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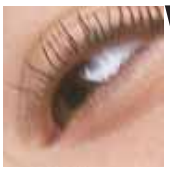
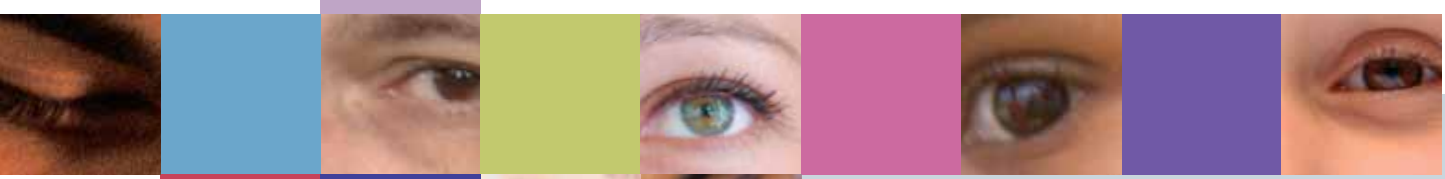


World Social Science Report



2010

Knowledge Divides

World Social Science Report

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Foreword

I welcome the publication of the 2010 *World Social Science Report,* the first thorough overview of this important field in more than a decade. Edited by and co-published with the International Social Science Council (ISSC), it is the product of the active engagement of hundreds of professional social scientists who have contributed their expertise to make this publication a reference.

The Report reaffirms UNESCO's commitment to the social sciences, and our desire to set a new global agenda to promote them as an invaluable tool for the advancement of the internationally agreed development goals. UNESCO, with its emphasis on the management of social transformation, is concerned that the social sciences should be put to use to improve human well-being and to respond to global challenges. As long ago as 1974, UNESCO's General Conference adopted a Recommendation on the Status of Scientific Researchers which emphasized 'the need to apply science and technology in a great variety of specific fields of wider than national concern: namely such vast and complex problems as the preservation of international peace and the elimination of want'.

Today, the social sciences bring greater clarity to our understanding of how human populations interact with one another, and, by extension, with the environment. The ideas and information they generate can therefore make a precious contribution to the formulation of effective policies to shape our world for the greater good.

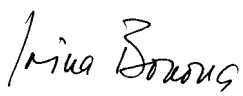
Yet, social scientific knowledge is at risk in the parts of the world where it is most needed. The huge disparities in research capacities across countries and the fragmentation of knowledge hamper the capacity of social sciences to respond to the challenges of today and tomorrow. While we may be building a 'knowledge society', it is one that looks very different depending on one's regional perspective. Social scientists produce work of outstanding quality and tremendous practical value, but, as this Report illustrates, social scientific knowledge is often the least developed in those parts of the world where it is most keenly needed – hence this publication's title, 'Knowledge Divides'.

Global divides reproduce themselves in each generation, in our institutions and in our methods of creating and using knowledge. Global divides affect all indicators of human development, hampering the accumulation, transmission and use of knowledge in our societies, to the detriment of equitable development. Consider the world's one billion poorest who live on less than US$1.25 per day. There is a consensus that their lot should urgently be improved but why do well-intentioned policies so often produce so little? We may, perhaps, need better intentions; we certainly need better and more accessible knowledge that can provide policies with the evidence that they need to make a difference.

Social scientific endeavour is also poorer for its bias towards English and English-speaking developed countries. This is a missed opportunity to explore perspectives and paradigms that are embedded in other cultural and linguistic traditions. A more culturally and linguistically diverse approach by the social sciences would be of tremendous value to organizations such as UNESCO in our efforts to foster mutual understanding and intercultural dialogue.

All these findings are profoundly challenging – they emphasize that without conscious and coordinated effort, the drift of the global social science landscape is towards fragmentation, lack of pluralism and estrangement between scientific endeavour and social needs. Clearly, institutions matter hugely for research performance. But their strength can hardly be taken for granted in today's economic circumstances. The production of rigorous, relevant and pluralistic social science knowledge requires international coordination, a long-term vision and a stable environment.

