

The world-systemic dynamics of knowledge production

The distribution of transnational academic capital in the social sciences

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ABSTRACT. This paper expands the framework of the Bourdieusian field theory using a world-system theoretical perspective to analyze the global system of social sciences, or what might be called the world-system of knowledge production. The analysis deals with the main agents of the world-system of social sciences, and it also investigates the core-like and periphery-like processes of the system. Our findings affirm that a very characteristic center-periphery structure exists in global social sciences, with a few hegemonic countries and distinctly peripheral world regions. Our analysis not just presents empirical data on power structures in global social sciences but it also offers meaningful typologies for analysis of the roles different world regions play in maintaining the world-system of global knowledge production. The paper also proposes a three-dimensional model by which both geographical and social/institutional center-periphery relations may be analyzed.

KEYWORDS: *Field theory, global knowledge production, global north, social sciences, world-system analysis,*

The notion that science is a game scientists play by well-established rules has a long history in the sociology of science, but it was Pierre Bourdieu who made a whole conceptual universe on this assumption (Bourdieu, 1988). By participating in this game, scientists internalize the existing rules of the field and transform them into inner habits that determine their professional actions in return (Bourdieu, 1998; 2004). Researchers who are more successful in internalizing rules into habits gain more academic capital, while their less prosperous peers suffer serious disadvantages. The original Bourdieusian ideas of different forms of capital have been expansively used by later social scientists to conduct descriptions of various fields of social phenomena (Bühlmann et al., 2017; Gouanvic, 2005; Wacquant, 2018).

Economic, social, cultural and symbolic capital were investigated in Leung's research (2013), while Bauder analyzed different types of capital in academic research (Bauder, 2015).

Bourdieu's notion of capital can be roughly conceived as the extension of the economic sense of the concept, since

Bourdieu's purpose is to extend the sense of the term "capital" by employing it in a wider system of exchanges whereby assets of different kinds are transformed and exchanged within complex networks or circuits within and across different fields. He is attempting to relocate the narrow instance of mercantile exchange away from economics into a wider anthropology of cultural exchanges and valuations of which the economic is only one (though the most fundamental) type. It is important to note, however, that other forms of capital such as cultural and social can be seen as "transubstantiated" forms of economic capital (Grenfell, 2008)

Thus, academic capital is a form of capital that can be acquired, accumulated and used in the field of the academy. For Bourdieu, any kinds of capital can be either institutionalized, embodied or objectified. In the case of the academic field, the institutionalized form of capital can be acquired in forms of certificates, degrees, diplomas, research grants, fellowships and so on. Embodied forms of academic capital include language skills (in a global context: the knowledge of academic English), and the skill of how to write research proposals. Objectified academic capital consists of features like owning scholarly books, or, most typically, owning professional software and having access to expensive databases like Web of Science or Scopus. Another, and the most objectively measurable form of academic capital, is the research output of a given individual measured by both the number and status of refereed articles and citations. Historically, measurable variables like the number of top-tier publications and citations started to become the most important currency of global academy when the internalization and globalization processes made it impossible to personally know and assess one's scientific merits. In most cases, assessing the scientific value of a given scholar is in the hands of the global community of his or her discipline which can, and - according to the theory of internalization (Demeter, 2018c) - should be distinguished from the local community or the department where the scientist works. Moreover, as we will see below, academic capital of this kind can be efficiently accumulated and quantified by the host institutions of the individual scholars to make it easier to rank individual academics and their research institutions as well (Astaneh, Masoumi, 2017).

Thus, academic capital can be accumulated not just by individual agents but also by institutions. Considering the fact that university rankings are based primarily on the scientific output of their employees - as expressed in the number of their articles in top tier journals and the number of distinguished awards - we can conclude that the academic capital of a given higher education institution (HEI) consists of its reputation (its symbolic capital) and the accumulated measure of the scientific production of its scholars (its academic capital). Similarly, an international journal's academic capital can be conceived as the accumulation of the academic capital provided by its authors' articles, measured by the citation counts to these papers. And the academic capital of a publishing house consists of the summation of the academic capital of the periodicals it publishes. Of course, this conception of collective or institutionalized academic capital is rather rough, but it is still appropriate in a sense that it can explain the accumulation of academic capital in the hands of different institutions. Moreover, ranking databases like Web of Science or Scopus, as well as university ranking agencies like Academic Ranking of World Universities or Times Higher Education ascertain the hierarchical positions of journals and universities in a rather similar fashion.

Another essential feature of the Bourdieusian theory is its emphasis on the stratification of the academy, both within countries as well as internationally. It means that HEIs are different in terms of the social values of their degrees. This leads to a periphery-within-core situation where core-like elite institutions coexist with more peripheral institutions in the same country. Bourdieu and his followers also argue that the ruling elite systematically builds and maintain an educational system by which the candidates from lower classes are purposely excluded from top positions. With this, a new stratification has been built up where - with the mediation of education - the elite can stabilize its hegemony over the members of other social classes (Bourdieu, 1996). Empirical research also shows that despite continuous worldwide expansion of global higher education and growth in numbers of enrolled students since the 1960s, the number of students that are educated in the elite universities remained unchanged (Schofer, Meyen, 2005). Drawing from Bourdieu's work, below I propose the categories of *vertical peripherality* and *vertical centrality* to refer to the core-center relations in the same geographical location while *horizontal peripherality* and *horizontal centrality* refer to the geographical distribution of power relations. I will briefly recapitulate the main characteristics of a three-dimensional model that incorporates both the geographical and the social understandings of core-periphery relations below.

The limits of the original bourdieusian perspective and the application of world-systems theory

However profound the Bourdieusian analysis of the field of science was in his age, his theory and especially its application to the field of science can be criticized in many ways. From the point of view of this current paper, the most important point to criticize is that Bourdieu suffered from a so-called epistemological and empirical nationalism (Gerhards et al., 2017), as he analyzed mostly the French academy and paid little attention to international science as a complex system. Thus, current researchers extended the framework of his field theory in order to being able to handle international issues, typically globalization. Gerhards (2017) and his colleagues developed the concepts of transnational field and transnational human capital, referring to the global context in which academics should operate.

But what is transnational academic capital then? In order to answer this question, we should first consider whether the distinction between national and transnational academic capital can and should be made at all. One can assume that, since science is global or at least international by definition, a distinction of this kind is meaningless. But when we consider actual practices, it becomes obvious that there are significant differences between powerful central and dependent peripheral regions in this respect: While the knowledge of the center is automatically considered knowledge of global significance, peripheral knowledge almost always rates as knowledge of only local or national interest.

Based on their empirical analysis, Wu and Zha (2018) count four types of internalization, each of them marks typical world regions and national tactics. The first type includes the United States and, in a less extent, the United Kingdom where national science coincides with international science. As we will see later in a more detailed presentation, most so-called international forums of global science are, in fact, American, and, at least in social sciences, top-tier international periodicals are published either in the United States or the UK. American and UK degrees are widely accepted worldwide, so, with American or English institutionalized academic capital one should get along at both the national and the international field of academy. Regarding the vertical hierarchy, we can tell that the American and the UK academic

elite constitute the lion's share of the international elite as well. In other words, being a member of the Anglo-American elite implies being a member of the international elite automatically (Canagarajah, 2002). The second type consists of those relatively powerful and populated developed countries where the international and the national fields of science are equally important but also different social realms, so they are conducted parallelly. The typical examples here are France, Germany, Japan or, in a less extent, Spain, where a successful academic might be either a national academic capital collector or an international academic capital accumulator since both the internationalization of science and the cultivation of the national academic tradition are equally respected career trajectories. In these countries, however, national academic capital does not boost the international career paths as it does in the case of the countries of the first type. In a relatively early stage of their academic lives, researchers of the second type must decide which career trajectory - the national or the international - they would like to follow, and they have to start to accumulate their academic capital in the light of their decision.

The third type includes those smaller but still developed countries where science means almost exclusively international science. In countries like Switzerland or the Netherlands, academics must produce internationally recognized achievements in order to advance in both their national and international academic communities. With the exception of a relatively small number of nation-specific fields of research, scholars in these countries work on international research projects and publish in international journals. Moreover, despite the fact that the higher education in these countries is generally considered high quality, it is very hard to convert purely national academic capital into international positions. Thus, researchers with plans for international careers typically earn their PhDs in countries of the first type, typically from the United States.

Finally, we have the overwhelming majority of countries where international science is very hard to conduct, and academic life is almost fully reduced to national science. In these economically less developed countries of the periphery, researchers "may wish to be partners in international communication and co-operation but face problems because they tend not to be considered partners on equal terms" (Wu, Zha, 2018). Junior academics with the appropriate familial background and ambition tend to emigrate as quickly as they can, and it is unlikely that they will return to their homeland (Gerhards et al., 2017). Moreover, as I will argue later, emigration for the purpose of collecting transnational academic capital is almost exclusively the privilege of upper middle- to upper-class students, and the international mobility of students and junior researchers not only reflects but also reinforces class-based social inequalities. It is obvious from the above-delineated categorization that a very clear center-periphery structure is characteristic to global academy with semi-peripheral regions (Boatca, 2006) and even contested peripheries (Cline, 2000). As Chase-Dunn argues (1999), the interconnected societal fields like economy, culture, politics, communication should be analyzed from a global perspective, and the global academy is not an exception. Following Wallerstein (2004) we assume that knowledge production is not separate from overall world-system dynamics but rather it is an essential part of the system's operation. Galtung (1980) even assumes that the means of knowledge production like popular culture and education serve to maintain the hegemony of the center by spreading its values and ideologies. Moreover, academic publishing itself gains from the political and economic hegemony of the Anglo-American center:

Based in the West, the publishing houses and academic societies enjoy the infrastructure and resources to publish conveniently and profitably. The technological sophistication, communication facilities, economic strength, and marketing networks of the center help the academic publishing enterprise in no small way (Canagarajah, 2002).

