Revisiting Forces and Forms of Doctoral Education Worldwide
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Expert Report (Group 5)

Converging Diversity: New Frames for 21st Century Doctoral Education

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FORCES AND FORMS OF
DOCTORAL EDUCATION
——— 2019
IN A NEWLY CONFIGURED AND
CONSTRAINED GLOBAL CONTEXT

Outline

The second decade of the 21st century is characterised by counterintuitive developments: digitisation with its accelerating effects on global knowledge production, increasing academic expanse with growing numbers of doctoral candidates around the globe and, on the reverse angle, fuelled by populist movements and authoritarian regimes, the rise of anti-intellectual forces fostering irrationality based on archaic patterns of fear.

We have been addressing these topics with a number of questions: What should be the role of the researcher and doctoral education in counterbalancing trends towards limiting the freedom of research? How to train doctoral candidates in understanding, moral commitment, and wisdom? What conclusions might we draw for doctoral education in view of authoritarian turns, e.g. as in the case of Turkey? How to 'decolonise' doctoral education and include non-western epistemologies? Should we work towards a 'global doctorate' and would it be desirable? What should be the role for doctoral education in view of potential threats and dangers resulting from research? In what way could research ethics and integrity become a cornerstone of doctoral education?

In this expert report we have chosen a multi-perspective approach, complementing essays written by working group members with a national case study on Turkey and two expert interviews. We are focussing on three major topics, namely the 'interplay of societal/political change and a vision for the future role of the researcher', 'transcultural doctoral education' and a new approach to 'research ethics and integrity' in view of responsible doctoral education meeting the challenges of our time.

The chapter is completed by a set of conclusions and recommendations where we have made the attempt to give preliminary answers and raise more questions for further discussion.

Topic 1: Interplay of societal/political change and a vision for the future role of the researcher

by Christian Peters and Beate Scholz

Globalised world vs. nationalistic/fundamentalist trends and their movements

The early 21st century is characterized by a rising *awareness of* and the simultaneous *aversion against* global ecologic, economic, political complexity. Coupled to fears of loss/change of status and identity *(cf. Bauer 2018)*, this uncertainty coincides with the rise of authoritarianism, anti-elitism and nationalism and provokes unprecedented threats to both universal and academic freedom. Increasingly, in liberal democracies like the US, France, the UK, Italy or Germany, we observe profound social and cultural polarizations accompanied by distrust of the neutrality of political, scientific and economic elites *(cf. Manow 2019; Rudolph 2019; Müller 2016; Levitsky/Zieblatt, 2019)*. Many people share an emotionalized suspicion of formerly binding structures of collective communication, making integrative, rational discourses less probable. In other countries like Hungary, Brazil, Russia or Turkey *(Dultra/Rangel 2019; Devi 2019; Karakaşoğlu/Tonbul 2015)*, universities and scientists are under overt pressure with authoritarian governments taking direct influence on research agendas, academics and higher education policies and institutions *(cf. page 5 ff).*

All this has effects for doctoral education, because

- In anti-intellectual dynamics, science seems to have lost its objectiveness and gets overly politicized.
- The freedom of research and its safeguarding institutions are getting fragile. Illiberal policies may have long-lasting impacts on local academic cultures and the attractiveness of the job profile 'researcher'.
- A milieu of suspicion may, in turn, influence early career researchers, limiting their strife for independence of thought and creativity.

Science, technological and social change and global doctoral education

As the amount and the complexity of information available increases constantly, so does the educational profile of societies where this happens. Research breakthroughs in artificial intelligence and robotics as well as the omnipresence of social media are changing the practices of knowledge generation and diffusion. 'Open Science' *(cf. European Commission 2016)* has become the new leading paradigm of the research and the knowledge transfer process with strong implications for teaching and doctoral education and, not to forget, supervision.

Concurrently, doctoral education continues its expansion around the globe: First, at the undergraduate level, the majority of OECD Member States are seeking to reach the 40% goal of tertiary education graduates within their respective age groups. Especially in countries with emerging economies as e.g. South Africa or Malaysia, governments have defined target numbers for PhD graduates. Doctoral education seems to be a guarantor for societal wellbeing and economic competitiveness. These trends have been recognisable for more than a decade, at least. Coinciding with digitisation and its impacts on higher education and research, we are now facing new challenges with respect to the next generation of doctorate holders, such as:

- With the change in the pace and range of data processing, research seems to become ever more borderless. This does not only raise ethical issues, but also brings about more fundamental questions, e.g. what we define as valuable knowledge and who has the right to define what we count as knowledge.
- Given its 'endless frontier', science is a global process: Not only its topics and concepts, but researchers' networks and the relevant communication and dissemination strategies have become transnational.

In view of doctoral education we have to ask, though, if the globalisation and the digitisation of knowledge production necessarily entail a 'global doctorate' or if the particularities e.g. of national models of doctorate education and disciplinary particularities still remain as prevalent characteristics of doctorate education worldwide. Or, will we eventually succeed in reconciling convergence and diversity in doctoral education? If there is a global agreement *(cf. Nerad 2015, Nerad/Evans 2014)*, we need to reach consensus on what to understand by a 'global doctorate' and what its limits are. Prerequisites are:

- To deliberate in an inclusive discourse on what counts as knowledge in diverse contexts.
- To appreciate the diversity of thought and knowledge and the benefits it has for scientific progress.
- To modernize the Humboldtian paradigm, i.e. the integrated approach of research and teaching in academia, by an updated concept which accommodates (intellectual) traditions of different cultures and world regions.
- To achieve a common understanding on the desired main outcome of doctoral education, i.e. the trained researcher.

The role of the researcher – envisioning a normative approach

Doctoral graduates and the concept of transformative leadership

In the critical phase of global challenges described above, we have to rely on and qualify a new generation of ethical citizens to become 'reflective', but not self-referential 'champions of discourse'. We expect doctoral graduates to be „creative, critical, autonomous and responsible intellectual risk takers" *(Cf. LERU 2010, Cf. Council of the European Union 2016)*, prepared to become transformative leaders, who

- Are dedicated to working for and living in open (self-)critical societies, where politics and social integration functions according to the principle of trial and error, by avoiding normative teleology, by constantly questioning and adapting approaches to solutions, by reforms rather than revolutions.
- Are able to provide guidance for progress and orientation. Knowledge 'elites' in open societies have to both validate and communicate the complexities that inherently structure our lives, thereby making them less terrifying.
- Are able to advance open science while limiting its potential dangers resulting e.g. from an accelerated progress in artificial intelligence research / genetic modification / combining of behavioural sciences and big data exploration.
- Understand research as search for the search for knowledge and orientation with binding standards of scientific progress in line with the United Nations' Human Rights Charter.
- As 'resilient researchers' are prepared to defend the freedom of research, e.g. by insistently communicating the value of research to society based on reliable, reproducible and provable results and take political action, if necessary.
- Understand that individual and collective wellbeing is critically endangered as consequence of a destruction of our ecologic environments and cultural diversity. Researchers have the potential to develop a different 'time preference rate', anticipating the potential consequences of human activities in longer time frames than their own lives/generations.

Reconciling individuality and institutional demands in doctoral education

What we stated above will have strong implications not just at the levels of research systems and institutions in charge of doctoral education, but first and foremost at the level of the individuals concerned. This requires that we

- Select doctoral candidates not just in view of their intellectual competencies, but also taking into account their motivation for studying, their critical thinking dispositions and their creative potential. The need for a 'shared toolbox' enabling academic exchange and the dominance of Northern standards in the dissemination of research are strong forces homogenizing the intellectual acculturalisation of ECRs worldwide. However, scientific progress, ethical awareness and 'social sense' not only depend on balancing out collective demands but also rely on individuality, independence of thought and the appreciation of diverse cultural and normative backgrounds of doctoral students and of different culturally-dependent knowledges.
- Develop supervisors' consciousness in this direction and only appoint researchers who identify with the full range of responsibilities associated with supervision (reachability, critical but constructive attitude, acceptance of the leadership role) and who fully comply with highest standards of research ethics and scholarly integrity.

- ▪ Include measures of leadership development, of 'Bildung'[1] in the broadest sense and the appreciation of emotional and social intelligence through doctoral education.
- ▪ Overcome the concept of knowledge production in an industrialised (i.e. parameterised) sense and sharpen the focus on research outcomes, innovation and the (societal) impacts they generate.
- ▪ Define a new concept of 'academic meritocracy': Recognition in the academic system bases on maximum scientific qualification that expresses itself through creative spirit, critical attitude to conventionalism, personal motivation and professional commitment. This notion of meritocracy should acknowledge that individual outcomes are not separated from the conditions of historical inequalities that underlie the positions of nations and their respective scientific systems as well as the identities (gender, race, ethnicity, class, disability status, sexual orientation, religious backgrounds, etc.) of the ones who were able to become researchers at a given time.

Case Study: The Impacts of Neoliberalism/Authoritarianism on Higher Education in Turkey (in excerpts)

by Yasemin Karakaşoğlu and Betül Yarar

A Brief Overview of Higher Education in Turkey: De-democratisation Impacts of Neoliberal Policies and Recent Authoritarian Attacks on Higher Education

The modern Turkish higher education system has developed in parallel with political conjunctures, repeatedly being marked by various military coups (Aslan, 2008, 2012 and 2013). Aslan states that "all the legislative regulations, except the university law enacted in 1946, have been done under the shadow of the Military Coups in Turkey" (Aslan, 2013: 255-5.) <...> Following the military coup of 1980, with the aim of disciplining universities, the administration of higher education in Turkey was comprehensively rebuilt with all institutions tied to the newly established Council of Higher Education. The Council of Higher Education (CoHE) was created to administer all universities and to keep them under the state control.

