perceived as disadvantageous for their language development and personal growth.

The latter behaviour is not exceptional and somehow in line with Kim’s cross-cultural adaptation theory which posits co-national contact to offer short-term support while undermining longer-term cross-cultural adaptation (Kim, 2001). After some initial challenges involved in cross-cultural communication, non-co-nationals became the primary network and bridging ties also gradually evolved into bonding ties, facilitated by the fact that all international students share an international visitor status. This presence of bridging and bonding dimensions in TSC which might lead to synergistic effects has also been discussed in Levy et al. (2019)’s study on TSC of business executives from 48 countries graduating from a private top-ranked European business school.

Whereas the value of non-co-national ties is increasingly acknowledged in educational research and international study programmes, the attention has long been on relationships with host nationals. While the latter are often perceived to be particularly valuable for social connectivity and overall satisfaction during the study (Hendrickson et al., 2011) and career prospects post-graduation (Moon & Shin, 2016), they are simultaneously also experienced to be the most difficult ones as international students are entering into already existing local networks, often leading to frustration and disappointment (Hendrickson et al., 2011; Rienties et al., 2012). This is particularly the case in non-English speaking contexts where language problems and isolation into English-based programmes further hinder network formation with the host community and where ties with other non-co-nationals thus become even more important (Moon & Shin, 2019).

Post-graduation Networks and Effects

So far, most studies have focused on social networking and related benefits during the study experience itself (Moon & Shin, 2019). Investigating whether TSC is valorised post-graduation and whether and how different networks are sustained implies a broadening of the scope, something which has less often been done, notwithstanding some useful exceptions. Di Pietro (2015), Moon and Shin (2016) have documented a positive impact on employment and career trajectories with international graduates valorising the acquired cross-cultural tacit knowledge
and skills to navigate between culturally diverse contexts which logically also impacts upon organizational performance (Levy et al., 2013, 2019). Whereas it is highly likely that individual level outcomes also translate into collective impact, studies into the realization of this potential are only recently on the rise (see Dassin et al., 2018; deleted for blind review). This is to some extent related to the emphasis on the private good ‘resource’ component of (transnational) social capital in much education research, leaving largely unveiled its critical importance for the development of collective action and public goods which has been extensively documented in social network theory and institutional economics (see e.g. Ostrom, 1990).

**Gendered Effects**

Finally, there has so far been little attention for gendered effects in TSC which is somehow counter to the increased importance attached to gender equality in scholarships for international education (UN 2015, see Target 4.3) and previous research in other areas that has highlighted significant gendered effects in networking and social capital (D’Exelle & Holvoet, 2011; Smith-Lovin & McPherson, 1993; McPherson et al., 2001). It has for instance been documented that people tend to glue together with others from the same gender which leads to strongly gender segregated networks, particularly when the interaction is voluntary (e.g. friends as opposed to family)(McPherson et al., 2001).

Studies have also highlighted systematic differences in the structure and contents of men’s and women’s networks, with women’s non-family networks often being more localized and more homogeneous with respect to wealth, education, and work status than men’s non-family networks (Popielarz, 1999). In a context of already existing gender inequality, this generally implies lesser access to productive ‘bridging’ social capital. Interestingly, in their study on TSC of executives, Levy et al. (2019) indicated that women have a slightly higher ability for transnational relationships (i.e. orientation towards the outside world and openness towards other cultures), while no differential effects were detected on bridging and bonding forms of TSC nor in the effect of cross-border communication on TSC.

**Methodology**

Our study uses a multi-method approach, mainly drawing upon an online alumni survey sent to 1372 alumni participating between 2000 and 2018 in one the advanced one-year master programmes and training programmes in development studies offered at the Institute of Development Policy (IOB) in Antwerp (Belgium). IOB’s international character is evident from its student population, with over the last 18 years welcoming students from over 100 countries (deleted for blind review).

We mainly draw upon the 2019 online alumni survey and specifically focus on different dimensions of the graduates’ personal and professional development as well as their contribution to organizational performance. With the aim to move beyond the usual competences of knowledge, skills and attitudes, the survey also included a section specifically questioning different types of networks that students gained during and after the study.