Thus, it is not surprising that the pattern of power relations in social sciences is rather similar to those patterns in other superstructures of the world-system like communication, transport, industry, entertainment (Wallerstein, 1991). The revealing fact here is that the self-definition of science contains the notion that science is a meritocratic endeavor where power relations do not play a significant role. Still, according to both empirical analyses and theoretical traditions like critical studies, decolonialization studies, and world-systems analysis, global science was, and still is, a distorted field that privileges more powerful, central agents, regardless of their purely scientific merits.

By applying the world-system theoretical perspective on the field of global science we can not just extensively broaden the use of the concepts of Bourdieusian field theory to cover global issues, but we can provide a theoretical explanation for persistent international inequality in the field of international knowledge production and dissemination. To the idea that the unequal distribution of academic capital (including economic, academic and symbolic kinds) can be conceived as a result of social core-periphery relations, we can add a third (vertical) dimension to the world-systemic analysis of the global system of knowledge production.

Hegemonic structures in the social sciences as the representation of the production and dissemination of knowledge

World-systemic theoretical approaches are most frequently used when discussing global political or economic issues, but world polity research, which emphasizes organizational and institutional processes and their effects over economic or military power (Cole, 2017; Meyer et al., 1997; Thomas et al., 1987). This tradition maintains that different - collective or individual - social agents are “embedded in and shaped by a global cultural, social, and political environment, resulting in a great deal of decoupled isomorphism among them” (Cole, 2017). The theory of world polity counts the HEIs and curricular content as typical examples of cultural patterns which follows global or allegedly universal scripts (Meyer et al., 1992). World polity also emphasizes the role of culture. In our case, it means that the academic culture consists of many cultural scripts that tend to be biased against peripheral participants who are less familiar with them. Typical examples can be easily collected from the literature of academic writing where the authors always emphasize the other-than-language factors like modes of thought, rhetoric, and other kinds of enculturated knowledge (Canagarajah, 2001; Curry, Lillis, 2018). However, world polity research has some critical deficiencies: the most important is that while it overemphasizes the role of the dominant culture in an increasingly internationalized and uniform knowledge production system, it neglects material inequalities like the uneven global distribution of economic, academic, and institutional capital (Frank, Gabler, 2006).

Another research tradition dealing with global inequalities in science is decolonialization theory (Kerr, 2014; Mignolo, 2011, 2018; Santos, 2007, 2014, 2018). Santos (2014) uses the very expressive word *epistemicide* when referring to the fact that hegemonies of global science systematically overlook and exterminate rival or alternative research traditions, epistemologies and peripheral knowledge. This phenomenon was measured on a European level, too (Bennett, 2015). According to this tradition, the so-called globalization of knowledge is conceived as an encounter of cultures that implies the death of the knowledge of the subordinated participant. This leads to an epistemic monoculture (Mignolo, 2011) where the West maintains control over the structure of knowledge. According to decolonialization theorists, the global academic community needs a cognitive justice in which the norm is the plurality of knowledge, and even peripheral members of the community have the right of the different forms of knowledge (Santos, 2007; Visvanathan, 1997).

The main difference between decolonial and world-systemic approach is that while decolonial critiques of the academy focus on the epistemic violence of coloniality, this analysis of the world-system of knowledge production examines how this violence is perpetuated through the contemporary political economy of higher education.

Besides world polity research and the decolonialization perspectives, there were also previous attempts to apply the world-systemic approach to the field of science. Schott's research (1998) is one of the most emblematic analyses dealing with global science, but besides its clear and obvious virtues, Schott's paper has two weak points. First, Schott observed correctly that global science can be conceived as a network of its agents, and world-systems theory is a perfect explanatory frame for the analysis of the main ties between participating agents. He pointed out the most important processes by which the field of global academy maintains its hegemonic structure, and he successfully identified the differences between the capital accumulation of central, semi-peripheral, and peripheral regions of the world. I believe that Schott deserves to be mentioned as the founder of world-systems theoretical analysis of global science, an area previously analyzed by - in addition to the above-mentioned polity and decolonialization theories - scholars of methods of the sociology of science (Erfanmanesh, Tahira, Abrizah, 2017; Kuhn, 1962; Mullins, 1973; Saurin, 2016), scientometrics (Ashtaneh, Masoumi 2017; Martin et al., 2015; Siversten, 2016) or, most recently network science (Demeter, 2017b).

Nevertheless, as stated above, Schott's research has two relatively major deficiencies: the first relates to the fact that he concentrated solely on natural sciences, using data from SCI Web of Science. But as it is well known, regional differences in social sciences and humanities are far more serious than in natural sciences. To a much greater extent than hard sciences, the "soft" disciplines are carriers of cultural, epistemic, political and ideological features that make their global distribution the exact representation of transnational knowledge production (Curry, Lillis 2018; Heilbron et al., 2018; Martin et al., 2015; Shenhav, 1986). It is obvious then, that social sciences are subject to hegemonic biases to a very great extent, since they can be successfully used as a means of global control (Nye, 2004). Accordingly, researchers found much greater inequalities in social sciences and humanities than in the case of natural sciences. In terms of regional diversity, the most biased picture was found in the cases of psychology, social sciences, communication and media studies, followed by philosophy, and there were serious but still significantly smaller lack of balance in the case of hard sciences when mathematics, physics and chemistry were considered (Demeter, 2018c; Gumpenberger et al., 2016; Moody, 2004).

Regarding the second weakness of Schott's analysis, I contend that he overemphasizes the role of international standards in attributing higher achievement and status to more central academics. Schott also underestimates the ways world-systemic dynamics reproduce inequalities in the global academy. He wrote, for example, that

The community of scientists is not a community of equals because scientists differ in their accomplishments, and its network is not a uniform grid. Indeed, an accomplished scientist attracts many ties while a novice is typically ignored. Ties are especially dense between some participants and particularly sparse between some nodes. Ties are dense within a country and sparse between different nations. Ties within and to a periphery are sparse. The accomplishments of the center attract more ties, both from within the center and from peripheries (Schott, 1998).

In my view, this statement above is too uncritical of the idea that the social system of global academy is constructed on meritocratic bases. In contrast to the myth of science as a meritocratic system, I view social science as a system of global knowledge production that operates in ways that help maintain the existing power structure. It also neglects a fact that is rather clear to scholars in education research: central places in education are most of all carriers of academic capital, and this helps them maintain their power positions. Later in this article, I will argue that this situation leads to a double-edged Matthew effect by which more peripheral academics should face two serious problems all at once: with the problem of poor infrastructure including poor education on the one hand, and with their systematical devaluation by more central academic agents on the other hand. But now I will delineate a three-dimensional model that contains both the *horizontal* center-periphery relations that world-systemic approaches mostly deal with, and the Bourdieusian *vertical* center-periphery relations, and then will interpret some of the most relevant data on social science inequalities in this framework

The horizontal dimension of center-periphery relations is based on geographical features. In this sense could we talk about Western hegemony, or the center position of the Global North, or the Anglo-American dominance. In the horizontal dimension, we can talk about geographical core and geographical periphery. On the other hand, we have the periphery within core (Kristensen, 2015) and the core within periphery phenomena where there first refer to the institutional stratification inside a given location or nation, while the second refer to the presence of international elite institutions at the periphery. This vertical dimension shows that there are “marginalized communities within the center (subordinate ethnic, class, and gender groups and institutions) that are made to serve the interests of the dominant groups of their own societies. Similarly, there are elite groups in the periphery that sustain their relative dominance by aligning with center elites and suppressing the minority and marginalized groups in their own local communities (...). Through the elite groups in the periphery, the center dominates these communities (Canagarajah, 2002).

This vertical core-periphery relation is more complex than to suppose that it is one-directional. While the existence and, in many cases, the dominance of the epistemological North at the global South is the typical pattern, we also have occurrences of the epistemological South at the global North in the form of struggles against colonialism, patriarchy and capitalism (Santos, 2018). Table 1 below delineates the main dimensions of the model I propose with some suggestive examples. While Table 1 above describes the main feature of the different core-periphery positions in our proposed model, Figure 1 below shows the structure of the model. The horizontal plane represents core-periphery relations in a geopolitical sense, while the vertical axis represents social stratification. Thus, the positions of different academic agents can be represented 3-dimensionally: they are at the intersection of their horizontal (geopolitical) and their vertical (social) positions (See Figure 1). According to Wallerstein, a world-system is a multicultural and international network in which different necessities flow (Wallerstein, 1974a; 1974b; 1979). This network is such that it entails different nations with different cultures, norms, languages, institutions, values and so on. Chase-Dunn (1997) defined world-systems as “intersocietal networks in which the interactions (e.g., trade, warfare, intermarriage, information) are important for the reproduction of the internal structures of the composite units and importantly affect changes that occur in these local structures” (Chase-Dunn, 1997).

