

Article

Unraveling the Skilled Mobility for Sustainable Development Mantra: An Analysis of China-EU Academic Mobility

Maggi W.H. Leung

International Development Studies, Department of Human Geography and Planning, Utrecht University, P.O. Box 80115, 3508TC Utrecht, The Netherlands; E-Mail: W.H.M.Leung@uu.nl; Tel.: +31-30-253-4433; Fax: +31-30-253-2037

Received: 28 April 2013; in revised form: 6 June 2013 / Accepted: 7 June 2013 /

Published: 18 June 2013

Abstract: In the name of sustainable development, skilled persons including scholars, researchers and students have become incorporated in the “sustainable development” visions and strategies of institutions, city centers and nation-states near and far from where these potentially mobile brains are. Policies and programs have widely been implemented to foster move-in move-out mobility of these talents *sans frontières* who should contribute to the competitiveness of their affiliated institutions and structures in the global knowledge economy. This paper unravels this emergent academic mobility for sustainable development mantra. It unpacks the meanings of “sustainable development” and “sustainability” as used in relation to temporary (often circulatory) mobility of students and academics in different contexts. An analysis of European and specifically China-EU academic mobility initiatives illustrates the multi-fold meanings of sustainability in this policy terrain. Zooming into the Chinese-German case, the paper highlights the common dominance of economic and environmental elements in the current “academic mobility for sustainability” construct that sidelines important social components such as equity and diversity. Statistical data and narratives will be provided to illustrate the stark gender and disciplinary bias in the Chinese-German staff academic mobility field. The paper argues for conscious, affirmative efforts by policy-makers and funding agencies to correct existing imbalances.

Keywords: academic mobility; sustainable development; social sustainability; gender; diversity; equity; China; EU; Germany

1. Introduction

We will continue to support, fund and promote academic mobility, which helps the sustainable development of our societies (Announcement at the Third Bologna Policy Forum at the European Higher Education Area Ministerial Meeting in 2012) [1].

The active promotion of the mobility of artists and cultural professionals by the European Union and its Member States contributes to the formation of a common European cultural space, cultivates a sense of belonging, and fosters participation in the European project. This objective is also in line with the Europe 2020 strategy for a smart, sustainable and inclusive growth in a global economy (European Commission policy of cultural development on the topic “skills and mobility”) [2].

In the name of sustainability or sustainable development—that carry diverse definitions, varied population groups are targeted and made mobilized in our increasingly inter-connected world, as exemplified by the two quotes above. Mobility for sustainable development has become a mantra. The strategy is commonly practiced for policy-makers who are looking for quick-fix solutions to labor market shortages or surpluses as well as challenges posed by demographic changes. Along with lesser-skilled (often de-skilled) workers being hired and sent across short and long distances to take up the 3D (Dirty, Dangerous and Demeaning) jobs for the sake of the sustainability of the places of origin and destination, highly-skilled personnel is also mobilized as valuable resource to be tapped in the competitive global knowledge-based economy. While skill-based immigration programs are running strong and picking up steam worldwide (especially in Europe, Australia, the United States of America, Canada, and Japan), temporary (and circulatory) skilled mobilities—which has been practiced widely for lower-skilled labor to deny rights to stay—has increased in popularity. Depending on the specific context, move-in move-out skilled mobilities have been fostered for different reasons. Recognizing the potential brain drain effect of outward skilled mobilities, policy-makers in both the sending and receiving economies have also discovered the “brain circulation for translocal development” option as a win-win-win (also for the mobile personnel) solution. From the perspective of the mobile talents, moving-in moving-out of or engaging simultaneously in multiple knowledge networks and economies guarantee a large resource base for their work and personal life and a higher level of flexibility. Flexibility is also what policy-makers and employers desire in their operation of the “mobility for development” strategy. In the fast-changing knowledge-based economy, having currently-considered-to-be talents in their radar and being able to engage them temporarily seems to be a better solution than having to commit long-term employment and accompanying social benefits.

All these rationale are also practiced in academia, where temporary and circulatory mobility of subsets of scholars and researchers are fostered as a flexible and mutually beneficial strategy for achieving advancement in the academic and research field that, in turn, is expected to engender broader societal development. Academic mobility—here referring to academically motivated international geographical movements of students, faculty, and researchers in higher education sector to study, teach or take part in research for a period of time—takes diverse forms ranging from student degree mobility, credit mobility, staff long(er) term work overseas and short-term research exchanges. It is important to note that there are important differences in the rationales for, and outcomes of, these types of mobility practiced and regulated in diverse socio-, spatial, and temporal contexts. A thorough review and critique of the various forms of academic mobility extend beyond the scope of this paper.

Rather, it aims at bringing forth and interrogating the increasingly common linkage made between academic mobility and the quest for sustainable development or sustainability in policy discourses and program implementation.

Despite its high level of currency in policy, academic and societal arenas, the meanings of, and hence strategies for “sustainable development” or “sustainability” continue to remain “a confused topic” [3], “an article of faith, a shibboleth; often used, but little explained” [4], “fraught with contradictions” [5] and, to say the least, highly contested [6,7]. Considering this long-standing confusion, there is no surprise that policies promoting academic mobility for “sustainable development” across space and time do not share a set of philosophy, values and objectives. This paper scratches the seemingly coherent, (too) often taken-for-granted rubric and unquestionable vision of “sustainable development” and examines its meanings and implications as it guides policies and practices regulating academic mobility. Reacting to the tendency of presenting academic mobility predominantly as a productive and integrative force, this paper highlights its darker sides, revealing the discriminative nature of such mobility policies and practices, and ponders the impact of such exclusion.

In the following, the paper begins by charting how, in the name of sustainable development, scholars, researchers, and students have become incorporated in the development visions of nation-states, cities and an array of institutions (e.g., universities and research centers), near and far, where these talents are. In order to tap the potential of these “spatially unbound” talents, policies, and programs have been implemented to foster temporary, sometimes circulatory or move-in move-out academic engagement. Evidence from different parts of the world will be presented in the following to illustrate how higher level of mobility does not necessarily engender sustainable development to all actors, institutions and local economies involved. Zooming into the academic mobility field spanning China and the EU in particular, the paper will present how sustainable development/sustainability is being interpreted and pursued in multiple and sometimes contradictory manners. By unpacking “sustainable development” as it unfolds in the field of academic mobility, the highly contextualized, almost always contradictory and even conflicting nature of the quest for it will be made apparent.

2. “For the Sake of Sustainable Development, Please Move!”: A Policy and Program Review

Observing the recent trend in the academic field, Robertson underlines: “‘Mobility’ is all the rage in the academy” today, “in all corners of the globe” [8]. This mobility rage is fueled with its assumed impact on the quest for sustainable development at the societal level. Facing demographic challenges and imbalance labor structure, many countries have turned to recruit skilled migrants to sustain their economy and society, hoping to reap what Khadria has coined “trilogy of advantages” namely “age, wage, and vintage” offered by the foreign skilled [9]. International students are perceived as prospective migrants in this global race for talents. Inbound student mobility is managed as an essential building block of such skilled immigration policies worldwide. Among others, Hawthorne [10] has conducted a number of studies analyzing the global trends in and outcome of “two-step” student migration, *i.e.* young people first migrate as students to a country and convert to as say, economic or skilled migrants after graduation. The format and impact of these immigration policies is diverse. An online survey conducted among international students in Germany, the Netherlands, the United Kingdom, France, and Sweden reveal that, while almost two out of three international students

expressed the intention to stay after graduation for a shorter or longer period to work, only a quarter of them do so in reality [11]. The challenges in pursuing successful “two-step” migration is recently also highlighted in an article in *University World News* that focuses on the experiences in OECD (Organisation for Economic Co-operation and Development) member countries [12]. While keeping their efforts in raising the stay rate among graduates already in the country, many talent-hungry economies have also initiated and strengthened academic mobility programs that aim to promote temporary and often circulatory flows. These initiatives should not be considered as separate from or opposite to the skilled immigration policies mentioned above. This paper interrogates the meaning of sustainability as practiced in policies and programs that stimulate move-in move-out mobility.