Our study measures the intensity of three different type of ties, namely social interaction, information sharing and collaboration. Additionally, we expanded the ‘typical’ categories of co-national/host/non-co-national by differentiating non-co-nationals into students from the same continent and other continents as well as disentangling links with the host institution and host country citizens. The first expansion allows to study whether engaging in networks with students from a different continent, a -clearly imperfect- proxy for more interculturally diverse interaction, has a different effect on the type of network effects generated. Differentiating between ties with host institution staff on the one hand and citizens from the host country on
the other hand, is also key as both networks tap into different types of functions. Networks with host country citizens are thought to build mostly on social interaction thereby facilitating intercultural learning, whereas ties with staff tend to be more hierarchical and vertical and particularly trigger information sharing and collaboration.

Out of 1372 alumni, 291 responded to the survey, yielding a response rate of 21%. While this can be considered an acceptable response rate, we are aware of a possible self-selection bias with students more satisfied with the study experience being more likely to participate. Like other alumni studies we rely upon self-reporting and thus mainly sketch alumni perceptions (see e.g. Johnson et al., 2014). As this study specifically focuses on networks, the self-reporting bias might be less problematic as networks, compared to knowledge, skills and attitudes are more clearly attributable to the study experience (Martel, 2018).

As to further increase validity, we triangulate alumni survey findings with insights from an employer survey which was sent to organizations where (scholarship) graduates of academic year 2018 were working before and returned to after graduation. Of the 30 employers contacted, 18 responded (60%) to our survey, highlighting their perceptions of graduates’ pre- and post-graduation contribution to the organization’s performance. Additionally, we corroborate evidence from these two data sources with qualitative information from 106 alumni impact stories collected from six case study countries (Ethiopia, Nicaragua, the Philippines, Tanzania, Uganda, Vietnam).

**Findings**

*Different Networks during the Study Experience*

Exploring the type of networks the study experience induced, our findings confirm that the international student classroom nurtures truly international networks among students (Figure 1). 65 percent of graduates indicate to have gained ‘(very) much networks with people from other continents’, even slightly more than compared to networks with persons from their own country (56%) or continent (61%). Although the latter two should be interpreted with caution as for some students there simply might not have been fellow students from their country and not that many fellow students from their continent (e.g. European students). Overall it is clear that the study experience generated a (very) extensive international network for about half of the graduates.

While the ‘international’ and even co-national interaction among students was very intense, student-host population networks with Flanders and Belgium are much less developed (only 31%). This does not hold true for networks with host institution staff (51%). The difference is related to the programme’s design where interaction among students (and even with staff) is very intense both in (e.g. group work) and outside the classroom (sharing living arrangements in international student homes, participating in organized social activities) whereas interaction with the host country is not specifically catered for. Moreover, while English-based programmes are open to host-country students, they remain to a large extent structurally isolated in a Dutch-speaking academic environment.

This specific study programme is thus certainly not geared towards the ‘cultural ambassadorship’ type of experience, where study visits and networking activities are organised...
to maximise the exposure of the students to the local culture as a means to stimulate graduates to upon their return home or elsewhere take up an (implicit) ambassador role to promote the host country’s culture (Dassin et al., 2018). Rather this particular programme invests in facilitating face-to-face intergroup contact and network building among students (and staff) and learning from the cultural diversity among participants, which is evident from the survey network findings. The focus on international networks is also supported by the evidence from the alumni impact stories. When graduates mentioned networks in their impact stories (56 times coded in 50 stories), the vast majority referred to international networks (40 codes in 36 stories) compared to only some 14% mentioning national networks (8 codes in 8 stories) while even fewer highlighted networks with host country citizens (5 codes, 4 stories) and the host institution (2 codes, 1 story). As one of the graduates from the Philippines highlights,… In terms of networking, I really appreciate that the people in my class are from different countries. I learned a lot from them, more than the classes. When I hang out with them, learning about their countries, learning how they do things in their country, it’s such an eye opener. And also now I can say I have friends from all over the world. Literally in all the continents except Antarctica!

The impact of the programme design on the type and intensity of networks generated also becomes clear when differentiating between the full master programme graduates and training programme graduates. The latter on average spend 2 to 4 weeks at the host institution, but in an equally international setting and an even more interactive programme set-up, involving daily group work and discussion. This translates in even more intense networking with the fellow students from all over the world (83 %), yet with even less interaction with the host country (42 % had no interaction at all or limited interaction with host population).

