



# Dynamics of International Research Collaboration in Higher Education in the Global Majority Systems: Evidence from Three Contexts

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**Abstract** A purpose of global research is to address challenges faced by all humanity. To achieve this, it is crucial to foster global collaborations that promote learning from each other on equal terms. Previous studies have predominantly focused on the Global North, with inadequate attention paid to other parts of the world. In this regard, investigating international research collaborations (IRC), especially with a focus on less researched parts of the world, is essential. Against this backdrop, this study investigates the dynamics of IRC as perceived and practiced in the selected research systems of *global majority*, a collective term used in the literature to refer to the societies described as non-white and outside of Global North. Specifically, the study adopted a qualitative multiple case study approach in the Chinese, Ghanaian and Turkish research systems (in alphabetical order). Despite the significant variations among the selected systems, our findings reveal three common challenges

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that contribute to unequal dynamics in IRC. This article discusses these three common themes, while also emphasizing the nuanced differences among the systems. Through an analytical lens of promoting a more equal global system versus perpetuating inequalities, we shed light on the need for change in IRC practices.

**Keywords** International research collaboration · Higher education · Knowledge production · Global majority · Global research system

## Introduction

The growth of international research collaboration (IRC) has been a prominent feature of global research and higher education over the past few decades. This expansion has created both opportunities and challenges for researchers in both the Global North—primarily referring to universities in Europe and North America—and the Global Majority.<sup>1</sup> However, despite the considerable increase in IRC over the past thirty years, growth has stalled since 2021, according to Clarivate InCites data (2025). This trend is even more pronounced when considering the Emerging Sources Citation Index, which includes a larger number of publications from outside the Global North. This shift in the global IRC pattern underscores the importance and timeliness of examining the nuanced dynamics of IRC as perceived and practised in various Global Majority systems.

Since the establishment of the first modern university that made research a fundamental function of universities, researchers, institutions, and systems in the Global North have occupied dominant places in the global higher education and research system. Their dominance is sustained by the power in research agenda-setting, proficiency in the research lingua franca English (especially those on Anglophone countries), potency to gatekeep publishing of research, abundant resources and infrastructures, strong training systems, and attractiveness to worldwide top-notch researchers (Alatas 2022). While the Global North reproduces their advantages, Global Majority researchers, institutions and systems become ‘followers’ and are put in disadvantaged positions in the global research system (Connell 2011). As a result, although Global Majority constitute the majority of the worldwide population, their voices and practices are less heard in global research or are only heard through the lenses and concepts developed by the Global North (Marginson and Xu 2023).

In this era marked by growing global connectivity, IRC seems to have become a game-changing strategy for Global Majority in enhancing their research capacity and combatting global research hierarchies, though it is simultaneously used by the Global North to sustain their dominant positions. On the one hand, studies

<sup>1</sup> This article uses Campbell-Stephens’s (2020; 2021) definition of Global Majority, which is ‘a collective term that speaks to and encourages non-White persons as belonging to the majority on the globe, referring to people who are racialized as Black, African, Asian, Brown, dual-heritage, indigenous to the Global South and/or racialized as “ethnic minorities”’ (2000, p. 1). <https://www.leedsbeckett.ac.uk/-/media/files/schools/school-of-education/final-leeds-beckett-1102-global-majority.pdf>

demonstrate that IRC helps Global Majority researchers, institutions, and systems to acquire advanced scientific knowledge and technology (Chinchilla-Rodríguez et al. 2019; Oldac et al. 2023). It also has positive impacts on their global research productivity, visibility and impact (Jang and Ko 2019; Oldac and Yang 2023). These all empower Global Majority systems to a certain extent. Indeed, our previous analyses have shown that IRC is widely used by Global Majority as an important strategy to develop their research systems (Oldac and Yang 2023; Oldac et al. 2023; Yang et al. 2023). Marginson (2018, 2022a) also finds that China's growth in research is largely a result of its efforts in expanding IRC and a carefully crafted global/national synergy. It is thus fair to argue that IRC is contributing to a plural and dynamic global research system.

However, on the other hand, the Global North and Global Majority do not have equal footings in pursuing IRC, which may turn into a mechanism of reproducing disadvantages in the global research system. With more human and financial resources and international reputation, Global North researchers and institutions are generally regarded as preferred collaborators in IRC. This is widely evidenced in the preferential attachment phenomena in IRC (Kwiek 2018a, 2021). As the title of Oldac et al. (2023) states, 'West is must, the rest is optional' in IRC for many Global Majority research actors. Consequences of these phenomena could be well captured by the Matthew effect (Merton 1968) that the Global North continues to accumulate advantages, whereas the Global Majority are left behind. Also, in North-Majority collaborations, the collaborative partnership could be positioned in unequal footings as well. Gallwey and Wilgus (2014) reveal that Global North researchers often have a larger say in determining the topic, conceptual lens, and approach of the collaboration because funding mostly comes from them. There is also the critique that Global Majority can turn into databanks for theoretical innovation and breakthrough by the Global North (Hountondji 1997; Connell 2011).

The above two narratives seem to present two different and even contradictory stories about the dynamics of IRC, reflecting the complexities and the need to disentangle them. Here the dynamics of IRC refers to underlying forces that shape the way IRC operates, and our paper specifically focuses on those occurring outside the North-North collaborations. Notably, when we divide the world into the Global North and Global Majority, there is the potential danger to downplay the heterogeneity within each of the two groups. This is especially the case when the existing studies on IRC pay much more attention to the Global North countries and large Global Majority systems such as China (see e.g., Choi 2012; Finkelstein et al. 2013; Kwiek 2021; Yang et al. 2023) than the rest of the Global Majority. While heterogeneous Global Majority systems can share certain similar experiences and perceptions regarding the IRC dynamics, differences among them should not be overlooked. This calls for multi-case studies to unpack the insights, perceptions, and experiences of researchers, institutions, and governments of different Global Majority systems, which can offer a more nuanced view of the dynamics of IRC.