Let us return to the pledge announced at the Third Bologna Policy Forum at the European Higher Education Area Ministerial Meeting in 2012 that opens this paper. The promotion of international student and staff mobility has over the past decades become a major policy objective of the EU. The high-level politicians at the Forum threshed out their idea of “sustainable societies”:

International cooperation [with academic mobility being a key element] in the field of higher education has a vital role to play in developing and maintaining cohesive, sustainable and open societies. This includes a strong commitment to higher education as a key contributor to the development of democracy, human rights protection and sustainable growth necessary for global recovery from the economic crisis [1].

This elaboration reflects the priorities set by the European Commission at the particular time-space, having to uphold a particular set of social and economic development objectives in Europe.

In other contexts, academic mobility is being promoted as the driver for other specified forms of sustainability. For instance, the One More Step project is a mobility project funded by the European Commission under the Erasmus Mundus program with the following objectives:

[The program] aims at promoting sustainable development actions and policies in L13 Countries in Asia through academic mobility of students and academic staff from these countries. It also aims to contribute to the achievement of Millennium Development Goals by focusing on the valorization of human resources and skills to foster local development with reduced footprint, competitiveness and sustainable research, innovation and technology transfer [13].

Under this scheme, Asian students and scholars receive support to go to Europe for a certain period of time and should return to contribute to sustainable development “back home”. Sustainable development here is anchored in environmental issues, striking a contrast to the meaning of sustainable societies in the European context given by the ministers at the Third Bologna Policy Forum. Mobility fostered under such a framework follows much the conventional, spatialized notion that individuals from the Global South are those whose capacities should be developed in the North and development is expected to take place, in a rooted manner, in the South. This traditional spatial framing that pins down our imagery who the teacher and learner is along an academic mobility trajectory, and where development should take place as a result should be questioned. Releasing this spatial fix is, I argue, imperative as more and more academics and former overseas students who are engaged in other sectors are embedded in multiple political economies and their respective development visions.

Recognizing the rising mobility inspiration and practices among academics, policy-makers around the world are flexing their conceptualization regarding to who should move in or move, where to, how often, for how long in their “academic mobility for sustainable development” vision plans. The Chinese state, just to cite a better-known example and the focus case of this article, promotes inward *and* outward academic mobility in its quest for sustainable economic and technological development in an era where economies across the world are in a “race for talents”. In the early 1990s, the Chinese state liberalized its national development policy to “support study overseas, encourage return, [and] guarantee freedom of movement”. The policy discourse has subsequently been modified from a call for a “return and serve the country” (*huiguo fuwu*) to “serve the country [from abroad]” (*weiguo fuwu*) [14]. By unlocking the expected and permitted location of the potential development contributors, the Chinese state could extend its reach to a much larger community of talents who (are willing to) move in and out of China, physically and/or virtually. Recently, the Chinese state has also intensified its efforts in stimulating international academic mobility among non-Chinese professionals (and students) into China, moving beyond the “harnessing the drained brain” objective.

It is important not to forget the other side of the coin. For many institutions, professional communities and economies, academic mobility is, first and foremost, a threat to their quest for development. For decades, the net (massive) outflow of skilled professionals, including academics and students (as human capital in-the-making), out of poor(er) economies, or “brain drain”, in the Global South and Eastern Europe has erected serious barrier to economic growth, development and poverty reduction. While an accurate assessment of the gain and losses of the skilled mobility is complex and it is hard, almost impossible, to pin down the multi-spatial-temporal brain gain/drain effect of skilled mobility, figures such as “A million talented Malaysians are working overseas and brain drain has increased in pace recently” [15], “Every year 250,000 youth are reported to leave Nepal for various reasons” [16], and “Over 300,000 professionals reside outside Africa” [17] highlight the serious mobility-related development challenges faced by the origins of the skilled migrants or young people.

Confronting the spatially imbalance and potentially unethical impact of policies and programs that promote academic mobility, the ministers responsible for higher education in the 47 countries of the European Higher Education Area (EHEA) announced the Bucharest Communiqué in 2012 the principle of “sustainable mobility”:

We strive for open higher education systems and better balanced mobility in the EHEA. If mobility imbalances between EHEA countries are deemed unsustainable by at least one party, we encourage the countries involved to jointly seek a solution, in line with the EHEA Mobility Strategy [18].

Here, we have yet another notion of “sustainability” that focuses more on equity—a key principle of social sustainability that will be elaborated in the latter part of this paper. In spite of the potential detrimental impact of outward academic mobility, the simplistic (and unrealistic) option of putting academic mobility to a halt is neither practicable nor aimed for. In 2011, more than 30 vice-chancellors and senior university leaders from universities in the Southern African Development Community (SADC) met to assess and identify ways to tap the potential of academic mobility for capacity development of the higher education sector in the SADC region. Turning away the focus on the brain drain effect of outward academic mobility that had been dominant in Africa, policy-makers aim to

stimulate intra-regional mobility [19]. This proposal stretches the spatiality of development beyond national boundaries and advocates an up-scaled notion “academic mobility for regional development”, echoing “more academic mobility = more development” equation. This vision has also been propagated by international organizations and funders, such as UNESCO. Recently, the “Transdisciplinary Training for Resource Efficiency and Climate Change Adaptation in Africa (TRECCAfrica)” a five-year consortium of African universities was established with 2.3 million Euros from the European Commission. The academic mobility scheme was initiated to support students and staff members for postgraduate research that focus on sustainability issues, namely climate change adaptation, and natural resource depletion.

“Sustainability” here and “sustainable development” there, the examples above show that academic mobility has been linked to the concept in myriad ways. Depending who is moving, where from and where to, who is propagating such mobility, the meaning of “sustainable development” and its relationship with academic mobility consequently change. While not ignoring the potential negative impact of outward academic mobility for societies that are “losing brains”, mobility is generally considered as a kind of freedom, a right to be safeguard and a capital to be nurtured in the contemporary world [20]. Rather than propagating staying put and an ultimate return to counter brain drain, circulatory (move-in move-out) mobilities, often as a “diaspora option” has become popular since the 1990s, both in the Global South and North, as a strategy to harness human resources that are embedded in the knowledge network of but not spatially fixated in a particular political-economy. China and India are two notable examples in mobilizing its knowledge diaspora for development. The strategy has also been practiced in other contexts where brain drain has hindered local development. A number of countries have established diaspora engagement programs, often in partnership with international organizations like the International Organization for Migration or in collaboration with the countries of residence of their diaspora (e.g., Dutch-Ghanaian partnerships). Initiatives specifically in the academic field include the Diaspora Lecturer Temporary Return Project that facilitates the return of Zimbabwean academics and professionals (especially in the health sector) overseas on a short-term basis. A similar program has been implemented in Afghanistan, Argentina, Croatia, Ghana, Jamaica, Moldova, Thailand, and Uruguay to stimulate the circulation of academics and other professionals [21].

