

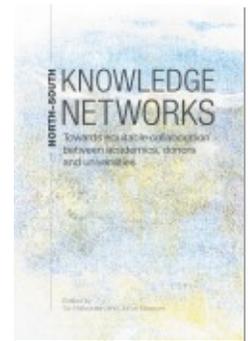


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CHAPTER 7

North–South research collaborations and their impact on capacity building: A Southern perspective

Johnson Muchunguzi Ishengoma

In this chapter I draw from the extensive literature, as well as some empirical data and my own personal experience of North–South research collaborations. I attempt to shed light on whether these collaborations contribute significantly to institutional and/or individual capacity building, or strengthen academic knowledge production and exchange in Southern (public) universities. For the purposes of this chapter, I define research collaborations as ‘the working together of researchers to achieve common goal of producing new scientific knowledge’ (Katz and Martin 1997: 7). I understand research capacity building to mean ‘any efforts to increase the ability of individuals and institutions to undertake high-quality research and engage with a wider community of stakeholders’ (ESSENCE 2014: 7).

My main argument is that, despite having the potential to enhance the research capacities of universities and individuals, North–South research collaborations have had limited impact because of the neocolonial nature of the donor–recipient framework within which most North–South research collaborations operate. This framework perpetuates power asymmetries and resource dependencies between both South and North, and between research and donor institutions. The funding of such collaborations is so often initiated by Northern

research institutions and researchers because of their dependence on donor funding. Although this dependence is not well documented, my own observations and some of the literature show that Northern universities and researchers depend heavily on bilateral, multilateral and international donor organisations, foundations and governments to fund North-South research collaborations.

The major funders of North-South collaborations – such as NORAD, SIDA (and its research co-operation department, SAREC), the World Bank, the OECD and others, are in turn funded by their respective governments or member states. This creates a vicious cycle of dependency for universities and researchers, both Northern and Southern, while consolidating the donor-recipient framework that dominates research collaborations. It also means that when funds run out or funders change their priorities, capacity building, particularly in Southern universities, is sometimes quickly jettisoned and the sustainability of research collaborations totally compromised.

Essentially, the current donor-recipient framework is based on, and perpetuates, imbalanced relationships between collaborators, and it limits the potential for such relationships to enhance research capacities at Southern universities and research institutions.

Too often, North-South research collaborations apply to projects or programmes of limited duration. In addition, the synchronisation of effort between various project donors and actors is virtually non-existent (AFRODAD 2007). Both of these factors impact on the sustainability of research programmes and on their potential to build research capacity. In an evaluation of research projects in universities in Tanzania, Mozambique, Bolivia and Nicaragua, SIDA/SAREC acknowledged these problems, arguing that

generally speaking, the financial sustainability of many SIDA/SAREC research activities is worrying. The incentives to carry out research at the institutions often remain heavily dependent on continued external support. (Boeren et al. 2006: 7)

Even where a single donor/funder supports several research projects at a single Southern university, these interventions are seldom synchronised and their impact in terms of capacity building at an institutional or individual level is very difficult to determine.

Despite the structural limitations of North–South research collaborations and the neocolonial divisions that continue to shape so many of the dichotomies that exist between North and South, research shows that some North–South research collaborations have promoted sustainable research networks. This implies that North–South barriers can melt away where real knowledge transfer occurs or where mutual research interests or common research goals between North–South researchers are forged. For example, Dean et al. (2015) identified a UK–Africa programme as one example of genuine North–South collaboration and capacity building between researchers.

It is also the case (as several contributors to this volume point out) that North–South research collaborations help to supplement Southern governments' inadequate expenditure and investment in research. For example, in 2011, African governments spent an average of 0.4 per cent of their countries' GDP on research and development. In the same year, several *single countries* in the North allocated several times more than Africa's total budget to this (Jowi and Obamba, 2011: 14). Citing NEPAD (2010), Jowi and Obamba have argued that 'the funding of research and innovation programmes remains a major challenge for African countries and universities and this could remain the same for foreseeable future unless particularly dramatic measures are taken' (2011: 14). As one report put it 'chronic underinvestment in universities and research institutions' is one of the many barriers that prevent researchers from low- and middle-income countries from fulfilling their research potential (ESSENCE 2014: 7).

Yet, despite the structural imbalances and inequalities historically embedded in North–South relationships, many argue that research collaborations are critical for research capacity building, as well as for knowledge exchange. For example, referring to the Irish–African higher education partnership model, Nakabugo et al. (2010) acknowledge that North–South partnerships on research capacity building (in the South) do have an impact, albeit more on individuals than on institutions. In

my view, effective and impactful North–South research collaborations are characterised by:

- Mutual ownership of research agendas through processes of joint and collaborative agenda setting. That is, Southern universities should have an equal say or voting power, and should invest both financially and otherwise in research collaborations/projects. By making financial and material contributions, researchers and research institutions in the South would be able to transform their currently disadvantaged positions in which they are perceived to be recipients of aid, to being co-donors and co-sponsors. Co-sponsorship has the potential to enhance symmetry, mutual accountability, reciprocity, transparency and minimise self-censorship in the reporting of research results by Southern researchers.¹
- Empowering research frameworks which enable Southern universities to initiate and design research projects on the basis of felt needs, and invite Northern collaborators (and possibly funders) to co-manage expenditure and collaborate in the research process.
- Strong institutional monitoring and evaluation mechanisms, which ensure that abuse of funds and benefits is minimised and financial transparency is guaranteed.²

Neocolonialism and asymmetries of power

North–South research collaborations operate within a broader context of neocolonial structures and relationships. The Northern (high-income) countries tend to be former colonial powers that have strong economies and robust institutional structures. Their hegemony over the South remains largely unquestioned. The countries of the South are often former colonies, with weakened economies and embattled institutions. An inability to mobilise internal resources ‘compels’ Southern countries to depend on the North to finance their development agendas, including research and development. As Breidlid (2013: 358) observes:

Many countries in the Global South suffer from severe economic underdevelopment that is a legacy of their colonial history. Their fragile economic base means that their desire and goal to develop robust national higher education institutions cannot be put into practice. In such a perspective North–South collaboration is not unproblematic.