Against this backdrop, this study employs a qualitative multi-case research design to address a major research question: *What are the dynamics of IRC, as perceived and practiced by three different Global Majority systems?* The three cases are the Chinese, Ghanaian, and Turkish research systems. They are selected to reflect both

shared and nuanced views and experiences of the heterogeneous Global Majority regarding IRC. More details about the three cases are provided in the next section. That said, it should be underlined that this study is *not* designed to compare the three cases. Rather, the central focus is the shared patterns and nuances regarding IRC dynamics in these three Global Majority systems. Drawing on our analytical lenses of the perpetuation of inequality and change from inequality, this study collects interview data from individual researchers, institutional research managers, and national research policymakers in each of the three cases.

### *Context: the Three Case Research Systems from the Global Majority*

The three case research systems—Chinese, Ghanaian, and Turkish systems—are well positioned in meeting the objective of this study, which is to reveal the shared dynamics of IRC from the perspectives of the Global Majority. The three cases reflect different kinds of research systems. It is such diversity that enables this study to reveal both shared patterns and nuances regarding the IRC dynamics. The diversity is manifested in (i) the size and global visibility of research systems, with China being an emergent research powerhouse that recently became the largest producer of English scientific research outputs globally, Turkey being a rising scientific research actor positioned between the East and the West, and Ghana being one of the fastest growing research systems in Anglophone West Africa; (ii) language for university instructions, with China and Turkey using their own languages (i.e., Chinese and Turkish) and Ghana using English as the main instructional language in higher education; (iii) geographical locations, with China located in East Asia, Turkey in West Asia/East Europe, and Ghana in West Africa; and (iv) the overall sizes of economy and Research & Development investment. See more in Table 1.

## **Perpetuation Versus Change: Agency in Global Research Dynamics as the Analytical Lens**

Two co-existing yet contrasting phenomena—perpetuation of inequality versus change from inequality—have attracted wide attention in various social science fields (e.g., Jacques and Wright 2010; Triventi 2013; Hastie 2021; Verniers et al. 2022). Among these studies, a major debate centres around the relationship between the existing patterns and structure, which tend to reproduce themselves, and the agency of human beings that may bring change.

On the one hand, the reproduction of social patterns and structure has been widely observed in various societies, leading to the perpetuation of inequality. In global research, certain systems, institutions, and researchers hold, and hope to maintain, the elite status. A representative narrative is the world system theory that sees the global research system as a centre-periphery continuum (Wallerstein 2004). In this continuum, central systems, primarily the Global North systems, hold more resources and discourse power and strive to maintain their central positions. Semi-peripheral and peripheral systems, primarily the Global Majority systems, largely

**Table 1** Key indicators for the three research systems. *Source* Authors' synthesis using data from World Bank (2022), OECD (2022), Web of Science (2024), and UNE-SCO Institute of Statistics (2022).

Research systems	China	Ghana	Turkey	World
Population in thousands (2022)	1,412,175.00	33,475.87	84,979.91	148,464,637.73
GDP* per capita, PPP in current international \$ (2022)	\$21,482.6	\$6,473.1	\$37,445.2	\$18,820.9
GDP, PPP in current international \$ (2022)	\$30,337,137.25	\$216,692.31	\$3,182,086.44	\$164,532,712.76
GERD** as percentage of GDP (2021)	2.43%	N/A	1.40%	1.93%
Research outputs indexed in Web of Science in the year of 2023	706,340	4873	57,077	2,690,062
Times cited in Web of Science in the year of 2023	644,703	3175	37,846	No data
Main instructional language in higher education	Chinese	English	Turkish	English as lingua franca

\*GDP refers to Gross Domestic Product

\*\*GERD refers to Gross Domestic Expenditure of Research & Development.

rely on central systems in knowledge production, dissemination, and people training, making them confined to their disadvantaged positions. The current global research structure, including the global publishing system, the domination of the lingua franca English, and global university rankings, *de facto* contribute to the reproduction of the existing centre-periphery continuum (Marginson and Xu 2023). As a result, inequality in the global research system perpetuates.

On the other hand, change remains possible in the sense of breaking the reproduction process. Education is an important mechanism to promote equality, though it is sometimes criticised for contributing to social reproduction (Collins 2009). In particular, humans have agency, and education can empower them to exercise and enhance their agency (Yang et al. 2023). By exercising agency, humans make use of available opportunities and resources, and respond to constraints in their personal projects (Archer 1995). In other words, change is rooted in human agency (Seiler 2002). These ideas also apply in global research and IRC, the literature of which has well documented the power of human actors (see e.g., Kwiek 2021). For example, in an earlier work, we identified two types of agency used by researchers in the Global Majority to seek IRC: agency as reflexive response to structural factors and agency as reflexivity in seeking international collaborators and collaboration (Yang et al. 2023). In addition to researchers, various research actors in the Global Majority including institutions and governments all have and actively exercise their agency in seeking to challenge the existing inequalities and hierarchy of the global research system (Oldac and Yang 2023). Agency becomes the engine of the fluid dynamics in IRC, leading to the pluralisation of the global research system.

This study draws on the aforementioned two co-existing and contrasting lenses—perpetuation versus change—as the analytical lenses. In particular, in exploring the dynamics of IRC from the perspectives of the Global Majority, it pays special attention to how the research inequalities are perpetuated or changed for a more equal global research system in and through IRC.