Seemingly progressive, flexible and spatially accommodating, move-in move-out academic mobility might indeed provide an exit out of the brain-gain *vs.* brain-drain tension. It offers a construct that allows multiple institutions to lay claim on individual academics and scientific communities who practice and negotiate their membership in various academic institutions and fields (more or less) at the same time. Nevertheless, a critical examination of some move-in move-out academic mobility policies and practices in China-EU academic field—which is to be understood as a case that reflect many dominant traits of numerous other academic mobility fields in other contexts—suggests a necessary level of skepticism. Here, I plea for a critical examination of the logic and practice of the “sustainability through academic mobility” strategy, looking beyond the conventional brain gain *vs.* drain impact at national levels. Specifically, the following discussion will open the China-EU academic mobility field and gauge its sustainability balance from within—rather than assessing if China or the EU is gaining or losing more or less as a result of the circulation of Chinese academics. Before I move on to highlight some of the fallacy and dark sides of this often over-glorified “academic mobility for sustainable development” paradigm, a review of extant literature will first be provided.

3. Academic Mobility and (Sustainable) Development: A Literature Review

Academic mobility only evolved from a sub-theme within a highly-skilled migration to become a distinct area in mobility and migration studies recently. While a number of studies reiterate the potential brain drain impact of outward academic mobility, especially from poorer economies [22,23], the general tenor in the academic mobility-development discourse is generally supportive. As Cradden notes:

Academic mobility implies the exchange of knowledge, interpretations of society and pedagogical approaches. It is thus clearly desirable in itself, whether for individual members of academic staff or for the institutions and systems in which they work [24].

At an individual level, a number of studies have examined how academic mobility contributes to individual scholar's knowledge and career advancement [25–30] and outlined some of the factors that hamper mobility and career development of researchers [31,32]. Another line of studies has focused on the development impact of academic mobility at the city- and regional level. Trippl and Maier [33] assess the impact of mobility among top-notch scientists and researchers on knowledge spill-over and innovation and subsequently regional development, drawing upon a wealth of research on highly-skilled migration and technological as well as regional development. Morano-Foadi examines the linkage between scientific mobility and research performance in the supra-national European region [26]. The developmental impact of academic mobility is not only multi-scalar, but also multi-sited. In another paper, I underline how varied notions of development are practiced and experienced by different actors, at inter-connected localities, at a variety of spatial scales, and over time. Illustrating with two sets of Chinese-German academic mobility trajectories, I have applied the metaphors “development corridor” and “development chain” to depict the dynamic temporal-spatial relationships stretching across the German and Chinese academic fields [34].

A particularly dynamic subset of the scholarship examines the role of brain circulation [35] and diaspora knowledge networks in development [29,36–39]. The Chinese case has attracted a high level of attention. Zweig and associates document the Chinese state's choice of the diaspora approach as national development strategy [14,40]. Xiang puts forwards recommendations to optimize and synergize state activities and market mechanisms to better harness Chinese diaspora professional networks [41]. Breaking the restrictive “development for home country” assumption, Yang and Welch underline the spatially unbound impact of knowledge networks and convince how the Chinese knowledge diaspora in Australia is a transnational human capital offering potentials for both China and Australia for national development [42]. Fahey and Kenway however take a critical stand and question the assumed power of territory, identification, and citizenship on the subjectivities of mobile academics, debunking the alleged connections between nation-state and belonging, hence problematizing the optimistic diaspora development model [43].

While some notions of sustainability are often implicit in body of work referred above, its relationship with academic mobility is not clearly threshed out. A few papers have, however, made more explicit reference. Affirming the development potential of diaspora knowledge networks, Meyer draws attention to the “erratic activities” and “precarious life” of many of these networks that in turn produce limited developmental effect. He suggests ways in building sustainable (meaning: durable) diaspora networks, concluding that all key actors and institutions such as the state, other public

national, and local institutions, as well as private firms, NGOs, and intergovernmental organizations would need to play a role in promoting *interestment* among (potential) network members [44]. In the same vein, Xiang compares the Chinese and Indian experiences and consider factors that contribute to sustainably, meaning lasting “brain circulation” [45]. From a very different perspective, Danaher and Danaher connect academic mobility and sustainability at a conceptual level and propose applying the key concepts in sustainability discourse, namely “risk” and “capability building” to extend our current understandings of the manifestations and effects of academic mobility [46]. The following discussion attempts to advance the above discursive trajectories to conceptualize the complex and often contradictory relationships between academic mobility and sustainable development, focusing on the China-EU academic mobility field. First, let us unravel what sustainable development or sustainability refers to in this policy area and related discourse.

4. China-EU Academic Mobility: A Resource and Challenge for Sustainabilities

The Chinese state has, in its different generations, employed academic mobility as a political and developmental instrument since the mid-19th century [47]. The exchange of academics and students with changing sets of foreign countries has persistently been promoted as a means of improving quickly the quality of the Chinese elite, gathering knowledge and skills considered necessary for modernization, development and successful competition in the world political-economic arena. The current era of academic mobility promotion was initiated by Deng Xiaoping, the chief architect of the Open Door Policy that was set in motion in 1978. Deng, who spent some years in his youth in France “to learn knowledge and truth from the West in order to save China” [48], believed that scholars and students sent abroad would bring back advanced ideas and expertise needed for China’s modernization and development. His conviction was concretized in an expansion of study abroad programs. Subsequent political leaders have followed suit.

Chinese students now comprise a large proportion of international students in the universities of the English-speaking world. They have become major targets of recruitment in many universities and a source of income especially important for institutions that are suffering from substantial budget cuts (e.g. in the United Kingdom and Ireland). In this context, the issue of sustainability takes on a peculiar meaning. For many higher education institutions, Chinese student mobility is a lifeline for survival, a market to be groomed and tapped. This issue is brought forth in a report drafted by GHK Consulting (Brussels) and Renmin University (China) on EU-China student and academic staff mobility published in 2011 (hereafter the “GHK-Renmin report”), which states that many European universities face the challenge in “ensuring sustainable market growth in a mature market” especially “against the backdrop of an increasingly competitive international education market, in which students are seeking value for money, quality, and institutional reputation to ensure their investment brings the expected returns [49].”