It is also under these conditions provided by the military coup, neoliberal austerity rules have been conducted in Turkey. In other words, neoliberal programmes have been mobilised and applied from the above by authoritarian forces. However, since then, with populist neoliberal projects of successive elected governments, neoliberalism has turned into the hegemonic mode of governing all spheres of the social including Turkish education and higher education (For the analysis of neoliberalism and neoliberal governing policies of the new right in Turkey see Yarar, 2000 and 2017). Neoliberal agenda focusses on education as a means in the functioning of (labor) markets, stresses flexibility and employability of the Human Resources and somewhat ignores egalitarian, collectivist and emancipatory principles underlying the notion of education and higher education. This apolitical approach of neoliberal rationality had no

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[1] By 'Bildung' we wish to understand in accordance with the definition by Gerd Biesta: "Bildung includes the political, social and ethical dimensions of Education where Education is more than learning knowledge and skills , but also about becoming an educated person who cultivates an active inner life, reflexivity, empathy and subjectivity'". (Biesta 2002: p.

problem with the state involvement if it does not contradict with the market forces. This legitimates the centralization of Higher Education in the hand of the state. There was a clear desire to direct the education system in order to secure the social order of the Turkish state power while simultaneously producing a labor force compatible to global demands. <...>

<...> The depoliticization of academia has been achieved not only through the process of increasing control, but also by decreasing financial investment of the state into education and the privatization. In other words, reducing state expenses on education emerges as a method to expand the process of privatization. But before legalisation of privatisation in public higher education, the government had changed the rationality behind. HE services, which had been perceived as a public service until 1980s, was defined as a "semi-public" service in the Higher Education Law (2547) passed in 1981 (Aslan, 2013). HE was argued being as a "semi-public" because it is perceived to have rather private than societal value and returns of investment. This new perspective was to legitimate private universities with increasing tuition fees in return for quality higher education for their children. <...> Later in 1984 and with the amendment of <another> related law, along with the state universities, non-profit foundation universities started to be established (YÖK, 2014): „The University Law of 1991 enabled private investors to establish 'foundation universities' with loans at low interest rates and up to 45 % state subsidies from the education budget. At private universities, students who fail to attain the required grades in their entrance examinations for state universities can take up a course of studies for a relatively high fee. All of the private schools and universities are under the supervision of the MEB, which also approves the use of relevant textbooks."(Karakaşoğlu/Tonbul 2015, p.836)

Hence, HE turned into a dual system with its composition of a two-tier structure: state (public) universities and so-called non-profit foundation (private) universities. It has to be stressed that despite the increase in the establishment of ´foundation´, ´private´ or ´non-profit´ universities, the state still plays a major role as investor in HE. <...> The state operates financial transfers to these semi-public or private universities in return for interests that are created by means of debt policies.<...>

According to Brown, a radically extended reach of the private, mistrust of the political and disavowal of the social are the specific elements of neoliberal reason which together normalize inequality and disembowel democracy. These elements of neoliberal reason are the ones that shape and legitimize recent angry white right political passions. In other words, the recent authoritarian attacks of the radical right, according to Brown, should be analysed as the effects of neoliberalism. Neoliberal rationality with these principles is what, according to Brown, generates the antipolitical yet libertarian and authoritarian dimensions of popular right-wing reaction today. For her neoliberal rationality, as being productive, world-making, mainly economizes every sphere and human endeavour, and replaces a model of society based on the justice-producing social contract with society conceived and organized as markets and with states oriented by market requirements (Brown, 2018). For her in the context of neoliberalism, the concepts like "freedom" for instance is submitted to market meanings. Hence "it is stripped of the political valences that attach it to popular sovereignty and thus to democracy. Instead, freedom is equated wholly with the pursuit of private ends, it is appropriately unregulated, and it is largely exercised to enhance the value, competitive positioning, or market share of a person or firm. Its sole political significance is negative—flourishing where politics and especially government are absent. As neoliberal reason reconfigures freedom's meaning, subjects, and objects in this way, it tarnishes the left with opposition to freedom tout court, not just in the economy." (Brown, 2018: 62)

Following these arguments of Brown, we suggest that there had been two important impacts of neoliberalism in Higher Education in Turkey: First of all, all these neoliberal discourses and policies have legitimised increasing social gaps in higher education. The distinction between the private universities and their doctorate programmes and public universities have been widened in this period. While all these developments have been forcing the successive governments of Turkey to increase the number of universities numbers year by year underlined by two different narratives (i.e. in the name of development of

globally competitive labour power and to bring HE opportunities to the young generation even in the most remote provinces of Turkey), the quality of Turkish HE has gone through a constant process of deterioration in general (while the quality of a few number of top universities increased tremendously and while some academics had found the chance of enhance their academic experiences and knowledge through the increasing international interactions of Turkish Universities with universities abroad). Along with the opening of each new university (at least one each year) the need for qualified academics and in turn for people with doctorate graduation increased significantly without an existing appropriate academic infrastructure. In order to maximize flexibility with respect to the needs of the job market HE policies developed specific formats of weak employment perspectives, especially for early career researchers.

<…>Secondly, the above explained shift towards neoliberal political rationality and mode of governmentality has had important negative outcomes for the Higher Education in Turkey as it has provided relevant conditions for the expansion of the radical right coalition government and their authoritarian attacks against some academics and universities with critical positions and perspectives. These were the outcomes of not only the privatisation of education (which legitimised existing social inequalities and injustices not only in education but also all other social spheres by stripping the state and other public mechanisms from their socio-political responsibilities and by deteriorating collective notions like egalitarianism, equality and right), but also through depoliticization and de-democratisation of higher education institutions and norms.

Even if these developments and tendencies can be observed also in many of Eastern European, European, Latin American countries or in the USA, they seem to become more severely influential in Turkey since Turkey has relatively weak institutional and subjective democratic mechanisms to counter negative effects of neo-liberalization of the academic field. Compared to - for instance the case of Hungary – Turkey´s academia is less protected by EU regulations as Turkey is not a member of the European Union. This fact supported the success of the above-explained process of depoliticization of universities by increasing surveillance and control over them, and their transformation into entrepreneurial rather than ground research and education driven institutions (Yarar, 2017).

Today HE in Turkey is witnessing immense political pressure and state involvement <…and> the speed of transformation of HE with the help of authoritarian involvement of the state has been rapid, extreme and alarming in the last years. The attack had been larger against those critical disciplines and academics of social sciences who concentrate on the ´Kurdish problem´ and gender issues. The recently passed new CoHE's (YÖK) law is presented as the "silent revolution in HE". It functions as part of a broader reform project, aiming to reorganize the whole university system in the service of economic production and political order. <…> However, the education outcome of this system is quite poor: Only 25 % of the 24–65 age group is described as "well educated" (ISCE 1–3), and only 14 % of the population in this group had a university degree in 2011 (OECD 2013, p. 37). This is the lowest level of all OECD countries (Karakaşoğlu/Tonbul 2015, p.831).

Under the AKP-leadership <…> political authorities focused on the authoritarian/conservative side of neoliberalism, attacking and fighting back unexpected or unintended outcomes of some of "liberal" lines of their own earlier politics. In this sense it is no coincidence that the recently formed ruling coalition of the radical right in Turkey has used the leverage of the failed coup d´etat of July 2016 to both shut down Gülen's private universities as well as to attack and imprison government critical scholars from state universities[2].

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[2] See reports by The Union of Employees in Education and Science -Egitim-Sen http://egitimsen.org.tr/wp-content/uploads/2015/08/%C4%B0dari-ve-Teknik-Personel-%C3%87al%C4%B1%C5%9Ftay%C4%B1-Rapor_bask%C4%B1.pdf and http://egitimsen.org.tr/ohal-sonrasi-turkiyede-universiteler-raporu/

In the past three years, many academics have faced criminal investigations, detentions, prosecutions, mass dismissal, expulsion and restrictions on travel by state institutions. As a showcase for state persecution of critical intellectuals, the events after the publication of the "Academics for Peace" petition in January 2016 should be mentioned. For the reason of "having supported terroristic groups" 1,128 of the signatories were placed under investigation[3]. Some of them were targeted with administrative, civil and criminal investigations, dismissals and expulsions, arrests and detentions. The situation worsened dramatically after the failed coup attempt and following the government's declaration of a State of Emergency in July 2016, with today more than 7,500 higher education personnel targeted directly, and over 60,000 higher education scholars, administrators and students materially affected by government and institutional actions. On the 23rd of July 2016, two days after the declaration of the State of Emergency, the state ordered 15 universities closed, displacing some 56,000 students and leaving 2,808 academic personnel unemployed. Since then, the state has issued seven separate decrees ordering the dismissals of higher education personnel and expulsions of students. To date, these actions have rendered jobless some 8,039 academic personnel, as well as 1,193 administrative personnel. 1,035 detentions or warrants issued for higher education personnel, with 776 higher education personnel and students physically detained (whether or not a warrant was involved)[4].

Impacts of Recent Changes in Higher Education on Doctorate Programs and Doctorate Studies in Turkey

Of course, all what has been said by now has impacts on the doctorate system in Turkey, both directly and indirectly. <...> While the quality of education in securely sponsored and internationally well connected private (or foundation) universities[5] has improved and only a limited number of students are provided with the opportunity to receive a higher standard of education, in most of the state universities government educational policies generally lead to lower the academic quality. This is especially true for the newly established universities situated in the periphery (so called ´rural universities´). The Union of Employees in Education and Science (Egitim-Sen) recently criticized this, presenting current figures on rising tuition fees at private/foundation universities, some of them reaching up to 30 percent increase in only one year.[6]

<...> As a result of the increasing political pressure on universities, academic censorship and self-censorship (instead of free thinking, researching and teaching) has a massive impact on the academic climate <...> culminating in doctoral projects. <It> has shown its impact on a general tendency to act more in terms of individual interests and not to attract political suspicion. It is also true that under the radical attacks of the government, many academics have lost their jobs which had hardly hit many doctorate programs of various universities.

However, on the other hand, it is also known that the government is continuing with its policy of expanding HE all over Turkey through highly centralised means of establishing universities. For that reason the demand for qualified academic staff is steadily increasing. This then affects the development of graduate programs less in terms of quality more in terms of quantity. According to the statistics given for

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3 See BAK's report https://barisicinakademisyenler.net/English.

4 See reports by The Union of Employees in Education and Science -Egitim-Sen http://egitimsen.org.tr/wp-content/uploads/2015/08/%C4%B0dari-ve-Teknik-Personel-%C3%87al%C4%B1%C5%9Ftay%C4%B1-Rapor_bask%C4%B1.pdf and http://egitimsen.org.tr/ohal-sonrasi-turkiyede-universiteler-raporu/

5 Some of these private universities are positioned under the 10 academically best performing universities according to University Ranking by Academic Performance/URAP.+

6 Cf. Yarkin Sun: "30% increase in Private Universities Tuition Fees" in the daily newspaper Cumhuriyet from 4th August 2019, p.6

the 2016-2017 academic year of education, the number of universities was then 183 in Turkey. Despite a stagnation in 2017-2018, the increase continues. Today (2019) the number of universities reached up to 207. This situation enlarges the need for qualified personel with PhD degrees. <...> However a continous increase in the number of doctoral students registered in PhD programs (2018: 5295 total, 4827 in State Universities) is not mirrored by an increase of qualified PhD-Programs. <Also> the rate of enrollment in doctoral education is generally higher among men than among women, with class and regional divides playing a substantial role.