## Overview of the Literature

### *Importance of IRC*

IRC yield numerous substantial outcomes (Beaver 2013). It is also important for the multiple scales of global research systems (scales such as national, institutional, and individual levels as proposed by Oldac and Yang (2023)). At the national scale, Bornmann et al. (2015) state that IRC helps a nation strengthen its research capacities and improve research quality. National policies can direct national research capacities to gain from overseas research and development (Marginson 2018). IRC is a significant driver of scientific advancement (Wang et al. 2014), economic growth and industrial innovation (Sharma and Thomas 2008). Additionally, IRC can serve as a vehicle to achieve alternative national and regional policy goals (Karaulova and Gok 2019). For example, the IRC in the European Research Area has been regarded as an indication of heightened integration in conjunction with mobility, and its purpose is to equate the research capabilities of Eastern and Western European countries (EC

2012). Therefore, IRC is justified by the manifold advantages of collaborative work (Rigby 2009).

IRC also impacts the institutional scale in the global research production. IRC is becoming increasingly entwined with departmental and institutional status and funds as performance-based financing models are on the rise (Kwiek 2017). In very competitive scientific contexts, incentive systems may play a crucial role in promoting and shaping IRC (Kwiek 2018a, b).

IRC is important for the individual scale as well. IRC helps researchers find experts, resources, equipment, and financing. It also helps them learn new ways, enhance efficiency, and obtain visibility and insights into existing procedures (Freshwater et al. 2006; Momtazmanesh et al. 2021; Alamah et al. 2023). Academics agree that IRC benefits students and faculty. These advantages include information sharing, global issues, cultural exchanges, and soft skill development (Fraszczyk 2019).

Levitt and Thewall (2010) and Adams (2013) found that globally co-authored papers have a more substantial research effect. Narin and Whitlow (1990) also found that globally co-authored publications are cited more than single-author studies. Momtazmanesh et al. (2021) and Alamah et al. (2023) showed that IRC may increase scientific output and quality. Kwiek (2020) shows that IRCs are a potent factor in stratifying academics by coauthorships and scientific productivity, distinguishing local and international researchers.

The usefulness of IRCs is continuously being examined, particularly in scientometrics literature, as shown by the studies above. Nevertheless, IRC has a greater level of complexity than what is shown in scientometric research (Marginson and Xu 2023). Hegemonic influences and global inequalities influence the dynamics in IRC, necessitating more investigation (Oldac et al. 2023).

### *Hegemonic Inequalities*

Increasingly more systems globally publish internationally-visible research as part of the diversification trend in global science (Marginson 2022b). However, most scientific publications are still published in a few Global North/Western countries (Bol et al. 2023). Thus, scholarly publications have questioned Eurocentrism and hegemony in academic, theoretical, and research fields (Connell 2011; Go 2016, Santos 2018). "A global economy of knowledge centred on the elite institutions of the metropole is a massive fact [and] it shapes both established disciplines and new domains" (Connell et al. 2018: 54).

Power asymmetries and unequal labour divisions in Global North–Global Majority research partnerships may harm Global Majority academics' studies (Boshoff 2009; Parker and Kingori 2016). Most researchers in the Global Majority systems worldwide have disliked being called 'glorified fieldworkers' (Hountondji 1997) and local brokers (Baaz and Utas 2019). Their project engagement is limited to sampling, interviews, questionnaire distribution, and local connection building (Parker and Kingori 2016). In IRC projects, researchers in the Global Majority systems tend to work as 'data couriers', whereas Global North researchers call their research in Global Majority locations as 'postal research' (Munung et al. 2017: 9).

A significant criticism of present Global North-Majority collaborations is that the Global North exerts dominance in determining the research agenda (Oldac et al. 2023). Anglo-European scientists control disciplinary standards and conventions, while Anglo-American universities reinforce language, norms, and knowledge homogeneity (Marginson and Xu 2023). Global intellectual property has a Western legal structure. Top UK and US institutions', bibliometric articles, number of notable researchers, citations, Nobel Prizes, and reputation surveys form the basis of global university rankings. The ranking confirms and perpetuates Anglo-American scientific dominance or control (Shahjahan et al. 2017).

Non-English-speaking scientific systems struggle with identity vs. inclusivity (Marginson and Xu 2023). Universities and ministries "internationalise" research by incentivising publishing in globally indexed journals (Xu 2019); however, this is a double-edged sword (Yang 2014). For Anglo-American journals, theories, methods, and themes are revised. Articles that do not meet or tick standard boxes are rejected as non-rigorous (Marginson and Xu 2023).

European and North American researchers dominate leading academic journal editorial boards (Flint et al. 2022). Despite various involvement, especially from emerging nations, the US leads editors, reviewers, and reviews (Marginson and Xu 2023). Over half the global publishing market is controlled by the top 10 publishing industries (Wischenbart and Fleisch-Hacker 2020). All are European or American, including Clarivate/WOS and Elsevier/Scopus. Due to their perceived insularity, Ordóñez-Matamoros et al. (2020) found that within-Global-Majority-system collaborations are less prominent in top journals than Global North partnerships. This prejudice limits collaboration with Global Majority systems, which may contribute to more nuanced and useful information for addressing Global Majority systems population needs (Oldac et al. 2023).

Further, the dominance of English is also relevant to the dynamics of IRC globally. Since the 1920s, English has dominated academic systems globally, according to Montgomery (2013) and Gordin (2015). English, the L1 of 378 million people and the second language of 750 million (Ethnologue 2018), displaced French, Latin, German, and Russian as global scientific languages owing to British-American primacy. Scopus, WOS Science Citation Index Expanded, and Social Sciences Citation Index include 80%, 89%, and 90% English journals, respectively (Elsevier, 2020; WOS 2020). Of 9,857 Chinese academic journals, 42 are in WOS (Ulrichs Web 2021). Spanish ranks second in WOS with 1.26 per cent and Chinese in Scopus with 2.76 per cent (Vera-Baceta et al. 2019). English to other languages accounts for over half of translations, whereas other languages to English account for less than 10% (Naravane 1999). Mandarin Chinese and Spanish, which outweigh English, must be bilingual to participate in global science (Marginson and Xu 2023).