On the other end of the mobility trajectories, the rapidly growing outflow of young Chinese to pursue higher education abroad has given rise to a “classical” sustainability challenge, namely the brain drain agony. Out of the 2.24 million students that studied overseas from 1978 to 2011, less than 40% (818,400) returned after their studies. The return rate has, however, picked up in recent years. Among those who had returned, more than half (429,300) had made their way home between 2009 and 2011, with 186,200 returning in 2011 alone [50]. Understandably, the booming economy with lucrative

jobs and ample entrepreneurial opportunities as well as a familiar culture has encouraged many more Chinese graduates to return. The role of the state can, however, not be underestimated. The Chinese central state has played an essential role in laying out the master plan and orchestrating diverse policies set out to entice graduates, academics, and researchers to contribute to national development. Facing the reality that the call for permanent return migration among Chinese scholars was not effective, the Chinese central state adopted the “diaspora option” in the early 1990s that is explicitly open to, and even encourages circulatory, move-in move-out kind of engagements. Specifically, the Ministry of Personnel published the “Opinion on Encouraging High-Level Overseas Chinese Students to Return to Work in China” in 2001, which states that in addition to privileges in housing, social insurance, jobs, and schools for their families, mobility-related privileges such as eased procedures for visiting overseas relatives and the permission to let returnees keep their long-term or permanent right of residence abroad while they work in China are also guaranteed [51].

Between China and the EU, student flows have predominantly been a one-way traffic, both in the number of students moving and the kind of study they pursue. Until now, many more Chinese students move to the EU than Europeans going to China. Whilst most Chinese students pursue a or part of a degree in Europe, staying in the EU for at least one year or two years, European students go to China for short periods and do not pursue a degree (e.g., taking a language course) in China. Authors of the GHK-Renmin report, “there are concerns that such disequilibrium might not be sustainable in the long term [N.B. with reasons not specified] and that EU countries are missing out on the benefits that exchange and mutual learning can bring [49]”. Academic mobility is a fast-changing terrain in China, however. Stimulated by a growing number of cooperation programs, the availability of course and degrees taught in English and the improving competitiveness of Chinese research and teaching, specially at elite universities, a rise in mobility of EU students (and academics) to China has already been recorded in the past few years. Due to the structural changes in the higher education sector and the broader economy in China and EU, more balance in the duration and purposes of mobility among Chinese and European students are expected. Specifically, more temporary mobility from China to the EU and more degree mobility from the EU to China are anticipated. Authors of the GHK-Renmin report further conclude that a more reciprocal type of mobility allow for mutually beneficial exchange will become the norm, signifying brain circulation similar to the move-in move-out mobility modus encouraged among the Chinese diaspora knowledge network [49]. In order to maintain and nurture these knowledge networks, higher education institutions and education- and research-related policy bodies in China and the EU are pushed to design sustainable (as in durable) and competitive programs and collaborations. These partnerships of academic nature are expected to engender a broader effect, contributing especially to the long(er) term (or again “sustainable”) Chinese-European economic relations.

Indeed, the Chinese state’s conviction in luring talents from overseas to enhance the country’s economic and technological development targets students and scholars beyond the Chinese academic diaspora. Chinese universities have opened up and strengthened efforts to cooperation with institutions abroad, increasing the number of incoming foreign students and academics. The Chinese government has made substantial financial investments to support international exchanges in education in the form of scholarships. Though seldom, there are recent cases that Chinese universities search for non-Chinese lecturers to promote internationalization. The GHK-Renmin report assessed that policies and initiatives promoting learning mobility between China and the EU in the last decade has

“contributed to the modernization of higher education in China, with the adaptation of teaching contents and methods to address the needs of today’s labor market, and to respond to the growing demand for high quality education in the country [49].”

The above overview demonstrates how sustainable development/sustainability has been conferred with multiple and at times contradictory meanings when they are used in relation to academic mobility between China and the EU. The subsequent section will zoom into the China-German academic mobility field; drawing on my qualitative research project on Chinese scholars (lecturers and researchers; not students) conducted in 2009 and 2010. It will foreground two core principles associated with sustainable development that have thus far been sidelined in most (especially higher-level) discussion concerning academic mobility; namely *diversity* and *equity*. Academic mobility has been stimulated worldwide; first and foremost; as a strategy to stimulate economic growth and competitiveness. Strong biases can be noted in academic mobility and international education policies toward certain gender; disciplines and geographies of interactions. What does this mean to the commonly-claimed quest for a sustainable society through mobility? Taking the social aspects of the sustainability talk more seriously would guide us to ask important questions for assessing the nature and effect of existing policies. I would go so far to argue that diversity and equity should precede durability as building blocks for sustainable development. If academic mobility is not conceived and practiced to achieve diversity and equity; would it make sense to make it durable?

5. How Sustainable (as in Equitable) is the Chinese-German Staff Academic Mobility?

Let us now “populate” the discussion we have pursued so far and ask who the moving scholars are and how they experience mobility. According to the Chinese Ministry of Education, academics going to Europe are generally aged between 30 and 40 years, *male* and from *disciplines related to engineering*. They are *mostly affiliated with institutions located in Beijing or Shanghai*. Academic mobility of Chinese scholars to Europe is steadily increasing and these scholars mostly travel to Europe for short-term periods (three months to one year) [49]. Though highly generalized, the sketch brings forth the gender, disciplinary and geographical bias in the Chinese-EU academic mobility field. In the following, I shall concentrate on the two sets of imbalance, starting with gender, an axis of division that has cut deeply into the academia practically worldwide [52].

Starting from the 1970s, studies have repeatedly documented the gender bias in staff academic mobility among in the USA [53–55]. A similar gender gap has also been confirmed in Europe. Ackers has repeatedly highlighted gender bias in her work on academic mobility in the past decade. Her research has identified the barriers to training and mobility of female researchers and examined the extent of female participation in research and knowledge production in Europe [56–58]. My research on Chinese-German academic mobility also confirms that female scholars are grossly under-represented. While aggregate data are not available on the gender distribution of foreign academics in Germany, the statistics from the German Alexander von Humboldt Foundation provide a reflection. The Humboldt Research Fellowship Program, funded by the Foundation has been the largest sponsorship scheme for visiting researchers (up to 40 years of age) at German universities and research institutions (up to 600 fellowships per year). Compared to other more specific and targeted sponsorship schemes, the Humboldt Research Fellowship Program takes pride of its openness to

applications from all countries and disciplines, without any regional and disciplinary quotas for the selection of research fellows. Among the total number of fellowships granted by Foundation worldwide from 1953 to 2011, only 16.5% have been granted to female researchers [59]. Among the Chinese fellowship recipients in 2011, 11.4% were female. The average figure for the period 1953–2011 for China was 13.2%. Another longitudinal study confirms that female Humboldt research fellows in general experience significantly less transnational mobility in their careers as compared to their male counterparts, particularly in the natural sciences [60].

