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Space, Power, and Globalization: On the Geopolitics of Higher Education

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Abstract

Purpose: After reviewing global ontology and spatiality, globalization (worldwide convergence and integration), geopolitics, and the interacting national and global scales, the paper tracks the changing geopolitical order in general and in higher education in two main historical phases: Western-dominated and primarily U.S.-led globalization from 1990 to 2015, and partial deglobalization in the West and the American decoupling since 2015.

Design/Approach/Methods: The paper develops an original theorized historical synthesis, drawing on a range of scholarly and empirical sources.

Findings: The uneven but widespread post-2015 Western pushback against cross-border connections has been triggered by (a) the erosion of the longstanding colonial order and the growing global multiplicity in agency, culture, and identity, including the rise of China and much of the global South; and (b) the neoliberal immiseration of Euro-American populations which has helped to fuel populist politics. Normative internationalization and cosmopolitanism have given way to assertions of singular national identity and the weakening of multilateralism, nativist resistance to migration, including cross-border student mobility, and the U.S.-engineered partial breakdown in relations between the U.S. and China in political economy, technology, science, and universities.

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Originality/Value: The paper contributes a unique understanding to the condition of worldwide higher education and science.

Keywords

Geopolitics, globalization, higher education, human geography, science, spatiality

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> What is different about our time is that globalization forces us to live all jumbled together, and yet we have very different visions of what this common world should look like (Bruno Macaes, *The dawn of Eurasia: On the trail of the new world order*, 2018, Penguin, p. 2)

Introduction: A more global reality

Though social relations determine technological transformations and not the reverse, some new technologies seem to alter the conditions of possibility almost overnight. After the advent of the Internet in 1989, the truism "higher education is international" gained new poignancy. Streams of messages, information, images, and data began to flow in from everywhere, at first nearly all of it in English. Online relationships began to flourish. For those in Euro-American higher education with access to bandwidth and computing power, a small group growing at an exponential rate, the possibilities seemed endless. Universities elsewhere also discovered new opportunities for action and creation, but they also faced newly normalizing standards and requirements. The loss of control over time and the displacement of language and codes of behavior diminished agency. The geopolitics of higher education had suddenly shifted to a more immediate Western hegemony.

More than three decades later, that hegemony is fragmenting, the geopolitics and the patterns of global openness and closure are different, and the Internet has proven a mixed blessing for all parties, but the decisive shifts of the early 1990s are still salient. Knowledge and information continue to converge on a global scale, bringing political and educational cultures into direct and continuous contact with each other while sharply highlighting their differences. Global/national tensions are endemic, while felt in differing ways from location to location. There is much scope for agency and innovation on a global scale, but resources and control over agendas and protocols are unequal: Relations of power are asymmetrical. Because individuals and institutions are nested in nation-states while also active at other geographical scales, they are caught up in the upheavals of global geopolitics.

This paper is concerned with worldwide space-making in higher education and knowledge within the ever-emerging and ever-open reality. It is about individual, institutional, and national agency in collective relations; the inter-state and global architecture and configurations of power;

the transition from neo-coloniality and Anglo-American unipolarity to global multipolarity and developing decoloniality; and the flows and ebbs of globalization. No paper can do justice to these mighty themes, but the attempt is worth making.

The next two sections theorize ontology, space and scale, and geopolitics in higher education, drawing on human geography and primarily Doreen Massey (especially 2005). This provides the conceptual grounding of the descriptive account that follows, which discusses world order and globalization in higher education and research, in two main phases. First, the Anglo-American hegemony and sweeping openness after 1990, followed by multipolarity and the rise of China. Second, Western pushback against globalization and partial disruption of cross-border flows of people and research from the mid-2010s onward.

Space and space-making in higher education

Higher education is practiced in space and time in which human imaginings and practices intersect with material coordinates, and space is constructed as *social* space and relations of power (Lefebvre, 1991; Massey, 2005). Space in human geography differs from space in physics or in engineering. Geographical space is not an already-existing container, static and waiting to be filled, like an empty stadium. It is in motion and continually constructed by human agents. Massey (2005) describes each person's life as a trajectory moving through time. Those trajectories intersect, deliberately and accidentally, in space. Space is comprised by interactive relations between people, individual and collective, structured by materiality. "If time unfolds as change then space unfolds as interaction" (p. 61) and as successive events (p. 28).

Understanding of social space begins with ontology. Though reality exists independently of our perceptions of it, our interpretations and practices are part of reality. Reality is never fixed or finished but continually emerging. Universities, nations, knowledge, and the world are always becoming. There are multiple possibilities and the future is unknown, for *both the actual and the possible* are part of reality (Sayer, 2000). Over time, all certainties crumble: Massey (2005) refers to "the variable essence of things" (p. 58) and "the mutuality of chance and necessity" (p. 117). This does not mean that anything can happen. The possible is conditioned by materiality and history, including capital and class, political systems and hierarchies, and the long discursive inheritance. Nevertheless, it is crucial to grasp the *conditioned openness* of space in which the ongoing potentials for new action are nested. "It is that liveliness, the complexity and openness of the configurational itself, the positive multiplicity, which is important for an appreciation of the spatial" (Massey, 2005, p. 13).

Social space is always incomplete. Spaces in higher education, from the immense global to the intimate local, are co-constituted with the human and organizational agents who make them. Those

human and organizational agents are simultaneously socially-spatially formed and also self-forming (Marginson, 2024a, 2024b). Social space is not pre-existing or natural, prior to all human agency, like the elements of the physical universe. Social space is the outcome of prolonged and often strenuous past and present human effort. Following Lefebvre (1991), relational space-making in higher education combines (a) pre-given historical-material elements (structures) like territories and localities, resources, institutions, and networks, with (b) the imaginings and interpretations of space-making agents, and (c) the social practices in which they bring their visions into material form (Marginson, 2022d).

For example, a global network of universities joins together real institutions in grounded locations. The coordinates are material, but the process of joining is social and entails many possible imaginings and practices. Figure 1 simplifies and summarizes (a)–(c). The material in domain 1 includes pre-given *structures* like economic resources, institutions and systems of institutions, communications networks, laws, regulations, policies, and languages of use. The lower two domains 2 and 3 especially embody individual, group, and organizational *agency*. In domain 3, agents rework material elements from domain 1, using ideas and interpretations from domain 2 to build new activities, programs, and organizations in higher education: embedded material practices that become reproduced as ongoing structures in domain 1. Imagination in domain 2 and social experience in domain 3 shape each other in a continuing reciprocal process, as theorized by Archer's (1995, 2003) duality of the social self and the inner self in reflexive conversation (Marginson, 2024b).

Many examples can be given of space-making in higher education. Universities sign agreements, make alliances, and create joint degrees in a local region or across borders. Singapore positions itself as a "global schoolhouse" in a 2002 report of the Ministry of Trade & Industry, selects foreign universities to invite in to set up branches, and recruits foreign researchers to staff its labs. A Chinese university planner and a London-based magazine in 2002/2003 imagine a university world ordered by calibrated rankings of performance (see below). Governments in Japan, South Korea, China, Germany, Russia, and more start to build layers of "World-Class Universities" that network into innovating industries, facilitate global research partnerships, and build status for the nation. EU and ASEAN countries establish regional recognition protocols that facilitate student mobility. Western universities set up branch campuses in East and Southeast Asia and India. Faculty at the University of Manitoba in Canada in 2008 create a MOOC (Massive Open Online Course), a globally inclusive mode of broadcast delivery, free of charge, capable of advanced video and interactive elements. Researchers reach into each other's systems, collaborating in projects and academic writing. Millions of students apply for foreign university places, fill out visa forms, buy plane tickets, and cross the borders. All are making relational social space in higher education.

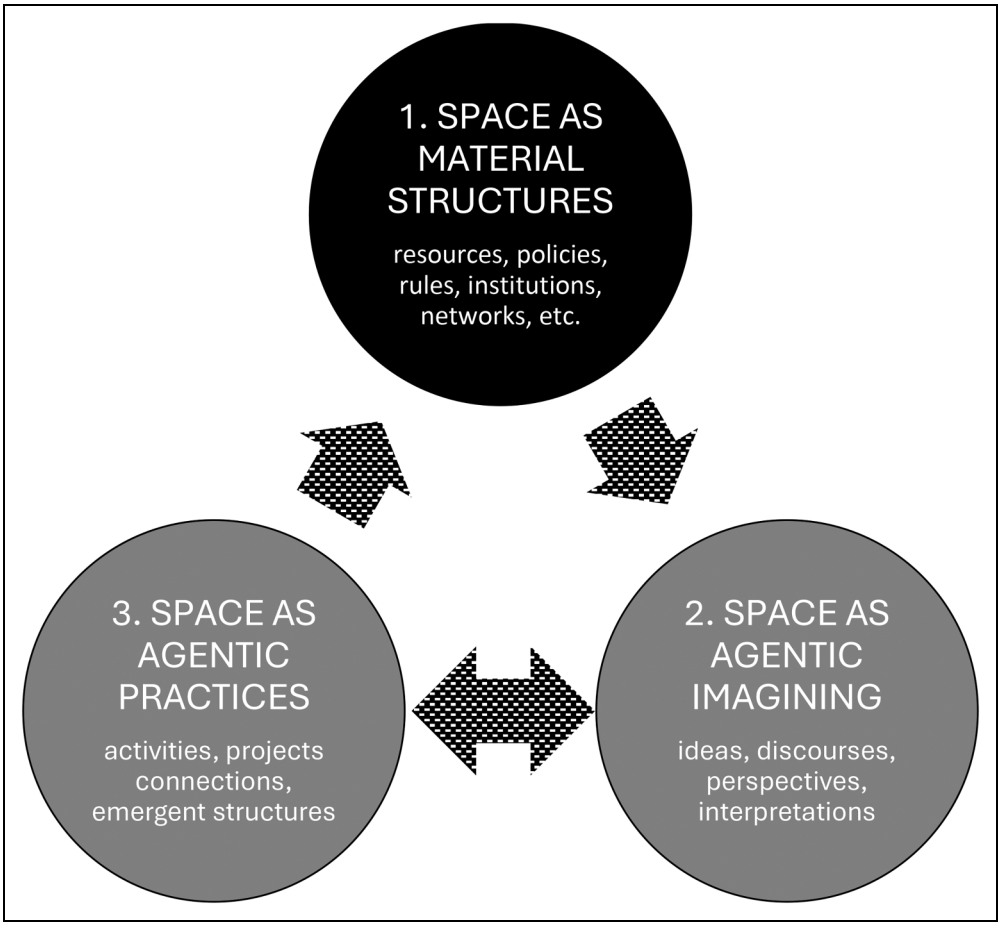

Figure 1. Space-making in higher education as materiality, imagining, and social practices.
Source. Author.

The certainty of multiplicity

Massey (2005) argues against notions of space as static and stable, of a closed world always-already divided up; of spaces and places as internally coherent and bounded, without reference to changing externality (pp. 5, 6, 26, 49, 151); of identity and agency as fixed and singular, apportioned to specific geographical places in unchanging landscapes, with an "isomorphism" between space/place and society/culture (p. 64). "So many of our accustomed ways of imagining space have been attempts to tame it," she says (p. 151). In the face of the openness of the real, the impulse of scholars and politicians is to order the chaos, to derisk the open ontology, negating "both its terrors and its creative delights" (p. 26). They struggle to find a place or home that offers certainty, a bolt hole, a safe haven (p. 65). But over and over again, the impossibility of stability is apparent. Nothing stays still for long. Space emerges and alters, whirling trajectories intersect and fly apart, gaps yawn, and

when people return home, they find it has been changed beyond recognition. All the strategies that try to hold down the moving parts by discourse or by force "evade the challenge of space as a multiplicity" (p. 61).

Arguably, along with the open ontology itself, *multiplicity* is Massey's most important insight, one that is repeatedly confirmed in higher education. In the most influential book on the post-World War II American university, Clark Kerr's (1963) central idea was that the university had become the "multiversity," multiple fields of knowledge, interest groups, external stakeholders, agendas, roles, without a binding center. Higher education and knowledge, like all of human society, turn on "the co-existence of difference" (Massey, 2003, p. 3). This is difference in all the senses of multiplicity, including "diversity, subordination, conflicting interests" (Massey, 2005, p. 61). "*The* pertinent lines of differentiation in any particular situation" can vary (p. 12). Space is the sphere of "co-existing heterogeneity" where the separated trajectories of agents intersect. It *must* always entail plurality (p. 9).