In short, all these inequalities in the global research production highlighted in the academic literature call for a more nuanced understanding on how research collaborations across borders work, especially those occurring in the Global Majority systems.



## Methods

This study employs a qualitative multiple case study approach to investigate the dynamics of IRC, as perceived and practiced in the Turkish, Chinese and Ghanaian research systems (Merriam and Tisdell 2015). Three comprehensive and research-oriented universities in these three contexts were chosen to gather detailed qualitative data about the patterns and nuances related to the IRC.

The chosen universities are highly regarded in their respective Turkish, Chinese, and Ghanaian higher education systems, exemplify the highest levels of internationalisation and play a crucial role in advancing research. In Turkey and Ghana, the selected institutions offer all of their instruction in English. In China, the primary medium of instruction is Mandarin, while English is used for relevant courses. Every faculty member in the selected universities possesses either educational experience or has completed post-doctoral research abroad, mostly in Europe, the UK, or the USA. These unique qualities make the selected case institutions suitable for studying the intricacies of IRC.

We conducted in-depth interviews with individual researchers, institutional research managers, and national research policymakers in these three contexts, with the aim of examining the motivations, incentives and behaviours associated with IRC. Each interview lasted approximately one hour. A total number of 51 people were interviewed for this study. There were 36 researchers from various disciplines (R1-36), nine administrators (IRM1-9) responsible for the university's strategies of IRC, and six national research policymakers (NPM1-6) working on IRC in higher education. Please see Table 1 in the Appendix (online supplementary material) for more details.

To select participants, we utilised both snowball sampling and a criterion-based approach. We identified various research actors based on the following criteria: first, they had to possess experience in IRC. Second, we paid attention to the representation of each OECD research area, which included natural sciences, engineering and technology, social sciences, humanities, agricultural sciences, and medical and health sciences. Third, we considered gender distribution and career stage diversity. The fieldwork for this study took place through in-person, Zoom or Tencent interviews due to the diverse nature of the multiple cases. All of the interviews were audio recorded and the data have been anonymised. Participation in the study was voluntary. This study adhered to the research ethics conventions outlined by the British Educational Research Association (2018), including the preparation of informed consent forms and the appropriate handling of collected data.

A thematic analysis was employed to analyse the interview data using Nvivo 12 (Miles et al. 2020). Thematic analysis is a commonly used qualitative research method that identifies, analyzes, and reports themes, allowing important themes and topics to emerge from the data (Miles et al. 2020). The data analysis involved two stages: the first and second cycle stages. The first stage of coding involved a bottom-up analysis of all the collected data to identify emerging issues related to the research question. The second stage of coding included grouping the codes

and creating themes. Data collection was carried out by each author. Two of them for China, one for Turkey, and one for Ghana. The interview guide used for data collection can be found in the online supplementary material. During the data analysis phase, the first author had frequent meetings with the research team to discuss and validate the coding. Since each author conducted similar fieldwork in these three different contexts, feedback was crucial for enhancing and validating the code used for data analysis. Each author did the coding, and member cross-checking was conducted to enhance internal validity.

We recognise that qualitative research approaches have limitations in terms of their scope, particularly when compared to the bibliometric analyses often used in IRC research. However, the in-depth and detailed nature of qualitative analysis has the potential to yield nuanced insights that may be missed by large-scale quantitative analyses.

## **Findings: Three Dynamics of IRC in Research Systems of Global Majority**

As discussed earlier, IRC in the Global Majority has different dynamics. In this section, we discuss three main themes indicating the commonalities among the global majority research systems, while also highlighting the nuances among them. In all the fieldwork trips in the selected cases, we have encountered the common themes of the gatekeeping centrality of Global North, the power of research funding, and the role of the English language domination. However, for each theme, there were also nuance differences in each context. Our particular attention in this paper is to highlight whether there could be a change in the highlighted themes, or whether the situations will perpetuate as they are.

### *Gatekeeping Centrality*

Gatekeeping centrality in the global research connectivity means that IRC is conditioned and hegemonised by those in more central places (aka. Global North) through power imbalances. The theme on gatekeeping centrality has emerged to have three aspects: gatekeeper individuals, gatekeeper institutions and the modes of knowledge dissemination which largely embodies Euro-American ways of conveying knowledge.

*Gatekeeper Individuals:* All cases of our fieldwork highlighted the role of certain gatekeeper individuals in building their IRC projects and teams. Among the case countries, the participants from Turkey emphasised the gatekeeping roles of researchers based in the European Union (EU) more. This is likely because the EU grants are highly important for Turkish researchers (see Oldac et al. 2023). For example, being geographically close to EU decision-makers and institutions were explained as a strong advantage:

If you are establishing a consortium, it should include the Dutch and Germans because they have a very strong lobby. I know from the COST (an EU project) I am in. When there is a problem, they can jump in their cars and go to Brussels. They can reach people we cannot reach by e-mail because they can meet them face-to-face within a few hours. (R5, Turkey)

This participant is a highly active researcher with many active IRC projects. He further explained during the interview that 'Being able to meet someone face to face is an advantage. [They can ask] the grant providers what they want here and there during the project write-up, while we sit and guess.' (R5, Turkey)

Other participants highlighted the gatekeeping position obtained through holding important positions in influential academic associations and publishing houses. Such gatekeeper individuals tend to get their position from their networks rather than their geographical proximity and were highlighted across the three cases. The first quotation below is from the Turkish case.

The new person you meet in the network is very important. If a person I meet has an important position in the association I am affiliated with, organizes conferences, and has a close relationship with the editorship of certain publishing houses, of course it becomes more attractive to work with these people. (R8, Turkey)

'When you work with a professor who is close to the editorial board, your chances of publishing there increase slightly' (IRM1, Turkey).

