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The Capital-Labor Problem in Academic Knowledge Production

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Abstract:

This theoretical essay critically examines the intricate relationship between academic knowledge production, academic capital accumulation, and the pervasive influence of neo-liberalization within the contemporary knowledge-based society and economy.

After introducing the concepts of academic capital and academic labor, the paper identifies a concerning emphasis on academic capital in the world system of academic knowledge production, where qualifications from prestigious institutions disproportionately influence career opportunities, mobility, and research funds. The essay argues that while there is ongoing criticism regarding the neo-liberalization of academia, a related phenomenon, namely the prestige economy, remains oftentimes uncovered. The paper ultimately highlights the adverse consequences of a capital-centric academic environment, urging for a more balanced approach that prioritizes knowledge diversity, internationalization, and localized research initiatives, countering the homogenizing forces of the prestige economy within global higher education, and puts more emphasis on the production of labor than on academic capital.

Keywords: academic knowledge production, academic capital, academic production, neo-liberalization, prestige economy.

1. INTRODUCTION

In countries with so-called developed economies, we live in a knowledge society and knowledge economy (Cummings et al., 2018), in which human capital is the primary engine of development and growth (Cummings et al., 2003; Gulyás, 2004, van Weert, 2006). Universities play a crucial role in these societies because they produce, transmit, disseminate, and communicate knowledge and are thus the most important sources for developing human capital (Rindermann, 2008). Notwithstanding the ongoing criticism of academic knowledge production (Cummings & Hoebink, 2017) and the increasing prevalence of technological changes that have transformed knowledge transfer (Burgos, 2020; Gulyás, 2018; Hansen, 2008) challenge the mainstream narrative whereby education at elite universities is the primary source of academic knowledge. Many argue that the neo-liberalization of academia apparently reproduces existing societal and geopolitical inequalities, and global top-ranked universities play a privileged role in this process (Demeter, 2020).

Diplomas from elite universities have a growing importance in career success (Burris, 2004), and since these degrees are disproportionately held by the elite (Bourdieu, 1996; Piketty, 2017), top positions are hard to obtain for scholars from more disadvantaged backgrounds. These inequalities and inequities are especially undesirable within global academia because, first, the field's autonomy is based on its meritocracy (Merton, 1968), and second, the apparent 'fetishization' of elite education as representing scholarly excellence might restrict the growth of knowledge and be detrimental to society as a whole (Clauset et al., 2015). Thus, both the unequal distribution of academic capital and the unequal distribution of top academic positions are contested by those scholars who find that the academic field reflects the patterns of the economic field – which is by no means meritocratic (Maliniak et al., 2018).

The communication revolution, especially the spread of the internet, and now the growing importance of AI in both work and education have opened the door to alternative ways of learning, and this can detach knowledge accumulation from traditional institutions (Jarvis, 2009). Given their superior infrastructural and financial conditions and a significant accumulation of human capital, elite universities have traditionally been assumed to provide access to current theories and cutting-edge methodologies. To gain this knowledge, students needed to attend these elite universities (Geiger, 2009). Consequently, degrees from elite universities testified that the holders of these diplomas possessed knowledge superior to that of their competitors who were not lucky enough to attend top-ranked schools (Huff, 2003), thus making knowledge capital broadly equivalent to academic capital. However, the growing spread of new ways of acquiring knowledge challenges the paramount role of elite diplomas. Due to the increasing prevalence of non-traditional education forms, such as e-learning, self-directed learning, open, distance, and distributed learning (Bidarra & Sousa, 2020), the direct connection between scholarly excellence and formal academic education might be breaking down. This potential conflict between the overvaluation of elite education and academic productivity (Gerhards et al., 2017) poses a serious challenge to the mainstream narrative whereby education trajectory should be a significant factor in the recruitment and in assessment of scholars.

2. RESEARCH ASSESSMENT AND POLICY

Since hiring new faculty members is a considerable investment, employers are becoming more strategic regarding talent management, and thus the importance attached to recruitment has increased in the last few decades. As Antonowicz et al. (2017) put it, the global competitiveness of higher education and a need for excellence has become a key issue in European policy since the declaration of the Lisbon Strategy in 2000. Accordingly, the European Commission has started to work on the development of a European knowledge economy that involves specific support for scholarly research. Since its foundation, the European Research Council (ERC) has aimed to support research excellence and to increase the impact of European science in the world system of academic knowledge production.