The neocolonial structure within which North–South research collaborations operate, limits their potential to impact on capacity building. In practice, Southern researchers are often the weaker partners as a result of their nations’ weaker economic bases, and many Southern researchers are perceived to have little to offer in terms of research skills or other competencies.

Paternalism and patronage

Linked to this neocolonial superstructure, relations of paternalism and patronage continue to operate within North–South research collaborations. Carbonnier and Kontinen (2014: 5), citing Lewis (1998) and Ericksson-Baaz (2005), explained how paternalism and patronage are based on colonial trusteeship in that the ‘weaker partner requires guidance and help from the stronger in a spirit of paternal care’. Accordingly, researchers in the global South are perceived as requiring guidance, oversight and supervision from their Northern partners in terms of setting research agendas, spending and accounting for research funds according to certain rules and conditions, putting accountability and reporting mechanisms in place, and, at times, even in the designing of research projects and methodologies. In this way, Carbonnier and Kontinen (2014) argue, the capacity-building objectives, which are a hallmark of almost all North–South research collaborations, clearly echo the colonial enterprise of ‘civilising’ the South.

Hegemony and power

Given contemporary hegemonic power structures and structural inequalities, North–South research collaborations are inevitably

imbalanced, and mostly favour the agendas of Northern researchers and universities. To understand how this limits the impact of the research collaborations on research capacity building in the South, Maselli et al. (2004) developed a useful list of critical questions related to nine key factors that influence the balance of power in North–South partnerships (see Box 7.1). The answers to these questions provide a basis for understanding the hegemonic power relations and structural imbalances that are built into many research collaborations. As Maselli et al. (2004: 33) pointed out, the likely outcome of unbalanced partnerships is that ‘the South merely presents a laboratory for the North, providing interesting scientific data’.

Box 7.1: Factors influencing the balance of power in North–South research collaborations

Initiative

- Who has the original research collaboration idea/agenda – a researcher in the North or South?
- Who designs the research project?
- Who sets the research agenda?
- Who makes conceptual inputs?
- Who selects research participants and who is selected?

Interests

- Who has what kind of expectations in the research collaboration project?
- Who has what kind of objectives in the research collaboration project?
- Who has what kind of stakes in the project?
- Are there any hidden intentions or agendas to be considered?

Power

Funding

- Who generates funds for research collaborations?
- Who negotiates with the donors that fund research collaborations?
- Who decides on how funds will be used?
- How transparent is the allocation of funds?
- How are the work, accountability and responsibility shared?

Methodological competence

- Who has the scientific and methodological competence?
- Who decides on the methodologies to be used?
- Who has contextual competence (contacts on the ground)?

Roles/positions

- Who is involved and in what kinds of roles?
- Who is where in the hierarchy?
- Who has the power to handle different perceptions, conflicts or differences?
- Who decides what kind of products must be delivered, to whom and by when?
- Who is seen as an expert?

Operational responsibility and duties

- Who is the lead researcher?
- Who is responsible for project management and co-ordination?

- Who has the authority to synthesise data and results?
 - Who is responsible for supervision?
 - Who invests how much time doing what kinds of work (conceptual, fieldwork, synthesis, discussion etc)?
 - Who collects the research data?
- Interaction*
- Where and when do meetings take place?
 - Who decides when the meetings will happen and who sets the agenda?
 - Who takes part in what kind of meetings (steering, planning and reporting)?
 - Who goes into the field and interacts with local stakeholders?
 - Who meets official representatives, decision makers, donors etc.?
- Technical support**
- Who provides technical support?
 - Who has access to what kinds of infrastructure and technology?
 - Who provides training and support to the research team?
- Data**
- Who generates new information?
 - Who collects what kinds of information?
 - Where is the information stored?
 - Who has access to what kinds of information?
 - Who has control over the information?
 - How is information disseminated or/ and exchanged?
 - Who makes what kind of use of information/data collected?
- Capacity building**
- Which individuals can improve their capacities (knowledge, skills, empowerment)?
 - Which institutions can improve their capacities? (structural aspects, empowerment)?
- Benefits**
- Who benefits in what ways (conference participation, publications, expertise/mandates, MSc/PhD degrees, scientific and social empowerment, bonuses, promotions, etc.)?
 - Who gets scientific or academic credit (publications, awards, invitation to conferences, etc.)?
 - How are the benefits shared?

Source: Adapted from Maselli et al. (2004: 35–36)

Resource dependencies in research collaborations

The dependency of Northern research institutions on donors to fund North–South research collaborations further limits the impact of these research programmes. Northern research institutions depend on development agencies such as NORAD, SIDA, DFID and the OECD, as well as a plethora of private foundations (Ishengoma 2016). Northern governments and multilateral financial institutions such as the World Bank are also key, but this dependency undermines the long-term viability of North–South research collaborations, and feeds into other challenges such as the power asymmetries already discussed.

As argued by Pfeffer and Salancik (1978), access to and control over resources are sources of power in any organisation. Several chapters in this book describe the critical shortages of research and development funding that Southern universities and researchers experience and how they depend on external donors to cover their research and other core functions. Typically, this dependence tends to render Southern institutions and researchers powerless (Ali et al. 2006) as North–South research collaborations simply reproduce ‘traditional patterns of economic and geographical dependency’ (Jowi 2012: 51).

Donor-determined research agendas and priorities

This powerlessness is directly related to the fact that research agenda-setting is so often donor driven. While it is difficult to provide empirical evidence on this, Bradley (2008a) suggested that research agendas in North–South research partnerships are dominated by the interests of Northern donors and researchers.³ Bradley also observed that Southern researchers tend to encounter obstacles when attempting to set research agendas, and argued that North–South partnerships are not necessarily the best way to advance research agendas that reflect the priorities of countries in the South. Baud (2002) has also documented inequities in agenda-setting processes in North–South partnerships. Low-income countries allocate very few funds for research and development, creating a gap that international agencies now occupy, and in which they assume they have a right to dictate research agendas and priorities. Too often, donors fail to take local research needs and priorities into consideration. As Ali et al. (2006: 7) argued, Southern governments’

inability to fund research leaves the scientists at the mercy of external funding agencies whose priorities determine the priority areas for research. A major challenge in the governance of research funding is agenda-setting given the fact that the priorities of the funding bodies largely dictate what ... issues are to be studied.

In other words, funding agencies fund what donors want information about, instead of what Southern countries need information on.