Difference is not confined to levels or calibrations of the same quality generated by internal decentering, as in the case of university rankings, though hierarchy is one of the forms that variety takes. Multiplicity is also about the qualitatively distinct, and the differentiating effects of external relations on inner phenomena, such as the diversification of national university systems on the basis of their varied global activities. Multiplicity is heightened in global relations where there is no global state to normalize operations and homogenize identities. Globalization is "a shared historical process that differentiates the world as it connects it" (Gupta & Ferguson, 1992, p. 16). "Even the new hybridities formed at points of intersection and juxtaposition are just as much a product of the dissonances, absences, and ruptures within the process of globalization as of any simple increase in the building of interconnections" (Massey, 2005, p. 100). As convergence generates ever more frequent encounters with otherness, the sudden changes of perspective flicker past at a more rapid rate: Multiplicity and mobility seem to transform into each other, and the heaving present rushes headlong into the unknown future with accelerating speed. Hold on for the ride, yes, but the exhilarating possibilities of the emerging ontology also carry dangers and dislocations.

In the ever-emerging ontology, no system of power is fixed for all time. Whether control is exerted through language, knowledge, university hierarchy, capital, politics, military force, a *permanent* homogenizing uniformity without gaps or loose ends cannot be achieved, especially on a global scale. "There are always loose ends" (Massey, 2003, p. 5). Those loose ends include the human and organizational agents whose imaginings and practices shape space. Multiple trajectories mean multiple agents with multiple perspectives and projects: "governments, higher education institutions, business, and international/regional organizations" and "students, faculty (whether individually or as a collective), civil society" (Moscovitz & Sabzalieva, 2023, p. 155). While some individual trajectories may have a discernible rationality, no one can be sure what will happen when the trajectories intersect.

Not all scholars agree with Massey about the primacy of difference. Pieterse (2020) sees differentiation and universalism as twin "drivers" of human affairs (p. 235), each giving way to the other in succession. Marston et al. (2005) state that "complex systems generate both systematic orderings and open, creative events" but the systematic orderings are more common. Variations cluster and become mimetic over time (p. 424). Yet some gaps, some differences, do not close into identity, and new differences continuously appear. If ontology is open and trajectories intersect, then regardless of all the hankering after equilibrium, an uncontrolled emerging diversity always has the final word. This is fortunate. "Conceptualizing space as open, multiple and relational, unfinished and always becoming, is a prerequisite for history to be open and thus … for the possibility of politics" (Massey, 2005, p. 59).

The inexorable fact of social (and cultural, and political) diversification over time, which is equally evident in the natural world, ought to cure social science of its long struggle to find universal patterns and iron law causal explanations, its addiction to equilibrium as rest, like the grave, its longing for the security and status of true prediction, its promise to know the future by extrapolating a dead frozen present. "Through many twentieth-century debates in philosophy and social theory runs the idea that spatial framing is a way of containing the temporal. For a moment, you hold the world still. And in this moment you can analyze its structure" (Massey, 2005, p. 36). But the structure is not still, and it turns into something else.

If the theoretical critique is not convincing, the empirical may suffice. In higher education, the certainty of multiplicity is apparent in the diversification of fields of academic knowledge, a long topic of higher education research (Clark, 1986). It was apparent in the variety of global initiatives by mostly Anglospheric universities in the first 15 years of the Internet era (Marginson, 2011). It shows in the multipolarization of the global political economy, and higher education and knowledge. Because the field of power is fluid, few things are more certain than the eventual pluralization of homogenous English-language global science. But the possible ways that multiplicity is manifest(ed) are, well, diverse. How diversity is configured, imagined, and practiced is *the* question in higher education space.

Scales and higher education

One kind of multiple space with special geographical importance is *scale*, like the local, national, or global. Scale is "a produced societal metric that differentiates space" (Marston & Smith, 2001, p. 615). Like other spaces, scales combine the actions and imaginings of agents with material structures and their coordinates. Scales differ in scope, proximity, coordinates, and the associated imaginings and social relations. Active scales include the planetary or world scale, which combines human society and nature (Chakrabarty, 2021); the global scale, human society at world level; the pan-national regional scale, as in the EU (Robertson, 2018; Robertson et al., 2016); the national

scale; the sub-national regional scale, including the city; and the local scale, which in higher education includes institutions, disciplinary units or research centers, and student organizations. There is also the individual scale (Marginson, 2022d; Moscovitz & Sabzalieva, 2023, pp. 154–156).

Though the "social ownership" of scales is "broad-based" (Marston & Smith, 2001, p. 615), there is varying recognition, especially of the regional and global scales, and definitions of scales are contested. The national and the local are most prominent, appearing fixed and part of common sense, but all scales are fluid and dynamic (Moscovitz & Sabzalieva, 2023, p. 154) and held together by imaginings and strenuous effort. For the blood and soil nativist, the nation is always there, but in reality, nations are "imagined communities" (Anderson, 2016) sustained by law, authority and coercion, financial power, and instruments of persuasion. Likewise, Massey (2005) repeatedly argues against ideas of global space as pre-given and "out there," external to agency or locality. Like all scales, the global is constructed, concrete, and lived (pp. 6, 184–185). Global activities "are utterly everyday and grounded, at the same time as they may, when linked together, go around the world" (p. 7, p. 53).

Agents in higher education contribute to the formation of scales and also make and utilize space within them (Marginson, 2022d). Large multi-disciplinary research universities are active at all scales. Higher education has long worked across scales. The Buddhist monasteries of Northern India, the medieval Islamic madrasas, and the European universities were structured by a double spatiality. They combined their materiality and grounded identity in cities and states with mobility, and an open mental horizon. Scholars, students, and ideas crossed borders. The double spatiality remains integral to today's universities, fundamental to their (partial) autonomy and organizational identity. They can hardly not be national, while the global scale frees them to be something of their own that does not derive from states and connects them to all institutions that combine inquiry and learning.

The multiple scales and their variations are not well understood. The nation dominates thought and pushes out complexity. "Methodological nationalism" is "the belief that the nation/state/society is the natural social and political form of the modern world" (Wimmer & Schiller, 2003, p. 301). Through this lens, worldwide phenomena are generated internally by nation-states; there are no global systems, higher education can be comprehended only in separate national categories, and cross-border activity is marginal (Dale, 2005; Lo & Ng, 2013; Shahjahan & Kezar, 2013). A methodological nationalist lens blocks from sight global phenomena, such as ecology, and science to the extent that it is epistemically autonomous. Methodological nationalism is not identical to normative nationalism, whereby one nation is preferred over others (Beck, 2007). Some patriots know that lived activity takes place outside the national scale. Nevertheless, the two forms of nationalism do tend to lean into each other, and taken together they can enforce a bounded singular identity in which multiple scales are unimaginable, hidden from view. Massey (2005) refers to "romances of coherent nationhood" and vain attempts to "purify" the national space (p. 12).

Scales co-exist and are irreducible to each other. They are not identical at varying sizes, with one fitting into the other and the big ruling the small, like the matryoshka, the Russian dolls. They are different. For example, national science is normed by the nation-state and its laws, regulations, policies, and funding. In contrast, global science has no normative center. It is comprised of knowledge in journals and bibliometric collections, and structured by communicative networks, institutional practices, and collaborative relations. There is a worldwide cultural hegemony in science, but no single driver, political or economic, akin to the centered nation-state. Scientists are active in both global and national-local science, and the norms, relations, and behaviors in each case are partly different (Marginson, 2022e).

Scientists are often freer when they are working across borders than within state-regulated national systems, though not all agents can choose their scale of activity. However, relations between the scales, including their causal power in higher education, vary in time and space. In the 1990s, the global scale often seemed to be the main source of change in the sector. More recently, the potency of the nation-state has been reasserted, though some national spaces are more open than others to cross-border and global effects.

Scales are too large to be owned by any agent, though they are the site of differing layers and conflicting projects, and sometimes, attempts to control them by defining them (Knight, 2004). "Globalization," meaning social convergence and integration in the global scale, is the subject of differing claims, from neoliberal markets, to decoloniality, to global polities (see James & Steger, 2016; Marginson, 2022c, 2022f; Rizvi & Lingard, 2009; Rizvi et al., 2022; Robertson & Dale, 2015). For all its political limits, discussed below, the post-1989 "space of flows" (Castells, 2000) opened a wider window and multiplied the potentials for agentic action, and not just in Anglo-America. Massey cites Stuart Hall (1996), for whom globalization is "a major, extended and ruptural world-historical event" that decenters Europe and the colonial (p. 249), so the global South becomes more than a secondary by-product of Europe (Massey, 2005, p. 63). These potentials were partly but not wholly suppressed by the U.S.-driven form of hegemonic and subordinating globalization, as summarized by Hardt and Negri in *Empire* (2001). Hall's decentering potentials of globalization resurfaced in the multipolarization of the world order in the 2000s and after, as is discussed below.

Relations of power and geopolitics

Agents strategize to control space via selective opening, partitioning, and closing. They also mix and match scales, working their trajectories in one scale to open new possibilities in another:

> What is at issue is the articulation of forms of power within spatial configurations … The argument about openness/closure … should not be posed in terms of abstract spatial forms but in terms of the

> social relations through which the spaces, and thus openness and closure, are constructed; the ever-mobile power-geometries of space-time … What is at issue is the *nature of the relations of interconnection—the map of power of openness.* (Massey, 2005, pp. 93, 166, 171, emphasis in original)

Geopolitics can be defined simply as institutionalized relations of power in the regional and global scales. For Cantwell and Grimm (2018), "geopolitics involves competition between states": This includes competitions to house the strongest research universities and to attract research talent (p. 134). However, while geopolitics are commonly discussed in terms of nation-states, geopolitics are also populated by corporations (Hartmann, 2021), NGOs, cities, and universities. Geopolitics especially engage international organizations, though the fluctuating unequal relations between the major states are more determining. Further, geopolitics entail cooperation and horizontality as well as competition and hierarchy. They can be win-win as well as win-lose (zero-sum) in form. Geopolitical relations in higher education, especially in science, are more cooperative than are political, economic, and military relations between nations; though maybe higher education is more geopolitically hierarchical and unequal.

Massey (2005) shows that, like all space, geopolitical relations have multiple possibilities. In a world that is a jigsaw of territorial nation-states, many separate trajectories are in the mix. Individual trajectories with their chains of causality may each seem coherent, but they co-exist, they are "intertwined," and as noted, their intersections are causally unpredictable: "it is the fact of multiplicity which produces the indeterminancy" (p. 113). "Order and disorder are folded into each other" (p. 117). There is no reason to assume that heterogeneous national (or university) trajectories occupying the same moment will necessarily cohere and coordinate (p. 141). Like all space, geopolitical space is sometimes (though not always) ordered on a temporary basis via negotiation or domination. Primary attempts to achieve coherence are the hegemonic strategies of the U.S., and the inter-state (multilateral) negotiations orchestrated by global agencies like the United Nations (U.N.).

The scope of global agencies to order global relations is limited by the absolute political sovereignty of nation-states, their tendency to nation-centrism, and their indifference to the world as a whole, their refusal to recognize it as a political subject. Except in the European Union, where in some policy domains (e.g., trade, competition, eurozone monetary policy, crime, consumer protection) the European Commission has binding powers to make laws and apply decisions, multilateral coherence rests on voluntary consensus between the major powers. Such a consensus is episodic. When the U.N. system's capacity to secure consensus was at its maximum, in the early decades after 1945, that capacity was underpinned by U.S. hegemony. Up to now, with the partial exception of Europe, geopolitics have not been consciously global, except where they have been imperial and controlled from a single national center.