The role of science, research excellence, higher education, academic work, and research evaluation has been widely studied in an EU context by various scientific agents, such as the Initiative for Science in Europe, Science Europe-Technopolis, or the European Parliamentary Research Service. Besides university rankings that make their assessments on the basis of publication records (Pietrucha, 2018), several research assessment systems and policies such as the British Research Excellence Framework (REF), the Spanish Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA), AERES in France, or the European Technology Options Assessment (STOA) also recommend working with data on publication records in indexed international journals. In addition to past publication records, another factor considered to be predictive of future productivity is the capitalized prestige of the institution where scholars work. While there are both empirical evidence and meaningful theoretical considerations in favor of the recruitment of the more productive scholars (Demeter, 2019; Kaiser & Pratt, 2016; Williamson & Cable, 2013), academic capital is usually overemphasized in the selection process (Cook, 2009). Herschberg, Benschop, and Bring (2018) show that the so-called traditional selection criteria that overvalue education and prestige is still widely used, and, as a consequence, selection committees narrow the pool of possible candidates by excluding those without elite education and consider the productivity only of those with considerable academic capital. Since this process favors candidates

with elite educations (without reference to their production), it often excludes more productive applicants with less academic capital (Altbach, 2004). Demeter (2019; Demeter et al., 2021) argued that policymakers should reconsider the emphasis on prestige/production in evaluation criteria and that optimal growth can be secured with more emphasis on productivity. Within this research direction, scholars usually analyze the quantitative measures of research performance, such as the annual growth in published papers (Plume & Weijen, 2014), the significance of co-authorship in productivity (Zetterström, 2004) or the growing headway of the “publish or perish” paradigm (Zhu & Fu, 2019). In measuring productivity, scholars focus on the number of papers and publication outlets, and publications in top-tier journals are oftentimes valued higher than those papers that were published in less prestigious journals (Kurambayev & Freedman, 2020), and there are very complex models that measure productivity with reference to many important factors including journal metrics, author positions and coauthorship (Goyanes et al., 2020).

3. THE CONCEPTUALIZATION OF ACADEMIC CAPITAL AND ACADEMIC LABOR

Research from different fields such as sociology, education, communication, and policy research have theorized the concept of capital and labor within academia in diffuse ways. Bourdieu (e.g., 1988; 1998; 2004) and researchers inspired by him (Rothenberger et al., 2017) analyzed various aspects of academic knowledge production by applying the (originally economic) concept of capital to the academic field. The theoretical concept of academic capital, defined by Bourdieu, has been used in several studies (Gulyás, 2021; Nori et al, 2020; Rossier, 2020), including those that were published in Heilbron, Sorá, and Boncourt’s collection (2018) that contained both theoretical and empirical analyses on academic knowledge production and academic capital. Demeter offered a more analytical concept of academic capital (Demeter, 2018) that, for the first time, was clearly differentiated from the concepts of social and symbolic capital. Bourdieu knew that academic capital accumulation was not equally distributed since the field was controlled by academic agents with different powers. Universities have different levels of power in the field and thus have different capacities for capital accumulation (Demeter, 2020). Bourdieu was critical of the narrative, which argues that

higher education institutions are mainly designed to enhance social mobility and reduce inequalities (Piketty, 2017). He argued that, on the contrary, the most important role of elite schools and universities is to maintain the power of 'state nobility' and to transfer academic capital to the children of the upper classes (Bourdieu, 1996). With the introduction of transnational academic capital, several researchers refined the concept of academic capital to apply it to the international field (Heilbron et al., 2018). In a complex model that offers a combination of Bourdieusian field theory and Wallersteinian world-systems research (Wallerstein, 1991), Demeter used the concept of academic capital for the description of both vertical (social class-based) and horizontal (geopolitical) inequalities of AC accumulation (Cummings & Hoebink, 2017; Demeter, 2019).

Besides field theory and world-systems analysis, the concept of academic capital implicitly appears in education research as well. Scholars argue that the prevalence of English as an interlingua places a severe burden on scholars and institutions outside the English-speaking world (Curry & Lillis, 2018). Mediated by language, higher education institutions beyond the Anglophone world are disadvantaged in publishing, reading, and teaching international knowledge, and these disadvantages compound other burdens, such as underfunding, poor infrastructure, and working conditions (Gulyás, 2020; Salager-Meyer, 2008). Moreover, the lack of education at an English-speaking university might lead to a worse publication record in international journals (usually written in English) that further marginalizes researchers who were unable to accumulate the appropriate academic capital (Lillis & Curry, 2010). Queiroz de Barros (2014) adds that the lack of transnational academic capital, mediated through the English language, has consequences, such as reduced salary increases and promotion and not being considered eligible to apply for international research grants. In several geopolitically peripheral countries from Asia, Latin America, or Eastern Europe, collecting academic capital from foreign academic institutions is mandatory for promotion or funding (Dobbins, 2015). Academic capital, as manifested in hiring and promotion decisions, is also frequently theorized in the context of education and career development research (Locke et al., 2018). The mainstream narrative states that in most parts of the Western

world, tenure and promotion are only possible for candidates with an appropriate publication record (Ianos & Petrisor, 2020; Oancea, 2019), thus productivity is the most important selection factor by which candidates are assessed (Pietrucha, 2018). However, scholars also ascertained that the prestige of being affiliated with a Ph.D. school can determine candidates' chances for a tenure-track position to a much greater extent than productivity (Tomlinson & Freeman, 2018).