Various academic indicators for selected African and OECD countries are shown in Tables 7.1 and 7.2. A comparison of the two tables is instructive. The African Union has recommended that member countries spend at least 1 per cent of their GDP on research and development. As shown in Table 7.1, all 22 countries surveyed allocate less than this, including those that have relatively strong economies such as South Africa, Nigeria, Egypt and Ghana.

Research by Ali et al. (2006) showed that when research is funded primarily by Southern governments, Southern researchers are more likely to determine and own the research agendas. They cite the example of Cuba, which receives minimal support from international donors, and where local researchers have long determined the national research agenda and managed the country's research systems.

The Cuban example of funding research from their own resources, and thus determining their own research agendas, could be emulated by other low-income countries. Too few countries in the South *really* own their own national and strategic development agendas, despite publishing grandiose strategic plans and national visions from time to time. Too often, such grandiose visions are borrowed wholesale from some other country or are dictated by multilateral organisations without being adapted to local contexts. Tanzania's 'Big Results Now' programme is one example of such a scheme, and it is funded by external donors including the World Bank and the IMF.

Echt (2014) has also argued that the dominant research-funding model is linked to the control of research agendas, and suggested that the fact that sources of funding are generally limited to Northern countries threatens the autonomy and objectivity of research output. Echt also questioned whether donor-driven research agendas and priorities explains the failure of research to make any tangible impact in low-income countries, and recommended that institutions seek funding from a range of funding sources so as to reduce the influence of single donors on their research agendas.

Table 7.1: Academic indicators for selected African countries, 2005–2014

Country	Expenditure on research as a percentage of GDP (2005–2014)	Full-time researchers per million citizens (2005–2014)	Articles published in scientific and technical journals (2011)
Botswana	0.25	52	6
Burkina Faso	0.20	165	50
Burundi	0.12	—	3
Democratic Republic of Congo	0.08	21	—
Egypt	0.68	544	2 515
Ethiopia	0.61	45	170
Gabon	0.58	—	77
Gambia	0.13	34	13
Ghana	0.38	39	121
Kenya	0.79	231	290
Madagascar	0.11	51	33
Mali	0.66	29	29
Mozambique	0.42	38	38
Namibia	0.14	—	13
Nigeria	0.22	39	439
Senegal	0.54	361	79
South Africa	0.73	405	3 125
Tanzania	0.38	35	121
Togo	0.22	36	8
Tunisia	0.68	1 393	1 016
Uganda	0.48	38	158
Zambia	0.28	41	60

Note: Empty cells indicate that data was not provided.

Source: Adapted from World Bank (2014: Table 5.13)

Table 7.2: Academic indicators for selected OECD countries, 2005–2014

Country	Expenditure on research as a percentage of GDP (2005–2014)	Full-time researchers per million citizens (2005–2014)	Articles published in scientific and technical journals (2011)
Austria	2.83	4 704	5 103
Australia	2.25	4 335	20 603
Belgium	2.28	4 003	7 484
Canada	1.62	4 490	29 017
Denmark	3.06	7 265	6 071
Finland	3.31	7 188	4 878
France	2.23	4 153	31 686
Germany	2.85	4 472	46 259
Israel	4.21	8 282	6 096
Japan	3.47	5 201	47 106
Netherlands	1.98	4 303	15 508
New Zealand	1.25	3 701	3 472
Norway	1.66	5 576	4 777
Sweden	3.30	6 473	9 473
United Kingdom	1.65	4 055	46 035
United States	2.81	4 019	208 601

Source: Adapted from World Bank (2014: Table 5.13)

North–South research collaborations as instruments of internationalisation

North–South research collaborations can also be understood as forming part of the internationalisation of higher education as advocated by multilateral international organisations such as UNESCO, the Association of African Universities (AAU), International Association of Universities (IAU) and others. For all the reasons already outlined, these agendas are still substantially driven by the North, perpetuating

power imbalances and ensuring that countries in the South remain the weaker partners.

The fact that Southern countries, particularly in Africa, lack the ‘baseline scientific and research capacities and infrastructure required to collaborate on a more equitable footing with their partners in the developed countries’ (Jowi 2012: 51), is well illustrated by the number of scientific and technical journal articles published by academics at African universities (see Tables 7.1 and 7.2). Quite apart from the fact that so many of these journals are published by massive multinational companies based in the North and edited by Northern academics etc., this imbalance clearly highlights the limited impact that North–South research collaborations have on capacity building in the South.

Singh (2010) argued that the prospects of internationalisation yielding increasingly equal partnerships in higher education are bleak. While acknowledging that internationalisation is ‘an important policy and strategy for most universities worldwide’, even the IAU (2012) has expressed caution about its unintended consequences and tried to alert institutions (particularly in the South) of the need to ensure that its outcomes are positive and bring reciprocal benefits to all concerned. Possible unintended outcomes of internationalisation mentioned by the IAU include: uneven benefits arising from differential access to resources and the entrenching of asymmetrical power relations institutions based (again) on unequal access to the resources and capacities needed to successfully implement internationalisation strategies.

North–South research collaborations and university development

Roseel et al. (2009) cited the example of the Flemish Inter-University Council-Development Cooperation in a study of how research collaborations form part of broader development programmes. The Flemish organisation supports both institutional co-operation between Belgian universities and selected/nominated universities in the South and research partnerships between individual professors and researchers. Roseel et al. show that, however, in almost all cases, collaborations are initiated by Northern countries and implemented by multilateral

development agencies that are based in and effectively controlled by the North.

The concept of development co-operation is, as Alonso and Glennie (2015) observed, synonymous with official development aid. Apparently there are three types of development aid: i) financial (and in-kind) transfers whereby richer countries transfer financial resources and other support; ii) capacity development; and iii) policy development. In reality, ‘university development co-operation’ occurs within a donor-aid framework, making it much like food aid – where ‘development partners’ provide both financial and in-kind resources for research (such as books, lab equipment, computers etc.) to recipient countries in the South.

Furthermore, North–South research collaborations can be located in the broader context of international co-operation, whereby multilateral organisations, such as the IDRC, the World Bank, UNESCO, and the OECD, use research co-operation as a mechanism within their broader ‘development’ strategies. Perhaps especially in this context, ‘asymmetry between partners remains the principal obstacle to productive research collaboration’ (Bradley 2007: 2, quoted in Nakabugo et al. 2010: 1). In other words, because so many research collaborations depend on external funding, and ‘because that funding is equivalent to foreign aid’, research collaborations between North and South ‘become linked to state-to-state relations’ (Samoff and Carrol 2004: 53).