There seems to be a concurrence among the cases of this study about the advantages of collaborating with such people in key positions. This was explained in all three contexts openly. The following reflects the overall situation of the Ghanaian case:

I engage in IRC to overcome some of the impediments in the way of publications because when you try to publish from the Global South, even the address you use in sending your paper to a journal really matters. When you collaborate with people from the Global North like UK, or Germany, and they become the corresponding author, editors are likely not to reject the paper and give swift feedback. (IRM6, Ghana)

As such, the following is a reflection from the Chinese case:

'Gaining recognition from Euro-American researchers held significant importance, not only for our personal career growth but also for publishing in prestigious journals. That's why I maintained connections with scholars on the international stage.' (R11, China)

As can be seen, there is a significant commonality among all cases. However, there are nuance differences as well. To illustrate, from the Chinese context, we have observed that gaining recognition from the Euro-American researchers is highlighted relatively more often. This could be related to the intentions of becoming leading researchers globally, and for that, the recognition of the current leading scholars is important.

By contrast, in the Turkish context, we have observed the closeness to the decision-making institutions, and editorial board memberships of important journals were highlighted more. The role of being part of certain European mechanisms could be important here. In the Ghanaian context, giving the corresponding authorship to Global North researchers were highlighted multiple times, which was not mentioned in other contexts. Such a belief seems to play a strong role in the IRC of Ghanaian researchers. As another researcher from the Ghanaian case argued: ‘when those foreign partners even become the corresponding authors, it makes life quite easy!’ (IRM6, Ghana).

*Central Institutions:* The role of central institutions based in the Global North on IRC has been a recurring topic in our fieldwork trips. These institutions tend to play a gatekeeping role in the international research connectivity through long-established reputation, and economic power.

The fieldwork trip in Turkey had interesting highlights about this matter, especially the distinction between the East and West and positioning of Turkey in the middle. Below is the opinion of a national policymaker in this regard:

In terms of prestige, the central role of the West’s institutions still continues. Let’s say, when an institution from Turkey, its director goes and collaborates with an institution in the UK or the US, this is not questioned much. However, when an institution or a university president goes to a country further East than us for collaboration, shares a picture, that is questioned more. (NPM1, Turkey)

Thus, the long-accumulated trust and prestige may contribute to the role of institutions in the global research connectivity. Such long-established dynamics make the change versus perpetuation dynamic tricky, because the newcomers and developing research systems are disadvantaged and tend to stay disadvantaged. Consider the quotation below as another example:

The advantage of universities in the West is that they are old and their names are well known, so they will continue to have that advantage. Even if new actors are of high quality, they may not have the advantage of being accepted as Western institutions. (NPM1, Turkey)

Acceptance from the global society is important for influencing IRC, and it seems the long-established institutions of the West possess that more so than those in the Global Majority.

In Ghana the role of gatekeeping central institutions is also acknowledged, but the focus shifts to the infrastructure at home.

In Ghana, there is no institution that has been set up, unlike other places in the West where they have centralised institutionalised research support centres. This is the main reason why people in developing countries, especially Ghana, are trying to seek international collaborations (R30, Ghana)

The Ghanaian case indicates that IRC is also an important matter of compensating for the lacking capacity at home. However, this situation creates a perpetuation of dependency to the gatekeeping institutions in the West if no capacity-building takes place at home. Beyond institutional capacity, the same argument also comes up for equipment sharing and expensive machinery, as highlighted by the Ghanaian participants. An example is below:

We are a bit handicapped in terms of our equipment and our machines. So, you have somebody from the international scene where they have these machines, then you can share your idea with them. The person gets the materials to be tested, does the test over there, and shares results with you afterwards (IRM8, Ghana)

Such equipment sharing is not inherently a negative phenomenon, as also acknowledged in our fieldwork. Through collaborations with certain institutions, fellow Ghanaian researchers can do research that they would not possibly be able to do otherwise. As another participant also highlighted: ‘the fact that we don’t have those technologies here, will not stop us from making advancement because we are able to collaborate with colleagues from elsewhere who have that’ (IRM7, Ghana). However, our point about the perpetuation of ongoing inequalities remains.

### *Euro-American Way of Conveying Knowledge*

Gatekeeping in IRC does not always happen through individuals or institutions, it is also a matter of whose knowledge is used and how it is disseminated. The cases of Global Majority in our study highlighted that IRC usually builds on and is positioned to convey Euro-American knowledge. The below example is from the Ghanaian case:

Whether we like it or not especially for us in Africa, the theories, the books, the principles, the subject matter of the courses is from them, we only learn from them and try to see how we can apply them in local context, so I think doing research with them is much more of conveying their knowledge (R33, Ghana)

We observed a heightened awareness of this situation in our fieldwork trips in all three cases. However, there were nuance differences emanating from different geopolitical and contextual situations. For example, in the Chinese case, the aspects related to research areas are highlighted more often. In the realm of humanities and social sciences, and specifically in certain areas, participants from the Chinese case explained that they tended to engage in data collection and analysis, while their Western collaborators concentrated on generating ideas and conceptualisation, indicating inequality in the nature of the IRC.

International collaborators might be more acquainted with the global English literary field. Additionally, certain topics are more popular in Western countries. For instance, gender-related subjects may not be as favoured in China as they are in the West, and Chinese researchers might not be

as familiar with existing theoretical discussions. In such cases, Western researchers are in a better position to explore ideas (R13, China).