Zhao (2021) states that "it is precisely with the advent of globalisation that the limitations of international politics have become patently clear … As our contemporary world becomes ever more intimate and interdependent among nation-states, a renewed problem of world sovereignty emerges" (Zhao, 2021, p. 14; see also the discussion of *tianxia* in Yang et al., 2024). The world as a whole is understood as a geographic space of activity, not as a single subject in the sense that the nation, the university, or the corporation are conceived as agentic subjects. Outside the European Union, nations have no necessary obligation to recognize their interdependency or take responsibility for the global:

> … with respect to the political, only nation-states are deemed significant. It is for this reason that the world has only been exploited as a 'common' resource and treated as a domain to be fought over and abused … This is especially the case within ideologies of hegemonic nation-states, where other nation-states and even the high seas are conceived of as just so much territory to be dominated. (Zhao, 2021, pp. 185, 187)

Global inequalities

Power, domination, and equality/inequality in higher education and knowledge are not so much determined by space and time as coeval with them. Consider global mobility. It is mostly articulated by structural hierarchy. There is more than one kind of agentic mobility (physical, virtual) and immobility (chosen and forced); each is associated with differing freedoms and unfreedoms; and individual, institutional, and national agents markedly differ in "capabilities, resources and position in the global hierarchy" (Moscovitz & Sabzalieva, 2023, p. 155). While mobility can enhance agency and vice versa, at a given moment, there are spaces that only some agents can enter. The powerful can move almost anywhere while maintaining a secure home base, at least for a time. Virtual relations democratize mobility, to a point, yet some agents lack the rights and resources for virtual movement, or cannot share knowledge because their language is marginalized. Fortunate agents can access government funding for global mobility. Many others have only their own resources. South-to-North migration grows not when people are becoming poorer—ecological devastation or war can fix in place those who most need to move—but when people's capabilities and aspirations are rising (de Haas, 2023). As in national populations, it is the aspiring middle layers, not the poorest of the mobile, that are best placed to invest time and money in foreign higher education and most likely to secure state or philanthropic support.

In short, horizontal multiplicities of place and culture are articulated through relations of power. Agents, their trajectories and their possibilities are reassembled in vertical forms. Spatial fluidity becomes stabilized in recognizable structures and dominant logics for periods of varying duration. In particular, capitalist political economy and inherited hierarchies of class, culture, race, gender,

and knowledge constitute viciously unequalizing conditions; so that agents' solidarity with each other, their understandings of relational inter-dependency (within and between nations) are endemically incomplete. Massey (2005) remarks that "there are few spaces less 'Euclidean' … than those of global neoliberalism" (p. 100), and that individual places are highly unequal in their capacity to shape space. London, the U.K., and the U.S. are locations where the "neoliberal capitalist global" is produced (p. 101). The same comment can be made about universities. All of them respond to globalization, but the leading Anglo-American institutions have also been makers of global space, in highly unequal ways. How particular institutions or regions shape space and negotiate spatial power, and under which conditions, is a case-by-case matter and a primary zone for empirical research.

Yet analyses can over-emphasize the structural side because of its visibility. At any time, most agents have more scope for action than they know. All agents have conscious and reflexive wills and can determine their responses to structural constraints (Archer, 1995, p. 71; Foucault, 2005, p. 133); and once they have been created new spaces constitute new opportunities. In general, and in higher education and knowledge, not even the strongest agents control a space forever. Every space eventually "escapes in part from those who make use of it" (Lefebvre, 1991, p. 26). So it has been with the post-1990 Anglo-American globalization.

Theorizations of the geopolitics of higher education

One theorization of global relations of power often referenced in studies of higher education and science is the center-periphery model in Immanuel Wallerstein's (1974, 2006) "world-systems theory" (e.g., Chinchilla-Rodriguez et al., 2018; Choi, 2012; Olechnicka et al., 2019; Schott, 1998). World-systems theory imagines a three-part global space: the Euro-American center or core, a "semi-periphery" of weaker Western nations and a few others, and the bulk of the former colonies, immiserated on the "periphery." Individual countries are a function of the "totality" of worldwide capitalist economic relations (Wallerstein, 1974, p. 387). "There is no such thing as 'national development'" (p. 390). The hierarchy is fixed. There is limited "surplus" at the world level, and for one country to rise, another must decline (Wallerstein, 1976, p. 466). Wallerstein is a critic of Eurocentrism but sees it as inevitable unless or until capitalism is abolished. Centre-periphery analyses see global relations in science as both determined by political economy and difficult to shift (Olechnicka et al., 2019, pp. 102, 105).

However, the last three decades of global political economy, higher education, and science make no sense in world-systems terms. The periphery has not been wholly stuck in permanent underdevelopment. The zero-sum surplus is a fiction: Many countries have advanced simultaneously in both absolute and relative terms. Consider the ascent of universities and science in China and Singapore to leading world roles—in his sequence of papers, Wallerstein stubbornly maintains

China in the periphery or semi-periphery—and the rise of scientific output of India, Iran, South Korea, and Brazil, among others, with varied correlations with political economy. World-systems theory fails because its rigid spatiality cannot encompass change. Fatally, it assumes the structure of global power in political economy blocks all autonomous evolution in either the economic trajectories of nations (Smith, 1979) or their higher education and science. In failing to grasp the relative autonomy of the national scale, Wallerstein falls into methodological globalism. The national scale is interactive with the global scale but not wholly determined by it (Marginson & Xu, 2023).

Antonio Gramsci (1971) has more helpful ideas about geopolitics. For him, relations of power in science, education, and other cultural sectors are semi-autonomous in relation to states and the economy, while also contributing to the overall configuration of power. Gramsci identifies two ways in which relations of power are exercised: direct coercion or force, and hegemony, whereby the ruling class justifies its dominance and wins the active consent of those over whom it rules (p. 178). The state and corporations supporting the state invest in normative hegemonic processes like law, schooling, media, publishing, the arts, science, and universities. The interests of the dominant group are diffused through social networks and thereby secured in subjectivity and day-to-day conduct. Intellectuals, who articulate universalizing ideas, play key roles in forming hegemony (and also in counter-hegemony). Gramsci (1995) takes the theorization of hegemony to the world level (pp. 156–157), noting the "colonial subjection of the whole world to Anglo-Saxon capitalism" (Gramsci, 1977, pp. 79–82, 89–93), and "combinations of states in hegemonic systems" (Gramsci, 1971, p. 176). His passages on "Americanism and Fordism" highlight the universalizing element in American culture, propagated worldwide in industrial production, mass consumption, and ideologies of individualism (Gramsci, 1971, pp. 277–318). The sciences are well fitted for universalization (p. 446). Gramsci anticipates the world order in science that emerged after 1990.

Noting that "higher education should not be viewed solely as an educational endeavour, but also as a geopolitical project" (p. 152), Moscovitz and Sabzalieva (2023) provide a theorization of geopolitics for higher education studies. They develop a "scales, agents, interests and opportunity structures framework … a heuristic through which to analyse and critique the intersections of the new geopolitics with higher education." This can guide empirical investigations by helping researchers to identify the forces at play (p. 156).

Hegemony, multipolarity, and conflict

The paper now turns to space-making and relations of power on a more empirical and historical basis. It considers the changing world order, globalization, and geopolitics, and their manifestations in higher education and science over time (see also Marginson, 2011, 2022a, 2022c, 2022d,

forthcoming). While punctuated by new events, the present is conditioned by an ever-changing mix of layers of the past. Global circumstances combine five successive historical layers (Sakwa, 2023) that still shape global relations of power:

1. Euro-American colonization and world domination prior to World War II;
2. The 1945 UN Charter, sovereign internationalism, and the beginnings of post-coloniality;
3. From 1990, hegemonic neo-coloniality under Pax Americana in the political-military realm and U.S.-dominated globalization in economy, culture, and higher education;
4. From the 2000s, growing multipolarity in the economy, higher education, and science;
5. From the mid-2010s, part fragmentation and destabilization of the post-1990 order.

Before 1990

Between the fifteenth and twentieth centuries, Euro-American (Western) countries ruled, controlled, or strongly influenced over 95% of the earth, with England and then the U.S. leading in the two centuries before World War II. Colonization is the most fundamental fact of geopolitics, continuing to affect global hierarchy, global flows, and global imaginings. It installed an Anglo-American epistememe, organizational models, system norms, and language in universities, though the research university itself and the deepest Western pedagogy, Bildung (Sijander et al., 2012), originated in Germany. A superior Chinese educational culture bequeathed to the West selection by competitive examination, again via reforms in Germany, yet since then, East Asian education has scarcely touched the West. Colonization was underpinned by Western assumptions of racial and cultural superiority and a self-defined moral right to lead or rule, attitudes that are still deeply felt in Euro-America.

After World War II, the 1945 United Nations (U.N.) Charter in San Francisco began to move beyond coloniality. Following the war and the Manhattan project, the U.S. was the strongest single nation, but it was allied to the Soviet Union, which had a different political system. The Cold War had not begun, and there was near-universal support for self-determination. The spirit was optimistic, multi-cosmopolitan, inclusive, and tolerant. The central idea of the "Charter International System" was "sovereign internationalism," whereby the world was a plural space, tolerant of civilizational differences and diverse political systems. Non-interference in the internal political affairs of countries was respected, provided they abided by shared charter values like the U.N. conventions (Sakwa, 2023). Further international organizations were created, designed to enshrine a stable U.S.-led global order with Western norms of economic markets and political democracy of the capitalist kind in which economic freedoms were foundational: the World Bank, the International Monetary Fund, OECD, NATO, and the General Agreement on Trade and Tariffs

which became the World Trade Organization (WTO) (Heather & Rapley, 2023, pp. 36, 70). Most of the newly independent countries remained economically and politically dependent on the old imperial heartland (p. 54). Meanwhile, the U.S. moved in and out of its multilateral charter obligations, intervening in other countries unilaterally at will.

As time went on, sovereign internationalism in the U.S. became largely displaced by a liberal anti-pluralist position grounded in American exceptionalism, and intolerant of non-liberal regimes (though less so when they were U.S. allies). Sakwa (2023) calls this "radical liberal internationalism," and it later took shape as the Anglo-American "rules-based order." That was never an agreed-upon global standard. It was the creed of a hegemonic bloc whose proponents assumed they were superior in all respects. They assessed all societies against Western norms and supported interventionist strategies based on humanitarian objectives and regime change. This crusading liberalism recalls nineteenth-century British imperialism, which claimed world primacy as its right on the basis of self-defined civilizational standards.

1990–2010s: U.S. neo-imperial hegemony

The Soviet Union dissolved itself at the end of 1991 (Zubok, 2021), and for many in the U.S., there was no obstacle to worldwide Americanization. In *The End of History and the Last Man*, Fukuyama (1992) proclaimed Western liberal democracy as the final form of government. "Even at the time, this sounded hubristic. Today, it looks delusional" (Heather & Rapley, 2023, p. 127). Nevertheless, with military primacy and Western support, the U.S. government felt free to pursue a transformative political, economic, and cultural hegemony expected to make the world in its own image. Ultimately, post-1990 globalization facilitated heterogeneity, confirming Massey (2005), as will be discussed, but in geopolitical terms, it was neo-imperial and neo-colonial and grounded in a homogenizing civilizational order.

Hegemonic U.S.-led globalization expanded and was carried by world markets in an open trading regime. This combined with the cheapening of transport and intensified people mobility, communicative convergence via the emerging Internet, and the radiation of U.S. film, television, and cultural forms and ideas in many domains, including universities and science. English-speaking universities moved with special ease in structuring and colonizing the expanding global space: implanting branch campuses in East/Southeast Asia; fostering partnerships, university consortia, and research links; drawing foreign students and doctoral talent. Higher education became more widely utilized as a medium of upward professional-social mobility via spatial mobility. Students from the global South and East were pulled gravitationally to the U.S. and U.K., the "whitest of the white" (Shahjahan & Edwards, 2022).

There was more than one kind of post-1990 global space, with diverse agentic agendas, strategies, trajectories, and practices (Marginson, 2022d). Endogenous (indigenous) activists across

the world exchanged narratives and formed solidaristic bonds. An expanding open network with porous borders appealed to scientists. For national policymakers, the global was a bordered arms race in talent and technologies. European government and university leaders supported regional integration designed to transcend historical conflict by bringing societies, universities, faculty, and students together. Commercial university rankers imagined a single global market in "world-class universities," facilitating the families investing in global degrees and the universities building prestige. "Social imaginaries circumscribe what is deemed possible or legitimate to think, act and know" (Stein, 2017, p. 329).