Gender bias in the academic (mobility) field goes, obviously, beyond the disproportional number of male and female being supported to participate in international exchange. Gender molds the aspiration, motivation, expectation, and experiences of academic work and related mobility, and in turn defines the costs and benefits women and men (further differentiated by age, family status) have to pay/reap being mobile and engaged in international knowledge networks. In Europe, studies have revealed the highly gendered academic mobility patterns and experiences. Female mobile researchers in the EU predominantly move as “tied” movers, typically following a male partner [56]. High levels of mobility expected in the scientific profession often leads to tensions in double-career partnerships and women tend to sacrifice their career in such circumstances, by either leaving the profession or forgoing chances of progress [57]. Other studies on Bulgarian, Polish [61], Swiss [62] and Austrian [63] that examine the impact of life-course dynamics such as partnering and parenthood on academic mobility and career development all confirm a high level of gender bias. My research on Chinese scholars who have worked temporarily in Germany also verify some of these patterns. Even though academic mobility is perceived as positive at the policy and professional levels [20], the acceptance for women academics to go abroad is much lower compared to that given to their male counterparts in the social sphere. Li Meimei (female, 40 s), a professor in urban planning considered herself to be “lucky”, comparing her experiences with her female peers. Li had witnessed divorce among a number of women colleagues “because their husbands could not take it [having their wives being abroad]”. She states gendered “price for mobility” that is deeply rooted in the Chinese culture:

If men go to Germany to study or work, they can bring their wives with them. That is acceptable in the Chinese society. “Men take charge of the outside, women take care of things inside the family” [*nan zhu wai, nü zhu nei*]*—that is Chinese tradition. It is not really probable that a man accompanies his wife to study or work. Well, at least my husband thought he would lose his face if he did so. He visited me at the different places where I worked, but he was not willing to stay. If he had nothing meaningful [professionally] to do there, wouldn’t that hinder his careers in China? To stay with me, he must have had a very suitable position; otherwise he would rather remain in China, so that his career and chances for promotion would not be affected.*

Li’s reasoning for her husband not accompanying her is considered as unquestionable. On the contrary, I have encountered many male academics (of different nationalities and cultural backgrounds) who had brought their wives and families to Germany (and anywhere else). Many of these trailing wives were highly-educated and/or -skilled, but “willing” to put their career on hold and accept a less than “suitable” socio-economic position (*i.e.*, being full-time homemakers or taking up part-time, freelance work as “pastime” or “just to stay in the [professional] loop”) to travel with their husbands because they did not want to sacrifice their marriage and families.

The interviews I conducted with my research participants were directed toward charting the motivation and impact of their academic mobility experiences, with no specific questions on gender (as in comparing male *vs.* female experience) *per se*. Follow-up questions related more specifically to gender were subsequently raised, when deemed relevant after the interviewees have brought that into the conversation. There was a clearly gendered pattern when the conversation touched upon the dark(er)-side of academic mobility that was mostly linked to the family. Women interviewees tend to share the pain they had to bear being away of their families, especially their children, while male interviewees very seldom did. Hu Lin (female, 40s), an associate professor in electronic information, recalled the difficult times:

The biggest loss was the separation from my child, leaving him at home. Nobody took care of him. And then my son's eyesight got worse. He became short-sighted. And his school performance also deteriorated. Actually there was a possibility for me to extend my research stay from one year to at least two years then.... But I did not dare to take the offer. Because I did not dare to leave my child behind longer... My husband was very busy. And if my child went on like that [performing less well at school and becoming short-sighted], my family would be finished.

Even though Hu Lin's husband was at home with their son, she still considered that her child was left uncared because child-caring and disciplining should, in her opinion, be a mother's work. She even blamed her absence from home for her son's eyesight weakness. Later on in the interview, she repeated how "[her] family pulls her back" even though she had been offered other opportunities to go abroad. The above two narratives underline the power of gender in enabling mobility and installing stasis in academic work. Such gendered (im)mobility regulation in turn affects the subsequent capital accumulation possibilities women, especially mothers with young children, have through participating (more) actively in the increasingly global(ized) academia.

The gendered nature of academic mobility has important implications beyond shaping the experiences and career prospects of the individual scholars. A number of studies have shown that academic mobility can also induce considerable professional and personal development among the students and immediate colleagues of the mobile academics, as well as capacity development of the institutions these individuals are affiliated with [34,56,58].

Gender imbalance in academic mobility is almost always related to subject-specific gender disparity. Women are generally under-represented in the natural sciences and engineering, which are the disciplines mostly promoted in the academia, practically worldwide. Data from the Alexander von Humboldt Foundation reflect the situation. Among the 966 fellowships and awards granted in 2010, 63.4% were allocated to scholars from the natural sciences, 7.6% engineering and just 29% for humanities, including social sciences [64]. An analysis of policy documents published by individual nation studies, the EU and international agencies such as the OECD concludes that the policy discourse surrounding academic mobility "privileges science, engineering and technology knowledge over knowledge generated by other disciplines and academic fields" [65]. Such preferences are also practiced in the worldwide allocation of scholarship and research fellowship offered to out-going local students and academics, and in-coming foreign students and academics. The agenda set for the TRECCAfrica program mentioned earlier also confirms such bias.

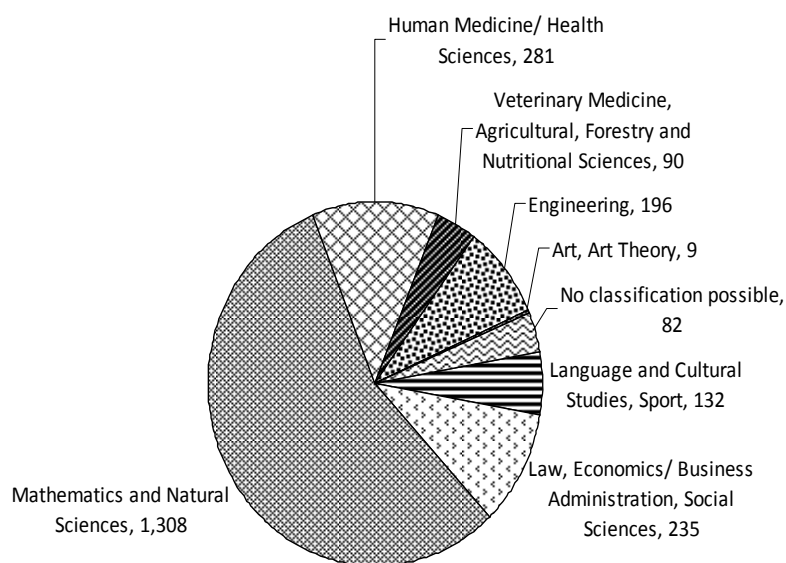
Not surprisingly, the Chinese-German academic mobility map reflects this pattern. The mobility push is by no means exercised even across all disciplinary fields. Chinese state sponsorship for academic mobility has concentrated in disciplines that are identified by the state as in urgent demand for China's sustainable development, e.g., telecommunication and IT, agricultural high technology, life science and population health, material sciences, energy and environment, engineering, and applied social sciences (e.g., business). These disciplines, by and large, coincide with the strategic foci set by partners in the EU. Public funding from China and the EU, more often than not, is channeled to these sustainability-related research areas.

Figure 1 illustrates the discipline background of Chinese academics and researchers in Germany in 2009 when I began my fieldwork research. The data reveals a high concentration of Chinese academics and researchers in natural sciences, medicine, and engineering disciplines working in Germany at that time. One *could* justify the disciplinary imbalance with the utility level of supported academic mobility projects. Increasingly, the relevance and contribution of a certain mobility experience or project to sustainability, presented more or less as universal and indisputable, is used as an assessment criterion in funding allocation in the academic sector worldwide. But how is relevance to sustainable development defined, and by whom? The experience of Yuan Mijiao (40s), specialized in rural and gender development studies, underlines the politics of sustainability discourse and practice in China. Yuan had spent some years in Germany with German funding and is now a senior lecturer at a university in one of the poorest provinces in China. When I asked her if she would be interested in going abroad again as a visiting scholar, she told me with a regretful tone that even though the Chinese state was investing huge amount in promoting academic mobility and international exchange, "research like ours [not belonging to any strategic areas] is seldom funded. We struggle enough to keep our ordinary teaching and research activities going." The fate of these non-strategic disciplines contrasts the preferential treatments given to their counterparts. In 2011, the Chinese Ministry of Science and Technology revealed its plan to invest a total of US \$244 million on a list of 64 projects—an increase of more than 50% on previous year's \$160 million—over the subsequent five years. The projects would cover six strategic topics: protein research, quantum technology, nanotechnology, research into developmental and reproductive biology, stem cells, and earth science [66]. It is understandable that Yuan feels discouraged at times when topics that she considers being at the heart of sustainable development are not prioritized, while the National Supercomputer Center in Tianjin (about 140 km southeast of Beijing) paid US \$60 million for the world's fastest supercomputer, moving the China's ranking "from zero to hero" in this research area, albeit the short-lived glory survived only six months when a Japanese supercomputer three times as fast superseded the Chinese apparatus [67].