Such inequality in the role distribution in IRC is not only peculiar to the Chinese context. Contrasting with the previous cases, in the Turkish case, the structural differences in the writing are highlighted more. Below is a quotation from a social scientist whose research focus happens to be similar to this project:

There are huge differences in the articles. There is a different logic there. You know this structure that Swales developed for introductions, for example. He has certain rules. So, only if you write that way, you can communicate in the international arena. However, this is not implemented in our domestic publications. There is a completely different structure. (R9, Turkey)

To sum up, this theme highlighted gatekeeper centrality in IRC with three aspects of it: gatekeeper individuals, central institutions and the Euro-American way of conveying knowledge. All three aspects are present in our case examinations but with nuance differences, as highlighted within each subsection. Amidst these inequalities, however, we observed a heightened consciousness towards a need for change. The following quotation from the Ghanaian context is a good example of the calls for a change.

You need to bring that local knowledge to reshape Western thinking and also other societies. Because if we don't do that, everything goes according to the Western plan, and nothing goes according to the plans of others. So, it's about a frame of thinking and local actualities and how they [interact] with dominant worldviews, otherwise you will continue to have low-sighted interpretations of international issues where the Western view continues to dominate. (NPM5, Ghana).

#### *Research Funding: The Power of Money by Those who Hold it*

IRC is a costly endeavour and research funding makes IRC possible. The importance of research funding cannot be downplayed. However, compared to the Global North, we observe different dynamics in the Global Majority. The importance of funding leaves IRC susceptible for the influence from wealthy research funders, which are mostly located in the Global North. There is an increased consciousness towards international funding for IRC in all our cases in the sense that it is affected by geopolitics, and it may cause dependency.

The argument on international research funding leading to dependency was most clearly visible in the Ghanaian case. The role of funding was crisply explained in multiple interviews and below is an example:

The role of funding is so big to the point that it is influencing the direction of research, which can be very bad for the future of research and knowledge creation. I'm saying this because, in our part of the world, the developing world, [...] we tend to research into things that are of no interest or have no relevance

in our development trajectories, we are doing it because that is where the funding is available. (R27, Ghana)

Research funding from the Global North does not always focus on the needs of the other side. However, it is still a funding that enables researchers in systems with less economic power to be part of a research endeavour. Thus, the Ghanaian researchers still seek that funding. Such a big imbalance in funding power causes them to seek collaborators from the Western world, playing into the dynamic of perpetuation:

Especially those who find themselves in the Western world, they are better placed in winning funding, and then that alone serves as a motivation to look out for people over there to collaborate with. For us that is the main key, and it can influence our choice of working with them. (R30, Ghana)

The geopolitical aspect and arguments regarding dependency are also very much visible in the interviews in the Chinese case. However, our fieldwork in the Chinese case, while not going against the main argument, draws a changing picture from the Ghanaian situation. Geopolitics and changing opportunities for Chinese researchers are now leading them to not rely on international research funding.

‘Previously, we used to collaborate on joint project applications, specifically targeting certain funding opportunities due to their substantial support. However, these schemes have since been terminated, and numerous favourable incentives are no longer available. As a result, our enthusiasm for ongoing international research collaboration has diminished (R11, China).’

Thus, while geopolitics and dependency has been impacting the Ghanaian case on what they research, it affects China in a different way. The incentives for IRC grants for the Chinese case are changing. This may also be due to the decoupling from the US research system, which has been the largest collaborator of China (Oldac 2024). Thus, in a situation where there is increasingly less funding available, researchers in China now focus on their own national funding.

The Turkish case demonstrated awareness of the geopolitics and dependency argument; however, their vigilance on this matter was highlighted more in certain strategic topics unlike the general vigilance in the Chinese case. One of the participants, who is a Turkish national policymaker, spent a long time explaining his views on this matter:

When we look at this within the framework of international relations, no one gives funds to anyone without a reason. [...] Turkey is currently making efforts to reduce its dependence on foreign sources such as medical supplies, medical devices and the pharmaceutical industry. We learned the importance of this during the pandemic. (NPM2, Turkey)

Briefly, our fieldwork trips demonstrate that international research funding is always related to geopolitics and dependency arguments in the Global Majority systems, but there are variations among them. While the Chinese case increasingly chooses not to rely on international funding out of dependency and geopolitical

concerns, the Turkish case makes similar efforts for certain research areas. By contrast, the Ghanaian context demonstrates consciousness of the situation but currently has less funding available to counter dependency.

### *The Role of English Language Domination in IRC*

Being able to communicate is a must in IRC since the parties may speak different languages. Thus, a common language use comes up as an important topic in any discussion of IRC, as highlighted in our literature review earlier. Our examination of the three case contexts also demonstrated the importance of a shared language and indicated the dominant role of English in all their international endeavours. We have identified two aspects of the role of English language domination in IRC: (1) the positive discourse: English as a tool for global communication and (2) the critical discourse: English as a hegemonic tool.

*The Positive Discourse: English as a Tool for Global Communication:* Researchers in our comparative case studies mostly acknowledged the positive side of using English in IRC. To them, it simply makes cross-border interaction possible. For example, the quotation below from a Chinese scholar explains this well:

English is not only an excellent medium for learning about each other, but also a way to introduce ourselves, especially when there are various perspectives and opinions about China internationally. (R16, China)

Aside from learning about each other and introducing one's culture, the role of English in disseminating research findings to a global audience is also acknowledged in all our cases. Our findings indicate that the acceptance of English as a tool for making dissemination of findings to international audience possible comes from a realistic estimation by the researchers. The quotations below from the Chinese and Turkish cases depict our argument clearly.

As a scholar, your knowledge and ideas need to be disseminated. Currently, mainstream academic expression is primarily reliant on English, and high-quality journals also use English. If you are not proficient in writing or expressing yourself in this language, it can be difficult for others to recognize the value of your work. Even if your work is exceptional, it may take a long time for its significance to be recognized. (R17, China)

I don't want this language or that language, but at least I believe that such things should be in a common language. So, will this be in Chinese, Russian or English? It seems a bit like English right now due to the financial power. (IRM1, Turkey)

The Ghanaian case also confirmed how a shared language, such as English, makes IRC possible. For example, the participant below compares the use of Twi, a local language in Ghana, to English and highlights the importance of English.