Another inherent feature of world-systems is that they develop a typical core-periphery structure by the regionally different accumulation of capital (Wallerstein, 1983). Thus, in the case of the world-system of global social sciences, we have to measure its structure in terms of centrality and connectedness, and we also have to measure the global distribution of academic capital.

	<i>Horizontal centrality</i>	<i>Horizontal peripherality</i>
<i>Vertical centrality</i>	<ul style="list-style-type: none"> • U.S. elite institutions like the Ivy League universities • Elite universities in the United Kingdom (Oxbridge, UCL, LSE) • International Associations founded at and governed by the West • the (inter)national elite of the global North • Leading publishing houses (situated, exclusively in the core) 	<ul style="list-style-type: none"> • American elite universities at the Global South like the CEU in Hungary or the American University in Cairo • Global South countries with very strong ties to American elite institutions (Israel is the leading example, but also Hong Kong and Singapore) • the international elite of the global South
<i>Vertical peripherality</i>	<ul style="list-style-type: none"> • Community colleges in the U.S. • Small state schools at the West • Mass education (vs. elite schools) • the lower classes of the global North • underprivileged groups in the global North 	<ul style="list-style-type: none"> • Ordinary global South HEIs • the national publishing houses and periodicals of the global South • the lower class of the global South • underprivileged groups at the global South

Table 1. The three-dimensional model of power relations in the global academy



Figure 1. The structure of the 3-dimensional model of academic stratification

The world-system of the global social sciences

As many prior analyses show, the accumulation of academic capital is radically uneven with very high concentrations in a few core countries. In 1997, Bonitz, Bruckner, and Scharnhorst created the concept of Matthew Effect for Countries (MEC), which states that the Matthew effect works on not just the level of the individual researchers but also on a macro level, namely, on the level of countries and regions. They found that “the MEC is observable in all main scientific fields that were investigated” (Bonitz, Bruckner, Scharnhorst, 1997). They concluded that the world of science can be separated for a few “winner” or core and many more “loser” or peripheral countries. These authors also found that loser-country scientists were cited less frequently than winner-country scientists, even in cases where they had been published in the very same journal. In short,

A minority of countries, expecting a high number of citations per scientific paper, gains more citations than expected, while the majority of countries, expecting only a low number of citations per scientific paper, achieves fewer citations than expected. In the spirit of Merton, we called this effect the ‘Matthew Effect for Countries’ (Bonitz, Bruckner, Scharnhorst, 1997).

Other researchers also confirmed that the world-system of global science can be separated to a very few successful countries against the background of a legion of almost invisible world regions (Azoulay et al., 2013; Lee, Mapping, 2016; Makkonen, Mitze, 2016; Perc, 2014; Schmoch, Schubert, 2008; Zanutto et al., 2016). In this section we present three features by which the core-periphery structure of global academic capital can be measured: first, the publication output (so, the human capital), second, the ownership of the leading periodicals (so, the mastery over the global academic public sphere) and third, the national diversity of editorial boards (so, the diversity of gate-keepers of the field).

Publication output. Despite the many changes through the history of modern science, the publish or perish paradigm remained inviolate (Erren, Shaw, Morfeld, 2016). On an international level, the most important condition for professional success represented in tenure and hiring decisions is based on publications in leading peer-reviewed journals (Zdenek, 2017). Consequently, high-status journals possess considerable international power, while journal editors and reviewers tend to function as gatekeepers. Moreover, not just authors but also editors have to meet requisite standards of scientific reputation. Being indexed in high-quality international databases like Web of Science, Scopus, or Medline is one of the main challenges for publishers and editors of journals, and such indexes determine a periodical’s visibility, citations, and thus its professional standing (Astaneh, Masoumi, 2017). It is not surprising then that we see intense competition in scientific research as publishers work to enhance their status and visibility. Publishers and editors seek to have periodicals with the highest impact factor, and their ability to attract quality submissions and reputable authors depends upon their success in this regard.

For the purpose of illustration of global inequalities in knowledge production, we conducted some empirical analyses. For this, we used Clarivate Analytics’s *Web of Science*, one of the most exclusive scientific databases indexing only the most prestigious periodicals in each scientific discipline. Here we can filter the results by country of origin, so a simple analysis can tell the percentage differences between countries and world regions in terms of science production. When we take a look at the national diversity of top-tier periodicals in social sciences, we found a very biased picture.

More than 75 percent of social science articles ever published in periodicals indexed in the most prestigious database (Web of Science's SSCI list) was published by either American or Western European authors. As opposed to natural sciences, where Western Europe is traditionally stronger than the United States, social sciences have an explicit U.S. dominance. We have a noticeable Australian and Asian contribution here while the involvement of the Global South (including Africa, Latin-America, the Middle East and Eastern Europe) is less than 10 percent altogether (Table 2). In most cases, core regions' share of global publication is up to 85% while in some cases the share of the periphery is under 5 percent.

The absolute center is clearly the United States with Western Europe, and in some cases, Asia (mostly China) comes close to being part of the global center, but only in some disciplines in the natural sciences. There are no typical semi-peripheral regions in the big picture, since in most cases, semi-peripheral countries manage to balance between peripheral and semi-peripheral positions in terms of research output.

From this point forward we limit our analysis to a narrower field since, as prior research already ascertained (Canagarajah, 2002), it is impossible to analyze the periodicals of all academic disciplines in a world of such an expansion that the number of indexed periodicals doubles nearly every 5-10 years (Demeter, 2018b). Therefore, while - based on the above delineated similarities between disciplines - I will demonstrate my argument through a closer analysis of the periodicals in the field I know best and from where I collected much data, namely, communication studies. This is the research field that was found to be the most biased amongst social sciences (Lauf, 2005; Demeter 2018b). For a comparative view on the rather similar inequalities in other social sciences we can refer the readers to the works of Kristensen (2015), Hoffman (1977) and Wæver (1998) who investigated knowledge production in international relations (and found a very strong U.S. hegemony), and they also made comparisons with disciplines like political science, philosophy and economics. We have comparative data from physical and biological sciences (Bazermann 1988; Myers 1990), and Bazermann also made analyses in political science and psychology.

	Core	%	Semiperiphery	%	Periphery	%
Maths	Western Europe	43	Asia	15	Eastern Europe	5
	U.S.	31			Middle East	2
					Oceania	2
					Africa	0
					Latin-America	0
Physics	Western Europe	28	Eastern Europe	10	Middle East	2
	U.S.	35			South America	2
	Asia	22			Oceania	1
					Africa	0
Chemistry	Western Europe	29	Eastern Europe	6	Oceania	2
	U.S.	28			Middle East	2
	Asia	22			South America	1
					Africa	0

	Core	%	Semiperiphery	%	Periphery	%
Psychology	U.S.	49			Oceania	5
	Western Europe	36			Asia	4
					South America	2
					Eastern Europe	2
					Middle East	1
					Africa	1
Social Sciences	U.S.	39	Asia	8	Middle East	3
	Western Europe	36	Oceania	7	South America	3
					Eastern Europe	2
					Africa	2
Philosophy	U.S.	39	Eastern Europe	8	South America	2
	Western Europe	38	Asia	7	Middle East	0
			Oceania	6	Africa	0
Communication	U.S.	48	Asia	7	Middle East	3
	Western Europe	31	Oceania	6	Eastern Europe	3
					South America	2
					Africa	0

Source: Author calculations based on research output as it is indexed in Web of Science SCI/SSCI list from 1975 to 2017

Table 2. The world-system of transnational human capital in different disciplines

Communication is a good example for the analysis of global inequalities since earlier research found that it is one of the most biased disciplines amongst social sciences in terms of the uneven distribution of academic capital (Demeter, 2018b). In the case of communication studies, we have many historical facts which can explain the dominance of the United States, at least in the first period of the discipline's history. The received history of the field (Pooley and Park 2013) tells us that the discipline begins with the study of propaganda in the United States, and all the four "founders of communication studies" - Kurt Lewin, Carl Hovland, Harold Lasswell and Lazarsfeld - were American. But as Pooley and Park put it, the historians of the field "have ignored the global South. We call out the patterned neglect as one fault among others that, taken together, undercuts the appearance of health in abundance" (Pooley, Park, 2013). When analyzing more than 1,600 articles on the history of communication studies, the authors found obvious bias towards the Global North:

The United States and the United Kingdom were tagged more than twice as often as the rest of the world combined. The inequality was far more pronounced in the case of developing countries: The United States and the United Kingdom were tagged 14 times as often as the entire global South. Put another way, more than half (55 percent, or 906 entries) of all studies focused on the United States, the United Kingdom, or both countries. If Canada and Australia are included, the total rises to 1,107 entries or more than 60 percent of the total. And the global South? Less than 4 percent - a mere 65 entries - covered historical topics in the developing world (Pooley, Park, 2013).

As regards the academic field, U.S. and Western European dominance is also obvious, since the first university-based communication education (mostly in journalism) had been established in American, German and French universities in the first years of the 20th century. It was also in the United States where “communication was first institutionalized as an academic field in the decades after World War II” (Simonson et al., 2013). However, today communication and media studies have become internationalized, and there are communication and journalism departments all around the world. This does not mean that the West doesn’t seek to maintain its hegemony by various means of control. For example, while there are almost 600 communication and media journals in the countries from former Soviet Union today, there are no more than 14 Central European communication journals registered by Scopus, and there is not a single one that succeeds in being indexed in SSCI Web of Science (Demeter, 2018a). Other peripheral world regions are similarly ignored: despite the great number of Asian and Latin-American communication journals, none from these regions is registered (and with this, legitimated) by the most prestigious international scientific database for social sciences, the SSCI list.