Current research has found a twofold motivation behind the overvaluation of academic capital overproduction. According to the stratification hypothesis, hiring patterns follow a strict hierarchy to establish a hiring network between capital-rich universities. Through this hierarchy, elite institutions play a win-win game in which the capital accumulated at the sending university (the one from which the candidate earned her Ph.D.) will be appreciated by the other elite institution that hires her. In return, the sending university appreciates the terminal institution (the university to which the Ph.D. graduate applies for a position) because it considers this university to be worth working for. This bilateral positive assessment allows top universities to establish an elite core in which academic capital can be accumulated while excluding the rest (Clauset et al., 2015; Maliniak et al. 2018). Another possible explanation is that hiring committees think that future productivity can be predicted by education trajectory, thus, students from elite universities will perform better. However, this theory does not stand the test of empirical analysis, as the main predictor of future productivity is past productivity (Györfy et al., 2020).

4. THE CAPITAL/LABOR PROBLEM

Despite being aware of the importance of elite education in career development (Bourdieu, 1988; 1997), Bourdieu uses the term “academic capital” to refer to education capital, measured by several factors such as the number of years of schooling, without direct reference to the prestige of the university in question (Bourdieu, 1984). In other instances, Bourdieu uses academic capital to differentiate between the power of senior management within universities and the intellectual capital held by practicing academics within the same universities, and some later authors also use the term in this

sense (Rowlands, 2018). Other scholars tend to consider academic capital in relation to knowledge capital or doctoral capital (Nori et al., 2020) that students acquire during education without reference to the prestige factor of that capital, which can be differentiated from the direct knowledge that these institutions provide (Burawoy, 2009). It is also noteworthy that these scholars do not differentiate between the capitalization of production, measured in publication output; the capitalization of research funding, measured by the grants awarded, and social capital (Cummings et al., 2017), measured by the power of the network in which a scholar is situated. Most economic models that aim to describe academic capital accumulation have similar problems because they either use a very simplistic and one-dimensional measurement of academic capital (the time spent in education) or measure the capitalized flow of impact (citations). However, the term academic capital does not occur explicitly in the literature of economics, but it is rather referred to as part of a wider concept: human capital. Goldin (2016) defines human capital as the stock of skills that the labor force possesses. Prestige factors or any qualitative features of education that arguably help to acquire knowledge and skills are usually not mentioned in the literature. However, we can learn a lot from these economic theories of human capital since they (unlike most theories from other social sciences and scientometrics) directly address the relation between capital accumulation and labor, and they also discuss productivity and growth (Prasetyo, 2020). In economic terms, we can argue that the “profit rate” of academic capital consists of the impact of prestige on citations, positions, and funding, and this is a specific case of the cumulative advantage described by, among others, Barabasi (2018). I also argue that, due to cumulative advantage, academic capital-rich scholars might produce less since more investment (more production) will not significantly increase marginal return. This can even mean that academic capital if the accumulation is significant, may even decrease productivity. This might hold not just for impact, which is capitalized flow, but for the initial academic capital, namely elite diplomas. If scholars are mainly recruited and appreciated because of their academic capital, they will not be as motivated to work (to produce) more than their academic capital -poor peers. Another important- feature of human capital was emphasized by Ben-Porath (1967), namely its investment nature. The author argues that people make

the most of their investments in themselves when they are young, observed earnings are relatively low in the early years, and they rise as investment declines and as returns on past investments are realized. However, this conceptualization of human capital is only partially true for academic capital: while initial academic capital, just like human capital, is accumulated in earlier years, its importance might be the highest in the first few years of an academic career. Empirical studies have found that in the first 5-8 years after obtaining their Ph.D., candidates are selected almost exclusively based on their academic capital. Thus, while the accumulated academic capital might not be directly transferred to economic capital, it can open the gate for any future possibilities for tenure at prestigious – and thus financially rewarding – positions (Cook, 2009; Evers et al., 2005). Like other researchers in economics, Ben-Porath (1967) measured human capital in time investment but did not consider the prestige of the universities from which human capital was acquired.