Many of the above findings and assumptions are underlined by an evaluation of the "Summer school on Women and Gender Studies in Turkey" (July 1-5, 2019) held at the University of Bremen. The format was attended by 11 graduate students (8 of whom were PhD students) from Turkey, who were asked to anonymously fill in a semi-structured questionnaire. Taking into consideration the limits of this small qualitative exploration both in terms of the subject (Women and Gender Studies) and in terms of numbers of attendances (11 female identifying students) the outcome can be summed up in the following points:

1. The students stated that finding a qualified program and supervisors for their specific research interests on Women and Gender Studies nowadays is quite difficult (they assumed this is presently more the case than in the past, as many of the subject experts among their supervisors with international reputation have left the country).

2. The students observe a stigmatization of their certain topics in more ´conservative´ disciplines like economy, law etc. Dealing with Women and Gender Studies seems to endanger the scientific career of early career researchers, as it is not broadly accepted as a valuable research issue and theoretical approach (both in a political and economic sense). Finding interdisciplinary programs (as an approach specific to Woman and Gender Studies) is also not easy.

3. As supervisors of some students have been dismissed or had to take their leave of university due to recent political pressures over universities, some PhD-Students now miss a qualified process of supervision and counselling of their thesis. Professors who are not familiar with the subject have been ordered to supervise the PhD thesis. As they are not interested in the issue, they don´t spent much time to supervise the candidates or help them in their career. The appointment process for supervisors to PhD students at some Turkish universities is a top down one where deans or PhD counsels of the departments decide on the supervisor. Thus, the matching process is not part of a mutual negotiation process between the PhD student and a potential supervisor. However, in some cases, there were students who had control and power over their PhD studies in terms of choosing the title and content of their thesis or their supervisors and thesis juries. But there were also cases in which the students didn´t have any possibility to influence these processes at all according to their interests.

4. The quality of supervision was evaluated by many of the summer school attendees as quite low due to the high work overload of their supervisors. Students sometimes feel abused by being asked to adjust themselves and their meetings to the needs of the supervisor who is incapable of balancing work-life distinction due to overloaded work hours. ("She/he calls me to meet at her/his home, where I am waiting for the time to discuss my thesis while she/he is looking after the children")

5. Some of the students have faced stigmatization and exclusion due to their government critical political positions ("If you are politically active, critical against the government you will have problems to be appointed to assistant positions, to get tenured positions").

6. The hierarchies in general are very high in the relationship between professors and PhD-Student, this is especially the case in more traditionally oriented universities and newly established provincial universities, less in well-established universities in big cities and some foundation universities known for their more liberal atmosphere. Showing respect to the professors is understood in a traditional way of expecting to accept the advice of the supervisor without discussion or critical reflection. This hinders an open discussion on controversial issues.

7. All students underlined in the interviews financial problems they face. The financial burden of PhD studies in general is put on the shoulders of students who have to rely partly or totally to either sponsoring granted by their parents or partners. Many of them have to work to make their being. A state system that would grant PhD students access to financial support according to transparent criteria is missing. Transparency is

missing as to the parameters and categories that are basis for decisions on granting a fellowship or a stipend by the respective state institutions like TÜBITAK or YÖK.

8. There seems to be also little support for PhD students by universities for funding the students´ attending of (international) conferences and programs.

Topic 2: Towards transcultural doctoral education

by Catherine Manathunga

Decolonising doctoral education

Doctoral education, like most forms of higher education globally, remains dominated by Eurocentric, Northern or Western knowledge systems (Chen, 2010; Connell, 2007 & 2019; de Sousa Santos, 2014 & 2018). These international trends began with the European Enlightenment and the concurrent colonisation of much of Africa, the Middle East, Asia, the Americas and Australasia. As Said (1994) convincingly argues, while encounters with difference have always occurred in human history, what was new about Orientalism or Enlightenment knowledge about the Other was that it was a systematised, formal and institutionalised method for interpreting difference in order to achieve ideological and cultural domination and control. This period of colonisation wiped out or diminished the significance of ancient systems of higher learning evident in most of the world's civilisations including, among others, Confucian, Hindu, Buddhist, Islamic, Ethiopian, Aztec, Incan and Japanese institutions of higher learning. This also includes Indigenous institutions of higher learning around the globe such as the Whare-wānanga of the Māori people in Aotearoa New Zealand (Whatahoro, 2011). As Lulat (2005) argues, while these ancient systems of higher learning do not completely replicate modern universities, they were certainly designed to fulfil some of the functions of higher education. The Al-Azhar University in Cairo (Egypt), which was established in 970 C.E. and continues into the present, is regarded as the oldest continually operating university in the world (Assié-Lumumba, 2006).

While it is difficult to trace the moment in history when doctoral degrees or their ancient equivalents were first introduced around the globe, there is certainly evidence of the awarding of doctoral degrees in Confucian-heritage countries such as China and Vietnam as a result of the highest level of palace examinations (*tien-shih*) which were presided over by the emperor (at least in theory) (Reagan, 2000).

In contemporary times, the forces of globalisation, neoliberalism and managerialism have only served to reinscribe Northern or Eurocentric knowledge hierarchies. The competition for global rankings, the dominance of the English language in global academic publishing, the unequal distribution of research funding, resources and personnel (Connell, 2019) have the effect of further entrenching what de Sousa Santos (2014, p.92) provocatively calls 'epistemicide'. De Sousa Santos (2014, p. 92) defines epistemicide as 'the murder of knowledge' and argues that 'unequal exchanges among cultures have always implied the death of the knowledge of the subordinated culture'. So too, Taiwanese scholar, Chen (2010), focusing on Asia, argues that Intertwined processes of imperialism, colonisation and the cold war have continued to form contemporary knowledge production in Asia.

In order to achieve justice against epistemicide, de Sousa Santos (2014) advocates creating space for the epistemologies of the South. He argues that the epistemologies of the South are founded upon two key principles – the idea of ecologies of knowledges and of intercultural translations (de Sousa Santos, 2014). The concept of ecologies of knowledge challenges the current monocultural focus on (Northern) scientific knowledge by instead locating scientific knowledge within a broader ecology of knowledge systems (de Sousa Santos, 2014). In such an ecology, *all* knowledge systems are accorded 'equality of opportunity' to

'maximise their respective contributions towards building … a more just and democratic society as well as one more balanced in its relations with nature' (de Sousa Santos, 2014, p. 190). Such knowledge systems would be used in dialogue with each other. This approach to knowledge also accepts the partiality and incompleteness of each knowledge system and the ways in which the complexity of the world's environmental and social problems requires interaction between all knowledge systems to create innovative new research strategies.

De Sousa Santos (2014, p. 206) argues that this ecology of knowledges approach could be considered a 'prudent knowledge' which is constructed through 'constant questions and incomplete answers'. He develops the following list of orientations that make up such a prudent approach to knowledge:

1. There is no global social justice without global cognitive justice. The struggle for cognitive justice will not be successful if it depends exclusively on a more equitable distribution of scientific knowledge
2. The crises and disasters caused by the imprudent and exclusivist uses of science are far more serious than acknowledged by the dominant scientific epistemology
3. There is no kind of social knowledge that is not known by some social group toward a particular social objective. All knowledges sustain practices and constitute subjects
4. All knowledges have internal and external limits
5. The ecology of knowledges is constructivist as concerns representation and realist as concerns intervention
6. The ecology of knowledge focuses on the relations among knowledges, on the hierarchies and powers emerging among them
7. The ecology of knowledge is ruled by the principle of precaution
8. Knowledge diversity is not limited to the content and kind of its privileged intervention in social reality. It includes as well the ways in which it is formulated, expressed and communicated.
9. The issue of incommensurability is not relevant only when the knowledges in question come from distinct cultures; it is an issue as well within the same culture
10. The ecology of knowledges aims to be a learned struggle against ignorant ignorance
11. The history of the relation among different knowledges is central to the ecology of knowledge
12. The ecology of knowledges aims to facilitate the constitution of individual and collective subjects combining sobriety in the analysis of facts with the intensification of the will against oppression
13. The ecology of knowledges signals the passage from a politics of movements to a politics of inter-movements (de Sousa Santos, 2014, pp. 207-210).

De Sousa Santos (2014, p. 212) defines intercultural translation as

Searching for isomorphic concerns and underlying assumptions among cultures, identifying differences and similarities, and developing, whenever appropriate, new hybrid forms of cultural understanding and intercommunication that may be useful in favouring interactions and strengthening alliances among social movements fighting … against capitalism, colonialism and patriarchy and for social justice, human dignity and human decency.

In the case of Asia, Chen (2010, p. 212) advocates that, instead of continuing to imagine the global North or Europe and the US as the centre of knowledge production, Asian scholars could begin to engage with 'the idea of Asia as an imaginary anchoring point'. In order to do this, Chen (2010, p. 212) suggests that Asian countries would look to each other, and to other 'Southern' places, as key 'points of reference'. He calls this a process of process of 'deimperialisation'.

Doctoral education is the educational site where new researchers learn to engage in the research practices, discourses and debates of their discipline or interdisciplines. As a result, it is a crucial point of entry

into knowledge production and the world of research. At present, despite some examples of what de Sousa Santos (2018) calls 'cognitive justice' where there is a valuing of Southern, transcultural and Indigenous knowledges, doctoral education in many disciplines remains dominated by Northern knowledge systems. As a result, there is a great deal of work to be done to genuinely decolonise doctoral education.