However stable the hegemony of the West in all fields of social sciences, it does not mean that it is not subject to changes. In communication science, we can also find the slight shifts in country positions over the two time periods compared here, 1997-2012 and the latest period, from 2012 to 2017 (Table 3).

World region	1975-2012	2013-2017
US	65	47
Western Europe	15	25
Asia	6	10
UK	5	6
Oceania	4	5
Canada	2	3
Latin-America	1	1
Eastern Europe	<1	1
Africa	<1	1
Middle East	<1	1

Source: Author’s calculations from SSCI list of Web of Science communication journals

Table 3. The contribution of different world regions in communication and media studies between 1975-2012 and between 2013-2017 (in percentages)

We can see from the data that, while a rather radical shift has happened at the core with the decline of the United States and the emergence of Western Europe, this change had only a minor effect on the semi-peripheral Asia and left the peripheral regions untouched. This reflects more of a realignment inside the center rather than a transformation of the system as it is (Chase-Dunn 1997).

The agents of the world-system of knowledge production

In the increasingly globalized and inter-connected world that ours is, communication is critically and increasingly important to developing, maintaining, and deepening international ties. Communication includes, in a broadest sense, all the efforts, actions and even precautions of different agents who are striving to maintain or increase their living standards and their chances at survival (Batori et al. 2003; Demeter 2018a). The agents of the world-system of knowledge production thus strive to maintain or ideally enhance their academic capital. This presupposition holds for not just individual agents like scholars, editors, lecturers, researchers, selection committee members, or academic coaches but also for collective agents: for academic institutions, departments, universities, research centers, countries or even whole world regions. We have to add that on a macro level - which will not be analyzed in detail here - social science as a whole might also be conceived as a unique agent operating in a world system of knowledge production. Social sciences are often subject to the assessment of governmental or other societal institutions and time after time they have to prove their usefulness to the wider community. In this sense knowledge production structures have to battle with other, often contesting power structures like armaments industry, engineering, technical innovation or economic mechanisms. Thus, in our analysis of power structures, we have to define the level of analysis first that is, in our case, the level of the world-system of global social sciences irrespective of the fact that this is an embedded structure itself that is only partially independent or autonomous.

Publishers, publishing houses. Although many current debates discuss the measurability of scientific production (Demeter, 2017a; Sooroshian, 2017), the “publish or perish” paradigm still holds (Erren, Shaw, Morfeld, 2016). One of the most important conditions for professional success represented in tenure and hiring decisions is based on publications in prestigious, indexed, peer-reviewed journals (Zdenek, 2017). Scientific reputation is very important for not just authors, but for journal editors as well. So while publishers and editors strive for a higher impact factor for their periodicals, legions of authors strive to publish in those highly regarded journals. Moreover, as Saurin put it “academic research, including the task of publishing its findings, takes place in a highly complex socio-technical system, which involves several dynamically interacting agents (e.g., authors, publishers, reviewers, regulators, funding agencies, subjects of the research, and universities, among others). In turn, these agents may have different goals, resources, constraints, and values (Saurin, 2016).

Based on the publish or perish paradigm academics all around the world must publish their research in order to succeed in their profession. Thus, the number of spaces in which publications can be placed has been dramatically increased. At the same time, we should not forget that publication spaces are not equal: we have very selective journals in which only a small number of submitted articles are published, and, on the opposite side, we have a constantly increasing number of journals that compete for submissions and that make publication decisions with little or no concern for academic merits. Moreover, we have the practice of predatory journals that are fake or at least totally uncontrolled publication platforms with a deliberately profit-oriented perspective. Such outlets publish every submitted article without peer review, as long as the author pays the publication fee. But while publishing in relatively unknown platforms or even in predatory journals can remain without punishment in more peripheral regions of the world, it is sanctioned in central regions where the competition is extraordinarily intense. Here only publications in the most prestigious journals of a given discipline are considered as the proof of research excellence, and the number of these journals are rather limited.

For example, we have only 84 journals in communication and media studies with Impact Factor, and of these only 21 are in the first quartile of the SSCI list. Considering that most journals in this discipline publish approximately 40 to 60 articles annually, it means that communication scholars have about 1000 free slots a year. Note that we have approximately 6000 HEIs in the United States alone, and more than 28,000 HEIs worldwide; now suppose that there is a communication faculty in one tenth of all the HEIs. This means that there are about 2800 individual scholars. The number of core scholars can vary to a great extent, but let us calculate with an average number 10. Then, there are at least 28,000 communication scholars for this 1000 free slots, so the game is extremely competitive, even if we suppose that each scholar must publish only one article per year.

From this, it follows that top-tier journals have extraordinary power in their hands, and since only a few publishers own the vast majority of top-tier journals. It is thus not hard to map the regional composition of this enormous power. The most successful agent in terms of having most journals in communication is Informa, this umbrella organization that owns other prestigious publishing divisions such as Taylor & Francis and Routledge. The three largest publishing houses, Informa, Sage and Wiley own the two-thirds of the SSCI indexed journals. More than two thirds of the leading periodicals are published in either the United States or the UK, and all SSCI ranked journals in communication come from the Global North. The absolute center in terms of publishing consists of the United States and the UK, while the Netherlands can be conceived as semi-periphery. But we should also note that the above-mentioned publishing houses are international in the sense that they have divisions in more than one country - typically in both the UK and the United States, and sometimes in the Netherlands, too.

Authors. As mentioned above, authors from different regions of the world have different chances for being published in top-tier journals, and since academic performance is at least partially measured in publication output, less published authors have only a limited chance for a distinctive academic career. Moreover, peripheral academics have an additional disadvantage in comparison to their more central peers: they less likely to have prestigious - which means: central - academic degrees. Having less prestigious academic degrees and fewer high-status publications means less academic capital. Since the consequences of having insufficient academic capital are well known, most ambitious scholars from the periphery have developed counter movements in order to achieve their career plans. The first and most beneficial way of boosting academic capital for someone from the periphery is, beyond question, international migration from the periphery to the center. Thus, one of the most important phenomena in career development is the mobility of researchers (Komlosy, Boatca, Nolte, 2016). Emigration positively affects academic capital accumulation since it helps scholars become socialized in academic practices and conduct (Rothenberger et al., 2017) while enriching skills in scholarly collaboration (Henriksen, 2018; Ronda-Pupo, Katz, 2018) and networking possibilities (Bormann, 2017; Coccia, Bozemann, 2016). This in turn boosts publication output (Aksnes et al., 2013).

It is also noteworthy that the capacity of being mobile as an academic is deeply rooted in not just higher education but also in one's familial background. Gerhardt et al. (2017) refer to empirical analyses from Germany, United States, Canada, Sweden, Denmark and China, all of which reveal strong correlations between familial background and the likelihood that a student will spend a year abroad during a degree program. These authors found that mobility, as a habitus is the result of the accumulation of earlier acquired "transnational human capital" (Gerhardt et al., 2017) that consists of being nursed in international or bilingual nurseries, living abroad with parents for a long time

and spending school years abroad. This cumulative advantage results in extensive social inequality because the accumulation of transnational human capital and the habitus of international mobility would be more likely the share of upper-class children that distance themselves from others by the accumulation of transnational human capital (Gerhardt et al., 2017).

What is more, collecting international, that is, global North capital in the form of Western education and affiliations might lead to serious perspective changes that makes the authenticity of the “epistemologically Westernized” global South authors questionable (Canagarajah, 2002). It seems that it is impossible to become an internationally recognized scholar without moving to the center, and it is extraordinarily hard to find any exceptions from this rule. Even the most prominent scholars of decolonialization theory were educated at the elite institutions of the global North: Santos has a doctorate from Yale, the Argentine scholar Walter Mignolo obtained his Ph.D. from the elite *Grandes Écoles* at Paris, *École des Hautes Études*, and Suresh Canagarajah had his book on geopolitical biases in global academy published by an internationally recognized publisher and then he moved to the United States, where he completed his Ph.D. at the University of Texas at Austin. The very same might be said of Appadurai (University of Chicago), Edward Said (Princeton and Harvard), Gayatri Chakravorty Spivak (Cornell University) or Homi K. Bhabha (Oxford). Western education or, more precisely, elite Western education seems to be an essential precondition of speaking on behalf, for and on the periphery. This phenomenon maintains and reinforces the biasing effect of vertical center-periphery hegemony, preventing global South students from the lower classes from acquiring academic capital (Bourdieu, 1996; Gerhards et al., 2017).

But most people migrate to the global North not just to earn their international voices. We should not forget that Bourdieu himself was also aware of the fact that different kinds of capital are interchangeable, that means, for example, that academic capital can be converted to economic capital. It follows that scholars with more academic capital find better positions in the world-system in terms of not just symbolic, but economic capital as well. Thus, talent often flows from the periphery to the core as scholars seek out employment in recognized institutions of higher learning in the center (Lee, Kuzhabekova, 2017). Mobility - that is, being educated or working abroad raises the symbolic or academic capital of researchers substantially, while immobility often narrows career paths. The motivations for mobility thus include both economic features like higher salaries or better material-technical conditions, as well as scientific visibility - including growth in publication output, coauthored international publications or the increase of citation indices (Asheulova, Dushina, 2014; Aksnes et al., 2013).