Despite years of advocacy and many calls for equality,⁴ Carbonnier and Kontinen have pointed out that ‘implementing equitable partnerships is difficult, money flows tend to determine decision making and actual division of labor’ (2014: 4–5). As Carbonnier and Kontinen argued, unidirectional funding flows undermine genuine collaborations and partnerships. The donor–recipient relationship embedded in North–South research partnerships

is clearly connected with the flows of money and is implicitly embedded in power relations. The donor sets the agenda and provides funds to the recipient with a set of rules, accountability mechanisms and an oversight right. (2014: 4–5)

Waardenburg (1997) has done a useful analysis of North–South research collaborations, examining their strengths and weaknesses, as well as the opportunities and threats they face (see Table 7.3).

My aim in the chapter so far has been to expose some of the erroneous assumptions underlying North–South research collaborations, namely that they:

- Promote knowledge-production and the sharing of knowledge;
- Pool financial and human resources across national and regional boundaries;
- Give rise to synergies and complementarities among the diverse participants to their mutual benefit (Obamba and Mwema 2009);
- Increase research productivity in Southern research institutions (Ordonez-Matamoros et al. 2011);
- Give researchers in the South access to advanced research facilities (Bradley 2007).

All of these assumptions are questionable. The literature and my own observations show that knowledge production in North–South research collaborations is dominated by Northern researchers via funding

Table 7.3: An analysis of North–South research collaborations

Strengths	Weaknesses or challenges
Northern and Southern partners can both benefit if collaborations are mutually negotiated between equals and are based on principles of reciprocity and joint agenda-setting Collaborations remain a reliable instrument for research capacity building in the South	Power asymmetries undermine relationships Lopsided agendas prevent real collaboration Partners have incompatible goals and objectives Long-term perspectives and sustainability are lacking
Opportunities	Threats
Increasingly equal and balanced collaborations might emerge People might develop more insight into the challenges facing both North and South	Over-dependence on financial and technical support from Northern donors imperils the sustainability and impact of collaborations, and ultimately undermines higher education in the South

Source: Adapted from Waardenburg (1997: 14)

processes and the consequent agenda setting. Knowledge exchange is very limited because the skill sets of the Northern and Southern researchers are seldom complementary. The dominant mode of knowledge production is via more or less controlled laboratory settings in which Northern research partners and funders define the research problems, methodologies, objectives and deliverables. Also, because the research is so seldom led by the demands of people or nations in the South, it is difficult to determine how relevant the knowledge produced really is.⁵ The power asymmetries involved also make it difficult to ascertain the extent to which collaborations promote the pooling of financial and human resources across boundaries or create synergies between participants that benefit both sides.

Furthermore, the claim that North–South research collaborations increase research productivity has been proven wrong by research at the Makerere University, which has received substantial research funding via North–South research programmes over many years. Musiige and Maassen (2015) found that Makerere University’s research productivity levels remain low despite the university’s status as one of Africa’s flagship institutions and the relatively high levels of research funding it has received.⁶ Musiige and Maassen identified four factors as responsible for this, which, in my view, apply equally well to many other Southern universities:

- *The nature and source of research funding.* At the time of the study, about 80 per cent of the university’s research was donor funded, and the university had little control over what research was funded. In addition, the lack of local funding had created a dependency on donor income and made the university management unable or unwilling to invest in research to the extent necessary to strengthen the institution’s research capacity.
- *Individual factors.* Qualifications, rank, ambition, a passion for and an interest in research, the confidence to engage in research and shape research agendas, years of experience, and time, were generally lacking.
- *Organisational factors.* These include research leadership and management, institutional incentives for research (financial and others), and the level of institutional clarity on matters such as

research policies, and the question of research dissemination and publishing in journals that are not open access.

- *The lack of a research culture.* The university has not become a research-oriented organisation despite its strategic plan's emphasis on research and innovation. The university (like many in Africa) remains primarily a teaching institution, where staff focus increasingly on private work to earn extra income. (Musiiige and Maassen 2015: 112–113)

Although northern donors and academics often affirm that North–South research collaborations have ‘the potential to revitalise African knowledge systems and reinvigorate research capacity in African universities’ (Kot 2016: 3), unfortunately, there is little empirical evidence to support this. On the contrary, critical knowledge deficits and research gaps in African universities seem set to ensure that Africa remains ‘a peripheral appendage to the global knowledge architecture for years’ (Jowi et al. 2013:17).

Jowi et al. have also argued that the persistent deterioration of Africa’s fragile higher education infrastructure is severely undermining any remaining capacity for research and knowledge production. However, Ordonez-Matamoros et al. (2011: 1) cite several different studies⁷ to present a more optimistic view of North–South research collaborations, albeit in the context of Colombia. They argue that:

Research collaboration is commonly associated with [increased] creativity and scientific productivity, research quality, innovative capacity, and the creation of science and technology human capital, the consolidation of research agendas, the expansion of research areas and disciplines, and ultimately, the development of new or better [research] processes and services.

Ordonez-Matamoros et al. (2011) conclude that international research collaborations can be positively correlated with a research team’s productive capacity and their ability to contribute to local knowledge. Whether these findings apply in the African context is debatable. The

major limitation that emerges from almost every study on the issue (by both Northern and Southern researchers) is the problem of ‘asymmetry’ and ‘the dominance of the partners in the North’ (Gaillard 1994: 31). Nair and Menon (2002) recommend demand-led research as a panacea to this asymmetry and as a means to genuine capacity building in the South.

In the next section I present my own research on the impact of North–South research collaborations in the context of capacity building in state-funded Southern universities.

Reflections from a Southern perspective

Despite their potential to contribute to enhancing Southern universities’ research capacities, North–South collaborations often produce negative or undesired effects. Although difficult to quantify, in my experience North–South research collaborations perpetuate the dependence of Southern universities on the North for funding and Southern academics consequently lose control and ownership of research agendas.