Valuing transcultural and Indigenous knowledge systems

One of the most important ways to decolonize doctoral education is to ensure that the university recognizes and values transcultural and Indigenous knowledge systems or, as Reagan (2004) classifies them 'non-Western epistemologies' and brings them into dialogue with Northern/Western scientific knowledges in the type of ecological approach de Sousa Santos (2014) suggests. This involves reconstructing and continuing to extend Southern, Eastern, African, Latin and South American, Middle Eastern and Indigenous cultural histories, languages, knowledge systems and theories. In my work I have called this 'both-ways transculturation' (Manathunga, 2014, p. 61). This involves learning *from* our culturally diverse co-researchers, doctoral candidates and students and learning from the theorists from their Southern contexts and regions. It would also involve a both-ways transculturation where Southern and Northern theory are brought into dialogue in research and doctoral education and where Northern theorists (including ourselves and our Western students) engage respectfully with Southern knowledges (Manathunga, 2014). It would also involve seeking to go beyond simplistic dualities and cultural essentialism, as the work of Nakata (2006, p. 9) does on the 'cultural interface' and Hountondji (1996), Nyamnjoh (2016), Garuba (2010) and Busia (2006) does on African diversity (Manathunga, 2018). Finally, we would need to engage in respectful and rigorous critique of Southern Knowledge and Theory (Hountondji, 1996; Nakata, 2007). My transcultural research team including Ngugi/Wakka Wakka senior Aboriginal woman, Professor Tracey Bunda; Chinese woman, Dr Qi Jing; Punjabi-Australian man, Professor Michael Singh and myself, Irish-Australian woman, have argued that transcultural and Indigenous doctoral candidates are in an ideal position to mobilise their theoretic-linguistic knowledge in order to contribute to the decolonisation of transnational education (Singh, Manathunga, Bunda and Qi, 2016; Bunda, Manathunga, Qi and Singh, 2017).

'Southern theory' as a resource

'Southern' theories about education, geography, history and epistemology (including postcolonial/decolonial, Indigenous, feminist, social and cultural geography theories) act as a valuable resource guiding our attempts to decolonise doctoral education and value transcultural and Indigenous knowledge systems. In particular, they challenge assumptions about the universality, timelessness and un-locatedness of Northern knowledge. Given that the construction of significant and original knowledge is the central focus of doctoral education, these Southern theories have a great deal to teach us about how we might create space for Southern, transcultural and Indigenous knowledge systems to be valued and respected in the Academy (Manathunga, 2014).

If we are to wrestle effectively with the serious global problems facing our world, then we need to draw together the vast array of knowledge systems that all of our cultures have produced (Manathunga, 2014) and engage in an ecology of knowledges and intercultural translation as de Sousa Santos suggests (2014).

The key theorists that I have drawn upon to understand Southern theory and make a case for decolonising doctoral education (see discussion above) include:

- Raewyn Connell (2007; 2019)
- Boaventura de Sousa Santos (2014; 2018)

- Kuan-Hsing Chen (2010).

These theorists have built upon decades of work in postcolonial theory (eg. Chakrabarty, 2007; Bhabha, 2004 and others) and decolonial theory (eg. Smith, 1999; Maldonado-Torres, 2011 and others). There is also a growing body of postcolonial, Indigenous and feminist science research that challenges the dominant premises of Northern science (eg. Harding, 2011; Sillitoe, 2007).

Examples of Indigenous Doctoral Education

Around the globe, there is increasing evidence of excellent examples of generative and respectful Indigenous doctoral education. In this discussion paper, I will focus briefly on some of the literature from Aotearoa New Zealand, Australia and Bolivia. This is not a comprehensive summary but rather a taste of some of the issues being grappled with and some of the approaches that have been adopted. Many of these programs are explored in more detail in Manathunga (2014).

One of the countries that has introduced and maintained generative forms of Indigenous doctoral education is Aotearoa New Zealand. Māori and increasingly Pacific peoples' doctoral education has been a focal point for action in Aotearoa New Zealand. In particular, a Māori and Indigenous (MAI) Te Kupenga national program has been introduced, which conducts local, regional and national activities, conferences and events for Māori and Indigenous students. Specifically in the literature, Kidman (2007) laid some of the foundations of more recent explorations of supervising Māori candidates. She has argued that valuing and incorporating Māori tribal and cultural knowledge and practices in supervision was vital and that this should sit alongside a recognition that there are many 'tribal, cultural, social, economic and educational' differences between Māori candidates (Kidman, 2007: 167). Kidman (2007: 166) emphasises how Māori doctoral students are engaged in the dual challenge of not only 'finding their place' in the academy which continues to be dominated by Western or Pākehā (European New Zealander) knowledge practices, but also of simultaneously grappling with their own shifting sense of what it means to be Māori and to engage in 'their own changing cultural spaces'. Kidman (2007) also refers to Kaupapa Māori and other Indigenous paradigms that Māori students may choose to adopt in their research. Literally, kaupapa means ground rules (Smith and Reid, 2000). As Nepe (1991: 76) argued, Kaupapa Māori is the 'systematic organisation of beliefs, experiences, understandings and interpretations of the interactions of Māori people upon Māori people and Māori people upon their world'.

More recently, a Māori and Pākehā research team including Liz McKinley, Les Tumoana Williams, Kathie Irwin, Barbara Grant and Sue Middleton conducted a large study of Māori supervision. In an article written by the whole team, McKinley and others (2011) explore Māori ways of knowing and how some of these approaches to knowledge are in direct opposition to Western or Northern research practices. For example, they outline how a student grapples with a request from her Pākehā supervisor to 'unpack the stories' when this would have resulted in the breaking of tikanga (cultural protocols) (McKinley et al., 2011: 121). They capture the liminality or Third Space of 'working with(in) different knowledges, working with research advisors and researching as Māori with Māori' (McKinley et al., 2011: 116).

In another article, Grant and McKinley (2011: 377) demonstrate how history and locality in Aotearoa New Zealand 'colour' supervision pedagogies when Māori candidates and supervisors and when Māori candidates and Pākehā supervisors work together. Their research demonstrates the diversity among Māori candidates in terms of whether they are engaging in traditional Western academic research while acknowledging their ancestral lineages or deeply embedded in Māoritanga (Māori culture, practice and beliefs). In other work, Grant has also described how some Māori candidates use their research projects to reconnect with their Māori heritage and become Māori (Grant, 2010). In terms of Pākehā supervisors, they highlight the concerns they might have about their lack of knowledge of mātauranga Māori (Māori

education, knowledge and wisdom). Grant and McKinley (2011: 383 and 380) also discuss the 'settler grief and guilt' supervisors may experience as they engage with Aotearoa New Zealand history and recognise the ways they are 'part of the problem', becoming conscious of their own biases and assumptions. They also outline the significant roles played by supervisors external to the university. These include the candidates' kaumātua (male or female elder) who takes on a grandparent-type relationship with candidates, which is the primary pedagogical relationship in Māori culture, and the candidates' tūpuna (female or male ancestor), who provide spiritual guidance for the project.

Reflecting on her experiences as a Māori student, Hiha (2012: 144) evocatively described how she felt as though she was

> Walking the edge of a sword with the Western world on one side and the Māori world on the other. I felt as though I was being pulled both ways and to stay on the sword I was in a tense state all the time ... It was not until I was centred in my identity as *wholly* Māori, rather than staunchly Māori, that the sword disappeared and I walked my doctoral path without the fear of getting lost in the Western academe.

In many cases, other countries have sought to emulate some of the keys strategies that Aotearoa New Zealand has adopted. For example, Indigenous doctoral completions are now worth double the funding of other doctoral completions in the Australian Research Training Scheme. This represents the implementation of one of the key recommendations of the 2016 report of the Australian Council of Learned Academies Review (ACOLA), which was based upon the success of this initiative in Aotearoa New Zealand.

There is also a growing body of literature on supervising Aboriginal and Torres Strait Islander students in Australia. A number of personal reflections of Aboriginal doctoral graduates demonstrate the diversity of experiences and desires Indigenous candidates bring to supervision. For example, Behrendt (2001: 212) argued that she wanted a 'formal working relationship' with her supervisor so that she would 'meet deadlines and work hard' and receive 'intellectual guidance and rigour'. She was able to secure emotional support outside of the supervision relationship from her family and a number of Indigenous organisations. For other Indigenous Australian candidates, it was important that their supervisor developed a close personal relationship with them and their families (Laycock et al., 2009). For others like Budby (2001), there was the fear that doctoral studies would distance him from his own family and community. He also wrote about the difficulty of finding a supervisor he could trust (given the Western history of stealing, misinterpreting and abusing Aboriginal knowledge), who would understand that knowledge can be presented and disseminated in many different ways.

Ford (2012) also provided a reflection of her experiences as a Rak Mak Mak Marranunggu person from the Northern Territory in Australia completing her doctorate. Ford (2012) uses the term 'Tyikim', the word in her language for her people and for other Indigenous Australians, to describe Indigenous peoples. Ford (2012: 146) emphasises how she developed the following set of guiding principles for her research that she recommends to other Tyikim (Indigenous) doctoral candidates:

- valuing and sharing Tyikim knowledge: shared ownership of the project with their Tyikim community; following Tyikim knowledge protocols; doctoral candidate becomes a 'conduit to help transform Western research' (Ford, 2012: 148); reciprocity between Western and Tyikim knowledge paradigms

- addressing Tyikim community business and especially improving higher education outcomes for Tyikim students

- sharing Tyikim knowledge

- recognising that relationships and connectedness are essential and fundamental to Tyikim people and candidates
- Adopting a Tyikim research methodology
- Influencing university research ethics and protocols on Tyikim research
- Prioritising Tyikim examiners (or reviewers) as Tyikim knowledge bearers.

Indeed, Ford (2012: 148) also incorporates an example of transculturation in her discussion of the ways in which 'reciprocity between an enactment of Tyikim knowledge and Western knowledge paradigms integrat[e] to create a new way of understanding and practicing significant knowledge creation'. The official university inclusion of senior elders from the community of Tyikim doctoral student in the supervision team is also important (Ford, 2012) (as was the case in Māori supervision) and confirms the university's respect for Tyikim knowledge.

Henry (2007), who was Ford's supervisor, with the Institute of Koorie[i] Education at Deakin University has also written about supervising Aboriginal doctoral candidates. They describe the ways in which the Indigenous student acts as the 'conduit through which Aboriginal knowledge flows' into the research project. This ensures that the supervisor becomes a 'facilitator of this process' and a learner rather than a teacher, which can be a 'risky business … [as] new ground is being tested through the student-academic partnership' (Henry, 2007: 156). Henry and his colleagues (2007: 157) emphasise the flexibility doctoral programs allow for Aboriginal candidates to delve deeper into their own knowledge systems, learn more about Western ways of knowing and 'develop new syntheses of Aboriginal and non-Aboriginal knowledges that have resonance and applicability in their own communities'.