Without a direct focus on academic or human capital, a classical economic research agenda analyses the labor/capital relationship. Recent studies point out the increasing share of capital return compared to wages (Guscina, 2006). Scholars argue that globalization and the ability of capital to move across borders is expected to reduce the bargaining power of labor, and, thus the labor share in expanding wealth (Karabarbounis & Neiman, 2014). The labor share measure, which is central to many of these studies, is widely treated as a proxy for the split of gains between labor and capital (Sung et al., 2019). Piketty (2017) presented the trends of labor/capital scales over centuries, and he interpreted some models of capital accumulation that can serve as tentative models for AC accumulation as well. The first model he presented is the model of scarcity, introduced by Ricardo. The model states that, on the one hand, if the prices rise to a relatively high level, the distribution of wealth favors the owners of the initial capital. If the price of a given good grows too much, demand will decrease, so either prices should be lowered or supply should be increased. In the case of academic knowledge production, this model predicts that the initial academic capital of scholars has a significant effect on future academic capital accumulation. Therefore, we can assume that initial inequalities- in the distribution of academic capital will even grow over time

since initial capital makes it easier to obtain a tenured position and to collect and benefit from capitalizable flow such as citations or research grants. On the other hand, assuming that Ricardo's model is applicable to the field of academic knowledge production, we can assume that if increasingly talented and ambitious people (specifically from non-core social backgrounds and from so-called peripheral locations) realize that elite universities are "overpriced" for them, they might want to find alternative modes for acquiring power positions. Perhaps they will abandon elite institutions, and, in the long run, this might affect the role of elite institutions in the world system of academic knowledge production.

Marx's alternative theory of infinite capital accumulation predicts an increasingly concentrated accumulation of capital (Marx, 1998, 2011[1848,1867]). If empirical evidence supports that academic capital has been accumulating in fewer and fewer academic institutions, the consequence might be that those who were unable to get credentials and accumulate academic capital from these institutions have no chance to occupy power positions in the field. As opposed to Marx, Kuznets (1955) thought that growth is a rising tide that lifts all boards. For him, inequality follows a bell curve: first, it rises, and then it decreases over time. If this vision, which was empirically refuted for economic capital accumulation (Piketty, 2017), holds for academic capital accumulation, then a historical overview of the evolution of the capital/production rate within academia can justify the existence of a tide that first raised then decreased inequalities in academic knowledge production.

Speaking of the unequal distribution of capital, Piketty (2017) observes that in a slowly growing or stagnant society, capital takes a disproportional importance over labor. He presented a simple equation for growing inequality, saying that if the return on capital is higher than growth, then labor's share in net worth will systematically decrease. Considering academic knowledge production, this phenomenon leads to a situation where the effect of academic capital on recruitment is disproportionately high, thus, initial inequalities caused by different education trajectories are very hard to overcome by work and productivity alone. This might cause not just inequalities in the distribution of power positions and the failing importance of labor and production but is slows down

growth and, thus, the accumulation of knowledge. If the unjustified emphasis on academic capital means slower growth in academic knowledge production, then the overvaluation of academic capital is deleterious not only for those without elite degrees but for all of society as well. Demeter (2019) argued that in most cases, capital is conceived as a means of tools, knowledge, and courses of action that have a positive impact on productivity. However, capital is always expensive to accumulate in terms of time and financial sources. One might ask which worker is more productive: the one producing a given achievement with more capital or the one producing the same achievement with less capital? It is clearly the second. So, in the case of equal achievement, academics with less capital are more productive than those with more capital (Demeter, 2019). It means that if we overemphasize academic capital over production in recruitment and promotion processes, we indirectly decrease overall productivity and growth since, assuming equal production, we tend to recruit the less productive (but capital-rich) candidates. It is noteworthy that, for Piketty, any instance of capital entails only nonhuman factors, and thus he excludes the concept of human capital. However, we can disagree with this decision since not only education itself (as human capital) but also university degrees work as capital in future careers. Piketty's main argument is that human capital is not capital because it cannot be owned by another person or traded on the market. However, the manifestations of elite education are sold on the market, and diplomas have significant market values that can be exchanged for power positions with financial benefits. Accordingly, if we suppose that academic capital works in a similar way to its economic counterpart, we can rightfully criticize the overvaluation of academic capital over academic labor.