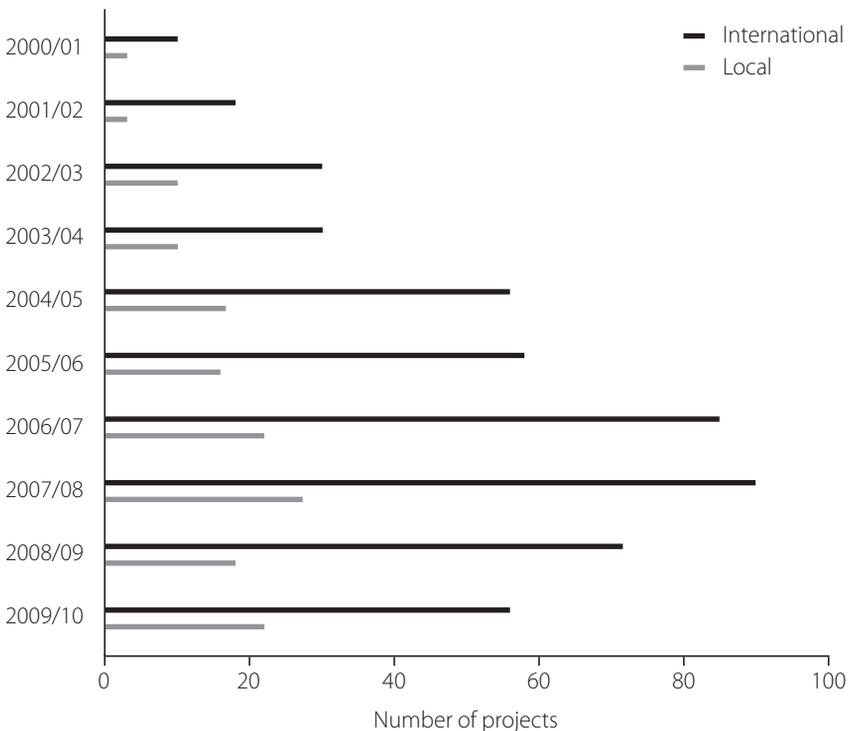
The dependence of Southern higher education institutions on the North for research funds is a result of their own governments’ declining investment in research and development, and more generally in higher education. With the possible exception of South Africa, Africa’s contributions to the world’s research and development budget is low. Bashour (2013) has argued that Africa’s total contribution amounts to less than 1 per cent of global investment in research and development, and that scholarly publications from Africa constitute ‘a mere 1.5 per cent of total scientific publications’. Bashour attributes Africa’s low research output (despite the number of North–South research collaborations) to a lack of research infrastructure, adding that this also has implications for Africa’s ability to collaborate and co-operate with other world regions in the fields of science and technology (Bashour 2013).

As UNESCO pointed out, in Africa, ‘research and development (R&D) still attracts less public funding than the military, health or education sectors’ (UNESCO 2010:1). Low levels of investment by

African governments has compelled (public) universities in Africa to aggressively seek external collaborators to fund research leading to the dominance of externally funded research in public universities (see Figure 7.1 for example). Like donor aid, donor-funded research collaborations are not based on the altruism per se of Northern collaborators. They are, *inter-alia*, designed to promote the strategic (and commercial) interests of Northern universities, research centres, and ultimately of the countries and regions in which they are located.

Politicians in Africa and other Southern regions often argue that investment in public universities is low because of the competition for resources with other sectors considered critical for development such as primary and secondary education, health, water and infrastructure.

Figure 7.1 International and local collaborative research projects at the University of Dar es Salaam's main campus, 2000–2010



Data source: Directorate of Quality Assurance, Makerere University

Universities are also increasingly expected to compete for and generate their own research income. In my experience, policy makers and politicians fail to prioritise higher education because they see it as a ‘private good’. For example, in 2010, at the University of Dar es Salaam, research funding suddenly dropped by almost 50 per cent (see Figure 7.1). This decrease happened in tandem with a decline in the number of international research collaborations from 53 to 40 between 2009 and 2011. Although reasons for the decrease are not provided in the data sources, the unsustainable and unpredictable nature of donor-funded research and collaborations might be part of the explanation. The decrease in funding levels might also be related to the fact that the government (the main financial sponsor of the university) only *partially* meets the budgetary requirements of the institution, thus making it impossible for the university to allocate adequate funds to research, thereby reinforcing donor dependence.

Rowlands (2008) and Lancaster (2007, cited in Warmerdam and De Haan 2011: 3) confirmed that commercial interests often influence the ways in which foreign aid policies are formulated. In many cases development assistance functions as an instrument of commercial market expansion and foreign policy. These commercial interests further consolidate and reinforce the growing economic disparities between North and South within which the donor-recipient framework operates.

Illustrating the ever-increasing economic disparity between North and South, Osama (2008) citing UNCSTD (2005) revealed that 86 per cent of the world’s GDP, 82 per cent of its export markets, 74 per cent of its telecommunications infrastructure, and 86 per cent of foreign direct investment are controlled by countries that make up just 20 per cent of the world’s population, and all of which are located in the North.

Similarly, in the context of universities, Northern institutions dominate and control knowledge production and dissemination. Their dominance derives from ‘their huge resources, their role as international centres of innovation, their close relations with funding agencies, and from the intellectual socialisation of Southern decision-makers’ (Girvan 2007: 2). Furthermore, as Girvan argued, Northern control over knowledge production creates power imbalances expressed in their dominance in knowledge construction, reproduction and in

governance of international institutions, including universities and university ratings agencies.

Given the rise of the so-called knowledge economy, those who control knowledge production also control the world economy. In this context, public universities and other research institutions operate as instruments of state-to-state relations because they are funded by taxpayers' money and therefore have to advance and promote state interests. Despite the best intentions of certain academics and university leaders, Northern universities and research institutions still help to perpetuate the economic exploitation of the South.

Why North–South research collaborations are still ineffective

Lack of reciprocity and mutuality

As observed earlier, the donor-recipient framework that dominates the functioning of North–South research collaborations means that far too few collaborations are negotiated between equal partners who all stand to benefit. Certainly, in terms of financial or material resources, Southern 'collaborators' have very little (if anything) to contribute. This often ensures that relations between 'collaborators' are neither reciprocal nor equal. In formulating his theory of power-dependence, Emerson (1962) argued that the power of one organisation or institution over another emanates from its control of resources that are valued by the dependent organisation, and unavailable elsewhere.⁸ Conversely, Emerson suggested that when based on equal relations of power, mutual dependencies bring people together; that is, people who are mutually dependent are more likely to form relationships that involve equal exchanges. He also pointed out that inequalities and power imbalances often lead to conflict. The implications of this for North–South research collaborations are obvious and have been discussed by Malatesta and Smith (2014) as well as Ordonez-Matamoros et al. (2011).