Trudgett (2014) has developed a comprehensive and systematic framework of 'best practice' for supervising Aboriginal and Torres Strait Islander HDRs that builds upon her recent research and related studies. This framework identifies four categories of support Indigenous HDRs require: 'academic skills-based support from supervisors; personal reflection of supervisors; responsibilities of university and responsibilities of national bodies' (Trudgett, 2014, p. 1045). The academic skills-based support includes helping HDRs to publish; building confidence through a personalised approach; paying attention to academic rigour; ensuring HDRs gain access to the necessary research education; providing constructive criticism; scheduling regular meetings; providing thoughtful feedback and committing to the HDRs (Trudgett, 2014). The personal reflection of the supervisor involves prioritising the relationship with HDRs and developing rapport; acknowledging Indigenous HDRs as respected knowledge holders; reflecting on their own position of power; being flexible regarding family and community commitments; being culturally sensitive and respectful; acknowledging the importance of kinship; understanding the external pressures placed on Indigenous HDRs and acknowledging the impact of colonisation (Trudgett, 2014). Of course, all of this requires university management to allocate research educators with the necessary time for this important work. In addition, the responsibilities of the university management include being open to involving and paying community members in an advisory or co-supervisory role; being aware that Indigenous HDRs may have preferences in terms of the supervisor's gender and cultural background; providing experienced and appropriate supervisors; ensuring supervision is culturally appropriate; creating an environment where Indigenous HDRs can feel safe and comfortable and providing excellent resources to give HDRs the best opportunity for success. Finally, the responsibilities of national bodies include providing peer networking opportunities for Indigenous HDRs; publishing a handbook for Indigenous HDRs about doctoral processes and procedures; ensuring that all Indigenous HDRs have information about national initiatives designed to support (Trudgett, 2014).

Efforts to reconstruct and value Southern and Indigenous knowledge, theory and languages are also evident in this example from Bolivia. J. Fernando Galindo is a colleague who works at the Universidad Mayor de San Simón in Bolivia. He works on masters programs in intercultural bilingual education and sociolinguistics and on a doctoral program in sociocultural studies as part of the Intercultural Bilingual Education for Andean countries (PROEIB Andes). Most of the students in these programs are Indigenous students coming from Latin American Aboriginal nations. This was a joint initiative between universities, ministries of Education and organisations in Bolivia and Latin America (including Colombia, Chile, Ecuador, Peru and Argentina) and international cooperation agencies (http://www.proeibandes.org/). Across the life of the program Indigenous and non-Indigenous students from Argentina, Belize, Bolivia, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Venezuela have completed degrees in intercultural bilingual education. These programs respond to 'social demands for a culturally and linguistically relevant education in the contexts of cultural diversity in Latin America' (http://www.proeibandes.org/). Academics work closely with Indigenous organisations and communities to design and deliver the programs that are 'aimed at strengthening bilingual intercultural education and all other educational methods designed from, with and for Indigenous peoples in order to respond to growing … demands for … better education in the context of greater Indigenous political participation' (http://www.proeibandes.org/). Fernando has indicated that working in the program encourages academics and students to grapple with 'intercultural issues in the process of knowledge construction, negotiating different ontologies, epistemologies and methodological procedures' (Galindo, 3/10/18, correspondence to IDERN list).

A global doctorate?

While it might be appealing at a systems level to have some uniformity across the world's doctoral programs, particularly in terms of common structures, I would suggest that maintaining and even enhancing the diversity of doctoral programs offered around the globe is more desirable. At present, for example, doctoral candidates can choose whether to engage in a structured coursework and dissertation program such as those offered in North America or to engage in independent research degree programs such as those originally modelled on the British and European approach. Given the strength of global neoliberal trends that seek conformity and homogenisation in higher education, it is important to protect heterogeneity in doctoral education and also to ensure that doctoral degrees respond to significant local as well as global issues and challenges.

"This is how hegemony works." - Expert interview with Mark Juergensmeyer

Interviewed by Christian Peters (excerpts)

Christian Peters (CP): Mark, in the light of the crisis scenarios we are confronted with every day, I would like to talk to you about the relationship of our societies with their academia and the effect this may have on doctoral education. <...> You do not have to be a pessimist to concede that in quite a number of places today science is contested, with respect to its institutional pre-requisites and, more dramatically, in its role of producing evidence for socio-political discourses. I do find it profoundly disturbing that in real discussions – the ones with opposing views – you often hear a sentence like 'Well, this is your truth, fine, I have got mine.' <...>

Mark Juergensmeyer (MJ): ...or as one reporter said when Kellyanne Conway was the Donald Trump spokesperson: 'She has an alternate truth access book' - and then reporters and you and I mean 'It's a lie!' You know, for quite some time now I've been considered an expert on terrorism. I am often invited to be on talk shows of various kinds and more than once I will start talking and soon the moderator interrupts me: 'Well, that's your opinion." Then they spout off their position, informed by Fox News or by a right-wing conservative talk show host.

CP: Did you develop strategies to return to expertise rather than talking about opinion?

MJ: I try to get my points across and often I will start with something like 'Studies show that XYZ', giving it the veracity of scientific investigation rather than simply saying 'This is the way I see it.' If it's just the way I see it, it's one opinion among many – however good the argument may be. In the very presentation, academics have to display their credentials, show the investigatory basis upon which any conclusions are made. It is not just their opinions conjured out of thin air. <...>

CP: I think that people who are in any kind of exchange do need a certain agreement and should share certain rules of discourse. However, what are those rules? How universal can they be? This brings me to the question on the hegemony of epistemic regimes. <...> When we talk about global doctoral education, do we do this in a normative sense, with the hope of bringing together what we think is invisibly connected anyway? And if so, how much of this 'global knowledge system' is post-colonial fiction and unhealthy homogenization? Shouldn't we rather be more diversity-oriented?

MJ: I think there are two ways of looking at the global reach of Higher Education. One is to say that the last vestige of colonialism is in academia, where particularly in the Social Sciences and Humanities Western paradigms of analysis are implanted on the rest of the world. Everybody is supposed to adopt a certain model from the way in which analyze social data and personal relationships.

On the other hand, you can say that there is nothing more global than the very production of knowledge - at least in the contemporary way. It is fluid, always changing, it never stays the same. For instance, the way of looking at Political Science when I was a graduate student in the 60ies was vastly different from today, we thought in terms of the nation-state. <...> It was the high point of 20th century nationalism and now, scarcely 50 years later, this enthusiasm seems both naive and untrue. We are experiencing new forms of imperial ambitions, and our precious secular democracies threaten to collapse into all sorts of populist, religious and ethnic reconfigurations of nationhood. I guess we should have seen that coming. But we didn't. We analyze the world differently now and I am no longer the political scientist from fifty years ago. I am working in Global Studies, and one of the reasons I am doing this is that I want to understand the new

ways of looking at the world. <…> So, which of these two ways of looking at the global reach of higher education is correct? Is it (1) the last vestige of colonialism or is it (2) the best example of globalization in terms of a real shared participation? <…>

There is an institutionalization of the premier relationship of Western scholarship throughout the world. In order to feel that they are legitimate, that they are academically respectable, a university in Bhubaneswar in India would think that they have to do this special kind of quantitative survey of Political Science and that they have to have to study Marx's theory and game theory, all produced in Yale and Harvard and in the other places. But luckily that's not always the case. <…>

CP: Something that always strikes me is the great challenge of ethnology: How should you translate an observation of something ultimately unfamiliar into a language that targets a wider, non-native public? This is a situation where the relationship of Own and Other often turn into a drama. In your opinion, are there good strategies for doing this translation? Or is the sole idea of conversion already a colonial thought, as is making a specific regional knowledge adaptive to a world system of knowledge production? <…>

MJ: I think it is the social and cultural context that shape one's thinking about the relationship of institutions, particularly political ones. You would not teach Marx without understanding the industrial revolution. Political theory or political thought or ideas about politics are contextual, they are culturally delivered, culturally shaped and are related to the philosophic trends and flows within the media from which they come from. Then, on the other hand, there is this a drive towards scientific analysis of politics, based on survey research and quantitative data. I am very careful with handling an idea claiming that you can have universal knowledge, that you can build mathematical models providing answers to questions, which I find to be in an absurd position to take, because they're models to do what? The very creation of the modelling assumes a nature of society and a limited range of answers. The funny thing is: I cannot imagine anything that's more culturally contextual than the shaping of these mathematical models. They define what to ask, before you would ask questions that help you to ask *the right* questions. <…>

CP: If we consider how global doctoral research should be done today, we have to acknowledge the fact that there is an ambivalence between a homogenizing aspect - the world academic system, with its dominant paradigms - and the aspect of bringing things together, of letting them resonate in mutually enriching relationships. You can decide for one way or the other, but they are always in coexistence, with all the pitfalls and all the chances they have. <…>

Mark, please let me come to the central topic of this interview that connects what we have talked about so far: Do you think there is a need to decolonize doctoral education worldwide? And if so, how could that be reached? I just talked to a colleague of yours on the same question. He agreed on the need to decolonize and favored a pragmatic option. We have to diversify the people who are working in the field. But then, in real life, one must acknowledge the investment that migrating scholars have to make upon entering other academic systems: They leave their countries, adjust to the other's rules and cultures and then, some systems tend to get more exclusive, think of Denmark or Hungary. <…> Yes, there are cosmopolitan hot-spots all over the world, but hardly any local academic system has a deep and wide internationalization. <…> So, if there is a need to diversify, how would you want to work that out against these odds?

MJ: Earlier, we said that two things are going on - and both are true. We're somewhere in-between those. Yes, diversification is a good idea. <Consider…> professors in Bhubaneswar in India who see themselves determined to make their field respectable by following an American-European way of doing things. If you are caught in this asymmetry, you may be least able to escape as the dominant paradigm is the only resource known to you that gives respectability. This is

Gramscian reality. This is how hegemony works. The Bhubaneswar professors learned this in their own graduate school and they are determined not to succumb to a native idea that might be considered unprofessional. They learn the professional rubric, they observe the attitude, the habitus. <…>

It is <all> about respecting the variety of perspectives and most probably, this has to begin with problematizing the dominant paradigm. Simply by bringing in people who are ethnically diverse or who carry a different passport will not help you in getting diverse intellectual environments. It is about increasing the ability to articulate a perspective that is different from the dominant one. Unfortunately, in many developing countries education is about memorizing the teachings of the old masters so they are probably the least capable to actually change. That is why I think that the transformation has to come from within the dominant paradigm. However, how do we get to be more open? The good news is: It is already happening! The very fact that there is something like Global Studies means that there are enough of us who value in seeing the world from diverse perspectives.