I have not seen a publication in our native language. The university journal even publishes in English. I mentioned this in class sometime back, how it would be like publishing your engineering findings in Twi. I don't see that soon, English has been our mode of communications so far, it is easier going by that way. (R17, Ghana)

However, a participant in the Turkish case also highlighted a further qualifying matter. The use of English as a communication tool is acceptable to the level that it does not turn into a loss of confidence in one's own culture and language, as the quotation below depicts:

A language needs to be used. Turkish, Arabic, French or English, any can be problematic. At the end of the day, a language imposes itself through economic power. Where we draw the line of this imposition is important. If the use of English turns into a 'wannabeism', that is a problem. (NPM2, Turkey)

This could be an important matter for all non-English speaking systems especially those in the Global Majority. The use of English is okay and an enabling factor for IRC, but only to the limit that it is not perceived as a loss of confidence in one's culture.

*The Critical Discourse: English as a Hegemonic Tool:* The use of English is a two-sided coin. While it plays a critical role in making IRC possible, it is also a hegemonic tool decisive in the inclusion/exclusion binary. Non-English research almost equals to nonexistence in the international research arena. The quotation below from the Turkish case illustrates this crisply.

We were going to apply for a patent. To apply for a patent, I started looking for publications in every language. A publication in Russian from the 1970s appeared, and it was better than what we did. I mean, they actually did this at their time, but since no one reads it and since we applied for an American patent, the patent office in America didn't even care. [...] No one read that work because of its language. I figured it out using a translation app. It doesn't show up in search, I found it very coincidentally. (IRM1, Turkey)

The hegemony yielded by the language is so powerful that researchers outside of it are excluded in IRC. This has been a recurring topic of discussion in our case examinations. Another quotation below describes the English Language as the number one factor Global Majority cannot go beyond neo-colonialism:

The most important device of neo-colonialism is language. Of course, we don't like this. We cannot communicate with any other language [...] and without language, you cannot communicate. If you don't communicate academically, you won't be able to do your work anyway. (R5, Turkey)

Our fieldwork in the Chinese case also demonstrated support for this matter. English language use always puts those in Global Majority under extra burdens, which

may not exist in the dominant English-speaking systems. Researchers have to translate their understanding to an ‘accepted language’ back and forth.

Sometimes, when I understand the original principle, it seems simple, but the language I use to explain it is not necessarily a mathematically rigorous one recognized by academia. I have to translate my understanding into the accepted language and paradigm of the academic community in order to clearly explain the concept and convey it to more people. This can be a painful process. (R15, China)

Contrary to other contexts in our study, English is an official language of Ghana. Even with that, there were participants explaining the use of English in a critical way and with certain nuance differences. See the comment below from a Ghana-based professor:

All our publications are supposed to be in English, nothing else. Everybody, those in arts, science, business, everything is English, and we are supposed to write and speak like the queen; so, it’s disturbing. If yourself aren’t too good in English but you have the ideas, then you must collaborate with somebody who is good in English to help you with everything. So, we collaborate to fix our weaknesses. It helps in a particular way, but it may reduce the [efficiency]. (NPM4, Ghana).

‘Writing and speaking like the queen’ did not come up in other contexts. This may be an indication of a contextual difference specific to Ghana. Being an ex-colony of Britain could be a reason behind this self-felt expectation. Although it is hard to say this self-felt expectation does not exist in Turkish or Chinese cases, we did not come across it in our fieldwork.

### *Team Reflection on Potential Counter-Narratives*

Conducting a multi-country case study presents significant challenges. While the shared and nuanced dynamics have been discussed above, it is also important for the team to reflect on the potential counter-narratives. Rereading the transcripts for the Ghanaian case did not reveal any counter-narratives regarding the emerging themes. In the Turkish context, the sub-theme of the ‘Euro-American way of conveying knowledge’ was not highlighted by everyone. While those who were aware of this notion discussed it in detail, others either did not elaborate or expressed no opposing views. Since our interview guide, which is included in the appendix (online supplementary material), did not specifically prompt participants about a Euro-American approach to conveying ideas, we believe that including any emerging discussions on this topic would still be a valuable addition to our findings.

Our reflection on possible counter-narratives for the Chinese context indicated overall support for the highlighted findings. However, the team for the Chinese context pointed out differences in interests on the level of research areas. For example, researchers from the Humanities and Social Sciences, especially those from Humanities disciplines such as linguistics, philosophy, or history, seem to have lower

interest and enthusiasm towards funding and the role of English compared to those in STEM (a popular acronym for science, technology, engineering and math) areas. This difference could be because Chinese humanities researchers may not have significant financial needs for experiments, and they may not be required to publish in English as much as STEM researchers. Publication in English carries a different meaning for humanities when compared to STEM areas.

## Discussion and Conclusions

This study examined the dynamics of IRC as perceived and practiced in selected Global Majority research systems using a qualitative multiple case study approach. More specifically, the study focused on the Chinese, Ghanaian and Turkish research systems (in alphabetical order) and argued for the common themes emerging from the empirical data, while still highlighting the nuance differences.

Global Majority, as defined by Campbell-Stephens (2020, 2021), is a collective term referring to the societies described as non-white. They are much higher by numbers; hence, the use of majority. However, the unequal global dynamics put Global Majority systems in disadvantage collectively in certain aspects as compared to the Global North systems, despite the big variations among them. In this regard, researching international research collaborations (IRC), especially with a focus on less researched parts of the world, is crucial.