**Gendered Effects**

Results highlight there are no significant differences\(^3\) between male and female graduates in the extent to which they perceive to have gained networks. However, when disaggregating the type of networks students engage in during the study, our findings\(^4\) show that men on average score slightly higher on all networks except for the transnational bridging network (i.e. with other continents). For investing in national bonding ties (i.e. from the same country) and for interaction with the host population, male graduates even significantly outperform their female counterparts (Figure 2). Female students on average however invest at least as much in transnational ‘bridging’ networks with persons from other continents as their male counterparts. As discussed in section 2, the distinction between ‘bonding’/’bridging’ ties becomes blurred over time, as spending time together allows students to bond over other aspects of their identities or shared experiences than merely shared nationality. The hybrid nature of transnational graduate networking could explain why women are performing equally compared to their male counterparts in this ‘bridging’ tie. When comparing with ‘pure’ bridging ties, such as ties with host country actors, men again have a higher number of contacts than their female fellow students.

Figure 2 to be included here
**Types of Networks during and after the study experience**

To be able to live up to their full potential, networks need to be sustained after graduation. Figure 3 presents the networks during the study experience compared to the networks after graduation.

Somehow counter to expectations, our findings highlight the overwhelming majority of graduates is still interacting with other graduates post-graduation. Differentiating between the three functions of ‘social interaction’, ‘information sharing’ and ‘collaboration’ among graduates, survey results highlight that slightly more than 80% of the alumni, still have social interaction with (many + a few) alumni, equally from other continents, their own continent as with their co-nationals. This lends support to the hybrid nature of TSC with bonding relationships being sustained equally among non-co-nationals and co-nationals for what concerns social interaction.

A slightly different pattern is discernible for information sharing with other alumni, as now there is a small difference between the type of alumni, with co-nationals sharing information being most prevalent (78%), compared to information sharing with alumni from the same continent (72%) and other continents (66%). Though slightly declining along ‘proximity’ lines, these results indicate that sustaining ties post-graduation is quite common. Even the information exchange among graduates and host institution staff (62%) remains substantial, much more so than interaction with host country citizens (41%). The third tie under review -collaboration- is far less frequent as it implies a more intense relation compared to social interaction and information sharing. As expected, collaboration is most frequent among co-nationals, but in second place with host institution staff, which given the content-based exchange does not entirely come as a surprise.

When interpreting the results from a tie typology perspective (Table 1), we differentiate between vertical relations, where an element of hierarchy is present in the relation (e.g. student-staff relation) and horizontal relations. For both horizontal and vertical relations, there can be different types of ties, i.e. social interaction, information sharing and collaboration. Additionally, the bonding-versus bridging dimension in the table allows to differentiate between interactions among persons of the same ‘core group’, which in this study we have said to be co-nationals, whereas bridging involves persons from different groups interacting.

Drawing upon the discussion in section 2, a hybrid category has been created, where students from different nationalities (bridging) who have been interacting intensely for a whole year can move towards the bonding category as other shared identities/experiences become stronger leading to in-group or bonding interaction. Using the classification scheme, a graduate going for a drink with a professor talking about their personal lives will thus be classified as vertical-social-bridging interaction, while two graduates from the same country working together on a project, will be classified as horizontal – collaboration – bonding ties.

Comparing before and after study ties shows that the two ‘pure’ bridging ties, i.e. the vertical ties with host staff and horizontal ties with the host population are the ties decaying most intensively for all types of relations. Information sharing with staff diminishes less intensely, thus becoming an equally important type of interaction as social interaction, which is not
surprising as this is the main dimension of student-staff relations. Horizontal bonding relations among students, whether they started out as bonding (co-nationals) or grew out of bridging transnational ties (hybrid) seem to dissipate less dramatically, especially for social interaction which hints at the fact that particularly bridging relations which turned into bonding relations survive the test of time and distance.

The difference between the co-national and the transnational interaction is in the decline of information sharing and collaboration. Graduates from the same country working in the same sector not only have more opportunity to meet each other professionally, to share information about programmes which are relevant for them, but also interaction between them can be stimulated through alumni activities organized at country level. Our results show that graduates from countries where there is an alumni chapter have significantly more interaction with co-nationals both in terms of social interaction, information sharing and collaboration than other alumni. The latter underlines the importance of alumni policy for facilitating graduate networks.

When testing the relation between the number of years since the study experience and the intensity of relations with other graduates, findings show that for the transnational student contacts the extent of relations for both social interaction, information sharing and collaboration is significantly higher for recent graduates (who studied during the last five years) than those who studied earlier, while this is not the case for the co-national contacts. The latter could again be related to national alumni networks which make an effort to liaise co-national graduates or to professional encounters that allow for sustained interaction among co-national alumni.