At the peak of hegemony in the 1990s/early 2000s, globalization in higher education mostly felt like a uniform Anglo-Americanization, but something more was also happening. Governments and institutions in Singapore, Malaysia, Japan, South Korea, China, France, Nordic nations, the Gulf States, and elsewhere also took global initiatives, some mixing cross-border education with foreign aid policies. Globalization coincided with a great uplift in participation rates in tertiary education (Cantwell et al., 2018) and the growth of global science in many countries. These developments reflected rising aspirations in populations and states, as well as expanding economic capacity to support aspirant world-class universities. Even so, the autonomous national trajectories were flavored by the hegemony and its political-economic agenda. Hegemonic globalization entailed the spread of Anglo-American neoliberalism in economic policy and higher educational policy, including the business organization of universities, competition, tuition prices in some systems, and state steering from a distance via product formats, contract-based goals, performativity, and audit.

Global spatiality in itself was not necessarily neoliberal (Massey, 2005, p. 83; Olssen & Peters, 2005, pp. 313–314). Post-1990 globalization was associated with many phenomena other than free cross-border trade in capitalist markets: It included communicative convergence, science, and expanded educational relations, diverse cultural encounters, and new hybrid cultural forms (Rizvi, 2005, 2011). Educators could pursue a globalization soaked in multiplicity without regard for the neoliberal agenda. Nevertheless, their institutions were also being colonized and remade by neoliberal mindsets, entrepreneurial enthusiasms, expanding world markets, and unequal hegemonic geopolitics. In the U.K., Australia, and New Zealand, and later in Canada, executive leaders in universities nominally devoted to the public good had little hesitation in cashing in, building a large-scale commercial industry in international education that transferred capital out of emerging countries and quickened brain drain, in continuity with the colonial years. All was justified by a normative universalizing "internationalization," which largely meant Westernization (Marginson, 2023).

National/Global synergies. Scientists mostly saw science as a global collaboration rather than a geopolitical contest of nation-states, but as long as governments saw benefits in the open global science

of researchers, each party, both the nation and the global scientists, gained from the other. Elite U.S. universities subsidized the doctoral training of foreign students at scale and networked with countries everywhere. They worked the relatively accessible U.S. migration regime to recruit global talent, especially graduate researchers from China and India, augmenting U.S. scientific capability and soft power, and their own national standing and global advantage.

U.K. universities leveraged their inherited status to attract and monetarize cross-border students, substituting international student revenues for declining public financing, saving the Treasury money while augmenting neocolonial soft power abroad. Universities also drew research income and talent through their leadership in collaborative European research and free people movement in the EU (Highman et al., 2023). The top research universities worked within the global science system to perform high citation science at the U.S. level while confirming their national position. Australian universities, supported by expansive migration policies on student visas and skilled labor, used global student flows to lift their research performance, not via cross-border doctoral talent as in the U.S. but via fee revenues. By 2019, 32.4% of all students paid commercial international fees, providing 27.3% of revenues (Australian government, 2024) and financing about one quarter of university research. Australia, a country of 25 million people, achieved seven universities in the top 100 in the Shanghai Academic Ranking (Academic Ranking of World Universities [ARWU], 2025), and equaled the U.K. in its proportion of science papers in the high citation category (National Science Board [NSB], 2022). The global rankings sustained Australia's recruitment in the global student market, which sustained the rankings in a circular effect.

China pursued another kind of national/global synergy (Marginson, 2018, 2022a) underpinned by ever-increasing state investment, with spectacular results. Compared to the Anglosphere, there was less global outreach and more national capacity building, but again, activity in each scale strengthened the other in a circular fashion. Collaboration in the U.S. built national research infrastructure and global research performance. Rather than focusing on foreign talent, China used state-funded programs to bring diasporic Chinese scientists back from the West. Between 2003 and 2022, the number of papers with authors in China grew by 13.0% a year, from 88,585 to 898,949 (NSB, 2024), and Chinese universities moved past the U.S. in high-citation STEM-based research (Leiden University, 2025).

In all these examples of national/global strategy, despite the potential tensions between national policy and global activity partly beyond national control, it seemed that the compatibility of scientific nationalism and scientific globalism (Haupt & Lee, 2021) could be taken for granted. It later became apparent that this happy match was not forever.

The global knowledge economy. The post-1990 themes were neatly parceled up in the "global knowledge economy" discourse foregrounded by the OECD and World Bank, which defined human

capital formation, science, and universities as key to technological innovation, high-value production, and national competitiveness (Dale, 2005; Olssen & Peters, 2005; Sa & Sabzalieva, 2018, pp. 152, 154). In comparing science policies, Sa and Sabzalieva (2018) note "a remarkable similarity across countries in embracing this positioning" (p. 156). The knowledge economy spatiality reworked the national/global hinge. First, the national and global scales became more closely combined: "domestic higher education projects are entangled in the prevailing geopolitical order, notably a hierarchised global higher education space" (Moscovitz & Sabzalieva, 2023, p. 153). Local-national practices had implications for the relative global standing of universities, and vice versa. Second, while nations differed in the extent of state intervention, deregulation, and commercialization, neoliberal governance was flexible, and the global knowledge economy idea was interpreted through national lenses and contextualized with national policies (Sa & Sabzalieva, 2018, pp. 159–160). The scope for variations between systems insulated the frictions of global homogenization.

The cross-country comparison by Sa and Sabzalieva (2018) identifies variations in normative nationalism, in the extent to which global cooperation was read in terms of national interest (p. 161). There were also variations in methodological nationalism, in the extent to which there was awareness in nations of global science as being ontologically distinct from the nation and its national science system (Zha, 2024, p. 1533).

Global ranking. Over time, the more competitive and quasi-capitalist aspects of the global knowledge economy imaginary gained ground. In the first decade after 1990, there was a broad policy consensus that "while competition between states was intense," all could be winners in science: There were "shared geopolitical benefits rather than absolute, zero-sum gains" (Cantwell & Grimm, 2018, p. 133). Then, in 2003/2004, the competitive global knowledge economy was captured and institutionalized by global university rankings (Marginson, 2014). In this potent framing of the global higher education space, the logic was unambiguously hierarchical and zero-sum. The first ranking was conceived by a university planner in China whose intention was to use data on comparative research performance to drive improvement in the science output, and the national and global position of Shanghai Jiao Tong University (ARWU, 2025). This was followed by a very different ranking developed by the business research firm Quacquarelli Symonds (QS) for the higher education sector magazine *Times Higher Education* (THE) in London, using comparative data that combined surveys of university reputations with indicators of resources and outcomes. Later, the THE developed a new ranking of its own, again using business-research techniques, while QS broke away, maintaining its previous ranking in competition with the THE. Both organizations used their web-published ranking (Quacquarelli Symonds [QS], 2025; Times Higher Education [THE], 2025) as a loss leader that drew higher education clients to their

business services in the sector. Not surprisingly, university leaders found that they could improve their THE/QS ranking by paying THE/QS for advice on how to do so, and over time, an increasing number did this.

The rankings formed a global higher education space in different ways. The ARWU gained its authority from the centrality of research in university status. By foregrounding a research-based hierarchy, it encouraged national investments in basic science and institutional mergers to augment performance, for example, in France. The THE and QS rankings set out to order the "best universities" in relation to all missions, though no actual teaching/learning was measured, and no collective missions entered either ranking, aside from research. The reputational surveys in each ranking recycled reputation as ranking, in a circular effect. The goal of each global competition was the status position as an end in itself. Universities could advance their ranking position via negotiations with the ranking company or via marketing campaigns, without actually improving performance in the intrinsic functions of education and research. In the THE and QS rankings, global competition played out as a simulation, creating a shell knowledge economy that was detached from actual education and research. This contrasted with the ARWU's focus on real research outputs and recognition. Yet all three rankings normalized all universities within one global higher education space, in which all institutions were equivalent and comparable, and competed on standardizing criteria, regardless of their histories and contexts. The criteria were geopolitically unambiguous. The ranking templates were (and are) derived from characteristics of the leading Anglo-American research universities. All three rankings were routinely headed by Harvard, MIT, and Oxford.

Rankings exaggerated the diversity of status while suppressing all other actual and potential multiplicity in higher education. Institutions deviating from the standard template (e.g., those that were discipline specialists, focused on social missions such as local community building or widening access, or carrying large vocational education programs not linked to research) were punished in the rankings. "Excellence Initiatives" that invested in World-Class University development (Yudkevich et al., 2023), like the rankings themselves, steepened stratification in national systems over time. Rankings installed specific metrics (e.g., the number of high-citation researchers, the proportion of staff or students who were non-citizens) as institutional goals that normalized missions and behaviors, especially in aspirant systems focused on achieving "World-class university" status (Hazelkorn, 2015). This locked institutions into models and incentives many would not have chosen for themselves (e.g., see Teferra, 2019, on sub-Saharan Africa). No development did more to normalize the global higher education space as a universal neoliberal market, while perpetuating Anglo-American authority.

For university leaders, global status ranking was a comparative frame of reference with few winners. The status of non-winners was exposed and reduced, there was bottomless accountability and insecurity, and no control over the conditions of performance. Yet the global knowledge

economy idea was an asset to executive-style leaders, and not just in the Anglosphere. Though neoliberal systems steered them more closely, in the transition from ivory tower to business firm they maintained corporate autonomy, more closely controlled the academic freedoms of their faculty, and gained a new legitimacy as CEOs with academic status at the edge of global modernization: doyens of futurity with the economic progress of the nation in their hands. And in the more unequal global university world, there were new corporate opportunities.

It was all of a piece. Nation-states believed that capital accumulation was maximized in a liberal global regime of "total unfettered mobility, of free unbounded space" (Massey, 2005, p. 81), valorizing every kind of openness, connection, and passage. Cross-border education formed graduates for cross-border business. Cosmopolitan cultural inclusion in education optimized market reach. Open science maximizes innovation and productivity all around, with talent flowing to the centers best positioned to profit from it. All was expected (at least in Anglo-America) to foster Anglo-American soft and hard power. Western states were comfortable with global openness because it was Western-dominated, predictable, and limited. Academic networks were technically open but culturally closed, by English and the Western episteme, and guaranteed by the Harvards and Oxfords. In non-Western nations, hegemonic globalization was two-sided and suborning, but they did not make the rules.

However, the conditions supporting post-1990 globalization were of their time and not permanent. Once those conditions began to shift, once open global hegemony no longer generated the same net benefits for the agents that had been energetically driving it, then, inexorably, matters would change. "The closed geographical imagination of openness, just as much as that of closure, is itself irretrievably unstable" (Massey, 2005, p. 175).

Multipolarity

During the 2000s, the exceptional U.S. dominance began to recede. Global economic capacity became more broadly distributed, and later, the emerging multipolarity was apparent in higher education and science. This began to deconstruct the geopolitical conditions of post-1990 Anglo-American globalization as a one-world-one-cultural transformation project, changing the conditions of global engagement all around.

Table 1 indicates the dramatic reduction in political and economic inequality between countries after 1990, reflecting state and economy building in the global East and South. The proportion of people living on US$1.25 a day in constant 2005 prices dropped by half (Bourguignon, 2015, p. 42). In the table, the Theil index is like the Gini coefficient: the higher the index, the higher the inequality. The table shows a modest increase in inequality *within* countries but a sharp fall in inequality *between* countries, especially after 2000, continuing after 2010.

Table 1. Trends in global income inequality, as measured by the Theil index: 1990–2010.

	1990	1995	2000	2005	2010
Global inequality	0.949	0.918	0.903	0.827	0.723
Inequality between countries	0.734	0.696	0.681	0.600	0.479
Inequality within countries	0.215	0.222	0.222	0.227	0.244

Note. A decline in the Theil index means that inequality has *reduced*.
Source. Table by author, original data from Bourguignon (2015, p. 42).

Table 2. Proportion (%) of PPP world GDP at constant 2021 prices: United States, European Union, China, India: 2000–2020 and 2022.

	2000 $78.5 trillion	2005 $94.1 trillion	2010 $111.7 trillion	2015 $132.0 trillion	2020 $146.6 trillion	2022 $161.4 trillion
E.U.	22.2	20.4	18.1	16.2	15.0	15.1
U.S.s	19.8	18.7	16.6	15.7	15.2	15.0
China	6.4	8.5	12.3	15.2	18.1	18.4
India	4.2	4.8	5.6	6.5	7.1	7.5

Note. PPP = purchasing power parity, which standardizes across countries the domestic economic value of income.
Source. Table by author, data from World Bank (2025). Data for 2020 were affected unevenly by the pandemic.