CP: So it's the powerful positions to make the first step, to embrace and to respect the other. I am sure that this will give people from the less dominant side more self-confidence to say: 'That's my way, I will cherish my rich cultural heritage'. And they bring in some of the background they have to not only challenge but improve dominant paradigms, making them more flexible.

MJ: Yes. The responsibility is in part ours, but it also is a shared responsibility.

Topic 3: Research Ethics – History, Concepts, Documents

by Daniele Cantini and Roxana Chiappa

Introduction

Research ethics has systematically been a subject of contestation for researchers (Backof & Martin, 1991). By definition, ethics is a system of beliefs that aim to control the behavior of individuals based on morals (Cambridge University Dictionary of English, cited in Muralidhar, 2019), and as such, what is ethically accepted in research is not neutral. Science is never done for the sake of science alone, of course, and issues of funding, patronage, research practices and goals are always among the preoccupations of researchers, which of course influence also their ethical considerations – "societal expectations are too big and all-embracing, interwoven with government priorities and policies that effect modes of financing in increasingly tighter and more sophisticated ways" (Nowotny 2016, p. 6). As such, the meaning of ethics in research is context-specific, and as a consequence, has to be defined and judged considering the disciplinary field, the temporal and geographical spaces as well as the macro-social forces that are shaping the research activity.

In what follows, we conducted a review of the meaning of research ethics in different contexts and established by different actors of the scientific system. First, we started with a historical overview of the concept and the current trends of research in the globalized higher education context. Then, we analyzed statements of research ethics, developed by government agencies and disciplinary associations in China, European Union, India and the United States. We selected these geographical areas, because these regional represent some of the major producers of scientific publications worldwide. In parallel, we also

discussed the geopolitical and social conditions to conduct research in Middle-Eastern countries with limited freedom.

Our analysis also included the Codes of Ethics of three disciplinary professional associations, which shape our scholarly work -Anthropology, Education and Sociology- and we included a statement of research ethics elaborated by indigenous scholars, whose ontological and epistemological notions of research differ from the classical western view of science. Our review, far from being exhaustive, aimed to identify how these selected actors of the scientific system -government agencies and organizations of researchers in different disciplinary fields- define research ethics and what responsibility they attribute to doctorate education in preparing ethically aware researchers for a more complex future.

The Increasing Relevance of Regulatory Framework of Research Ethics

History of science abounds with examples of scientists' unsuccessful attempts at convincing the general public of the ethical soundness of some of their researchers, as well as of examples in which subjects have been mistreated under the approval of government authorities, at times criminally (e.g. the Nazi and Japanese military experiments on prisoners during World War II, Tuskegee syphilis study funded and conducted by the U.S. Public Health Service).

Following the revulsion that left the Nuremberg Trials in 1947, there emerged a powerful social movement emphasizing the notion of individual moral responsibility of researchers, regardless of the dictates of the officials of the state or of other organized bodies. There emerged the notion of monitoring the conduct of physicians and biomedical researchers through universal "mandates" and codes of research ethics, so that researchers did not abuse or exploit their patients in the name of science or any other ideological principles (see The HHS Belmont Report, 1979; Nuremberg Code, 1947; UNESCO's Universal Declaration on Bioethics and Human Rights, 2005; the Helsinki Declaration by the World Medical Association, 1964; Wax, n.a).

Since the 80's, such normative frameworks in the biomedical field has spread to other scientific discipline that could be regarded as having "human subjects" who were subjected to procedures that imposed risks, or that might, without their consent, be inflictive of harm in western European countries (for the USA, see NAP, 2017, p. 59; for EU region, see Hedgecoe et al., 2006). Professional associations that gather researchers in social and in general qualitative sciences have issued research ethics statements and developed their own committees of research ethics, acknowledging the existence of ethical issues that can't be dealt with once and for all, but rather need to be constantly discussed, with research partners (the most current version of research subjects) as well as with peers and funding agencies in an increasing number of countries.

In the current globalized landscape of research and higher education, research ethics dilemmas seem even more important (NAP, 2017). Globalization, briefly defined here as an increasing but unequal interdependence of the global market, has expanded and intensified the capitalistic rationale to all domains of social life (Sparke, 2013). Increasingly, the scientific knowledge is seen as a critical resource for economic growth in most countries, which has intensified the pressure for making research outcomes to primarily serve economic gains (Slaughter & Rhodes, 2004).

In the field of technology, artificial intelligence that overcome the capacities of humans and operate without the vigilance of their designers, have risen the alarms of supra-national and national agencies for the potential mis-use of such technologies in civil and military contexts (see the Beijing Artificial Intelligence Principles subscribed in July 2019). Likewise, researchers are accessing to massive data set collected

through social network applications, in which users are not completely aware that their personal information is being used. An increasing number of scholars have asked researchers using internet data be specially conscious of the risks of threating the confidentiality principle (Driscoll & Walker, 2014; Lomborg, 2013; Zimmer, 2010), especially when such data is used for commercial purposes.

In the bio-medical field, the proliferation of embryonic and cell-stem research is permanently touching upon the moral dilemma of when human life starts (EU, 2013, p. 16; Lei et al., 2019). International agreements that regulate the access and share of genetics resources, from human, animal and plants, have been stablished since the early 90' to guarantee ethical procedures and maximize the benefits of collecting such type of data in different countries (see the NU's Convention of Biological Diversity, 1992 and Nagoya Protocol, 2011).

Increasing collaboration among researchers across national borders has materialized the potential to utilize the existing data in the biomedical field as well as in other disciplines. Nonetheless, different degrees of institutional procedures that regulate research ethics in different countries tend to exacerbate the already existing economic and social power dynamics between different regions of the world-regions. Researchers in certain countries, typically located in the southern hemisphere where there is less regulation on research ethics, tend to become the providers of such data for research; whereas researchers, typically located in western countries, end up being the ones who analyze the data.

In the society of information, public accountability has also installed new movements that claim for the appropriation of science by common citizens (see www.openscience.org, www.citizenscience.org). Movements of open science and reproducibility of findings encourage researchers to share their data and translate their findings in different formats. At the same time, researchers are exposed to high degree of competitiveness and demonstrate their research productivity (in terms of publications and patents), pressures that seem to trigger misconduct behaviors in the publication process. Issues of falsification, fabrication and plagiarism (FFP); authorship, ghost reviewers (McDowell et al., 2019) and fake scientific journals appear increasingly in the news (NAP, 2017).

Research Ethics Rules for Educating the Next Generation of Doctorate Holders in Different Regions World Regions

Table 1 (see: annex 1) describes the institutions and list of documents included in the analysis. As it is known, the development of institutions and frameworks that regulate research ethics varies across the four regions of the world selected. Indian institutions, in particularly, publicly recognize their late development in research ethics, even when India has constituted a hub of medical trials for the pharmaceutical industry. The Chinese government, on the other hand, has also emphasized the need to strengthen their normative ethical frameworks, specially under some notorious cases of Chinese researchers who violated universal codes of research ethics (Lei et al., 2019). The United States and Europe have also had cases of unethical research practices, but these countries have a higher degree of institutional infrastructure to regulate and oversee the behavior of their scientists, which has likely contributed to prevent unethical research practices.

Overall, all the scientific institutions included in the analysis have some statement that refer to the importance of guarantying ethical practices in the research enterprise. Broadly speaking, the definition of research ethics in the documents analyzed allude to the individual responsibility of researchers. They are designated to guarantee the honesty of the entire research process and avoid any misconduct (fabrication, falsification and plagiarism) across all research stages. Research ethics also allude to the imperative of minimizing risks when research projects involve animals, plants, toxic chemicals radioactive materials, and technological developments that can represent a future danger for the societies.

As expected, the specific values and meaning of what research ethics means varies across geographical regions. For instance, national academies and organizations of researchers in the USA and Europe clearly distinguish between research integrity and research ethics, being ethics a particular aspect of the research integrity. Instead, scientific institutions in India and China, such as the Indian National Science Academy and the Chinese Academy of Science talk about research ethics, alluding to the different phases of the research process.

Likewise, the relevance attributed to the ethics education vary across the four regions. The United States, through its National Science Foundation and other scientific government agencies, has a set of initiatives around ethical education in research. These initiatives include sponsored educational programs on research ethics and online ethic center for engineering and science. According to the COMPETES Act on scientific and technological development (200), all researchers, including predoctoral and post-doctoral fellows, have to take on-line courses and their respective assessment on ethical research if they participate in in federal sponsored/funded projects. Now, the specific contents that individuals should be exposed are not established by the NSF, but a responsibility of the research centers, universities, and programs that are conducting research (See NSF, 2009).

In Europe, education in research ethics has less programmatic structure than in the United States, but it is also a of increasing interest. For instance, the association that group all academies in Europe -ALLEA-launched a document in 2013 to address topics of ethics education in science. Similar to what NSF declares, ALLEA does not identify the specific contents and skills that early-researchers should know. However, ALLEA states that ethics education in science should at least include contents about responsibility along the process of conducting research and issues concerning the relations between science and society (ALLEA, 2013, p. 6).

In India, the National Academy of Science just launched a comprehensive publication on research ethics. The chapter that specifically alludes to the preparation of new scholars draws from ancient Indian culture to stresses the roles education and the responsibility that teachers, at all educational levels, play in modeling the behaviors for their students. "The fundamental duty of the teacher is to render their active role in the inculcation of character formation of their students. Sincere efforts are needed for the subjugation of personal interest to societal interest for common good. Further, during evaluation process bias of any kind should be avoided".

In China, the two main associations of researchers – namely the Chinese Academy of Science (CAS) and the Chinese Academy of Engineering (CAE) – launched their research ethics statements in the last half of the 90's (Ming et al. 2015). We sought for documents that alluded to ethical education on the institutional websites of both institutions[7], but we only could find CAS's ethic committee statement, which highlights the importance of strengthening the "scientific morality", "promote models of scientific ethics" and "criticize behaviors that violate scientific ethic"(CAS, n.d.). More recently, the Beijing Association of Artificial Intelligence (2019) launched the Beijing Principles. Among the main suggestions, the Beijing principles invites researchers to be responsible of the potential harm artificial intelligence can cause, be open and sharing the developments to avoid monopolies and work on products "that benefit as many people as possible, especially those who would otherwise be easily neglected or underrepresented in AI applications".