As acknowledged earlier, the Global Majority systems vary significantly, including this study's case study contexts. Nevertheless, as the findings demonstrate, these systems share important common dynamics when it comes to IRC. The findings evidently show that the selected Global Majority systems experience three common challenges. The first is the gatekeeping centrality (a term used in scientometric studies, cf. Wagner 2018) in the global research system, which means that IRC is conditioned and hegemonised by those in more central places (aka. Global North) through power imbalances. The findings demonstrate that gatekeeping centrality in IRC manifested itself through gatekeeper individuals, gatekeeper institutions and the modes of knowledge dissemination, which largely embodies the Euro-American way of conveying knowledge.

The second challenging dynamic is related to research funding. The geopolitical matters and dependency that come with research funding were highlighted in all case systems. The nuances among our case systems manifested through how they respond to these challenges. As the findings earlier demonstrate, the Chinese research system is increasingly vigilant towards international research funding and works towards changing the incentives for obtaining them and making more funding available domestically to replace international ones. The Ghanaian case indicates the stringent resource constraints in funding research and building laboratories; hence, despite awareness of the matter, it currently has low funding available to counter dependency. The Turkish case indicates that independence is sought in certain strategic areas, specifically highlighting health and medical research by one policymaker (potentially influenced by the recent global pandemic). To be clear, the

paper does not argue against the provision of international research funding, but the unequal dynamics created by it need to be acknowledged.

The third shared dynamic is associated with the role of the English language. The findings indicate two simultaneous discourses on the use of English in IRC. One is the positive discourse, which sees English as a tool for global communication. The other is the critical discourse which explains English as a hegemonic tool. Both discourses exist at the same time in each of our studied contexts, demonstrating the nuanced nature of the phenomenon. Interestingly, English is an official language in the Ghanaian context, but the critical discourse on the use of English is present there too. The existing literature indicates that the centre of gravity for global knowledge production is shifting away from Europe or the US, as the Global Majority systems are increasingly contributing more research publications (Baker and Powell 2024; Oldac and Olivos 2025). These findings suggest that the winds are shifting in the perpetuation versus change conundrum. The global research production, and with it IRC, is diversifying (Marginson 2022b); however, is this enough for real pluralisation in IRC globally? The situation that these three dynamics still exist in a shared way among the selected Global Majority systems shows that we are yet to achieve global pluralisation.

The three dynamics should be taken separately in the discussion of change versus perpetuation. Gatekeeping centrality is likely to move beyond the Global North. The change has already started when we look at the editorial boards of some international journals. The centre of gravity shift is likely to follow Baker and Powell's (2024) findings and move towards the East and later towards the South, with the expected rise of African and Southeast Asian systems. The agency of research actors at different scales, most importantly the individual and then the national scales, are likely the driving forces behind this change (Oldac and Yang 2023; Yang et al. 2023).

By contrast, research funding is likely to stay dependent on the economic power of each system. Our findings indicate that while the Chinese research system is working towards moving beyond dependency in research funding, the Ghanaian system lacks the means to do so. Among the three dynamics of IRC, the role of English is the least likely to change. This is because of the 'positive discourse' theme highlighted in our study: most academics accept the utility of it. Also, approaches like Global Englishes (Galloway and Rose 2015) in the scholarly literature open the way for further acceptance of English beyond Anglophone countries, despite the critical discourse theme that emerged in our study discussing the inclusion/exclusion binary of English language in IRC.

It is evident that while the global research system has become increasingly dynamic and plural in the past decades, largely because of the growing IRC (Wagner 2018), challenges and opportunities remain for various actors to take action. Certain interventions can be tailored for China, Ghana, and Turkey, and they can also be relevant to other Global Majority contexts. To tackle the issue of gatekeeping in the global research system, we recommend that governments in these countries continue to strengthen their academic communities to prioritize innovation and creativity in research. This should be supported by policies that reward original thinking and encourage multidisciplinary approaches. We also advocate for increased

collaboration among Global Majority countries to share resources and expertise, which can reduce dependency on Global North institutions and help with sustainable capacity building. For example, regional collaboration within Africa can strengthen the research ecosystem across the continent. Additionally, governments in these countries should gradually enhance the autonomy of research institutions to make independent decisions on research priorities and collaborations, ensuring local needs are effectively addressed.

As highlighted earlier, reducing dependency on research funding depends on the economic development of the research system. However, if the Chinese research system is working towards moving beyond dependency in research funding, this is also possible in other contexts. Such a situation can help reduce dependency in funding. Specifically, the Ghanaian government could invest in upgrading research facilities and laboratories, and stakeholders should implement training programs to enhance researchers' skills in grant writing, project management, and advanced methodologies. The Turkish government could also consider investing more in research ecosystem holistically, going beyond the already highlighted health and medical research. Also, to reduce dependency on single sources of research funding, these research systems could diversify funding by partnering with non-governmental organisations and private sector entities.

To address the dual discourses on the use of English in IRC in China, Ghana, and Turkey, we recommend strengthening policies that promote equitable international collaborations, ensuring that the use of English does not marginalize local researchers. Local institutions could offer language support services, such as translation and editing, to facilitate broader international collaboration. These interventions will balance the benefits of using English as a global communication tool (as our dedicated findings theme indicates) while mitigating its hegemonic implications.

In closing, we would like to call for more studies focusing on the IRC and knowledge production in the Global Majority systems. For example, our study did not get into epistemic inequalities on the matter. The imbalances in IRC can also be examined in terms of content of the research. For example, is knowledge universal? Who decides on the contents? That said, the glass is both 'half empty' and 'half full'. The focus on imbalances and inequalities is not to downplay the achievements of IRC in pluralising the global research system, but to underscore the lingering challenges and pave the way for a more equal global research system.

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#### **Declarations**

**Conflict of interest** The authors declare that they have no conflict of interest.

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