**Effects of different types of networks**

As discussed in section 2, we differentiate between effects on individual personal and professional development and effects at the level of the organisation where graduates work.

In terms of **individual personal development**, our alumni survey has questioned the alumni’s self-reported gains in terms of the master programmes’ learning outcomes that specifically capture intercultural competences. Drawing upon the 2017 Flanders Knowledge Area Handbook ‘Internationalisation of the Curriculum’ and discussion notes of different Flemish universities, we distinguish among skills (e.g. intercultural communication), knowledge (e.g. openness and knowledge about the world and development practice) and attitudes (e.g. interest in what goes on in other parts of the world, openminded and commitment to development). For each of these three different areas, alumni have scored their perceived gains on a five point scale ranging from ‘not at all’ to ‘very much’. In a next step, we examine whether there is an association between these self-reported gains and different types of networks gained during the study experience.

Table 2 shows a positive association between almost all network types and gains in intercultural skills, knowledge and attitudes.

Table 2 to be included here

Differentiating between different types of networks, the results displayed in Table 2 highlight that the association is stronger for (non-host) transnational student relations as compared to co-national contacts. Disaggregating further among different types of (non-host) transnational networks highlights that learning gains in terms intercultural skills and knowledge are higher for those having been immersed in many relations with students from other continents, followed by interaction with students from the same continent but from other countries. The importance
of close contact with fellow students from culturally different groups to trigger changes in intercultural skills, knowledge and attitudes (=intergroup contact theory) is explicitly mentioned by one of the Ethiopian graduates.

Networking is the other benefit, IOB gives you the opportunity and the platform to meet people from different continents and I still have friends that I keep in touch. So, it is good to study in such an international environment. As you make friends from different cultural and racial backgrounds, you will develop cultural tolerance, you would start to appreciate people’s conditions and how they think. You become more tolerant towards religious and cultural as well as racial differences that are pretty much what you get by being at IOB and you can’t get it from any other institute.

Additionally, also in terms of effects on graduates’ **individual professional development**, our survey findings show that overall, 98.9 percent of graduates state that the study experience had a (partially) positive effect on their career (11.7% partially, 87.2% yes). Further analysis indicates there is a significant positive association between ‘high network gains’ and ‘a positive effect on the career’ ($\gamma = 0.425; p=0.019$). As one of the Ethiopian alumni puts it,

> When I was in Belgium, I had interesting friends. Because of the network that I have developed in Belgium, I have got a new job and I managed to do my PhD in Germany.

Besides network impact at the individual level, we also surveyed both the graduate as well as some of their employers to investigate whether the graduate has been able to strengthen the organization where (s)he works, building on the networks gained during the study experience. 42 percent of the graduates indeed confirmed to have been able to strengthen the organization where they worked. In fact, building on their own networks, they also broadened the organization’s networks. As mentioned by one of the Vietnamese graduates,

> Learning in a multi-cultural environment with students from different countries, I have built a wide network that helped me a lot in my work for international organizations at a later stage. I could easily mobilize expertise within the network serving the work.

Interestingly, the employers’ perspective clarified that the graduates indeed strengthened the networks of their organizations, and most profoundly through their individual international professional networks as illustrated in figure 4.

Figure 4 to be included here

Similar evidence was reported earlier by Crossman and Clarke (2010) who documented in their qualitative study of an Australian university how employers stressed the value added of an international study experience. More specifically, the graduates’ development of soft skills and widening of networks influencing their intercultural understandings and ways of thinking were listed as factors that increased employability and attractiveness in the internationalized labour market.

**Conclusion and discussion**
The importance of transnational social capital as an asset for careers in international business, development and diplomacy is increasingly acknowledged. One of the ways in which it can be created is through international networks gained during an international study experience. As international students loosen their networks at home, they are strongly incentivized to invest in new networks. Studies generally differentiate between networks with co-nationals, the host country and non-co-nationals. While the former is generally considered to deliver bonding social capital that helps to overcome transitioning feelings, the latter two are thought to embed more productive bridging ties.

Over time, this dichotomy has been considered too simplistic with initial bridging ties also becoming bonding relationships over the course of the academic year, emphasizing the hybrid nature of networks gained during international study experiences. Whereas there has been some research on the value of different networks during the study period itself, networks post-graduation have remained largely underexplored.