Between 2000 and 2020, the share of world GDP in constant prices in the U.S. and the E.U. fell from 42% to 30%. In 2016, China's GDP passed that of the U.S., and by 2022, the combined GDP of China and India was moving toward the U.S. and E.U. total (see Table 2). As Heather and Rapley (2023) note, "it is so much more than a Chinese story" (p. 127). Economic multipolarity includes India, Indonesia, Iran, Brazil, South Korea, Saudi Arabia, and middle economies like Malaysia, Vietnam, Chile, and the Gulf States. Parts of the global South were also rising. "In 2019, six of the world's fifteen fastest-growing economies were African" (p. 127). The world was transforming.

Multipolarity in higher education. Massey refers to multipolarization as "the arrival of the margins at the center" and remarks on "the accompanying reassertion of the depth of differences" (p. 70). Growing political and economic power on a global scale, sooner or later, provides favorable conditions for cultural power, as has happened in higher education and science, though multipolarity has shown itself more in non-Western infrastructures and the quantity of educational participation, institutions, and published science, than in cultural contents. Anglo-American language and institutional models still dominate (Marginson & Xu, 2023).

Between 1990 and 2015, China's Gross Tertiary Enrolment Ratio rose from 3% to 47%. By 2023, it was 75%, just below the U.S. 79% (World Bank, 2025). The colossal growth in participation in China was matched by the expansion of science. After 2000, it was increasingly apparent that science was no longer the preserve of the Anglosphere, Western Europe, Russia, and Japan. Between 2003 and 2022, while science papers in China grew by 13.0% a year, the growth in India was 11.4%, Iran 15.6%, Turkey 7.5%, Brazil 7.3%, and South Korea 6.4%.

In 2022, 59 nations/systems published more than 5,000 science papers, compared to 30 in 2003. The 2022 group included a dozen countries where per capita income in purchasing power parity terms was below the world average (NSB, 2024). Table 3 shows the dynamic growth in science in the largest non-Western systems (see also Marginson, 2022a, 2022b).

China, South Korea, and Singapore emphasized the physical sciences, technology, engineering, computing, and mathematics (STEM) because of the primacy of these disciplines in urbanization, industrialization, and global technological competition. China became the largest producer of graduates in STEM (Zha, 2024, p. 1544). In 2022, researchers in China published 228,189 papers in Engineering, compared to 22,897 in 2003. The 2022 output of 228,189 papers in China also compared to 49,437 in the U.S. and 79,408 in the E.U. in 2022. Chinese universities came to overwhelmingly dominate in high citation papers in STEM research, with Tsinghua moving to

Table 3. Change in output of published science in Scopus, the seven largest non-Western systems compared to selected western countries: 2003 to 2022.

Country	Scopus papers 2003	Scopus papers 2022	change 2003–2022 2003 = 1.00
China	88,585	898,949	10.15
India	26,638	207,390	7.79
South Korea	23,880	76,936	3.22
Brazil	17,731	67,001	3.79
Iran	3,907	60,940	15.60
Turkey	13,376	52,658	3.94
Indonesia	387	31,947	82.55
U.S.	336,491	457,335	1.36
Germany	74,320	113,976	1.53
U.K.	77,151	105,584	1.37

Note. Here and elsewhere, Russia (84,252 papers in 2022) is classified as Western, while Brazil and Latin America as non-Western.

Note that while established research systems like the U.S. and Germany typically grow more slowly than emerging systems, the non-Western growth in Table 3 is exceptional in historical terms.

Source. Author using data from NSB (2024).

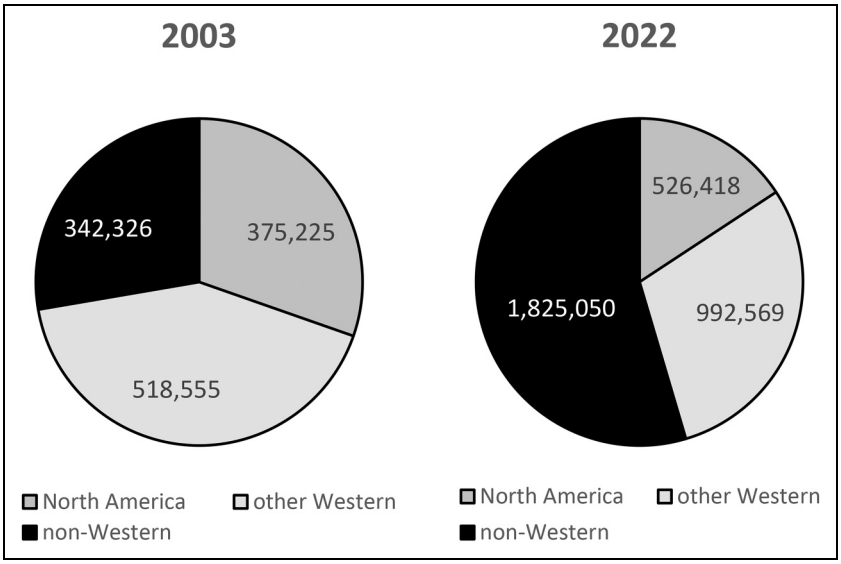

Figure 2. Distribution of science papers in Scopus between Western and non-Western countries: 2003 and 2022.

Note. "Other Western" includes all of Europe, including Russia and the European settler states Israel, Australia, and New Zealand, but not South Africa, Latin America, or other former European colonies. Mexico is included in "non-Western," not North America.

Source. Author, using data from NSB (2024).

become the world-leading producer of such papers, ahead of MIT (Leiden University, 2025). While Anglo-American universities still led in high citation medical research, Chinese institutions were making up ground in that cluster, too.

Global multipolarity in universities and science is not a normative claim or a theorized speculation; it is a fact, though one that is under-recognized in the West. The geopolitical shift in science is captured in Figure 2. In 19 years, papers from non-Western countries moved from 27.7% to 54.6% of the total papers codified by Scopus as part of global science, 96% of which were in English. While the high-citation papers were more concentrated in the West than was total science, researchers, doctoral programs, laboratories, and research collaboration and publication were now broadly distributed.

From the mid-2010s: Partial deglobalization in the West

By the early 2010s, the long economic tide to Euro-American globalization had turned, and U.S. geopolitical strategists were reassessing the national-imperial approach (Blackwill & Fontaine, 2024). The U.S never acknowledged multipolarity or resiled from its claim to global leadership. Rather, it decided that in order to sustain that primacy, it needed to radically change its handling of openness/closure in global space-making. By the first Trump presidency, it had abandoned

Fukuyama's (1992) universalizing hegemonic project, switching from multi-sector engagement with China to geopolitical confrontation in the economy and technology. Given that the global balance of power had rested on U.S. hegemony, and given also the absence of other bases for global integration—such as a global system consistent with multipolarity with distributed power, diversity, and negotiated coordination—multipolarity coupled with U.S. bipolarization led to the unravelling of the global order. This had flow-ons to the destabilization of national politics and national global strategies in many countries.

The West moved from global convergence to bounded nationalism, amid a nativist revolt against migration and cosmopolitan identity, which was the combined outcome of neoliberal immiseration and the weakening of Western (primarily U.S.) global hegemony. The frank demand in the U.S. was Make American Great Again. Despite this, cross-border student mobility and global science continued to grow for a time, but the global higher education space inherited from 1990–2015 became more nervous and fractured. The nativist-inspired Brexit in the U.K. in 2016 was symptomatic: It abolished European student entry through Erasmus mobility while radically reducing non-U.K. Europeans in U.K. degree programs and faculty recruitment pools (Papatsiba & Marginson, 2025). States asserted themselves more strongly. In government, support for normative internationalization in higher education receded. Universities found themselves dealing with new geopolitical tensions and national/global frictions, growing uncertainties, large-scale disruptions to cross-border student flows, and a new emphasis on risk management in research collaboration. Non-Western countries were in a different place. They did not share the pushback against globalization, the security paranoia, or the same widespread internal political destabilization. However, their cross-border economic, political, and educational relations were affected by the fallout from the shift in U.S. space-making strategy, and they were still in an Americanized world. Though the relative GDP of the U.S. was declining, and politically and culturally it could no longer remake the world in its own image, the U.S. government still had an unrivalled capacity to rework the global space.

Why deglobalization?. Recurring alternation between globalization and deglobalization is inevitable. Space is always emerging. Neither composite tendency can ever achieve equilibrium, and both tendencies combine different strands of causation with multiple historical limits. Polarity between openness and closure is an ongoing feature of the U.S. polity, which has always combined internationalists and isolationists. More generally, long oscillations between periods of geopolitical opening and periods of geopolitical closing are one of the characteristics of imperial regimes. For example, in both Tang China in the ninth century CE and the Ming dynasty in the fifteenth century CE, a sustained period of open borders and multi-sector engagement was followed by an equally prolonged period of closure and xenophobia.

Zahra (2023) describes how the high globalization period of 1870–1914, sustained by the apex of Euro-American colonization, fast-growing cross-border trade, the telegraph, Western middle-class travel, and exceptional levels of migration from Europe into the European settler states, gave way after World War I to virulent protectionism and import substitution in national economic policy, a dramatic drop in migration, and populist antagonism toward foreigners far exceeding that of 2016–2024. The post-World War I shift to deglobalization, which helped to foster conditions for the rise of fascism in Europe, was worldwide, universal rather than the regional Western phenomenon experienced in 2016–2024. Zahra states that 1870–1914 globalization was vulnerable because the main beneficiaries of globalization were economic capital and upper-middle-class people who enjoyed global lifestyles. For many others across the world globalization was disruptive, unequalizing, and immiserating.

However, though the current deglobalization was inevitable in abstract, the timing and amplitude were not. The causes combined economics, geopolitics, and domestic politics.

Economic globalization and geopolitics. After the financial crisis of 2008–2010, there were diminishing returns from the globalized economy for both U.S. capital and labor. The growth of global trade slowed, and the economic weight of multinational firms decreased slightly. Countries increased protective tariffs. Western offshoring of production and the average length of supply chains diminished (*The Economist*, 2019). Many industrial workers in the U.S. opposed open trade (Rodrik, 2017): Jobs lost to automation were attributed to competition from China. This constituency underpinned Trump's wins in 2016 and 2024.

The economic factor in U.S. deglobalization was also geopolitical. U.S. strategists concluded that, given the expansion of the Chinese economy to match the size of the U.S., China had gained more from global openness, while China's economic success partly rested on the inward transfer of American technologies. Moving to a global closure would contain China's rise. Further, China's entry into the WTO and the work of American firms in China had failed to trigger Americanization of the Chinese political system as had been expected. In China, the polity determined the economy, not the reverse as in the U.S., and Chinese civilization stubbornly failed to abandon three thousand years of tradition. The belated realization partly explains the abruptness of the U.S. reversal. The same American affect—the transformation of frustrated expectations about convergence into a sense of being used and a breach of trust, and the Manichean rejection of the party-state that revisited Cold War anti-communism—was evident in both the political-economic decoupling and the techno-scientific decoupling (Blackwill & Fontaine, 2024; Heather & Rapley, 2023; Inkster, 2020).

The pivot to global polarization along familiar Cold War lines, a return to geopolitical strategies of othering and exclusion/closure, relocated global relations from economic goals and trade and

financial flows to the military-security domain. There, the U.S. maximized its advantage, controlled the Western discourse, and could discipline its allies and dependencies. However, the strategy was merely negative: more coercive than hegemonic. In contrast with post-1990 economic globalization, the U.S. controlled global military-security space was unattractive outside the West.