Taking a closer look at how staff academic mobility is prioritized and practiced, this section has underlined the exclusionary nature of the Chinese academia and related mobility. In particular, we are reminded that key components of the sustainability notion, namely the perusal of diversity and equity have been sidelined in China-EU academic mobility discourse and practice. If academic mobility is expected to contribute to knowledge production and international partnership that is useful for development of the mobile academics and the institution, disciplines and the broader societies in which these individuals are embedded, we must question critically what the existing imbalance would lead to. How sustainable is an academia and a society where female academics receive substantially less

support and a selection of particularly costly disciplines in sciences and technology continue to expand at the cost of the social sciences, humanities and the arts? To push the argument further to the ground, how sustainable can we speak of an education system in which million of dollars is invested in cutting-edge technology, aiming to catch up with other superpowers while leaving under-privileged populations behind? Can we justify the current resource allocation and political commitment priority with the rhetoric of sustainability when 115 million children (estimated by UNICEF in 2005) are still out of school today in a country that is racing to be the next scientific superpower [68]?

Figure 1. Discipline background among Chinese academics and researchers in Germany in 2009 (number of persons).



Total number: 2,333

Data source: Wissenschaft weltoffen [69].

6. Conclusions

This paper calls for more critical attention to the seemingly indisputable “academic mobility for sustainable development” mantra, while not downplaying the positive impact of this increasingly common mode of mobility. First, I have underlined how the equivocal concept of sustainability or sustainable development has been linked to academic mobility in multiple and sometimes contradictory ways. Depending on the context, who sets the agenda for certain mobility policy, who is supposed to move, where and when the impact is expected to take place *etc.*, academic mobility has been assigned a wide variety of missions and utility levels beyond the immediate goals of developing human capital and advancing the production of knowledge in the academia. Academic mobility exists in multiplicity. This article does not intend to generalize the nature and impact of this highly-varied mobility field. It aims, however, to problematize the frequent and presumably incontrovertible coupling between academic mobility and the pursuit for sustainability, drawing on grounded research findings from a recent study on Chinese staff academic mobility. One could rehearse this exercise to examine other modes of academic mobility such as student degree or credit mobility and would arrive at

perhaps parallel and/or contrasting context-specific conclusions. Essential is, I would argue, a sensibility to the contradictions and tension that traverse the “academic mobility for sustainable development” mantra.

Often times, one policy is conceived to achieve multiple sustainability objectives for different individuals, communities, in different places at the same time. The multi-purpose of the “academic mobility for sustainability” formula is not problematic, *per se*, at all. It is, however, necessary to pay close attention to the concrete and genuine agenda in any policy initiative and check for potential contradictions and tensions. This is particularly important as terms such as “sustainable” and “sustainability” have been used loosely and circulated as glossy rhetoric and justification of any politics and policies that might have other less socially desirable or acceptable objectives and impact.

Defining sustainability is a political and power-charged process. Actors and institutions with power in the public and private sectors specify the types of knowledge and expertise that is considered as instrumental to the nation’s sustainable development. In the Chinese academic mobility field, the prioritization of natural and medical sciences, technology and engineering subjects as strategic areas by the Chinese its partner (e.g., German or EU) decision-makers means sidelining other academic disciplines in resource allocation. I have illustrated the strong disciplinary biases in the Chinese academic mobility field. If academic mobility indeed contributes to knowledge exchange and creation, as it is generally expected, it would follow that the existing disciplinary disparity between STEM (Science, Technology, Engineering, and Mathematics) and the humanities and social sciences subjects. This begs the question: how sustainable is the currently practiced “academic mobility for development” paradigm when diversity and balance, two key elements in sustainability thinking, are not nurtured? One must ask what the opportunity costs for engaging in “cutting-edge” research, let’s say in supercomputing, is in a country like China where the basic entitlements of (too) many individuals and families are still not fulfilled. In the same vein, if simulating academic mobility means diverting resources away from other arguably more urgent tasks in the pursuance of sustainable (meaning equitable) development on the ground, a new priority setting would be called for.

One also cannot speak of social sustainability without gender equity. Statistics and narratives from my interviewees have illustrated the gender bias that runs deeply in the Chinese academia and staff academic mobility field—as in most countries in the world. Again, if academic mobility should promote the capacity for the individuals who move and his/her colleagues, students, affiliated institutions, disciplines, and economies, should the current policy and praxis orientation be sustained to deepen the gender gap in the academia? Social divisions beyond gender affect who has more opportunities to engage in academic mobility projects and international collaboration. Age that is generally related to professional rank is another dominant dividing line that runs through the academic mobility field worldwide, while in some contexts, religion and ethnicity also play a crucial role. If academic mobility is a policy that is conceptualized for more equity and diversity, affirmative efforts by the policy-makers and funding agencies to correct existing imbalances should be made.

I have focused on the gender and disciplinary biases of academic mobility policies and practices. There are many other social and environmental impacts induced by academic mobility that have been (i) undermined in the sustainability talk that has been more or less hijacked by economic concerns and (ii) glossed over by the over-glorification of mobility. Like any other modes of mobility, academic mobility, among others, promotes (sometimes wasteful) travelling that creates tremendous ecological footprint in aggregation [70]; it imposes (at times very long and frequent) separation from families and

relatives; it entails a higher staff fluctuation in academic units that might undermine institutional continuity, identity and memory. All these should not be considered “just” as externalities of the mobility economy. Rather, they should enter the equation if mobility is genuinely to be planned and regulated to promote a humane, diverse, healthy, and sustainable society.

Acknowledgments

This paper draws on a project funded by the Research Grants Council (Hong Kong) (HKU 746909H, 2009–2010) and the Alexander von Humboldt Foundation. I thank all research participants who took part in the project willingly, Annelies Zoomers and both anonymous referees for their comments and suggestions.

Conflict of Interest

The author declares no conflict of interest.