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[7] We acknowledge that lack of Chinese language proficiency may have affected the amount and type of evidence found.

On the other side: when research ethics is influenced by political and social circumstances

The Middle East as an example

Across the Middle East, there is a considerable amount of countries in which the practice of research is severely constrained, either by direct conflict (currently in Afghanistan, Iraq, Libya, Syria, and Yemen), political unrest (Algeria, Bahrein, Sudan), military occupation (the Occupied Palestinian Territories), or repressive governments (Egypt, Iran, KSA, Turkey, the UAE, among others). Also in countries in which there is currently no particular issue on the practice of research (Jordan, Lebanon, Morocco, Oman, Pakistan, Qatar, Tunisia, at the time of writing), some issues are difficult or impossible to be researched without putting researchers and their research partners at risk. Ethical considerations in this context are mainly revolving around the difficulty of assessing the risks a potential research carries, also in the medium term, and there are currently some attempts at discussing such dilemmas openly (see Cantini et al. 2019).

The largest association for those studying the Middle East, the MESA (Middle East Studies Association) based in the USA, has since decades created a "Committee on Academic Freedom", which seeks to foster the free exchange of knowledge as a human right and to inhibit infringements on that right by government restrictions on scholars. The United Nations' Universal Declaration of Human Rights, Covenant on Civil and Political Rights and Covenant on Economic, Social and Cultural Rights provide the principal standards by which human rights violations are identified today. Those rights include the right to education and work, freedom of movement and residence, and freedom of association and assembly. It offers state-of-the-art indications of security alerts in the region – alerts that deal specifically with threats to research and researchers, based in the region, in the USA, or elsewhere.

Issues currently (June-July 2019) discussed by the CAF are the sudden termination of an endowed chair at the American University in Cairo, the ongoing repression of Turkish academics in Turkey, and the subsequent discussion of whether to collaborate with the Turkish Council of Higher Education (YÖK), threats against Iraqi academics that highlight cases of corruption, limitations and restrictions to foreign nationals teaching at Palestinian universities, and the ongoing investigation (or rather the lack of) into the murder of Giulio Regeni, an Italian PhD candidate at Cambridge University abducted, tortured and murdered in Cairo in 2016.[8]

Definition of research ethics codes in social sciences disciplinary fields

Anthropology and its research ethical approach

Anthropology has a particular place in the definition of research ethics, for its relationship with the colonial time, and for the intrinsic fact that its research and practice always involve others – colleagues, students, research participants, employers, clients, funders (whether institutional, community-based or individual) as well as non-human primates and other animals, among others (all usually referred to as 'research participants'). It is now taken for granted that anthropologists must be sensitive to the power differentials, constraints, interests and expectations characteristic of all relationships. In a field of such complex rights, responsibilities, and involvements, it is inevitable that misunderstandings, conflicts, and the need to make difficult choices will arise (AAA, Statement on Ethics). To assist researchers in their task of

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[8] For a detailed overview, see https://mesana.org/advocacy/committee-on-academic-freedom

making ethical assessments of their works, the AAA has engaged since the 1960s9 in a work of defining the appropriate lines of conduct for researchers, producing a first code of ethic in 1998, revised in 2009 and again in 2012, and finally resorting to keeping an open forum to discuss ethical issues,10 while providing "principles" to provide anthropologists with tools to engage in developing and maintaining an ethical framework for all stages of anthropological practice – when making decisions prior to beginning projects, when in the field, and when communicating findings and preserving records.11

Sociology

As it was suggested earlier, ethical judgements must rely on a sensible examination of the unique object and circumstances of a study, the research questions, the data involved, the type of analysis to be used and the way the results will be reported – with the possible ethical dilemmas arising from that case (British Academy of Sociology, n.d.). The sociological field, whose object of study has traditional been social groups, has increasingly moved to study digital communities. Topics of confidentiality and informed consent of subjects continue being critical issues of the profession, but specially now when sociologist have increasingly moved to study how individuals behave in digital communities. Discern whether spaces are considered public or not, the authorization to discern between public and private information, and the informed consent of the subjects have already listed as potential problematic themes by the British and American Sociological Association (2018).

Educational Research

The American Educational Research Association is one of the largest associations of educational researchers worldwide. Its first research code was inspired in Code of Ethics of the American Sociological Association (1997) and the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (1992). As such, it is not surprise that its current research ethics code (2011) list almost identical topics to what the American Sociological association does. These topics include professional competence, integrity, Professional, Scientific, and Scholarly Responsibility, Respect for People's Rights, Dignity, and Diversity and Social Responsibility-. The most updated version of code of research ethics does not list any elements that warns about the new conditions of research.

Research Ethics as Defined by Indigenous Scholars

So far, most of the statements of research ethics reviewed ask that research with indigenous groups has an ethical review panel. This is due to the many abuses that researchers have committed against indigenous population.

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9 The first concern was raised with US government support of social science research in third countries. It was alleged that the Department of Defense, and other governmental institutions, were using anthropologists to gather data to help them in their insurgency and counterinsurgency activities. The Project Camelot in Chile in the 1960s was a major starting point for this discussion (see Hill, n.a.)

10 http://ethics.americananthro.org/about/

11 The principles are 1. Do No Harm; 2. Be Open and Honest Regarding Your Work; 3. Obtain Informed Consent and Necessary Permissions; 4. Weigh Competing Ethical Obligations Due Collaborators and Affected Parties; 5. Make Your Results Accessible; 6. Protect and Preserve Your Records; 7. Maintain Respectful and Ethical Professional Relationships (AAA, cit.). As immediately apparent, these principles do not solve all tricky issues; how to behave in illiberal settings, for instance, in which research permissions are issued (if at all) by governments that oppress large parts of the populations?

Yet, indigenous groups in some regions of the world have developed their own statements of what constitute research ethics. The Assembly of First Nations of the Pacific Northwest (AFNP), for instance, have a statement of research ethic, which requires at least three conditions: a) share power of the many decisions of research, b) self-determination, c) access and possession of their knowledge. As described by the AFNP, any research study that involve indigenous people have to be conceived entirely through the cosmoview of their peoples.

Currently, one of the most important tensions between western and indigenous ways of conducting research is associated with dimension of ownership attributed to the production/discovery of knowledges. The existing regimes of copy right seek to commodify and disseminate the traditional knowledge, which implies that traditional knowledge must be shared with outsiders who may misuse or appropriate traditional knowledge.

Final Remarks: Ethical issues in science and research – the need for scrutiny, understanding, and reflexivity

As the brief overview should have clearly showed, ethical concerns are central to the practice of science and research, since its inception, but are acquiring a new relevance in the current phase of increased institutional isomorphism, by which different disciplinary associations feel the need of making explicit what are ethical procedures and codes. This is never a settled issue, particularly for research carried out with human beings, animals, and recently the environment as well, and it needs constant scrutiny, both external and internal to the disciplines, an understanding of past and present realities and an imagination of what the future should look like, as well as a constant, relentless reflexivity, to be directed particularly at issues of power imbalances.

Table 1: List of Documents Included in the Analysis				
Organization	**Location**	**Organization Type**	**Document**	**Observations**
European Commission. Directorate-General for Research and Innovation Science in society	EU	Supra-national, funder	Ethic for Researchers: Facilitating Research Excellence in FP7	It establishes the ethical procedures and principles for all the research funded by EU funding.
All European Academies	EU	Supra-national, scientific academics	The European Code of Conduct for Research Integrity	It recommends the main principles to guide all research practices, particularly in what respect to research integrity. Main values: Reliability, honesty, respect, accountability.
European Commission	EU	Supra-national, funder	Participant Portal H2020 Online Manual	It describes the ethical framework that regulates all the research funded by the European Union.
European Commission	EU	Supra-national, funder	No 1290/2013 of the European Parliament and of the Council of 11 December 2013	It is the decree that describes the Research and Innovation "Horizon 2020" plan.

The National Academies of Sciences, Engineering and Medicine Press	USA	National, scientific association	On Being a Scientist	It is an updated version of a prior handbook that guides researchers on ethical issues. It discusses the new environment of research and the emergence of new trends in research practices that challenge the meaning of research ethics.
National Institute of Health	USA	National, funder, government	Policy, Law, Regulations	It regulates all the research funded by the National Institute of Health, one of the most important funders of biomedical research.
National Institute of Health	USA	National, funder, government	Conduct of Research Ethics in the Intramural Research Program at NIH	It sets forth the general principles governing the conduct of good science in the NIH Intramural Research Programs.
National Science Foundation	USA	National, funder, government	Responsible Conduct for Research	It explains the section of ethical education of the law COMPETES - America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES)
The National Academies of Sciences, Engineering and Medicine Press	USA	National, funder, government	Fostering Integrity in Research	It can be read as an updated version of the 1992'Responsible Science: Ensuring the Integrity of the Research Process, developed by a shared effort of Committee on Science, Engineering, and Public Policy (COSEPUP) of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.
Online Ethic Center	USA	Academic Center	Online Ethic Center for Engineering and Science	It is a center, originally funded by the NSF, whose main function is the formation in ethics of engineers and scientists. Several programs and resources are available for free
Indian Council of Medical Research	India	National, scientific association	National Ethical Guidelines for Biomedical and Health Research Involving Human Participants	It is a comprehensive guide for all biomedical, social and behavioral science research involving human participants, their biological material and data.
Indian Academy of Science	India	National, scientific association	National Policy for Academic Ethics	It is ethic statement that has a set of recommendation about research ethics. It sees teaching as a part of ethical component (selection, preparation and overseeing the students).
Beijing Academy of Artificial Intelligence	China	National, scientific association	Beijing AI Principle	In response to the concerns related to the creation of artificial intelligence, the association launched a set of recommendations.