Nativism and anti-migration. The symptoms of global multipolarity subverted Western identity. They unpicked the sense of superiority engendered by five centuries of colonialism, triggering cross-class sensibilities in white Western countries. In one nation after another, the political right secured a political advantage by fanning the flames of nativist populism, in polities already part-deconstructed by growing inequality, the failure of neoliberal capital accumulation to distribute economic prosperity, the 2020–2022 global pandemic, and the inability of governments and multilateral negotiations to alleviate or even address the climate-nature emergency. Yet Western nativism was not just a strategic response to the loss of global power entailed in multipolarity. As in the post-World War I deglobalization, it was also a process of the thing becoming its opposite: a broad reaction against globalization itself and especially the multiplicity associated with it. Global engagement and the cosmopolitan experience are, by their nature, highly uneven across situated populations. The majority of Western populations were excluded from the incessant cultural stimuli of a world coming closer and the economic benefits associated with global capital accumulation. They were only aware of the post-1990 discourse of global free movement. Eventually, this came to fuel "the sentiments of parochialism, nationalism and the exclusion of those who are different" (Massey, 2005, p. 87). When the reaction against globalization became active and widespread, again and again it took the form of the flip from multiple identity to the false certainty of an impossible singular identity. The nativist wanted to "purify" the national scale in Massey's sense. The reaction against the global was not "backward-looking" so much as longing for a spatial coherence that had never existed. "This is a particular form of ordering and organizing space" unable "to acknowledge its multiplicities, its fractures and its dynamism. It is a stabilization of the inherent instabilities and creativities of space" (p. 65).

Yet the nativist stabilization of space was impossible to achieve in practice. Hence, nativism took the form of a perpetual unachieved grievance, a basis for continuing activist frustration and resentment, which could never bode well in nations with mixed populations, and was bound to destabilize cosmopolitan universities and their cross-border ventures. Populists played on fears of downward mobility among those who were struggling. The 2024 national elections in the U.K. and U.S. were contests in working-class communities hollowed out by austerity, automation, and global trade. People feared being displaced by outsiders whom they ranked below themselves. Migration resistance cemented deglobalization (Brogger, 2023). Governments believed that to survive, they must adapt to the mood, not try to change it. Migration regimes toughened in Germany, France, the

Netherlands, Sweden, and Finland, and in his 2024 election campaign, Trump promised bulk deportations from the U.S. However, most governments could do little to reduce permanent migration because low-paid migrants were crucial to the capitalist labor force. When they wanted to achieve demonstrable reductions in migration, they turned to the soft target, which was international students.

More assertive nation-states. The faltering of hegemonic U.S. global control quickened the agency of all nation-states, both Western and non-Western, while the weakening of mainstream ideological support for neoliberal deregulation, the growing internal conflicts, and the emphasis on national security encouraged government interventionism in all areas, not just in economic policy. States increasingly focused on their bounded national interests, and many (not all) became increasingly skeptical about multilateral norms. After 2015, a more strident patriotism was evident in many countries, including the U.S., U.K., Russia, China, and India, a patriotism that more readily slid into methodological nationalism.

The pre-2015 commitment to liberal openness in the Anglosphere and other Western countries positioned universities and researchers as part of the civil order. A global national security space had different implications. In states focused on internal control of anxious populations, it was a short step to intervene more directly to secure knowledge economy benefits and to problematize cross-border practices in universities. In countries where independent cross-border activities had been tolerated, higher education and its personnel were reformed as national agents. Elsewhere, it had always been so.

Fallout in higher education and science

Moscovitz and Sabzalieva (2023) comment that "higher education is undergoing critical transformations as a result of changing geopolitical dynamics. Yet while widespread, these transformations are not uniform" but impact higher education agents in "diverse and context-specific ways" (p. 151). The effects of the political and geopolitical shifts after 2015 were felt primarily in the higher education systems of the West.

There were unprecedented interventions in international student mobility, beginning with Brexit and the first Trump government's selective bans affecting students from West Asia. Both the Netherlands and Denmark problematized the cost of inward EU students, and Denmark reduced international students in English language programs in 2021 (Brogger, 2023). Anti-migration politics started to play havoc with international student numbers across the Anglosphere. In 2023, Canada announced a reduction of 45% in new international student study permits over 2024 and 2025, and the Australian government sharply reduced visas for vocational education. In 2023, the UK blocked most students from bringing dependents, reducing applications by 16%. It was

remarkable that nations in the Anglosphere, which had spent three decades building large commercial international education industries—industries that had become integral to the funding of domestic higher education and research—could partly dismantle them overnight. Neoliberal economic objectives had become decisively subordinated to populist nativism. No such constraints affected student mobility into East and Southeast Asia, including China and Japan, underlining the fact that the migration-related drivers of deglobalization were primarily a Western phenomenon.

Russia and Ukraine. The Russia-Ukraine conflict in February 2022 led to the wholesale destruction of higher education in parts of Ukraine (Ivanenko, forthcoming). The many close links between institutions and scholars in the two nations were broken, and there was a large exodus of faculty and students from each nation. After Russia's university rectors formally endorsed the state action, formal relations between Russian and Western universities ceased, although some faculty-to-faculty cross-border conversation was maintained, and Russian links with the non-Western university world largely continued as before.

The American decoupling. When Trump began the American China Initiative in 2018, U.S./China co-authorship was by far the largest collaborative pool of research in global science (Figure 3). In an investigation of highly cited joint papers, Haupt and Lee (2021) show that in net terms, the U.S. benefited more than China, which provided the bulk of funding. In surveys, researchers in both countries strongly supported continued open cooperation (*The Economist*, 2024b). However, when the U.S. Senate decided to treat China as a "whole of society threat" (Zha, 2024, p. 1544) that included technology and science (Inkster, 2020).

"Scientific discovery, which is fundamentally borderless, is being politically bordered" (Lee & Li, 2021, p. 2). In the late 2010s, the U.S. turn to decoupling was supported by successive research reports and polemics from state agencies and think-tanks that problematized engagement with China. Similar material circulated in the U.K., Canada, and Australia. At first, the main direct allegation was that Chinese researchers and students were "stealing" American intellectual property. Then the emphasis swung to the embeddedness of Chinese institutions and scholars in China's state, perceived in the U.S. as an obstacle to the maintenance of American global primacy. The line between borderless flows of knowledge and hostile nation-to-nation espionage became blurred. Some polemics associated with the U.S.-instigated decoupling implied that no Chinese university, student, or researcher could be trusted. Given the volume of educational traffic between China and the U.S.—in addition to the extensive research cooperation Chinese nationals were the largest group of international students in the U.S. (369,548 in 2018–2019 including 133,396 graduate students, many of whom made key contributions to American science: Institute of International Education [IIE], 2025)—these strictures had a seismic effect in the global higher education space.

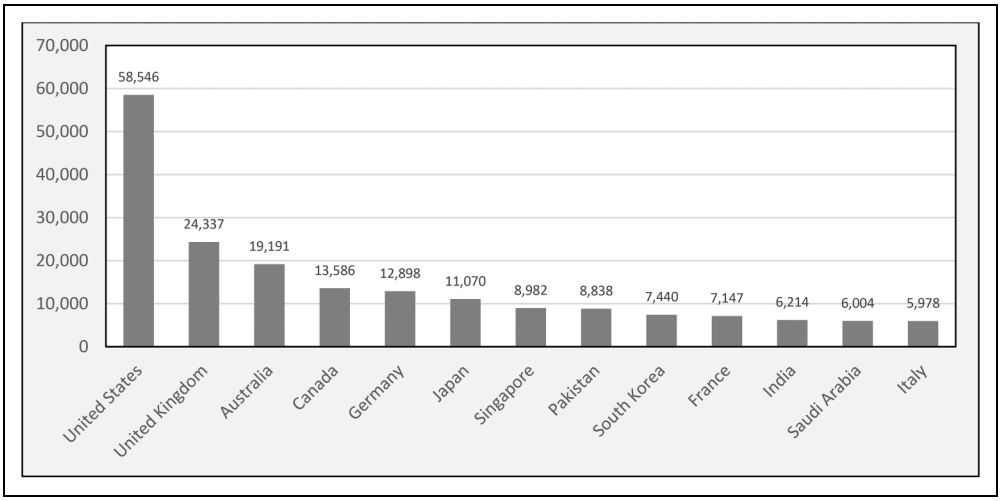

Figure 3. Number of papers in Scopus jointly authored by researchers from China and other regions, leading cross-regional collaborations by volume: 2022.
Source. Author, using data from NSB (2024).

The China Initiative investigated 150 academics in the U.S., almost 90% of Chinese heritage (The Economist, 2025). Further investigations were conducted by the FBI (Lee & Li, 2021, p. 2). The focus was on persons suspected of undeclared affiliations and/or undeclared sources of funding from China. None were found guilty of spying or stealing intellectual property, but the investigations had a "chilling effect" on research collaboration. Following investigations by the National Institute of Health, again focused on undeclared links to China, 103 of the 246 scientists lost their jobs (Zha, 2024, pp. 1544–1545). A survey by Lee and Li (2021) of 1,949 scientists in leading U.S. universities highlighted the scientific importance of China/U.S. collaborations but found that following the China Initiative, 23% of the Chinese heritage scientists surveyed and 10% of the non-Chinese heritage scientists had "decided not to work with collaborators in China on future projects" (p. 10). The China Initiative was cancelled by the Biden government in 2022 because it had led to a "harmful perception" of racial profiling. However, investigations continued and the second Trump government maintained the pressure. In early 2025, a Republican-controlled Congress Committee floated a complete ban on all entry of students from China into U.S. universities.

Visas for Chinese students entering the U.S. dropped from over 280,000 in 2015 to less than 90,000 in 2023 (*The Economist*, 2023). Sharma (2024a) reports instances under Biden of border harassment of Chinese nationals holding valid visas to enter the U.S., and incidents multiplied after the second Trump government took office in 2025. After the China Initiative began in 2018, U.S. university presidents stopped all visits to that country, and most U.S. universities stopped inviting Chinese university presidents for routine visits. In June 2024, when the president

of Peking University was invited to the U.S., the U.S. government denied him a visa. By 2023, U.S. universities had closed more than 100 language teaching Confucius Institutes (Altbach & de Wit, 2023). The U.S. State Department categorized China as a "category three" country, meaning "don't go if you don't have to go" (Sharma, 2024b), and between 2015 and 2023, the number of U.S. students going to China fell from 15,000 to 350. There were 1,219 scheduled direct plane flights between China and the U.S. in February 2019, and 269 in February 2024 (*The Economist,* 2024a). All contact was faltering.

In January 2025, a large-scale, highly fruitful two-decade partnership between the world-leading engineering universities of Michigan and Shanghai Jiao Tong was shut down by the U.S. institution after name-calling in a Republican-dominated Congressional Committee. This followed the 2024 decisions of the University of California, Berkeley, to terminate a ten-year-old research hub with Tsinghua University and Georgia Institute of Technology's withdrawal from a ten-year joint research institute with Tianjin University (Stone, 2025).

In December 2024, the two countries renewed the 1979 U.S.-China Agreement on Cooperation in Science and Technology to share data in domains such as climate change and epidemiology, but on a more limited basis that excluded "critical and emerging technologies" (U.S. Government, 2024). From 2012 to 2022, the proportion of U.S. collaborative papers that were with China fell from 47% to 32% (*The Economist*, 2024a). From 2020 to 2022, joint papers fell from 62,904 to 58,546 (NSB, 2024). The American decoupling was taking effect.

The U.S. government placed sustained political pressure on its Western allies to subject all scientific relations in China to national security policy. Typically, this led to blanket risk-management regimes whereby all Chinese researchers in any field, even education or the humanities, were seen as potentially untrustworthy. This discouraged collaborative projects and reduced university autonomy and academic freedom in the West. The potentials of two kinds of global space-making, networked bottom-up science and university-to-university partnerships, were each diminished. In 2022, the top eight Australian universities conducted one-third as many projects with China as in 2019 (Ross, 2023). In some countries, China Scholarship Council students were banned (Altbach & de Wit, 2023). Some, though not all, Western countries followed the U.S. pattern of closing Confucius Institutes.

Spatial strategies of closure build agency through means other than engagement, fostering capacity behind protective walls, while partitioning space to block other agents from shared systems or from each other. The American decoupling was designed to slow the geopolitical shift in the balance of power and, if possible, contain China's rise. Some in the U.S. assumed that Chinese creativity was sourced in American creativity, and decoupling would cut it off. If so, the U.S. strategy was doomed to fail. In constructing scientific capacity from 1978 onward, China had not seen borrowing and imitation as the horizon of possibility. Rather, it had sought to leverage partnerships in

the West as one means of building endogenous capacity in scientific creativity (Marginson, 2018). The emergence of the cost-effective Deepseek AI technology in China, which swept the world in 2025, was one of many signs that endogenous Chinese science and technology were capable of matching the U.S. in terms of creativity and would not be suppressed by global spatial decoupling. Yet the worldwide collateral damage from the U.S.'s misguided spatial strategy was nevertheless enormous.