Moreover, in the neoliberal era universities are encouraged in many ways to internationalize (Herschberg et al., 2018). This fuels mobility as a habitus, making it an important source of academic capital for individual researchers, but also a valuable feature that international universities support and appreciate as well. Current research also shows that education patterns in the world-system of social sciences is rather similar to the network of subsequent collaboration between world regions (Demeter, 2019). From this, it follows that peripheral authors that started to collect central academic capital in a form of central education would continue to accumulate this international capital in the form of collaboration with central academics later in their careers, while their peers with peripheral education would be denied such opportunity. As prior investigation has shown, peripheral scholars have only a minimal chance to be selected as potential coauthors of more central agents. Schubert and Sooryamoorthy conducted important research on not only scientific collaboration but “the motives and modes of collaboration in the context of developing countries” (2009). Their example involved cooperation between German and South African authors; the former is a typical center, and the latter is a typical peripheral country.

Based on the center-periphery model of Kahveci, Southerland, and Gilmer (2008), the authors introduce the concept of marginality:

Many scientific opportunities, such as collaboration, that open up to more central units cannot be exploited at the periphery. In fact, the important fact about marginality is that it is commonly not a result of being a bad researcher but can also work the other way around: you are not marginal because you performed badly in the past. Rather, you perform badly because you were already marginal in the past (Schubert, Sooryamoorthy, 2009).

The authors hypothesized that peripheral scientists would choose their partners carefully, seeking very central research partners. They also hypothesized that, because central researchers generally are not interested in working with peripheral partners, marginality might lead to rejection of collaboration offers. The results of the research corroborated both hypotheses: The data indicated that Germany's cooperation with South African authors is idiosyncratic, while South African scientists chose German partners strategically. Based on research by Wang and Wang, similarly to the situation between Germany and South Africa, "evidence shows that academic collaborations between China and the EU28 have been mainly set up by Chinese researchers" (2017).

Editorial boards. The role editors and editorial boards play as idea brokers and gatekeepers of knowledge has been widely investigated by sociologists of science (Demeter, 2018b; Goyanez, 2018). Willet (2013) maintains that there are at least three different types of conduct by which editorial boards contribute to a given periodical. First, they promote the journal in different ways. Second, they often contribute as reviewers of the proposed articles, and finally they can provide assistance in form of advice or direct actions when it comes to the future development of the journal. From our point of view, the second feature is the most important since as Lauf (2015) puts it, the national diversity of editorial boards might correlate with the national diversity of the authors. His argument is, briefly, the following: Since in most cases editorial board members serve as possible referees for submitted articles, they are selected for their proficiency and reputations regarding their research focus and geographical expertise. This last feature is rather important in the case of social sciences where social geographical and even human geographical differences can be very deep between different world regions. It seems obvious then, that if a journal had no editorial board member or advisor specializing in, for example, Central Africa, the board would face serious challenges when they have to assess articles from or about this region. Consequently, the editor might decline the article without adequate assessment. Lauf's research in which the author empirically proved that the national composition of a given journal correlates with the national composition of its authors has been recently expanded and repeated by Demeter (2018b) with similar results. In short, we have two empirical facts regarding the diversity and national composition of editorial boards. First, the national composition of the editorial board correlates with the same feature of the authors and second, more diverse editorial boards imply more diverse authorship. When we take a look at the national composition of editorial board members of top-tier journals, we will see similar results then in the case of publication output. Central world regions have the lion's share in editorial boards, and there are world regions without any representation. Using Demeter's data on communication journals, we can calculate the percentages of different world regions in the editorial boards (measured in 2017 in WoS) and contrasted them with other knowledge production features like publication output and the share in publication houses.

Data show a very unbalanced picture of the world-system of international scholarship in the field of communication and media studies, with around 90 percent Global North hegemony. Moreover, without the increasingly significant contributions of Asia, the participation of the Global South would be almost unnoticeable. And as we have seen earlier in this paper, the distribution pattern of publication output in social sciences is very similar to that of in communication and media studies, so we can conjecture that the same tendencies happen in most fields of social sciences. The correlation between editorial board composition, publication output and participation in publishing houses is so strong that it is impossible to deny the fact that they are tightly interrelated in many ways, so they maintain the hegemony of the central regions in many different ways.

Selection committees. Selection committees play a key role in not just the career trajectories of individual academics, but also in terms of shaping the world-system of knowledge production since they allocate positions and promotions within this stratified system. Selection committees award tenured positions, research grants, and other important and prestigious sources academic capital. Thus, they are extremely important role as gatekeepers and idea brokers. This raises the question of what grounds they use to assess candidates' merits during the selection process. Ideally, there would be some sort of global standard by which the candidates' accomplishments can be assessed without fear or favor. One can argue that to weight the publication output of the candidates should be part of the assessing process, since it is an objective and fair measurement of academic production. Another and, according to current research, systematically overvalued symbolic capital is an elite degree, and the fact that elite degrees can be acquired almost exclusively at the center also intensifies mobility from the periphery to the center. Many researchers even ascertained that the prestige of the affiliation of a given candidate's PhD school can determine her chances for a tenure track position to a much greater extent than her productivity (Baldi, 1994; Burris, 2004; Clauzet et al., 2015; Covan, Rossello, 2018; Cret, Musselin, 2010; Enders, 2001, Long et al., 1979; Maliniak et al., 2018; Smith et al., 2004; Tomlinson, Freeman, 2018; Williamson, Cable, 2003). The function the prestige of the alma mater plays in the career trajectories of future academics is extraordinarily strong: Burris showed that "the prestige of the department in which an academic received a Ph.D. consistently ranks as the most important factor in determining the employment opportunities available to those entering the academic labor market" (Burris 2004: 239). This results in a process that elite institutions hire each other's candidates while systematically excluding academics with non-elite degrees, often without regard to their merits. This is despite the fact that future productivity is associated with past productivity alone, not by the prestige of past academic degrees (Baldi, 1994; Fumasoli, Goastellec, Kehm, 2015; Long, 1978; Long et al., 1979; Musselin, 2004; Williamson, Cable, 2003). It is obvious then, that in the world-system of knowledge production, elite institutions systematically overrate each other in order to separate themselves from more peripheral institutions: they exchange alumni for research and teaching positions, and, in return, they also overrate each other's' alumni in the course of research evaluation. With this, a relatively closed system of institutional core emerges. At the same time, scholars from the periphery face a double-edged sword of Matthew-effect. First, they have far fewer possibilities for publishing their research in the top-tier periodicals of the core, since they presumably have less international education than their more central peers and their cultural, linguistic and epistemic background might also raise difficulties when it comes to international - which, as we have seen earlier, means Western European and American - publication. Second, even if they succeed in an international publication, they will likely be systematically underrated by selection committees because of their peripheral education history.

Concluding remarks

The world-system of social sciences has a definite three-dimensional core-periphery structure in all its segments, with both horizontal and vertical stratification. We have the United States and Western Europe as central regions, with China (and in some respects: Latin-America) as semi-peripheral regions, and a legion of peripheral countries from Africa, the Middle East, developing Asia, and Eastern Europe. This structure is rather similar in the case of publication networks, publication output, the network of publishing houses, the national composition of editorial boards and in every analyzed aspect of global power relations. We can also see a vertical center-periphery structure with elite institutions as central hubs for the international elite and peripheral institutions for the leftovers. As we have seen, it is almost impossible to become an internationally recognized scholar for somebody from the periphery without brainwashing or, in a more elegant wording, reeducation in a global North elite institution. With this, however, the maintenance of the authentic, other-than-Western perspective is rather questionable. Table 4 summarizes the main features of centers and peripheries. I don't list semi-peripheral countries distinctively here; they tend to act like centers towards peripheral countries and act as peripheries towards central regions.

Core	Periphery
Overrepresented in terms of publication output Overrepresented on editorial boards Overrepresented on selection committees Owns all international publishing houses Determines international standards	Underrepresented in terms of publication output Underrepresented on editorial boards and selection committees Lacks international publishing houses Must follow or break away from international standards
Ascertaining accepted theories Ascertaining accepted methods Awarding and winning international grants	Must model or mimic accepted theories Must model or mimic accepted methods Underrepresented in granting and winning international awards
Establishing, maintaining and chairing international associations Ascertaining global language Brain drain	Being at most paying members of international associations Must master global language Talent migration
Fast and strategic accumulation of academic capital	Academic capital flows towards the core

Table 4. Typical core-like and periphery-like features and processes in the world-system of the social sciences

Wallerstein said that we are all quite familiar with the worldwide rankings within the modern world-system, and he counts a few: the hegemony of men over women, whites over blacks (or other non-Whites), adults over children (or the aged), educated over less educated, heterosexuals over LGBTQ people, the bourgeois and professionals over workers, urbanites over rural dwellers (Wallerstein, 2004). In this article, I argue that we should add another one: the hegemony of Global North or central idea brokers over Global South or peripheral academics. This situation contradicts science's self-definition as egalitarian in disposition and as attaining standards of objectivity.