Hidden carrots and sticks

Although not widely acknowledged in the research, my own observations point to the fact that research collaborations, like other forms of aid, come with disguised and entrenched conditionalities that stem from unequal power relations. Such conditionalities are expressed when Northern research funders create methodological rules and accounting procedures for example, or decide on budgetary allocations, and determine the nature of research outputs and the modes through which research findings will be disseminated.⁹ These control mechanisms amount to what respondents in Carbonnier and Kontinen's study called the 'unilateral dictation' and 'pre-determination' of research agendas (2014: 10). Research funding often comes laden with conditions (sticks) that have major implications for the ownership of research agendas and research findings. Venner et al. (2009) defined the 'carrot approach' as respectful of the various powers and resources of each collaborator, and as seeking to identify and achieve common goals, while pooling all the available skills and resources. In my experience, such carrots are rarely used in research collaborations: as the English proverb goes: 'the one who pays the piper calls the tune'.

Mismatched motives

The motives of research collaborators are often different. Of course, many researchers from the North genuinely wish to transfer knowledge and share international best practices with their Southern partners. However, the imperatives of internationalisation, as well as a desire to travel and contribute to development, thereby gaining access to unique data and fieldwork opportunities, undoubtedly also play a role (Bradley 2008b). Southern researchers collaborate for different reasons, and the major one seems to be financial rather than academic. In Africa, researchers often participate in research collaborations as a means of generating additional income and accessing research funds. As Samoff and Carrol (2004: 26) observe:

With low basic salaries, individual researchers are highly motivated to become consultants to the external agencies. The fees for a few weeks of consulting may surpass several months' salary in their home country. Their commissioned research enables them to acquire computers, cars, and cellular telephones, to travel overseas and participate in international meetings, and to escape overcrowded classrooms and empty libraries.

Bradley (2007: 675) adds that 'many Southern researchers enter into partnerships far removed from their own priorities, simply to generate the income required to stay afloat'.

As Osama (2008) pointed out, mismatched motives for collaboration can lead to dysfunctional behaviours and ineffective collaboration. The fact that many Southern researchers don't have or express clear priorities of their own when entering partnerships or research collaborations is a major concern. As Horton et al. (2009: 24) put it:

Although many Southern research organisations are best placed to maximize the benefits of collaboration, many of the organizations entering partnerships lack a clear sense of their own priorities and other key institutional capacities critical to successful agenda negotiation.

Oh the other hand, as Bradley (2007: 679) pointed out:

Although some donors certainly accept independent proposals from both Northern and Southern proponents, even prominent Southern institutions often struggle to secure funding when they compete against well-connected Northern organisations. Consequently, partnerships are a key source of funding for many Southern institutions, because their Northern counterparts are often better placed to secure large grants covering salaries and infrastructure.

Of course, there are exceptions (some of which are described in this volume) in which North–South research collaborations are driven by academic objectives, including capacity building through graduate training or joint publications, that enhance the academic status of all the institutions and individuals involved (Bradley 2008a, 2008b).

Flawed models of collaboration

In 2005, the Overseas Development Institute (ODI 2005) identified five models of research partnerships along with their advantages and disadvantages (see Table 7.4).

A critical analysis of research collaborations indicates that the first model predominates in North–South research funding. Model 1 tends to exacerbate the power asymmetries referred to throughout this chapter. However, some Northern research institutes and donors adopt a *demand-led research approach* in which researchers and institutions in the South ‘are able to bring about their own development with the objective of building up research systems to unleash the potential of the South’ (Nair and Menon 2002: 2). Demand-led research approaches have emerged as awareness has grown about the asymmetries between North and South.

In general, this approach aims to generate knowledge that empowers the individuals involved to acquire capacities necessary to make informed development choices (Nair and Menon 2002). For example, all RAWOO-supported research collaborations adopted this approach. Donors from Scandinavian countries, although not applying this demand-led approach exactly, have also been credited as *ideal donors* in that their research funding and official development assistance seems to be far less driven by hegemonic political or commercial interests.

Model 2 is also quite common in African universities. A typical example is the World Bank-funded African Centres of Excellence (ACE) project. Through the Association of African Universities (AAU), the World Bank financed 19 university-based centres of excellence in seven countries in West and Central Africa through a competitive bid system, whereby eligible universities submitted proposals.

Table 7.4: Dominant models in North–South research relationships

Model	Advantages	Disadvantages
1. A Southern research institute is appointed and managed by a Northern research institute to carry out research activities as a sub-contractor	None	The Northern research institute has substantial influence over both the research agenda and output quality, often setting tight terms of reference for the research, and linking output and performance to the disbursement of funds
2. A fund managed by a Northern research institute, and accessible by other institutions (including Southern) on the basis of competitive proposals submitted on a series of given research priorities	Competition can enhance research quality	The competitive nature of the bidding process encourages greater influence and domination by the well-resourced Northern research institutes in the research design
3. Franchisees draw on financial resources from a Northern research institute and abide by its quality standards, to conduct research within a 'jointly agreed' work plan and governance structure	The Northern research institute has less influence on how research agendas and activities shift as research programmes unfold	The Northern research institute retains control of output quality, by, for example, quality performance to the disbursement of finances
4. Franchisees choose to adhere to the quality standards of a Northern research institute and draw on financial resources from a third party	The Northern research institute is able to influence the research agenda only in so far as the Southern partners derive value from the (non-financial) competencies and assistance of the Northern partner	None
5. A network of institutions with shared interests and complementary research competencies share information and co-operate when appropriate, but are funded independently and pursue research agendas established by stakeholders within their own country	The Northern research institute is unable to influence output quality	The Northern research institute may retain some influence in the research and uptake methods due to insight provided by the wider network. The Northern research institute may have some control over output quality if it hosts a secretariat offering publication or dissemination services, such as a website for research findings

Source: Adapted from ODI (2005: 2)

This US\$150-million project supports recipient universities to promote regional specialisations in areas that address challenges in science, technology, engineering and other related fields deemed critical for Africa's socio-economic development. The project also aims to strengthen the capacities of universities to deliver high-quality training and applied research. Initiated in 2014, the project expanded in 2016 to cover East and southern Africa. Participants include selected public universities from Burundi, Ethiopia, Kenya, Malawi, Mozambique, Tanzania, Uganda, Zambia and Zimbabwe, whose governments have previously been unable to negotiate singly with the World Bank. This project (dubbed ACE II) is co-ordinated by the Inter-University Council of Eastern Africa (IUCEA) and has similar objectives.