References and Notes

1. European Commission. Beyond the Bologna Process: Creating and connecting national, regional and global higher education areas. Available online: http://www.minedu.fi/export/sites/default/OPM/Koulutus/artikkelit/bologna/liitteet/BolognaPolicyForum_statement.pdf (accessed on 27 March 2013).
2. Mobility of artists and culture professionals. Available online: http://ec.europa.eu/culture/our-policy-development/skills-and-mobility/mobility-of-culture-professionals_en.htm (accessed on 12 April 2013).
3. Redclift, M.R. Sustainable Development: Economics and the Environment. In *Strategies for Sustainable Development: Local Agendas for the Southern Hemisphere*; John Wiley and Sons: New York, NY, USA, 1994; pp. 17–34.
4. Tolba, M.K. *The Premises for Building a Sustainable Society—Address to the World Commission on Environment and Development*; United Nations Environment Programme: Nairobi, Kenya, 1984.
5. Redclift, M.R. *Sustainable Development: Exploring the Contradictions*; John Wiley and Sons: New York, NY, USA, 1987.
6. Williams, C.C.; Millington, A.C. The diverse and contested meanings of sustainable development. *Geogr. J.* **2004**, *170*, 99–104.
7. Jabareen, Y. A new conceptual framework for sustainable development. *Environ. Dev. Sustain.* **2008**, *10*, 179–192.
8. Robertson, S. Critical response to special section: International academic mobility. *Discourse Stud. Cult. Polit. Educ.* **2010**, *31*, 641–647.
9. Khadria, B. Adversary analysis and the quest for global development: Optimizing the dynamic conflict of interest in transnational migration. *Soc. Anal.* **2009**, *53*, 106–122.
10. Hawthorne, L. *The Growing Global Demand for Students as Skilled Migrants*; Migration Policy Institute: Washington, DC, USA, 2008.

11. Sykes, B.; ni Chaoimh, E. *Mobile Talent? The Staying Intentions of International Students in Five EU Countries*; Expert Council of German Foundations on Integration and Migration: Berlin, Germany, 2012.
12. De Wit, H.; Ripmeester, N. Increasing the stay rate of international students. *University World News*, 16 February 2013; Issue No: 259.
13. Welcome to One More Step. Available online: <https://www.one-more-step.eu/en/> (accessed on 12 April 2013). L 13 countries are: Cambodia, Myanmar, Mongolia, Vietnam, Laos, Indonesia, Malaysia, Thailand and China. In addition participants from Sri Lanka, India, Maldives, Philippines, North Korea are considered if belonging to the partnership.
14. Zweig, D.; Fung, C.S.; Han, D. Redefining the brain drain China's "diaspora option". *Sci. Technol. Soc.* **2008**, *13*, 1–33.
15. Malaysia has one million expatriates abroad. *Malaysia Today*, 31 October 2011. Available online: <http://malaysia-today.net/mtcolumns/newscommentaries/44589-malaysia-has-one-million-expatriates-abroad> (accessed on 12 April 2013).
16. Manandhar, S. Who pays the price for Nepal's brain drain? *The Himalayan Times*, 18 September 2010. Available online: <http://www.thehimalayantimes.com/fullNews.php?headline=Who+pays+the+price+for+Nepal%27s+brain+drain%3F&NewsID=258227> (accessed on 12 April 2013).
17. Tebeje, A. Brain drain and capacity building in Africa. Available online: <http://www.idrc.ca/EN/Resources/Publications/Pages/ArticleDetails.aspx?PublicationID=704> (assessed on 27 March 2013).
18. Making the Most of Our Potential: Consolidating the European Higher Education Area: Bucharest Communiqué. Available online: <http://www.ehea.info/Uploads/%281%29/Bucharest%20Communique%202012%282%29.pdf> (accessed on 27 March 2013).
19. Encourage academic mobility in Africa: Minister tells African universities. Available online: <http://www.modernghana.com/news/274980/1/encourage-academic-mobility-in-africa-minister-tel.html> (accessed on 27 March 2013).
20. For a discussion on conceptualising mobility as capital, refer to Leung, M.W.H. "Read ten thousand books, walk ten thousand miles": Geographical mobility and capital accumulation among Chinese scholars. *Trans. Inst. Br. Geogr.* **2013**, *38*, 311–324.
21. Agunias, D.R.; Newland, K. *Developing a Road Map for Engaging Diasporas in Development: A Handbook for policymakers and practitioners in home and host countries*. 2012. Available online: <http://www.migrationpolicy.org/pubs/thediasporahandbook.pdf> (accessed on 27 March 2013).
22. Thorn, K.; Holm-Nielsen, L. *International Mobility of Researchers and Scientists: Policy Options for Turning a Drain into a Gain*; Working Paper No. 83; World Institute for Development Economics Research of the United Nations University: Helsinki, Finland, 2006.
23. Welch, A. Myths and Modes of Mobility: The Changing Face of Academic Mobility in the Global Era. In *Students, Staff and Academic Mobility in Higher Education Cambridge Scholars*; Byram, M., Dervin, F., Eds.; Cambridge Scholars Publishing: Newcastle, UK, 2008; pp. 292–311.
24. Cradden, D. Towards Sustainable Academic Mobility: Higher Education Development and Freely Chosen Migration. Paper Presented at Education International's 6th International Higher Education and Research Conference, Malaga, Spain, 12–14 November 2007; p. 16.
25. Ackers, L. Internationalisation and equality: The contribution of short stay mobility to progression in science careers. *Rech. Sociol. Anthropol.* **2010**, *1*, 83–103.

26. Morano-Foadi, S. Scientific mobility, career progression, and excellence in the European Research Area. *Int. Migr.* **2000**, *43*, 133–162.
27. Enders, J.; Teichler, U. Academics' Views of Teaching Staff Mobility: The ERASMUS Experience Revisited. In *The Professoriate: Profile of a Profession*; Welch, A., Ed.; Springer: Dordrecht, The Netherlands, 2005; pp. 97–112.
28. Ackers, L.; Gill, B. *Moving People and Knowledge: Understanding the Processes of Scientific Mobility within an Enlarging Europe*; Edward Elgar: Cheltenham, UK, 2008.
29. Woolley, R.; Turpin, T.; Marceau, J.; Hill, S. Mobility matters: Research training and network building in science. *Comp. Tech. Tran. Soc.* **2008**, *6*, 159–186.
30. Jöns, H. "Brain circulation" and transnational knowledge networks: Studying long-term effects of academic mobility to Germany, 1954–2000. *Glob. Netw.* **2009**, *9*, 315–338.
31. Cox, D. Evidence on the Main Factors Inhibiting Mobility and Career Development of Researchers. Available online: http://ec.europa.eu/euraxess/pdf/research_policies/rindicate_final_report_2008_11_june_08_v4.pdf (accessed on 27 March 2013).
32. Cantwell, B. Transnational mobility and international academic employment: Gatekeeping in an academic competition arena. *Minerva* **2011**, *49*, 425–445.
33. Trippel, M.; Maier, G. Star Scientists as Drivers of the Development of Regions. In *Innovation, Growth and Competitiveness. Dynamic Regions in the Knowledge-based World Economy*; Nijkamp, P., Siedschlag, J., Eds.; Springer: Berlin, Germany, 2011; pp. 113–134.
34. For a critique on the fixated spatiality regarding academic mobility and development, see Leung, M.W.H. Of corridors and chains: Translocal developmental impact of academic mobility between China and Germany. *Int. Dev. Plann. Rev.* **2011**, *33*, 475–489.
35. Saxenian, A.L. *The New Argonauts: Regional Advantage in a Global Economy*; Harvard University Press: Cambridge, MA, USA, 2006.
36. Meyer, J.B.; Brown, M. *Scientific Diasporas: A New Approach to the Brain Drain*; UNESCO Management of Social Transformations Discussion Paper No. 41; UNESCO: Paris, France, 1999.
37. Arocena, R.; Sutz, J. Brain drain and innovation systems in the South. *Int. J. Multicult. Soc.* **2006**, *8*, 43–60.
38. Meyer, J.B.; Wattiaux, J.P. Diaspora knowledge networks: Vanishing doubts and increasing evidence. *Int. J. Multicult. Soc.* **2006**, *8*, 4–24.
39. Jöns, H.; Mavroudi, E.; Heffernan, M. Reconceptualizing the German Academic Diaspora: From Homeland to Home Culture. Presentation at the International Geographical Congress, Cologne, Germany, 27 August 2012.
40. Zweig, D.; Chen, C.; Rosen, S. Globalization and transnational human capital: Overseas and returnee scholars to China. *China Q.* **2004**, *179*, 735–757.
41. Xiang, B. *Promoting Knowledge Exchange through Diaspora Networks (The Case of People's Republic of China.)*; A report written for the Asian Development Bank. Oxford: ESRC Centre on Migration, Policy and Society (COMPAS); University of Oxford: Oxford, UK, 2005.
42. Yang, R.; Welch, A. Globalisation, transnational academic mobility and the Chinese knowledge diaspora: An Australian case study. *Discourse Stud. Cult. Polit. Educ.* **2010**, *31*, 593–607.
43. Fahey, J.; Kenway, J. Moving ideas and mobile researchers: Australia in the global context. *Austr. Educ. Res.* **2010**, *37*, 103–114.