"The process of aligning science with national strategic goals threatens to impede global scientific excellence and the capacity to mitigate global challenges" (Chih et al., 2023). The decoupling was inconsistent with the open intellectual exchange integral to higher education (Zha, 2024, p. 1546). The American decoupling and the national securitization of Western research remade the global science space in half a decade, transforming much of it from primarily open grass-roots collaboration to a risk-managed zone with combined university-national regulation. On the Chinese side, greater trust in autonomous global links was maintained. The future of open collaboration in science was increasingly dependent on the non-West.

Conclusions

Since 2015, the post-1990 U.S.-led strategy of building and exploiting a world-inclusive globalization, which was an expansive exercise in imperial space-making, has given way to a more historically familiar kind of national and imperial geopolitics in which bordered national self-interest has taken absolute primacy over open global relations and evaporated the collective interest. Nation-states readily slip into confrontation and spatial closure and bilateral and regional relations are more potent than multilateral ordering. Traces of the 1990–2015 era survive. Aside from outliers such as Russia, few in government anywhere argue against the principles of a single joined-up global knowledge network and cross-border cooperation between universities. Nevertheless, the ground is shifting: Soft power goals are receding, and open doors are no longer the norm. In the West hard power and securitization are more important.

Nation-states are freeing themselves to more forcefully impose a single national-scale identity in universities and science. Higher education is expected to fall into line. In the West, protestations in higher education at the reductions in cross-border communications, passage, research exchange and nation-to-nation trust are brushed aside by governments. Universities and scientists everywhere still work the global space (and it still has government champions, especially outside the West), but they are increasingly challenged by methodological nationalism, zero-sum thinking, and the practical restrictions imposed by the new geopolitics. In this setting, the collective potentials of horizontal multiplicity as cultural and epistemic difference, with its exciting possibilities—enriched mutual understanding, forward movement on global problems—tend to be pushed aside or suppressed by contending

claims for advantage; that is, by multiplicity in the form of contending self-interests and hierarchical power. Nations struggle to empty out risk and secure stability and control in a landscape that never stays still.

There are limits to the extent that scientific knowledge can be bottled up, but in state circles, in the U.S. above all and to some extent in Europe, normative support for open science has declined, though China continues to expand its scientific relations, especially with non-Western countries. The continuing U.S. strategy of decoupling has triggered longer-term potentials for the evolution of two partly separated global systems of science and technology, with restricted movement between them, and a group of countries working with both sides. This may trigger potentials for the evolution of at least one science bloc as a more inclusive system that admits non-English work, including endogenous knowledge (Marginson & Xu, 2023).

Relations of power in global higher education continue to be shaped by all five of the historical layers discussed in this paper. In the non-Western world, the powerful global momentum away from coloniality continues, building national agency amid multipolarity. Many non-Western countries adhere to the 1945 principles of sovereign internationalism, systemic diversity, national self-determination, and non-interference; the U.S. maintains its own rules-based order, with its Western allies following suit. The neo-colonial era in higher education that was kick-started in 1990 continues in many respects, particularly in the Anglo-American-led university hierarchy and the commercial market in international education. Yet the growing multipolarity in university capacity and science is likely to destabilize that inherited order.

In some Euro-American circles, the growing global multipolarity is associated with partial or complete disillusionment with global engagement, though this is not shared in higher education. Anti-globalization and bounded nationalism are especially evident in the nativist opposition to migration that has disrupted student flows. Western nativism can be partly explained by Western anxieties about the rise of the non-white non-West, inverting half a millennium of colonial and neocolonial relations. Yet, there is also a tendency reaching well beyond the West, toward national self-sufficiency in political economy and autarky in politics, along with a refusal of the challenge and complexity entailed in multiple encounters with difference. This again has followed from the faltering of the post-1990 American-led convergence in which a constrained diversity was positioned within thehegemonic container. No new kind of global convergence has yet evolved to replace it.

"The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum, a great variety of morbid symptoms appear" (Gramsci, 1971, pp. 275–276). The erosion of post-1990 convergence and the surge of bounded nationalism postpone the potential for the global common good, as evident in the deterioration of multilateral negotiations on the climate-nature emergency, despite the obvious symptoms of the crisis. At the same time the neocolonial element in post-1990 higher education is still partly intact, as evident in nation-centered

approaches to the global public good in U.K. higher education (Marginson et al., 2025), exclusions of non-Western knowledge from science (Beigel, 2014; de Sousa Santos, 2007; Marginson & Xu, 2023), and attempts to universalize "internationalization" in cross-border education on Western terms (Knight, 2004; Marginson, 2023; Stein, 2021).

There is evident tension between the multipolar diversification and evolution of trajectories in higher education and science, and what is possible, what is permitted, where those trajectories meet in the global space. Meanwhile, there is no global protocol and global agency to protect mobile persons in higher education, or to maintain unfettered research cooperation, or to uphold operational autonomy and academic freedom in the face of interventionist states. The burning issues are how to achieve the global common good in and through higher education, how to configure multiplicity in higher education and knowledge on the basis of harmony in diversity, and the need for new global structures in the sector to accomplish these aims as shared purposes.

Author's note

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References

Altbach, P., & De Wit, H. (2023). Politics aside, China must be integrated into world science. *University World News*. https://www.universityworldnews.com/post.php?story=20230907091635697

Anderson, B. (2016). *Imagined communities: Reflections on the origins and spread of nationalism* (Revised edition). Verso.

Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press.

Archer, M. (2003). *Structure, agency and the internal conversation*. Cambridge University Press.

ARWU [Academic Ranking of World Universities]. (2025). *2024 Academic ranking of world universities*. https://www.shanghairanking.com/rankings/arwu/2024

Australian Government. (2024). *Higher educations statistics*. https://www.education.gov.au/higher-education-statistics

Beck, U. (2007). The cosmopolitan condition: Why methodological nationalism fails. *Theory, Culture and Society*, *24*(7–8), 286–290. https://doi.org/10.1177/0263276407024007250 5

Beigel, F. (2014). Introduction: Current tensions and trends in the world scientific system. *Current Sociology*, *62*(5), 617–625. https://doi.org/10.1177/0011392114548

Blackwill, R., & Fontaine, R. (2024). *Lost decade: The US pivot to Asia and the rise of Chinese power*. Oxford University Press.

Bourguignon, F. (2015). *The globalisation of inequality.* T. Scott-Railton (Trans.). Princeton University Press.

Brogger, K. (2023). Post-cold war governance arrangements in Europe: The university between European integration and rising nationalisms. *Globalisation, Societies and Education*, *21*(2), 278–292. https://doi.org/10.1080/14767724.2022.2075832

Cantwell, B., & Grimm, A. (2018). The geopolitics of academic science. In B. Cantwell, H. Coates, & R. King (Eds.), *Handbook on the politics of higher education* (pp. 130–148). Edward Elgar.

Cantwell, B., Marginson, S., & Smolentseva, A. (2018). *High participation systems of higher education*. Oxford University Press.

Castells, M. (2000). *The rise of the network society: Volume I of the information age: Economy, society and culture* (2nd Ed.). Blackwell.

Chakrabarty, D. (2021). *The climate of history in a planetary age*. University of Chicago Press.

Chih, T., Cooney-O'Donoghue, D., Orden, H., Hu, M.-C., Chubb, A., & Forsberg, W. (2023, June 10). The dangers of a zero-sum approach to global science. *University World News*. https://www.universityworldnews.com/post.php?story=20230607092656114

Chinchilla-Rodríguez, Z., Miguel, S., Perianes-Rodríguez, A., & Sugimoto, C. (2018). Dependencies and autonomy in research performance: Examining nanoscience and nanotechnology in emerging countries. *Scientometrics*, *115*(3), 1485–1504. https://doi.org/10.1007/s11192-018-2652-7

Choi, S. (2012). Core-periphery, new clusters, or rising stars? International scientific collaboration among 'advanced' countries in the era of globalization. *Scientometrics*, *90*(1), 25–41. https://doi.org/10.1007/s11192-011-0509-4

Clark, B. (1986). *The higher education system: Academic organization in cross-national perspective*. University of California Press.

Dale, R. (2005). Globalisation, knowledge economy and comparative education. *Comparative Education*, *41*(2), 117–149. http://www.jstor.org/stable/30044528

de Haas, H. (2023, December 29). Everything politicians tell you about immigration is wrong. This is how it actually works. *The Guardian*. https://www.theguardian.com/commentisfree/2023/dec/29/politicians-immigration-wrong-cheap-labour

de Sousa Santos, B. (2007). Beyond abyssal thinking: From global lines to ecologies of knowledges. *Review (Fernand Braudel Center)*, *30*(1), 45–89. https://www.jstor.org/stable/40241677

The Economist. (2019, January 24). *Globalisation has faltered*.

The Economist. (2023, October 11). *American and Chinese scientists are decoupling, too*.

The Economist. (2024a, February 12). *The half-open door*.

The Economist. (2024b, June 15). *Soaring dragons*.

The Economist. (2025, January 4). *Amateur agents*.

Foucault, M. (2005). *The hermeneutics of the subject: Lectures at the College de France 1981–82.* G. Burchell (Trans.). Picador.

Fukuyama, F. (1992). *The end of history and the last man*. Penguin.

Gramsci, A. (1971). *Selections from the prison notebooks.* Q. Hoare (Trans.). G. Nowell-Smith (Ed.). Lawrence and Wishart.

Gramsci, A. (1977). *Selections from political writings, 1910–1920.* Q. Hoare & G. Nowell-Smith (Trans. & Eds.). Lawrence and Wishart.

Gramsci, A. (1995). *Further selections from the prison notebooks.* D. Boothman (Trans. & Ed.). Lawrence and Wishart.

Gupta, A., & Ferguson, J. (1992). Beyond 'culture': Space, identity and the politics of difference. *Cultural Anthropology*, *7*, 6–23. https://doi.org/10.1525/can.1992.7.1.02a00020

Hall, S. (1996). When was the 'post-colonial'? Thinking at the limit. In I. Chambers & L. Curti (Eds.), *The post-colonial question* (pp. 242–260). Routledge.

Hardt, M., & Negri, A. (2001). *Empire*. Harvard University Press.

Hartmann, E. (2021). The shadow sovereigns of global education policy: A critique of the world society approach. *Journal of Education Policy*, *36*(3), 367–392. https://doi.org/10.1080/02680939.2019.1671989

Haupt, J., & Lee, J. (2021). Geopolitical tensions and global science: Understanding U.S.-China scientific research collaboration through scientific nationalism and scientific globalism. In J. Lee (Ed.), *U.S. power in international higher education* (pp. 77–93). Rutgers University Press. https://doi.org/10.36019/9781978820814-005

Hazelkorn, E. (2015). *Rankings and the reshaping of higher education: The battle for world-class excellence* (2nd ed.). Palgrave Macmillan.

Heather, P., & Rapley, J. (2023). *Why empires fall: Rome, America and the future of the West*. Penguin.

Highman, L., Marginson, S., & Papatsiba, V. (2023). Higher education and research: Multiple negative effects and no new opportunities after Brexit. *Contemporary Social Science*. https://doi.org/10.1080/21582041.2023.2192044

IIE [Institute of International Education]. (2025). Open doors: Data on international student flows in and out of the U.S. https://opendoorsdata.org/data/international-students/academic-level-and-places-of-origin/

Inkster, N. (2020). *The great decoupling: China, America and the struggle for technological supremacy*. Hurst & Company.

Ivanenko, N. (forthcoming). Forced mobility/immobility of students and scholars from higher education in Ukraine. In A. Courtois, S. Marginson, C. Montgomery, & R. Sidhu (Eds.), *The future of cross-border academic (im)mobilities: Power, knowledge and agency*. Bloomsbury.