Unfortunately, empirical investigations cannot affirm that the above-mentioned self-definition has been implemented in the real course of sciences, and especially not in social sciences or in the world-system of knowledge production in general. Fruitful and imposing theories, just like the standards of gaining and disseminating academic knowledge on social issues, come from the core. And the academic “significant spaces” - prestigious journals, associations, conferences - concentrate in a very few central countries, especially in the United States and the UK, while the periphery must follow, copy or, in some cases, to mimic the main features of the core regions in order to have any hopes of being included. To describe this arrangement selecting one from the tree different types of globalization that Gunaratne enumerates - interdependent globalization, clustered globalization and hegemonic globalization - we would choose the third one, since we have documented a hegemonic structure in the world-system of global social sciences. As Gunaratne puts it,

The hegemonic model presumes the increasing centrality of a small core of rich countries, perhaps dominated by a single power. This view sees globalization as merely an acceleration of the concentration of resources and influence in European and North American clusters with some limited East Asian additions (Gunaratne, 2002).

But the picture is a little bit more complicated and, as I will argue below, subject to changes. As Chase-Dunn puts it, peripheral regions can show resistance or even rebellion against the center (Chase-Dunn, 1998). In the case of the world-system of knowledge production we can see two tendencies. The first belongs to Latin-America that has a very big advantage over other peripheral regions: its language which is spoken by hundreds of millions. While the Spanish language cannot conquer with English to become a *lingua franca*, it is rather extensively spoken to be the language of an emerging secondary core. Spain, with many populated Latin-American countries as its hinterland (Gunaratne, 2002) was able to have some Spanish-language periodicals indexed in prestigious databases like Scopus and Web of Science, where Spanish speaking academics cite each other very extensively. As a consequence, the Spanish *Comunicar*, for instance, became a Q1 journal in communication, overtaking dozens of prestigious American periodicals. The second kind of tendencies comes from China, which - as opposed with the Latins - does not try to establish an autonomous secondary center but it tries to occupy existing central positions. It is not just that China spends more and more money on academic programs on an international scale, but it also started to occupy some top power positions. One of its main achievements is that China through Baring Private Equity Asia gained some control over the formally Thomson Reuters owned Web of Science, the most extensively used and most prestigious indexing service and scientific database. With this, the Chinese state and academy - at least theoretically - has some influence over citation indices, journal selection and assessing processes, which is an advantage one cannot overestimate. However, empirical analyses cannot confirm the theories on the decline of the West (Komolsy, 2016) in the case of the world-system of knowledge production. Instead, we have a matrix of features in which different world regions, peripheries, and centers can be placed (Table 5) and from this, we can conjecture some hypotheses for further development. Our model here offers two categories for the analysis, namely centeredness and autonomy. Regarding centeredness: a world region is centralized when its production depends to a large extent on a leading producer country, while it is decentralized when it consists of many equally productive countries or sub-regions. Regarding autonomy: a region is autonomous if it has a large amount of capital in the form of publishers, journals, leading HEIs and so on, while it is non-autonomous or dependent when its production depends on the capital of other regions.

	CORE Centered	PERIPHERY Centered	CORE Decentralized	PERIPHERY Decentralized
Autonomous	North America	Developing Asia	Western Europe	Latin America
Dependent	Oceania	Africa	Developed Asia	Eastern Europe, the Middle East

Table 5. The feature-matrix of world regions in global social sciences

There are autonomous and centered, dependent and centered, autonomous and decentralized and dependent and decentralized members amongst both the core and peripheral world regions. North America is the example of a core region that is centered, which means that it has a leading country, namely the United States, and autonomous, meaning that it has its own agents in power positions like journals, associations and universities of high quality. Its peripheral version is obviously the developing Asia that has a leading country (China) and has its inner citation networks, research programs and even educational networks. Of course, a peripheral region can be autonomous only in a much more limited sense than a core region since in order to be part of the global science field it has to be attached to the center in many ways.

Notwithstanding, it has a relative autonomy in terms of inner scientific activities when contrasted with more dependent world regions like the Middle East or Africa. An example for a centered and dependent core region is Oceania, which has a leading country (Australia) but has no autonomous scientific network. Its peripheral counterpart is Africa, which has a leading country (South Africa) and is also void of an autonomous academic network. A typical decentralized and autonomous core region is Western Europe with its strong, traditional and emerging regional networks and many, almost equally important countries like the Netherlands, Germany, France, the UK or Italy. Its counterpart is the peripheral Latin America, which has an expanding autonomous scientific network and has some equally strong countries like Brazil, Mexico or Chile. Finally, we have those decentralized and dependent countries like the developed Asia - Japan, South Korea, Taiwan, Singapore and Hong Kong - from the core and Eastern Europe from the periphery. They both have more than one leading country, and none of them have an exclusive, inner scientific network.

What should be done, and why should anything be done at all?

Based on this investigation, we can say that core regions are located exclusively in the Global North, and they determine the leading theories and ideas, the adaptive courses of actions and the accepted forms of academic capital in the world-system of knowledge production. The more successful peripheral authors become, the more they will resemble to their central peers in terms of transnational academic capital, so the decentralization of the field will not result in the valorization of peripheral academic capital. On the contrary, de-Westernization (or global decentralization) might be conceived as the Westernization of the most talented peripheral authors through Global North education, work experience, and central affiliations. Unfortunately, the same is true not just for individuals but also for academic institutions: prestigious journals,

universities, research grant committees and professional boards are located almost exclusively at the center. This hegemonic structure is, in my opinion, detrimental to not just peripheral agents like individual academics and institutions at the Global South, but it is also a burden to the global community since it discourages or even inhibits the free and unbiased flow of fresh ideas and considerations regarding societal issues and, in the long run, it will constrain the world-system of knowledge production in the social sciences.

The main problem with the above-mentioned phenomenon is that it excludes peripheral voices in both horizontal and vertical sense. Regarding the horizontal discrimination: the centeredness of global social sciences prevents the dissemination of peripheral ideas towards the global community. In addition, the vertical stratification of HEIs into a few elite and a legion of communal institutions gives voice to only those from the upper classes. With this three-dimensional oppression, we can hear only the voices of the central - that means: international - elite while all the other academics from peripheral world regions or lower classes have only the role of listening and repeating the so-called international knowledge that is disseminated by the ruling elite. If academics from the underprivileged peripheries succeed in reaching the center, they have to sacrifice their authenticity. It is very hard to imagine a peripheral academic with a global reputation who lacks elite central education: they must be subjected to intellectual reeducation - a form of intellectual colonialization - before they are permitted to express their voices. This has the additional disadvantage of limiting the expression of peripheral talent, which is, without fail, just as valid and valuable to knowledge production as its central counterpart.

Despite the obvious bias and inequalities global South academics face in their professional lives, I don't espouse the idea of enacting quotas to encourage greater inclusion. I would rather suggest a transparent and productivity-oriented assessment system that isn't founded on degrees from elite institutions but on talent and production alone. What I propose is that, even if we cannot substantially alter the elite domination of the academy, we can make the selection processes more transparent and we can confront the biasing effects of having elite degrees. If elite institutions are really better than their less prestigious counterparts, then they have to produce more productive academics. Thus, the information regarding the place of education should be eliminated from the selection processes and selection committees should concentrate on the production of the candidates alone.

Similarly, we have to cut out any information regarding the affiliation of the author(s) from the process of paper submission at international journals. Why is such information relevant to the scientific merits of an article? Editors would have time to get this information after the final decision has been made. Otherwise, if we let these elite titles count as extraordinary added value in the eyes of the selection committees and journal editors, then the horizontal and vertical stratification of global academy remains as it is: an enormously biased and exclusive field maintained by and for the international elite only. By contrast, if we want to build a more inclusive field for international knowledge production, central forces should accommodate a plurality of local knowledge by recruiting academics with peripheral education (and authentic voice) and by publishing peripheral authors in a greater extent than it typically does.

At the same time, peripheral scholars should also fight for their identities: they should organize more regional conferences and dispense with the usual disgraceful habit of inviting central scholars as keynote speakers almost exclusively, while relegating local academics to parallel panel sections. They should also establish and retain their local/nationally-focused international periodicals, and they should strive for inclusion in prestigious international indexes and databases. Moreover, they should cite the valuable papers of non-central scholars at least as frequently as they cite the works of central academics in their publications. Finally, and most importantly, they should preserve and even critically intensify their authentic voices even after they succeed in acquiring positions in some of the central strongholds of the global academy.