44. Meyer, J.-B. *Building Sustainability: The New Frontier of Diaspora Knowledge Networks*; Working Papers No. 35; Center on Migration, Citizenship and Development: Bielefeld, Germany, 2007.
45. Xiang, B. Towards Sustainable 'Brain Circulation': What India and China Can Learn From Each Other. Paper Presented at the International Conference on Population and Development in Asia: Critical Issues for a Sustainable Future, Phuket, Thailand, 20–22 March 2006.
46. Danaher, P.A.; Danaher, G.R. Mobile Learning Communities: Lessons for and from Academic mobility, the Knowledge Economy and Sustainability. In *Analysing the Consequences of Academic Mobility and Migration*; Dervin, F., Ed.; Cambridge Scholars Publishing: Newcastle, UK, 2011; pp. 131–146.
47. Kirby, W.C. Intercultural Connections and Chinese Development: External and Internal Spheres of Modern China's Foreign Relations. In *China's Quest for Modernisation: A Historical Perspective*; Wang, X., Ed.; Institute of East Asian Studies, University of California, Berkeley, CA, USA, 1997; pp. 208–233.
48. Stewart, W. *Deng Xiaoping: Leader in a Changing China*; Lerner Publications: Minneapolis, MN, USA, 2001; p. 23.
49. GHK Consulting and Renmin University. EU-China Student and Academic Staff Mobility: Present Situation and Future Developments: Joint study between the European Commission and the Ministry of Education in China. 2011. Available online: http://ec.europa.eu/education/external-relation-programmes/doc/china/mobility_en.pdf (accessed on 26 March 2013).
50. Fewer Chinese overseas students staying abroad. Available online: http://news.xinhuanet.com/english/china/2013-01/24/c_132125016.htm (accessed 19 March 2013).
51. For a more detailed discussion on the role of the Chinese state in regulating academic mobility for development, see Leung, M.W.H. Making and tapping the transnational brains: The role of the state in regulating academic mobility for development. *Tijdschr. Econ. Soc. Ge.* **2013**, in press.
52. The discussion here concentrates on the gendered nature of professional academic mobility in the Chinese-EU case. The gender pattern of other forms of academic mobility (e.g. student degree mobility, student credit mobility *etc.*) and in other spatial contexts can of course deviate from my observations in this research project.
53. Marwell, G.; Rosenfeld, R.; Spilerman, S. Geographical constraints on women's careers in academia. *Science* **1979**, *205*, 1225–1231.
54. Kulis, S.; Sicotte, D. Women scientists in academia: Geographically constrained to big cities, college clusters, or the coasts? *Res. High. Educ.* **2002**, *43*, 1–30.
55. Welch, A. From *peregrinatio academica* to the Global Academic: The Internationalisation of the Profession. In *The Professoriate: Profile of a Profession*; Welch, A., Ed.; Springer: Amsterdam, The Netherlands, 2005; pp. 71–96.
56. Ackers, L. The participation of women researchers in the TMR Marie Curie Fellowships. 2000. Available online: ftp://ftp.cordis.europa.eu/pub/improving/docs/women_final_rpt_3march2000.pdf (accessed on 25 March 2013).
57. Ackers, L. Managing relationships in peripatetic careers: Scientific mobility in the European Union. *Women's Stud. Int. Forum* **2004**, *27*, 189–201.

58. Ackers, L. Internationalisation and equality: The contribution of short stay mobility to progression in science careers. *Rech. Sociol. Anthropol.* **2010**, *41*, 83–103.
59. Alexander von Humboldt Foundation, email communication in April 2012.
60. Jöns, H. Transnational academic mobility and gender. *Glob. Soc. Educ.* **2011**, *9*, 183–209.
61. Ackers, L.; Gill, B. *Moving People and Knowledge: Scientific Mobility in an Enlarging European Union*; Edward Edgar: Cheltenham, UK, 2008.
62. Leemann, R.J. Gender inequalities in transnational academic mobility and the ideal type of academic entrepreneur. *Discourse Stud. Cult. Polit. Educ.* **2010**, *31*, 609–625.
63. Scheibelhofer, E. How and Why Are Mobilities Gendered?: Gender Still Matters: Mobility Aspirations among European Scientists Working Abroad. In *Gendered Mobilities*; Uteng, T.P., Cresswell, T., Eds.; Ashgate: Aldershot, UK, 2008; pp. 115–128.
64. Alexander von Humboldt Foundation. Jahresbericht /Annual Report 2010. Alexander von Humboldt Foundation, Bonn, Germany, 2011. Available online: http://www.humboldtoundation.de/pls/web/docs/F179/jahresbericht_2010.pdf (accessed on 25 March 2013).
65. Cantwell, B. Transnational mobility and international academic employment: Gatekeeping in an academic competition arena. *Minerva Rev. Sci. Learn. Policy* **2011**, *49*, 425–445.
66. Jiang, J. Chinese science ministry increases funding. *Nature* 1 September 2011. Available online: <http://www.nature.com/news/2011/110901/full/news.2011.515.html> (accessed on 26 March 2013)
67. Lim, L. China's supercomputing goal: From 'zero to hero', National Public Radio (USA), 2011. Available online: <http://www.npr.org/2011/08/02/138901851/chinas-supercomputing-goal-from-zero-to-hero> (accessed on 26 March 2013).
68. Rycroft, C. UNICEF Executive Director highlights gender equality and girls education during China trip. 29 August 2005. Available online: http://www.unicef.org/infobycountry/china_28116.html (accessed on 25 March 2013).
69. Wissenschaft weltoffen. Available online: <http://www.wissenschaftweltoffen.de/daten/7/3/8?lang=en> (accessed on 25 November 2011).
70. For a similar argument, see Almeida, J.; Maertens, M.; Verbist, B. *Ecological Footprint of Mobility of Development Organizations*; KLIMOS: Leuven, Belgium, 2011.

© 2013 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).