James, P., & Steger, M. (2016). Globalization and global consciousness: Levels of connectivity. In R. Robertson & D. B. Gulmez (Eds.), *Global culture: Consciousness and connectivity* (pp. 21–39). Ashgate.

Kerr, C. (1963). *The uses of the university*. Harvard University Press.

Knight, J. (2004). Internationalization remodelled: Definition, approaches, and rationales. *Journal of Studies in International Education*, *8*(1), 5–31. https://doi.org/10.1177/1028315303260832

Lee, J., & Li, X. (2021). Racial profiling among scientists of Chinese descent and consequences for the U.S. scientific community. https://www.committee100.org/wp-content/uploads/2021/10/C100-Lee-Li-White-Paper-FINAL-FINAL-10.28.pdf

Lefebvre, H. (1991). *The production of space.* D. Nicholson-Smith (Trans.). Blackwell.

Leiden University. (2025). *CWTS Leiden ranking 2024*. https://www.leidenranking.com/ranking/2023/list

Lo, W., & Ng, F. (2013). A critical reflection on internationalization of higher education in Hong Kong: The search for a cosmopolitan alternative. *Asia Pacific Journal of Educational Development*, *2*(1), 37–46. https://doi.org/10.6228/APJED.2013.0201.04

Macaes, B. (2018). *The Dawn of Eurasia: On the trail of the new world order*. Penguin.

Marginson, S. (2011). Imagining the global. In R. King, S. Marginson, & R. Naidoo (Eds.), *Handbook of higher education and globalization* (pp. 10–39). Edward Elgar.

Marginson, S. (2014). University rankings and social science. *European Journal of Education*, *49*(1), 45–59. https://doi.org/10.1111/ejed.12061

Marginson, S. (2018). National/global synergy in the development of higher education and science in China since 1978. *Frontiers of Education in China*, *13*(4), 486–512. https://doi.org/10.1007/s11516-018-0027-8

Marginson, S. (2022a). 'All things are in flux': China in global science. *Higher Education*, *83*(4), 881–910. https://doi.org/10.1007/s10734-021-00712-9

Marginson, S. (2022b). Global science and national comparisons: Beyond bibliometrics and scientometrics. *Comparative Education*, *58*(2), 125–146. https://doi.org/10.1080/03050068.2021.1981725

Marginson, S. (2022c). Globalization in higher education: The good, the bad and the ugly. In F. Rizvi, B. Lingard, & R. Rinne (Eds.), *Reimagining globalization and education* (pp. 11–30). Routledge.

Marginson, S. (2022d). Space and scale in higher education: The glonacal agency heuristic revisited. *Higher Education*, *84*(6), 1365–1395. https://doi.org/10.1007/s10734-022-00955-0

Marginson, S. (2022e). What drives global science? *The Four Competing Narratives. Studies in Higher Education*, *47*(8), 1566–1584. https://doi.org/10.1080/03075079.2021.1942822

Marginson, S. (2022f). What is global higher education? *Oxford Review of Education*, *48*(4), 492–517. https://doi.org/10.1080/03054985.2022.2061438

Marginson, S. (2023). Limitations of the leading definition of 'internationalisation' of higher education: Is the idea wrong or is the fault in reality? *Globalisation, Societies and Education*. https://doi.org/10.1080/14767724.2023.2264223

Marginson, S. (2024a). Student self-formation: An emerging paradigm in higher education. *Studies in Higher Education*, *49*(4), 748–762. https://doi.org/10.1080/03075079.2023.2252826

Marginson, S. (2024b). The double-coded self in higher education: Student self-formation and social sustainability. *British Journal of Educational Studies*. https://doi.org/10.1080/00071005.2024.2422444

Marginson, S. (forthcoming). The changing dynamics of space and scale: The university between nationalism and globalism. In K. Brogger, H. Moscovitz, & S. Robertson (Eds.), *World yearbook of education*. Edward Elgar.

Marginson, S., & Xu, X. (2023). Hegemony and inequality in global science: Problems of the center-periphery model. *Comparative Education Review*, *67*(1), 31–52. https://doi.org/10.1086/722760

Marginson, S., Yang, L., & Brotherhood, T. (2025). Making the world a better place? English higher education and global public good. *Higher Education*, *89*(1), 99–127. https://doi.org/10.1007/s10734-024-01367-y

Marston, S., Jones, J., & Woodward, K. (2005). Human geography without scale. *Transactions of the Institute of British Geographers*, *30*(4), 416–432. https://doi.org/10.1111/j.1475-5661.2005.00180.x

Marston, S., & Smith, N. (2001). States, scales and households: Limits to scale thinking? A response to Brenner. *Progress in Human Geography*, *25*(4), 615–619. https://doi.org/10.1191/030913201682688968

Massey, D. (2003). Some times of space. In S. May (Ed.), *Olafur Eliasson: The weather project* (pp. 107–118). Tate Publishing.

Massey, D. (2005). *For space*. Sage.

Moscovitz, H., & Sabzalieva, E. (2023). Conceptualising the new geopolitics of higher education. *Globalisation, Societies and Education*, *21*(2), 149–165. https://doi.org/10.1080/14767724.2023.2166465

NSB [National Science Board]. (2022). *Science and engineering indicators*: *Publications output: U.S. trends and international comparisons*. https://ncses.nsf.gov/pubs/nsb202333

NSB [National Science Board]. (2024). *Science and engineering Indicators*: *Publications output: U.S. trends and international comparisons*. https://ncses.nsf.gov/pubs/nsb202333/downloads

Olechnicka, A., Ploszaj, P., & Celinska-Janowicz, D. (2019). *The geography of scientific collaboration*. Routledge.

Olssen, M., & Peters, M. (2005). Neoliberalism, higher education and the knowledge economy: From the free market to knowledge capitalism. *Journal of Education Policy*, *20*(3), 313–345. https://doi.org/10.1080/02680930500108718

Papatsiba, V., & Marginson, S. (2025). *Brexit, EU students and UK higher education: Broken bridges*. Bloomsbury.

Pieterse, J. N. (2020). Global culture 1990, 2020. *Theory, Culture and Society*, *33*(7–8), 233–240. https://doi.org/10.1177/0263276420958447

QS [Quacquarelli Symonds]. (2025). *QS world university rankings 2024*. https://www.topuniversities.com/world-university-rankings/2024

Rizvi, F. (2005). Identity, culture and cosmopolitan futures. *Higher Education Policy*, *18*, 331–339. https://doi.org/10.1057/palgrave.hep.8300095

Rizvi, F. (2011). Experiences of cultural diversity in the context of an emergent transnationalism. *European Educational Research Journal*, *10*(2), 180–188. https://doi.org/10.2304/eerj.2011.10.2.180

Rizvi, F., & Lingard, B. (2009). *Globalizing education policy*. Routledge.

Rizvi, F., Lingard, B., & Rinne, R. (2022). *Reimagining globalization and education*. Routledge.

Roberston, S., Olds, K., Dale, R., & Dang, Q. (2016). *Global regionalism and higher education: Projects, processes and politics*. Edward Elgar.

Robertson, S. (2018). Global higher education and variegated regionalisms. In B. Cantwell, H. Coates, & R. King (Eds.), *Handbook on the politics of higher education* (pp. 114–129). Edward Elgar.

Robertson, S., & Dale, R. (2015). Towards a 'critical cultural political economy' account of the globalising of education. *Globalisation, Societies and Education*, *13*(1), 149–170. https://doi.org/10.1080/14767724.2014.967502

Rodrik, D. (2017). Populism and the economics of globalization. *National Bureau of Economic Research Working Paper* 23559. https://www.nber.org/papers/w23559

Ross, J. (2023, July 17). *Australian research collaboration with China in free-fall*. Times Higher Education. https://www.timeshighereducation.com/news/australian-research-collaboration-china-freefall

Sa, C., & Sabzalieva, E. (2018). Scientific nationalism in a globalising world. In B. Cantwell, H. Coates, & R. King (Eds.), *Handbook on the politics of higher education* (pp. 149–166). Edward Elgar.

Sakwa, R. (2023). *The lost peace: How the West failed to prevent a second Cold War*. Yale University Press.

Sayer, A. (2000). *Realism and social science*. Sage.

Schott, T. (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*, 112–144. https://doi.org/10.5195/jwsr.1998.148

Shahjahan, R., & Edwards, K. (2022). Whiteness as futurity and globalization of higher education. *Higher Education*, *83*, 747–764. https://doi.org/10.1007/s10734-021-00702-x

Shahjahan, R., & Kezar, A. (2013). Beyond the 'national container': Addressing methodological nationalism in higher education research. *Educational Researcher*, *42*(1), 20–29. https://doi.org/10.3102/0013189X12463050

Sharma, Y. (2024a, June 28). Geopolitical tensions dim prospects for US-China exchanges. *University World News*. https://www.universityworldnews.com/post.php?story=20240628194908l2

Sharma, Y. (2024b, March 12). Overseas students, exchanges, deterred by spy laws – Academic. *University World News*. https://www.universityworldnews.com/post.php?story=20240312152928l1

Sijander, P., Kivelä, A., & Sutinen, A. (2012). *Theories of Bildung and growth: Connections and controversies between continental educational thinking and American pragmatism*. Sense.

Smith, T. (1979). The underdevelopment of development literature: The case of dependency theory. *World Politics*, *31*(2), 247–288. https://doi.org/10.2307/2009944

Stein, S. (2017). The persistent challenges of addressing epistemic dominance in higher education: Considering the case of curriculum internationalization. *Comparative Education Review*, *61*(S1), S25–S50. https://doi.org/10.1086/690456

Stein, S. (2021). Critical internationalisation studies at an impasse: Making space for complexity, uncertainty, and complicity in a time of global challenges. *Studies in Higher Education*, *46*(9), 1771–1784. https://doi.org/10.1080/03075079.2019.1704722

Stone, R. (2025). In sign of rising tensions, University of Michigan ends partnership with Chinese campus. *Science*, *387*, 6731. https://doi.org/10.1126/science.adv9837

Teferra, D. (2019, August 23). Defining internationalisation – Intention versus coercion. *University World News*. https://www.universityworldnews.com/post.php?story=20190821145329703

THE [Times Higher Education]. (2025). *World university rankings 2024*. https://www.timeshighereducation.com/world-university-rankings/2024/world-ranking

U.S. Government. (2024). *Amendment and extension of the U.S.-PRC science and technology agreement (STA)*. https://www.state.gov/amendment-and-extension-of-the-u-s-prc-science-and-technology-agreement-sta/#:~:text=On%20December%2013%2C%202024%2C%20the,%2Dto%2Dgovernment%20scientific%20cooperation

Wallerstein, I. (1974). The rise and future demise of the world capitalist system: Concepts for comparative analysis. *Comparative Studies in Society and History*, *16*(4), 387–415. https://doi.org/10.1017/S0010417500007520

Wallerstein, I. (1976). Semi-peripheral countries and the contemporary world crisis. *Theory and Society*, *3*, 461–483. https://doi.org/10.1007/BF00161293

Wallerstein, I. (2006). *European universalism: The rhetoric of power*. The New Press.

Wimmer, A., & Schiller, N. (2003). Methodological nationalism and beyond: State building, migration and the social sciences. *Global Networks*, *2*(4), 301–334. https://doi.org/10.1111/1471-0374.00043

World Bank. (2025). *Indicators*. https://data.worldbank.org/indicator

Yang, L., Marginson, S., & Xu, X. (2024). 'Thinking through the world': A *tianxia* heuristic for higher education. *Globalisation, Societies and Education*, *22*(2), 139–155. https://doi.org/10.1080/14767724.2022.2098696

Yudkevich, M., Altbach, P., & Salmi, J. (2023). *Academic star wars: Excellence initiatives in global perspective*. MIT Press.

Zahra, T. (2023). *Against the world: Anti-globalism and mass politics between the world wars*. W.W. Norton.

Zha, Q. (2024). Reimagining China–US university relations: A global 'ecosystem' perspective. *Studies in Higher Education*, *49*(9), 1532–1552. https://doi.org/10.1080/03075079.2023.2269966

Zhao, T. (2021). *All under Heaven: The Tianxia system for a possible world order.* J. Harroff (Trans.). University of California Press.

Zubok, V. (2021). *Collapse: The fall of the Soviet Union*. Yale University Press.