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References

- Aksnes Dag W., Rorstad Kristoffer, Piro Fredrik Niclas, and Siversten Gunnar (2013), *Are mobile researchers more productive and cited than non-mobile researchers? A large-scale study of Norwegian scientists*, "Research Evaluation", V. 22, N. 4, pp. 215-223
- Asheulova Nadia and Dushina Svetlana (2014), *Research career development in Russia: the role of international mobility*, pp. 171-196 in "(Re)searching Scientific Careers", K. Prpić, I. van der Weijden, and N. Asheulova, editors. St. Petersburg, Nestor-Historia
- Ashtaneh Behrooz and Masoumi Sarah (2017), *From paper to practice: Indexing systems and ethical standards*, "Science and Engineering Ethics", advance online publication
- Azoulay Pierre, Stuart Toby, Wang Yanbo (2013), *Matthew: Effect of Fable?*, "Management Science", V. 60, N. 1, pp. 92-109
- Baldi Stéphane (1994), *Changes in the Stratification Structure of Sociology: 1964-1992*, "American Sociologist", V. 25, N. 4, pp. 28-43
- Batori Zsolt, Hamp Gábor and Horanyi Özséb (2003), *The participation theory of communication: philosophical and methodological analysis of interlingua perspectives*, in "A Summary Article of the Language Learning Roundtable Conference on the Participation Theory of Communication", May 19-20, 2003, Budapest, Hungary
http://ozseb.horanyi.hu/participatio/ptc_ll.pdf
- Bauder Harald (2015), *The international migration of academics: a labour market perspective*, "International Migration", V. 53, N. 1, pp. 83-96
- Bazermann Charles (1988), *Shaping written knowledge: The Genre and Activity of the Experimental Article in Science*, Madison, University of Wisconsin Press
- Bennett Karen (2015), *Towards an epistemological monoculture: Mechanisms of epistemicide in European research publication*, pp. 9-36, in "English as a Scientific and Research Language", edited by R. Plo Alastrué, R. and C. Pérez-Llantada, Berlin, Germany, De Gruyter
- Bornmann Lutz (2017), *Is collaboration among scientists related to the citation impact of papers because their quality increases with collaboration? An analysis based on data from F1000Prime and normalized citation scores*, "Journal of the Association for Information Science and Technology", V. 68, N. 4, pp. 1036-1047
- Bourdieu Pierre (1988), *Homo Academicus*, Stanford, Stanford University Press
- Bourdieu Pierre (1996), *The State Nobility. Elite Schools in the Field of Power*, Oxford, UK, Polity Press

- Bourdieu Pierre (1998), *Practical Reason. On the Theory of Action*, Stanford, Stanford University Press
- Bourdieu Pierre (2004), *Science of Science and Reflexivity*, Cambridge, Polity Press
- Burris Val (2004), *The Academic Caste System: Prestige Hierarchies in Ph.D. Exchange Networks*, "American Sociological Review", V. 69, N. 2, pp. 239-264
- Bühlmann Felix., Benz Pierre, Mach André and Rossier Thierry (2017), *Mapping the power of law professors: The role of scientific and social capital*, "Minerva", V. 55, N.4, pp. 509-531
- Canagarajah Suresh A. (2002), *A Geopolitics of Academic Writing*, Pittsburgh, University of Pittsburgh Press, pp. 39-43
- Chase-Dunn Christopher, and Hall Thomas D. (1997), *Rise and Demise. Comparing World-Systems*, Boulder, Westview Press
- Chase-Dunn Christopher (1998), *Global Formation. Structures of the World-Economy*, Boston, Rowman & Littlefield Publishers
- Chase-Dunn Christopher (1999), *Globalization: A World-Systems Perspective*, "Journal of World-Systems Research", V. 5, N. 2, pp. 198-215
- Clauset Aaron, Arbesman Samuel, and Larremore Daniel B (2015), *Systematic inequality and hierarchy in faculty hiring networks*, "Science Advances", V. 1, N. 1, pp. 1-6
- Cline Eric H. (2000), *Contested Peripheries in World Systems Theory: Megiddo and the Jezreel Valley as a Test Case*, "Journal of World-Systems Research", V. 6, N. 1, pp. 7-16
- Coccia Mario, and Bozeman Barry (2016), *Allometric models to measure and analyze the evolution of international research collaboration*, "Scientometrics", V. 108, N. 3, pp. 1065-1084
- Cole Wade M. (2017), *World polity or world society? Delineating the statist and societal dimensions of the global institutional system*, "International Sociology", V. 32, N. 1, pp. 86-104
- Cowan Robin and, Rossello Guilia (2018), *Emergent structures in faculty hiring networks, and the effects of mobility on academic performance*, "Scientometrics", V. 117, N.1, pp. 527-562
- Curry Mary Jane, and Lillis Theresa (2018), *Global Academic Publishing. Policies, Perspectives and Pedagogies*, Bristol, Multilingual Matters
- Cret Benoit, and Musselin Christine (2010), *Academic hiring and Inequality*, pp.75-90 in Goastellec Gaële *Understanding Inequalities in, through and by Higher Education*, Rotterdam, Sense Publishers

Demeter Marton (2017a), *Author productivity index: Without distortions*, "Science and Engineering Ethics", advance online publication

Demeter Marton (2017b), *The core-periphery problem in communication research: A network analysis of leading publication*, "Publishing Research Quarterly", V. 33, N. 4, pp. 402-421

Demeter Marton (2018a), *The Global South's Participation in the International Community of Communication Scholars: From an Eastern European Point of View*, "Publishing Research Quarterly", V. 34, N. 2, pp. 238-255

Demeter Marton (2018b), *Changing Center and Stagnant Periphery in Communication and Media Studies: National Diversity of Major International Journals in the Field of Communication from 2013 to 2017*, "International Journal of Communication", V. 12, pp. 2893-2921

Demeter Marton (2018c), *The Winner Takes It All. International Inequality in Communication and Media Studies Today*, "Journalism and Mass Communication Quarterly", advance online publication

Demeter Marton (2019), *So Far Yet So Close. International Career Paths of Communication Scholars from the Global South*, "International Journal of Communication", V. 13, pp. 578-602

Efranmanesh Mohammadamin, Tahira Muzammil, & Abrizah A. (2017), *The publication success of 102 nations in Scopus and the performance of their Scopus-indexed journals*, "Publishing Research Quarterly", advance online publication

Enders Jürgen (2001), *A Chair System in Transition: Appointments, Promotions, and Gate-Keeping in German Higher Education*, "Higher Education", V. 41, N. 1-2, pp. 3-25

Erren Thomas C., Shaw David M. and Morfeld Peter (2016), *Analyzing the publish-or-perish paradigm with game theory: The prisoner's dilemma and a possible escape*, "Science and Engineering Ethics", V. 22, N. 5, pp. 1431-1446

Frank David John, Gabler Jay (2006), *Reconstructing the University. Worldwide Shifts in Academia in the 20th Century*, Stanford, Stanford University Press

Fumasoli Tatiana, Goastellec Gaeleand, Kehm Barbara M. (2015), *Academic Work and Careers in Europe: Trends, Challenges, Perspectives*, New York, Springer

Galtung Johann (1971), *A structural theory of imperialism*, "Journal of Peace Research", V. 8, N. 2, pp. 81-117

Gerhards Jürgen, Hans Silke and Carlson Sören (2017), *Social Class and Transnational Human Capital. How Middle and Upper-Class Parents Prepare Their Children for Globalization*, London, Routledge

Gouanvic Jean-Marc (2005), *A Bourdieusian Theory of Translation, or the Coincidence of Practical Instances*, "The Translator", V. 11, N. 2, pp. 147-166

Goyanes Manuel (2018), *Against dullness: on what it means to be interesting in communication research*, "Information, Communication & Society", advance online publication

Grenfel Michael (2008), *Pierre Bourdieu. Key Concepts*, Stocksfield, Acumen Publishing

Gumpenberger Christian, Sorz Hannes, Wieland Martin and Gorraiz Juan (2016), *Humanities and social sciences in the bibliometric spotlight—Research output analysis at the University of Vienna and considerations for increasing visibility*, "Research Evaluation", V. 25, N. 3, pp. 271-278

Gunaratne Shelton A. (2002), *An Evolving Triadic World: A Theoretical Framework for Global Communication Research*, "Journal of World-Systems Research", V. 8, N. 2, pp. 330-365

Heilbron Johan, Sorá Gustavo and Boncourt Thibaud (2018), *The Social and Human Sciences in Global Power Relations*, Cham, Palgrave Macmillan

Henriksen Dorte (2018), *What factors are associated with increasing co-authorship in the social sciences? A case study of Danish Economics and Political Science*, "Scientometrics", V. 114, N. 3, pp. 1395-1421

Herschberg Channah, Benschop Yvonne and Brink Marieke van den (2018), *Selecting early-career researchers: the influence of discourses of internationalisation and excellence on formal and applied selection criteria in academia*, "Higher Education", online first article

Hoffmann Stanley (1977), *An American Social Science: International Relations*, "Daedalus", V. 106, N. 3, pp. 41-60

Kahveci Ajda, Southerland Sherry A., and Gilmer Penny J. (2008), *From marginality to legitimate periphality: Under the essential functions of a women's program*, "Science Education", V. 92, N. 1, pp. 33-64

Kerr Jeannie (2014), *Western epistemic dominance and colonial structures: Considerations for thought and practice in programs of teacher education*, "Decolonization: Indigeneity, Education Society", V. 3, N. 2, pp. 83-104

Komlosy Andrea (2016), *Prospects of Decline and Hegemonic Shifts for the West*, "Journal of World-Systems Research", V. 22, N. 2, pp. 463-483

Komlosy Andrea, Boatca Manuela and Nolte Hans-Heinrich (2016), *Introduction: Coloniality of Power and Hegemonic Shifts in the World-System*, "Journal of World-Systems Research", V. 22, N. 2, pp. 309-314

Kristensen Peter Marcus (2015), *Revisiting the "American Social Science" - Mapping the Geography of International Relations*, "International Studies Perspectives", V. 16, N.3, pp. 246–26

Kuhn Thomas (1962), *The Structure of Scientific Revolutions*, Chicago, IL, University of Chicago Press