Overall most evidence has been collected from international programmes in English speaking countries. Non-English speaking settings are different in the sense that the host-country relationships might even be more difficult, putting still more emphasis on the other networks, particularly those with other non-co-nationals.

Drawing upon a mixed method study of an international study experience in Belgium, we explored the different types of (international) networks male and female students of an international study experience gained during their studies, the extent to which different networks remained after graduation as well as effects on individual graduates’ personal and professional development and organizational performance.

Our research further differentiated between non-nationals from the same and other continents giving due attention to the importance of intercultural difference between students. Secondly, a distinction was made between the host country institution and its citizens as the predominant type of interaction (information sharing vs. social interaction) and the nature of the interaction (vertical vs horizontal) tends to differ. Whereas information sharing and collaboration are more prominent with staff, social interaction is expected to be the most frequent form of interaction with the host population.

In line with earlier research, our study observed that graduates have indeed gained many international relationships, while also lending support to the difficult interaction with host country citizens in a non-English speaking setting. The design of the programme clearly has an impact on the networks being generated. The very intense interaction among the highly diversified student population produces very intense and broad horizontal networks, among co-nationals (bonding) but also (and slightly more so) among transnationals during the study period. The sustained and intense and different forms of interactions (in and outside the classroom) tend to blur the transnational differences over time and allows some transnational student relations to develop into bonding relations.

The intensity of the programme and type of education style also cater for intense contact between students and staff. The international bubble the programme creates does however hamper the interaction with the host country population. In terms of gendered effect, our findings show that overall there is no gender bias in gaining networks during the study experience. However, differentiating between different types of networks students invest in, male students have gained more networks with co-nationals and host populations than female students, while they do not have more transnational contacts with other continents than their female counterparts.

After returning home, overall networks remain important. There are important differences between the types of networks with social interaction (bonding) networks surviving better, compared to the bridging ties with staff or host country citizens. As regards information sharing
and collaboration, the co-national student interaction again remains somewhat stronger than the transnational. Interestingly, graduates in countries where there is an alumni chapter had significantly more networks with co-nationals, in all three types of interaction.

As regards network effects, students who gain many networks also highlight a positive effect of the study on their professional career. Also in terms of their self-reported learning gains, results showed a positive association between all types of networks and intercultural skills, knowledge and attitudes. However, the less ‘proximate’ the interaction was, the higher the gain in terms of intercultural communication skills and increased openness and knowledge of what goes on in the world.

Our findings also highlighted the importance of post-graduation alumni policy and support services to support, sustain and deepen networks among graduates (see e.g. Campbell, 2016; Martel, 2018). The latter facilitates the sustaining of the different types of interactions among co-nationals beyond merely social interaction. Possibly other alumni activities could be designed to particularly support the maintaining of the transnational information sharing and collaboration ties. While this might be more difficult to facilitate, using innovative formats such as Community of Practice might be useful to explore. The latter is also interesting from a theoretical point of view as it opens opportunities to examine in more depth the public goods dimension of social capital and the potential of alumni associations to activate the stock of social capital embedded in graduates’ network, acting as a transmission mechanism connecting individual to collective level impact. Whereas there exist some case studies (see Campbell, 2016) that describe alumni networks’ contribution to social change, more in-depth investigation is necessary into factors that might be of influence.

While our study adds to the limited evidence base of transnational social capital linked to an international study experience in a non-English setting, it is difficult to generalize to other non-English speaking settings. Another limitations related to the fact that our survey only captures self-reported gains in intercultural competences while we also lacked baseline data about students’ (trans)national contacts which might hide a potential selection bias, with students having already a higher level of (trans)national relations being more inclined to an international study experience.

Endnotes

1This study is part of a larger five-year retrospective alumni study (2017-20222 investigating the impact of IOB’s education at individual, organizational and society level using a multitude of instruments and analysis methods (deleted for blind review).

2Out of 1372 alumni, 291 filled in a full and complete survey, leading to a relatively low response rate (21,21%). However, given that the survey went back almost twenty years in time, and therefore was confronted with having difficulties reaching all alumni (some 20 % of emails bounced) the response rate can still be considered acceptable for an online survey (see also Lambert & Miller, 2014).

3Wilcoxon rank-sum (Mann-Whitney) test results show that overall gains in networks were not statistically different for male and female graduates (U= 9729.500; p=0.410; z= -0.824).