Although the World Bank claims that the ACE projects were derived from 'broad consultations' and collaborations with 'participating' African governments, they still operate within a donor-recipient modality in which the World Bank prescribes terms and conditions as well as criteria for eligibility. These are not negotiable and the Bank reserves the right to make a final decision on the participation of institutions, directly or through proxies. The World Bank is the sole donor. The fact that the funding is directed through the International Development Association (IDA) reinforces an argument I made elsewhere that World Bank-funded projects operate within a donor-aid modality (see Ishengoma 2015). The impact of the ACE projects on institutional capacity cannot be determined until the project ends in 2019.

Model 5 also applies to certain North-South research collaborations. One example of this was the Partnership for Higher Education in Africa (PHEA), which ran from 2000 and 2010. This joint initiative by seven US-based foundations (Carnegie, Rockefeller, the Ford Foundation, John D and Catherine T MacArthur, William and Flora Hewlett, Andrew W Mellon and Kresge) generally aimed to revive and revitalise African higher education. PHEA collectively invested about half a billion US\$ in 'strengthening African higher education' in nine African countries (Ghana, Egypt, Madagascar, Mozambique, Nigeria, South Africa, Kenya, Tanzania and Uganda) in the following key areas: the use of ICTs; postgraduate training and research; research and

analysis of the higher education sector; and developing and retaining the next generation of academics (Lewis et al. 2010).

PHEA ended its operations in January 2010, apparently because of donor fatigue. The Partnership faced a number of constraints revealed by Parker (2010: 30–34) that limited its impact on institutional capacity building. These can be summed up as:

- A lack of clarity about the mission, with clear goals and measurable outcomes;
- Cumbersome decision-making processes;
- The lack of strong co-ordinating structure;
- A lack of data showing the collective impact of the partnership, related to its single broad goal of ‘strengthening higher education in Africa’ but also because each foundation retained its own internal evaluation and monitoring systems;
- The lack of exit plan.

The lack of an exit plan is surprisingly common in North–South research collaborations in universities and impacts heavily on their long-term sustainability. Similarly, too many North–South research collaborations are set up without measurable outcomes or indicators being established to determine the extent to which they achieve their goals. Given this reality, donor fatigue seems likely to affect the sustainability of similar kinds of donor-funded North–South research collaborations.

One lesson we can learn from this is that Model 5 does not necessarily strengthen capacity in South universities. The PHEA still operated via the donor–recipient framework, in which the US-based foundations’ presidents made most of the decisions through their programme officers. Furthermore, evidence from the 2004 and 2008 evaluations of the programme revealed that its engagement with (and therefore the support it received from) African governments and leaders was limited. It is likely that this undermined its impact (Parker 2010).

A model of North–South research collaboration, that is similar to Model 5, but seems to work better, was articulated by UNCTAD (1999) in a report titled, *Making North–South Research Networks Work*. UNCTAD defined research networks as ‘voluntary associations of

individuals and institutes [in both the North and the South] who share a common interest in exchanging information and in rendering support to advocacy and research programmes' (1999: 5). These associations were then classified into three categories on the basis of the functions they perform:

- Research networks that focus on sharing research information (they organise and facilitate exchange of information, ideas, and research findings among members).
- Research networks that try to co-ordinate research priorities and projects in specific fields (members focus their research on common priority themes).
- Research networks that concentrate on co-ordinating their research policies and strategies, and which pool their resources so that they can be more effective when engaging with international associations and donors.

Although these research networks are also donor-dependent, the usual power asymmetries are less potent because network members tend to meet as professionals and hence as equal partners in specific disciplines. Apart from securing donor funding, research networks are capable of generating their own income through membership fees and other activities. Research networks can be highly empowering of individuals in terms of building research capacity, but their contribution to institutional capacity building tends to be less significant because they essentially operate as social organisations.

Waardenburg (1997, cited in Rosseel et al. 2009: 15) identified another five models of research co-operation (see Table 7.5). In my view, if applied to North–South collaborations, some of these have great potential for empowering researchers in the South.

The issue of a research culture

Although not well documented, the lack of a solid research culture (attributed to lack of resources as well as solid research competencies and skills) among Southern academics seems to be one of the major

Table 7.5: Other models for North–South research collaborations

Modality	Advantages	Disadvantages
1. Financial resources come entirely from the North; agenda setting and implementation is left entirely in the hands of the researchers from the South	Southern researchers own the research agendas and processes	Financial dependency on Northern research institutions which are likely to try to covertly control/influence research through the disbursement of funds
2. Financial resources come from the North and both sides have a say in decision-making but Southern participants have a veto right in agenda setting, research expenditure, etc.	Asymmetry and power imbalance are counteracted	None
3. Funding comes from the North but collaboration is symmetrical, with both sides having an equal say in agenda setting, financing, and management	As per Model 2	North research institutions retain indirect influence over the research project via their control of funding
4. Financial resources come entirely from and are mainly managed by the North. Collaboration without operational guarantees of symmetry or against the domination of the North partner	None	Power asymmetry with power in the hands of the North
5. Participation of South researchers in research initiated, designed, managed, financed and largely implemented by the North collaborators	Some international research exposure can be gained by the South researchers	Asymmetry and power imbalance, lack of research ownership by the South researchers

Source: Adapted from Waardenburg (1997)

factors that prevent North–South research collaborations from being more effective. As Carbonnier and Kontinen (2014: 14) argue:

Lack of resources constrains the building of a research culture in developing countries, where leading researchers easily turn into consultants out of necessity and opportunism. Because of low salaries, the professors and researchers will not easily have the research culture found in northern institutions.