5. THE CRITICISM OF THE CRITICISM OF NEOLIBERALIZATION

Amongst the most important factors that play a significant role in the world system of academic knowledge production, we focused here only two: production and capital. It is easy to see that this approach corresponds to the neo-liberalization of higher education and academic research, with becoming more and more market-oriented, highly competitive, and international (Ennew & Greenamaw, 2012). In this process, academia clearly follows the international market trends and patterns, and the

distribution of academic capital corresponds to the distribution of economic capital across world regions (Demeter, 2020). Accordingly, the top-ranked universities and departments, the top-tier journals and publishing houses, and the headquarters of international scientific associations are almost exclusively in the economically richest countries, and, most typically, journal editors, editorial board members, committee members, and the most productive and most impactful scholars can be located in the same countries (Demeter, 2019; Goyanes & Demeter, 2020). As I argued above, this is – at least partially – the consequence of the operation of academic capital and its privilege over academic labor and production. We can criticize this phenomenon from a multitude of different perspectives, from which the two most fundamental are the one that focuses on effectiveness and the other one that focuses on meritocracy and the self-definition of science as a societal field.

According to the first, overestimating the significance of academic capital (in this case, the place of diplomas) might lead to a system where even the most talented scholars outside the central elite would be excluded from the forefront of the international community (Demeter, 2020). Mobility is the main answer to this challenge, but while it might be beneficial for individual scholars, it could even worsen the inequalities in the whole system (Musselin, 2004). If talented scholars go to the Western center to be heard, their voices will become the voices of the West, and they will leave the peripheries in silence, which further reinforces the feeling that important academic life happens only in the West. Moreover, with this, the world system of academic knowledge production loses a significant part of talent and a significant extent of possible contribution, as mobility is not an option for many talented scholars like scholars with family responsibilities, typically women. Finally, as argued before (Demeter, 2019), even from an economic point of view, the system should favor scholars with less capital and more production than capital-rich but not very productive scholars as they are more effective, but currently, the system favors the latter.

According to the second criticism, following the operation of the neoliberal market logic is not just against meritocracy but also against the logic and philosophy of science by which science should follow its own logic (Merton, 1968). For example, it might be

detrimental for academia to overvalue those institutions that are already resourceful and to neglect scholars who are working outside these institutions. Overvaluation can be processed in different ways, such as favoring scholars with diplomas from elite institutions without reference to their productivity or favoring scholars that work at elite institutions in editorial decisions (Demeter, 2018). It is important to emphasize that the criticism of academic neo-liberalization is oftentimes one-sided. Many argue that the neo-liberalization of academia can shift the focus from fostering intellectual growth, critical thinking, and merit-based advancement to economic and market-driven considerations, and a legion of universities – typically elite universities – turned against standardized testing and metrics and started to talk about qualitative measurements (Marginson, 2022). However, these testimonies are based on more denial than statements, so we have limited knowledge of what qualitative measurement would mean.

Actually, there is a hidden structure behind the neoliberal academia that is less frequently criticized: the prestige – economy of international research and higher education (Blackmore & Kandiko, 2011). Amongst many detrimental factors, such as inequality of access, research misalignment, or elitism, there is an especially dangerous consequence of the prestige economy, namely homogenization (Burris, 2004). The focus on prestige can encourage universities and research institutions to emulate the practices and curricula of already prestigious institutions and to follow already supported research lines. This can lead to a homogenization of higher education and research, where many institutions strive to be similar, potentially stifling diversity and innovation in education (Demeter, 2020). Of course, only those institutions can be part of the prestige economy that have the appropriate resources to do so. The homogenization of curricula, research priorities, and institutional practices often favors the models set by prestigious universities in wealthier countries, typically in the US. This reinforces global hierarchies in education and research, with institutions from poorer countries seen as inferior and perpetuating the divide between higher education in the Global North and the Global South (Demeter, 2020). Moreover, homogenization can stifle the diversity of perspectives and approaches in both higher education and research (Clauzet et al., 2015). Researchers beyond the academic center may have

unique insights and innovative solutions to local and global challenges, but these perspectives can be marginalized in favor of established Western paradigms, or at least they remain invisible to the international scholarly community (Demeter, 2018).

To address these challenges, it is not enough to strive against the market-oriented approach of neoliberal academia. It is equally important to recognize and value the diversity of knowledge, perspectives, and research contributions from all regions of the world and to strive against a prestige economy and the centrally driven homogenization of research and education (Burris, 2004). Efforts should be made to promote academic collaboration and real internationalization, support local research initiatives, and create space for a multiplicity of voices in global education and research rather than reinforcing homogenization and global hierarchies. For this sake, as argued before (Demeter, 2019), international agents in power positions such as journal editors, selection committees, and international research fund boards should put much less emphasis on academic capital than on production, and – in the case of equal production – they should even favor scholars with less academic capital to raise geographic and cultural diversity and to fight against homogenization.

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