4Wilcoxon rank-sum (Mann-Whitney) test results show that male students (N= 155; median =4) stated to have significantly more networks with persons from the same country (U=7684.500; p=0.01; z=-3.269) than female students (N=127 ; median =3). Also for networks with the host country population there was a significantly (U= 8443.500; p=0.034; z=-2.14) higher score for male (N=155 ; median=3; mean=3.03) compared to female students (N=127; median =3; mean= 2.74).

5Wilcoxon rank-sum (Mann-Whitney) tests show that for graduates living in countries with an alumni chapter social interaction with graduates from the same country (N=94; median=2; mean=2.43) is significantly higher (U=3694.00; p=0.000; z=4.532) than those for graduates living in a country with no alumni chapter (N=118; median=2; mean=1.97). The same holds for information sharing which is significantly higher (U=3650.00; p=0.000; z=4.316) in countries with alumni chapters (N=91; median=2; mean=2.3) than without (N=116; median=2; mean=1.88) and for collaboration which is also significantly higher (U=3558.00; p=0.000; z=4.536) in countries with alumni chapters (N=93; median=2; mean=1,77) than without (N=114; median=1; mean=1,39).
Mann-Whitney test results highlight that recent graduates (N=85; median=2; mean=2.16) have significantly higher (U=4296.50; p=0.012; z=-2.507) network scores for social interaction with graduates from another continent than alumni for whom the study experience was further in the past (N=123; median=2; mean=1.94).

Mann-Whitney test results highlight that recent graduates (N=82; median=2; mean=1.94) have significantly higher (U=3786.500; p=0.001; z=-3.223) network scores for information sharing with graduates from another continent than alumni for whom the study experience was further in the past (N=121; median=2; mean=1.64).

Mann-Whitney test results highlight that recent graduates (N=76; median=1; mean=1.37) have significantly higher (U=3962.000; p=0.026; z=-2.233) network scores for collaboration with graduates from another continent than alumni for whom the study experience was further in the past (N=121; median=1; mean=1.21).
References


Flanders Knowledge Area vzw (2017). Handboek Internationalisering van het Curriculum. Brussel, Flanders Knowledge Area VZW.


Figure 1. Type of networks gained during the study experience.
Figure 2. Relation between gender and different types of networks.

Note. 1= not at all, 2= limited, 3=somewhat, 4= much, 5= very much.
Figure 3. Graduate’s different types of networks during and after the study experience.
Table 1. Typology of network ties during and after study (% of prevalence)

<table>
<thead>
<tr>
<th></th>
<th>DURING STUDY</th>
<th></th>
<th>AFTETR STUDY</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BONDING</td>
<td>BRIDGING</td>
<td>BONDING</td>
<td>BRIDGING</td>
<td></td>
</tr>
<tr>
<td>co national student</td>
<td>Hybrid</td>
<td>Transnational student-student (same continent/different continent)</td>
<td>Student-host population</td>
<td>Transnational student-student (same continent/different continent)</td>
<td>Student-host population</td>
</tr>
<tr>
<td>student-student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>horizontal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>social</td>
<td>94</td>
<td>95/97</td>
<td>87</td>
<td>82</td>
<td>80/80</td>
</tr>
<tr>
<td>info</td>
<td></td>
<td></td>
<td></td>
<td>78</td>
<td>72/66</td>
</tr>
<tr>
<td>collaborate</td>
<td></td>
<td></td>
<td>45</td>
<td>30/23</td>
<td></td>
</tr>
<tr>
<td>vertical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>social</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Student-staff</td>
</tr>
<tr>
<td>info</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>collaborate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Level of association between individual development (skills, knowledge and attitudes) and different graduate networks ($\gamma$).

<table>
<thead>
<tr>
<th>INDIVIDUAL DEVELOPMENT</th>
<th>SOCIAL CAPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>co-national</td>
</tr>
<tr>
<td></td>
<td>national</td>
</tr>
<tr>
<td>Skills: intercultural communication skills</td>
<td>.176**</td>
</tr>
<tr>
<td>Knowledge: increased openness and knowledge about the world and development practice in the world.</td>
<td>.152*</td>
</tr>
<tr>
<td>Attitudes: interest in what goes in other parts of the world, openminded</td>
<td>.208**</td>
</tr>
<tr>
<td>Attitudes: commitment to development</td>
<td>.283**</td>
</tr>
</tbody>
</table>

**: significant at $p \leq 0.001$; *: significant at $p \leq 0.01$. 
Figure 4. Type of networks gained according to the employer’s perspective.