Chinese Academy of Science	China	National, professional Association	Faculty of Sciences and Morality Construction Committee	The webpage cites the Science and Ethics Construction Committee of the Ministry of Education and its functions to promote and strengthen scientific ethical practices in research.
Chinese Academy of Science	China	National, Professional Association	Initiative on responsible GM technology development activities	It describes a set of principles to the development of genetically modified technology in China.
Ministry of Science and Technology Progress	China	National, funder, government	Law of the People's Republic of China on Science and Technology Progress	It is the law that regulates the development and funding of scientific and technology activity in China. Art 44 is about research ethics.
Indian National Science Academy	India	National, scientific association	Ethics in Science Education, Research and Governance	It a comprehensive book about research ethics in India. It describes ethics associated to education, governance, quantitative methodology, publication, and among other topics.
All European Academies	EU	National, scientific association	Ethics Education in Science	It a report that describes 10 principle that highlights the need to make explicit the responsibilities of scientists while conducting research.
Assembly of First Nations of the Pacific Northwest	Pacific Northwest	Indigenous organization	First Nations Ethics Guide on Research and Aboriginal Traditional Knowledge	It establishes the conditions to conduct research with indigenous groups.
British Sociological Association	UK	National, scientific association	Guidelines on Ethical Research	It contains a set of guidelines concerning ethical issues in the field. Particularly, its appendix on digital research ethics describes the issues concerning to digital sociological research.
American Sociological Association	USA	National, scientific association	ASA Codes of Ethics	It is the code of ethics that regulates the profession and research practices of all sociologists associated to ASA.
American Educational Research Association	USA	National, scientific association	Codes of Ethics	It is the code of ethics that seek to regulate educational research.
American Anthropological Association	USA	National, scientific association	About the AAA Ethics Forum	The website provides a number of resources to guide ethical research practice while conducting anthropological research.

Expert interview with Reinhard Jahn

Summary by Beate Scholz

"Doctoral education needs to address major current challenges with respect to research ethics and integrity such as: In what way can we contribute to avoiding the abuse of modern technologies like genetic engineering tools (e.g. CRISPR/Cas) or Artificial Intelligence? How can we strengthen the role of research and, specifically, of evidence based knowledge in trying to overcome 'fake news' or 'post truth' phenomena?

With regard to the first question, an answer would be to develop knowledge in the broadest possible sense, i.e. in that we know about the potential dangers or threats resulting from such technologies, we are able to formulate rules and urge policy makers to legislate correspondingly. As researchers, we are highly responsible for pinpointing dangers and aberrations and to intervene where necessary. However, this requires consensus on basic values of our societies and on our self-understanding as humans. I will come back to the latter aspect.

Secondly, we need to acknowledge that machine learning entails a fundamental paradigmatic change for the whole research process, as we have hitherto known it. This implies that our fundamental research principle of deriving or deducing knowledge from findings is replaced by stochastic optimisation procedures and self-learning algorithms. A potential means to limit or control such technologies would consist in formulating clear-cut goals with respect to the scope and use of such mechanisms. For instance, if we work on pattern recognition, we need to be sure what basic features we need e.g. to recognise faces and where to stop in order to avoid the total surveillance of societies.

With regard to the second issue of anti-intellectualism, I perceive alarming trends around the globe and, in particular, in some liberal democracies as the United States. To give an example: For decades, the most profound reports produced by the US National Academies of Sciences on current societally relevant topics such as 'Advancing Health Equity for Kids', 'Preventing Bullying Through Science, Policy and Practice', or 'Genetically Engineered Crops' (cf. *https://www.nap.edu*) to name just a few examples, have served US governments as basis of decision making. Now, for the first time, it is the Trump administration that broadly ignores them. Even worse, governments in countries like the US, Brazil, Russia, Hungary are increasingly trying to discredit intellectuals and are muzzling researchers.

Now, what is our role and responsibility as researchers and supervisors of next generation doctorate holders in the wake of such dangerous trends? Do we need to educate an intellectual 'resistance force'? First of all, it is our academic duty to counteract, if we note that research results get misused or negated. It is a key task of researchers to use their knowledge to explain to wide audiences the scientific truth behind such phenomena as global warming and, thereby, invalidate myths put forward by populist powers. By 'scientific truth' I wish to understand knowledge that has been agreed on by an international community of research peers.

Yet, we need to be careful not to be seen as indoctrinating or infantilising the public. One reason why anti-intellectual attitudes have become fashionable particularly in right-wing movements is that their supporters have felt humiliated by historical developments. An example is the Unification of Germany, which for obvious reasons has left many especially in the Eastern parts of the country with the feeling of an 'unfriendly take over' by the West rather than a fusion on equal terms. It gets more and more difficult with rational arguments to reach out to individuals who have experienced strong disappointments. It may therefore be necessary that we get more pro-

active in advocating science-based political views. In increasingly polarised and divided societies it may even be necessary to modify or at least amplify our liberal societal concept of enlightened, reflective citizens. I am not sure, if our role as knowledge producers would still comply with a communication mode that could be described as evidence-based 'propaganda'. This remains to be discussed. We need to be aware, though, that authoritarian movements consciously exploit archaic patterns in order stoke fears, e.g. xenophobia for fear of the 'unknown' or the 'stranger' threatening the existence of one's own family or tribe. Thus, our answers need to be strong and explicit, while avoiding arrogance in our way of arguing.

Furthermore, as researchers we have the obligation to self-ascertain our democratic concept of humanity as expressed by the universal principles of the Human Rights Charter. This implies that we also have the duty to educate doctoral researchers to develop their personalities as responsible citizens and potential future responsible leaders. Of course, we cannot be sure that each supervisor is aware of or agrees with this wide responsibility concept. Here, we are faced with an educational task also with respect to our peer researchers. This is precisely why structured doctoral programmes are essential as they are in the position to set up, maintain and assure ethical standards, also by means of social peer control."

Conclusions, recommendations and questions for further discussion

by Christian Peters and Beate Scholz

Referring to our three main topics, in this last part we have been trying to formulate cross-cutting conclusions and recommendations. With the aim to relate these to the 'Forces and Forms of Change of Doctoral Education Worldwide' we have structured our findings and suggestions in line with the main elements of doctoral education, considering:

- The <u>input</u> side with specific focus on doctoral candidates and supervisors
- The <u>throughput</u> side especially in view of (institutional) structures and contents of doctoral education
- The <u>output, outcome and impact</u> side that doctoral education (should) entail.

Conclusions and recommendations

Preamble

Doctoral education is and should remain an anchor point both for scientific and scholarly knowledge production and as well as for the qualification of the next researcher generation. In order to comply with key challenges of our time like digitisation, authoritarian and populist turns in politics, economic and ecological crises, discrimination and 'colonisation' as well as potential threats originating from lack of research ethics and integrity, we see an urgent need to renovate doctoral education worldwide by agreeing on a **joint value system**. It will have to encompass all elements of doctoral education and will be rooted in the universal principles of the Human Rights Charter. Moreover, it needs to be based on an agreed understanding of past and present realities and a consensual imagination of what the future should look like.

In acknowledging the diversity of our historical experiences, we are advocating two major concepts, namely

- **'ethical inter-/transcultural doctoral education'**, relying on Northern and Southern, Eastern and Western and First Nations' theories and concepts on equal terms in an 'ecology of knowledges', where diversity is appreciated ('learn about') and that, what extends through many cultures is recognized ('learn from').
- the **'responsible resilient researcher'**, who is entrusted with defending the freedom of research and thought limited only by ethical boundaries, and, hence, the freedom of each and all of us.

With these concepts we are seeking to prepare the frame for doctoral education, which allows for maintaining and advancing freedom of thought, heterogeneity of approaches and diversity of programmes and practices. In order to fill the above-mentioned concepts with life we recommend:

➔ *At the level of Input: i.e. the agents of doctoral education, to*

- Select doctoral candidates not just in view of their intellectual competencies, but also taking into account their motivation for studying, their critical thinking dispositions and their creative potential.
- Appoint only such supervisors who identify with the full range of requirements associated with supervision and who regard as their individual responsibility to comply with highest standards of research ethics and scholarly integrity in line with a moral understanding of humanity.

➔ *At the level of Throughput: i.e. institutions and contents of doctoral education, to*

- Change academic institutions to
  - implement structured doctoral programmes in order to set up, maintain and assure value-oriented quality standards, also by means of social peer control,
  - foster research ethics in an internationally agreed, but still context-specific sense, i.e. considering disciplinary fields as well as temporal and geographical spaces shaping the research activity,
  - foster and promote an ecology of knowledges, that recognizes the plurality of voices, ontologies, epistemologies and ways of producing/discovering knowledge and guarantees a just approach to ownership and sharing of data and results.
- Advance research and teaching curricula to
  - offer ''Bildung' in a broad and culturally open sense, including leadership development. The latter is understood as enhancing the individual ability to identify, deliberate, communicate, implement and defend any necessary reform or solution serving sustainable progress in a social, cultural, political or scientific context.
  - raise awareness about emotional and social intelligence and train ethical competencies, methods of self-reflexivity and the secure and critical handling of data, methodologies and technologies,
  - formulate clear-cut goals with respect to the scope of research and the use of its results.

➔ *At the levels of Output, Outcome, Impact of doctoral education, to*

- Assess research outputs and impacts based on the consensus of international peer communities and of accorded 'equality of opportunity',
    - overcoming the concept of knowledge production in an industrialised (i.e. parameterised) sense by sharpening the focus on the (meaningful) social impact of the research process and their results to the many communities that directly/indirectly benefit of the research inquiry,
    - recognizing and valuing Indigenous knowledge systems,
    - defining a new concept of 'academic meritocracy' referring to creative spirit, critical attitude, personal integrity and professional commitment.
- Qualify 'responsible resilient researchers' as pivotal outcome of doctoral education who are
    - dedicated to working for and living in open (self-)critical societies, constantly questioning and adapting approaches to solutions,
    - able to advance open science while limiting its potential dangers,
    - providing guidance and orientation by communicating in an appreciative manner the value of research to society based on objective and provable results,
    - prepared to defend the freedom of research within ethical boundaries by urging policy makers to legislate and by taking direct political action, if necessary.

Questions for further discussion

- How can we reconcile this joint value system with the heterogeneity of approaches to doctoral education around the globe? Can we realise a positive concept of isomorphism, while maintaining diversity?
- In an 'ecology of knowledges', how can we avoid the rise of new hegemonies? How can we define what we count as knowledge and high-quality research?
- In what way can we ensure that researchers adopt their full responsibility as supervisors and, consequently, as role models for the future attitudes, beliefs and behaviours of their supervisees?
- Besides ethical and moral obligations, what should be the limits for the 'responsible resilient researcher', especially in terms of political action?

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