Cloete et al. (2011) and Musiige and Maasen (2015) have also acknowledged this problem, and acknowledged that it operates even in so-called flagship African universities.

Conclusions

Drawing on the discussion above, I offer the following conclusions:

- North–South research collaborations can supplement the capacities and resources of individual researchers and higher education institutions, but are no panacea for capacity building or for the creation and utilisation of knowledge for development. As long as research collaborations remain grounded in a donor-aid framework, the modality of the collaborations will be flawed. In this imbalanced framework ‘it is a fallacy to view North–South partnerships simply as exercises in Southern capacity building’ (Bradley 2008a: 679). And, as Horton et al. (2009) point out, pervasive donor influence in research agenda-setting is probably not the best way to advance research agendas rooted in the Southern priorities.
- While North–South research collaborations remain overwhelmingly donor-funded and donor-dependent, they will be unsustainable and collapse when donor funding ceases. To an extent, North–South research collaborations perpetuate the dependence of Southern institutions on Northern partners for research funding.
- The factors that motivate academics from both sides of the North–South divide to enter into research collaborations can be so different, even opposing in some cases, as to prevent these relationships from being effective. For example, Northern researchers tend to seek out North–South research collaborations to gain access to unique data and fieldwork opportunities, and to contribute to development. The majority of (if not all) Southern researchers enter such collaborations for financial and other gains, such as access to professional resources and to be eligible for

opportunities such as attending international conferences and training programmes.

- Southern higher education and research institutions also seem to enter research collaborations and partnerships primarily for the financial benefits this offers. As Bradley (2008a: 679) reiterates:

Partnerships are a key source of funding for many Southern institutions, despite the fact that direct donor support remains their preference. Partnerships may be particularly appealing as a funding avenue for Southern institutions, because their Northern counterparts are better placed to secure large grants covering salaries and infrastructure.

- Despite the plethora of North–South research collaborations between universities and researchers in recent years, the percentage share of world journal publications by researchers based in Southern institutions has not increased dramatically, South Africa being perhaps one exception. Mouton (2010: 3) noted that ‘Africa’s share of world science as measured by papers published in ISI indexes has been declining steadily over the past decades’. In fact, sub-Saharan Africa’s percentage share of publication worldwide decreased from 0.9 per cent in 1980 to 0.4 per cent in 2004.

In closing, I would like to pose the following questions to those who are considering or involved in North–South research collaborations:

- Who *really* benefits from the collaboration and how? In my opinion, the material benefits that accrue to Southern researchers do not necessarily enhance research-capacities.
- Are North–South research collaborations managed democratically and transparently and are responsibilities equally shared between North and South?
- Is the collaboration sustainable after the donor funds are exhausted or when the research project comes to an end? Too often, the answer to this question is obviously, no. Examples abound, particularly in African universities, of research programmes that have been abandoned after funding dries up. The

University of Dar es Salaam's Research and Education for Democracy in Tanzania programme, and the AAU's Respond to HIV/AIDS Project are just two examples.¹⁰

- Do the Southern partners put monitoring and evaluation mechanisms in place to assess whether the objectives are achieved or not? In my experience, although almost all Southern research institutions have a directorate or a unit that focuses on co-ordinating links and partnerships at an institutional level, very little work is done on how such links and partnerships are implemented in different academic units, or on what effect they have.

Notes

- 1 There is little concrete evidence of self-censorship among Southern researchers apart from reports by journalists, but my own observations and experiences indicate that self-censorship occurs where it is thought that this might please donors and thus elicit additional funding and or consultancies.
- 2 North–South research collaborations are often believed to be ineffective because funds and equipment are allegedly abused or misused by Southern (and especially African researchers), who apparently see such initiatives as opportunities to boost their meagre incomes. The inadequate remuneration of academics and researchers in Africa's public universities is widely documented; see for example Mihyo (2008) and Okello and Lamaro (2015). Samoff (1999) described the 'incentives' that entice African researchers in public universities to misuse or abuse North–South research collaborations, noting that international research grants make it possible for African academics to purchase computers, mobile telephones, access vehicles for site visits and undertake international travel to donor countries to present research findings or engage in consultations. That is, they gain access to all the kinds of 'luxuries' that many researchers in the North see as basic necessities.
- 3 There have been exceptions to this. For example, in some of the collaborations supported by the Netherlands Development Assistance Research Council (RAWOO), research agendas were determined by the Southern

partners. RAWOO operated on the principle that North–South research collaboration should be based on principles of co-operation and equality and strongly supported demand-driven research that considered locally (Southern) defined research priorities and needs (see Engel and Keijzer 2006). However, RAWOO was disbanded in 2007.

- 4 See for example, OECD–DAC (1996).
- 5 I refer here to Nair and Menon (2002: 2), who defined demand-led research as ‘activities in which people are able to bring about their own development, with the objective of building up research systems to unleash the potential of the South’.
- 6 In the context of Musiige and Maassen’s study, research productivity was limited to three components: the publication of articles in scholarly journals, presentations made to academic conferences, and the supervision of doctoral students. Researchers cited by Musiige and Maassen, such as Cresswell (1985), measure research productivity in terms of research publications in scientific journals, academic books and book chapters, conference proceedings, the gathering and analysing of original data, obtaining competitive research grants, as well as producing monographs and research reports. The findings of this study were also reported in *University World News*, 6 March 2015 (see Maassen 2015).
- 7 These include: Beaver (2001); Bozeman and Corley (2004); Bozeman and Lee (2005); Georghiou (1998); Landry et al. (1996); Rigby and Eldler (2005); Rogers (2000); Tsai and Ghoshal (1998).
- 8 Emerson developed his theory in relation to American businesses but it is now widely used to analyse power and dependence versus interdependence in a range of different organisations. An assumption on which the theory is based is that ‘the key to organisational survival is the ability to acquire and maintain resources’ (Pfeffer and Salancik, 1978: 2, quoted in Delke 2015: 3).
- 9 For example, Carbonnier and Kontinen (2014) argue that Northern donors and partners pressurise Southern partners to quickly publish their research outcomes via journals edited in the North.
- 10 This Tanzanian programme was funded by DANIDA, and the information about the AAU was disclosed to me by their director of Research Programmes at the Conference of Vice-Chancellors, Rectors and Presidents of African Universities held in Kigali, Rwanda in June 2015.

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