Lauf Edmund (2005), *National diversity of major international journals in the field of communication*, "Journal of Communication", V. 55, N. 1, pp. 129-151

Lee Jack T., and Kuzhabekova Aliya (2017), *Reverse flow in academic mobility from core to periphery: motivations of international faculty working in Kazakhstan*, "Higher Education", online first article

Lee Chul-joo, and Sohn Dongyung (2016), *Mapping the social capital research in communication: a bibliometric analysis*, "Journalism and Mass Communication Quarterly", V. 94, N. 4, pp. 728–49

Leung Maggie (2013), *Read ten thousand books, walk ten thousand miles': geographical mobility and capital accumulation among Chinese scholars*, "Transactions of the Institute of British Geographers", V. 38, N. 2, pp. 311-324

Long J. Scott (1979), *Productivity and academic position in the scientific career*, "American Sociological Review", V. 43, N. 6, pp. 889-908

Long J. Scott, Allison Paul D. and McGinnis Robert (1979), *Entrance into the Academic Career*, "American Sociological Review", V. 44, N. 5, pp. 816-830

Maliniak Daniel, Peterson Susan, Powers Ryan and Tierney Michael J. (2018), *Is International Relations a Global Discipline? Hegemony, Insularity, and Diversity in the Field*, "Security Studies", V. 27, N. 3, pp. 448-484

Martín-Martín Alberto, Orduna-Malea Enrique, Ayllon Juan M., and Lopez-Cozar Emilio Delgado (2015), *The counting house, measuring those who count. Presence of Bibliometrics, Scientometrics, Informetrics, Webometrics and Altmetrics in Google Scholar Citations, ResearcherID, ResearchGate, Mendeley, & Twitter*, "EC3 Working Papers", N. 21
<https://pdfs.semanticscholar.org/49d9/a9f0dcfe902a16da607b5f09f9f548bc52c0.pdf>.

Makkonen Teemu and Mitze Timo (2016), *Scientific collaboration between 'old' and 'new' member states: did joining the European Union make a difference?*, "Scientometrics", V. 106, N. pp. 1193–215

Meyer John W., Boli John, Thomas George M. and Ramirez Francisco O. (1997), *World society and the nation-state*, "American Journal of Sociology", V. 103, N. 1, pp. 144-181

Meyer John W., Ramirez Francisco O., and Soysal Nuhoglu Yasemin (1992), *World expansion of mass education, 1870-1980*, "Sociology of Education", V. 65, N. 2, pp. 128-149

Mignolo Walter D (2011), *The Darker Side of Western modernity: Global Futures, Decolonial Options*. Durham: Duke University Press

Mignolo Walter D (2018), *On Decoloniality: Concepts, Analytics, Praxis*, North Carolina, US, Duke University Press

Moody James (2004), *The structure of a social science collaboration network: Disciplinary cohesion from 1963 to 1999*, "American Sociological Review", V. 69, N. 2, pp. 213-238

Mullins Nicholas C (1973), *Theories and Theory Groups in Contemporary American Sociology*, New York, Harper & Row

Musselin Christine (2004), *Towards a European academic labour market? Some lessons drawn from empirical studies on academic mobility*, "Higher Education", V. 48, N. 1, pp. 55-78

Myers Greg (1990), *Writing Biology: Texts in the social construction of scientific knowledge*, Madison, University of Wisconsin Press

Nye Joseph S. (2004), *Soft Power. The Means to Success in World Politics*, New York, Public Affairs

Perc Matjaz (2014), *The Matthew effect in empirical data*, "Journal of the Royal Society Interface", V. 11, N. 98, pp. 1-15

Pooley Jeff D., Park David W. (2013), *Communication research*, in *The Handbook of Communication History*, Simonson Peter, Peck Janice, Craig Robert T., Jackson John, London, Routledge, 76-93

Ronda-Pupo Guillermo Armando and Katz, J. Silvan (2018), *The power law relationship between citation impact and multi-authorship patterns in articles in Information Science & Library Science journals*, "Scientometrics", V. 114, N. 3, pp. 919-932

Rothenberger Liane Tessa, Auer Claudia and Pratt Cornelius.B. (2017), *Theoretical approaches to Normativity in communication research*, "Communication Theory", V. 27, N. 2, pp. 176-201

Santos Boaventura de Sousa (2007), *Cognitive Justice in a Global World: Prudent Knowledges for a Decent Life*, Lanham, Lexington

Santos Boaventura de Sousa (2011), *Epistemologies of the South. Justice against Epistemicide*, London, Routledge

Santos Boaventura de Sousa (2018), *The End of the Cognitive Empire. The Coming of Age of Epistemologies of the South*, London, UK, Duke University Press

Saurin Tarcisio Abreu (2016), *Ethics in publishing: Complexity science and human factors offer insights to develop a just culture*, "Science and Engineering Ethics", V. 22, N. 6, pp. 1849-1854

Schott Thomas (1998), *Ties between Center and Periphery in the Scientific World-System: Accumulation of Rewards, Dominance and Self-Reliance in the Center*, "Journal of World-Systems Research", V. 4, N. 2, pp. 112-144

Shenhav Yehouda A. (1986), *Dependency and compliance in academic research infrastructures*, "Sociological Perspectives", V. 28, N. 1, pp. 29-51

Schmoch Ulrich, Schubert Torben (2008), *Are International co-publications an indicator for quality of scientific research?*, "Scientometrics", V. 74, N. 3, pp. 361-77

Schofer Evan and Meyen John W. (2005), *The Worldwide Expansion of Higher Education in the Twentieth Century*, "American Sociological Review", V. 70, N. 6, pp. 898-920

Schubert Torben, and Sooryamoorthy Radhamany (2009), *Can the centre-periphery model explain patterns of international scientific collaboration among threshold and industrialised countries? The case of South Africa and Germany*, "Scientometrics", V. 83, N. 1, pp. 181-203

Simonson Peter, Peck Janice, Craig Robert T., Jackson John (2013), *The history of communication history*, pp. 13-58, in *The Handbook of Communication History*, P. Simonson, J. Peck, R.T. Craig, J. Jackson, editors, London, Routledge

Siversten Gunnar (2016), *Patterns of internationalization and criteria for research assessment in the social sciences and humanities*, "Scientometrics", V. 107, N. 2, pp. 357-368

Smith G. Daryl, Turner Caroline S., Osei-Kofi Nana and Richards Sandra (2004), *Interrupting the Usual: Successful Strategies for Hiring Diverse Faculty*, "The Journal of Higher Education", V. 75, N. 2, pp. 133-60

Sooroshian Shahryar (2017), *Author's index*, "KOME: An International Journal of Pure Communication Inquiry", V. 5, N. 2, pp. 71-72

Thomas George M., Meyer John W., Ramirez Francisco O. and Boli John (1987), *Institutional Structure: Constituting State, Society, and the Individual*, Newbury Park, CA, Sage

Tomlinson George and Freeman Sydney (2018), *Who really selected you? Insights into faculty selection processes in top-ranked higher education graduate programmes*, "Journal of Further and Higher Education", V. 42, N. 6, pp. 855-867

Wacquant Loïc (2018), *Bourdieu comes to town: Pertinence, Principles, Applications*, "International Journal of Urban and Regional Research", V. 42, N. 1, pp. 90-105

Wallerstein Immanuel (1974a), *The Rise and Future Demise of the World Capitalist System: Concepts for Comparative analysis*, "Comparative Analysis in Society and History", V. 16, N. 4, pp. 387-415

Wallerstein Immanuel (1974b), *The Modern World System, V. 1, Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*, New York, Academic Press

Wallerstein Immanuel (1979), *The Capitalist World-Economy*, Cambridge, Cambridge University Press

Wallerstein Immanuel (1983), *Labor in the World Social Structure*, London, Sage

Wallerstein Immanuel (1991), *Geopolitics and geoculture*, Cambridge, Cambridge University Press

Wallerstein Immanuel (2004), *World systems analysis: An Introduction*, Durham and London, Duke University Press

Wang Lili and Wang Xianwen (2017), *Who sets up the bridge? Tracking Scientific Collaborations between China and the European Union*, "Research Evaluation", V. 26, N. 2, pp. 124-131

Wæver Ole (1998), *The Sociology of a Not So International Discipline: American and European Developments in International Relations*, "International Organization", V. 52, N.4, pp. 687-727

Willet Peter (2013), *The characteristics of journal editorial boards in library and information science*, "International Journal of Knowledge Content Development & Technology", V. 3, N. 1, pp. 5-17

Williamson Ian O., and Cable Daniel M. (2003), *Predicting early career research productivity: the case of management faculty*, "Journal of Organizational Behavior", V. 24, N. 1, pp. 25-44

Wu Hantian, and Zha Quiang (2018), *A New Typology for Analyzing the Direction the direction of Movement in Higher Education Internationalization*, "Journal of Studies in International Education", V. 22, N. 3, pp. 1-19

Zanotto Sonia, Haeffner Christina and Guimaraes Jorge (2016), *Unbalanced international collaboration affects adversely the usefulness of countries' scientific output as well as their technological and social impact*, "Scientometrics", V. 109, N. 3, pp. 1789-814

Zdenek Radek (2017), *Editorial board self-publishing rates in Czech economic journals*, "Science and Engineering Ethics", online first article