I am confident that this Report will help to galvanize the energies of all of those who are concerned to see the social sciences flourish in the years to come.



Irina Bokova
Director-General of UNESCO

Foreword

By its Constitution, by its programmes, by its whole ethos, UNESCO is committed to the view that knowledge should bring together and unify. The publication of a report entitled 'Knowledge Divides' – which emphasizes the huge disparities in research capacities across countries and the fragmentation of knowledge that hamper the capacity of the social sciences to respond to the challenges of today and tomorrow – is therefore at once an opportunity and a challenge. From both perspectives, I take great pleasure in welcoming the 2010 World Social Science Report.

The opportunity, responding to the conclusions of the Report, is to reaffirm our commitment to the importance of the social sciences and to set a new global agenda to promote them. And 'our' is, here, no mere figure of speech. The 2010 *World Social Science Report* is a genuinely collaborative effort. It brings together under one banner the International Social Science Council (ISSC), the primary professional umbrella organization of social science, and UNESCO, an intergovernmental organization with 193 sovereign Member States serving policy communities as a capacity-builder and a broker of scientific knowledge. It builds, furthermore, on the active engagement of hundreds of professional social scientists who have contributed in various ways to its development: as authors, as editorial board members, as reviewers or as participants in the World Social Science Forum successfully convened by the ISSC in Bergen, and organized in cooperation with the University of Bergen and the Stein Rokkan Centre for Social Studies, Norway, in May 2009.

The very existence of the Report shows that knowledge divides in the social sciences are not insurmountable. Nonetheless, its findings are profoundly challenging. They emphasize that, without conscious and coordinated effort, the drift of the global social science landscape is towards fragmentation, lack of pluralism and estrangement between scientific endeavour and social needs. The production of rigorous, relevant and pluralistic social science knowledge requires a long-term vision and a stable environment. As the findings of the 2010 *World Social Science Report* clearly show, institutions matter hugely for research performance. But their strength can hardly be taken for granted in today's economic and financial circumstances.

As a consequence of fragmentation, we may be building a 'knowledge society', but it is one that looks very different depending on one's regional perspective. Global divides affect all indicators of human development, hampering the accumulation, transmission and use of knowledge in our societies, to the detriment of equitable development. Global divides reproduce themselves in each generation, in our institutions and in our methods of creating and using knowledge.

Consider, for example, those that Paul Collier, in his award-winning 2007 book, called the 'bottom billion' – those living in 'extreme' poverty on less than US$1.25 per day. There is a consensus, in principle, that their lot should urgently be improved. But how should this be done – and why do well-intentioned policies so often produce so little? We may, perhaps, need better intentions; we certainly need better and more accessible knowledge that can provide policies with the evidence that they need to make a difference.

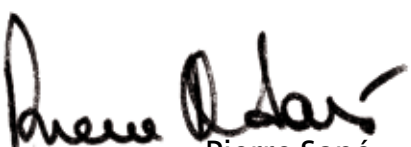
UNESCO, with its ethical mandate, and through its Management of Social Transformations (MOST) Programme, is concerned that the social sciences should be put to use to improve human well-being, with a view in particular to achieving the Millennium Development Goals and responding to other global challenges, such as the social impacts of climate change. Yet, social scientific knowledge is at risk in the parts of the world where it is most needed because it is neither generated, nor transmitted, nor used. In too many places, even a proper census cannot be carried out.

Another highly significant divide is language. As the 2010 *World Social Science Report* shows, the production and circulation of social science are heavily biased towards English and towards the countries where English is most widely spoken in academic circles. Such linguistic hegemony does not merely create barriers to the participation of those scholars whose English is inadequate for academic communication. It also, and much more importantly, crowds out perspectives and paradigms that are embedded in other linguistic and cultural traditions – thereby impoverishing the social sciences as a whole.

The linguistic question is of great importance from a UNESCO perspective, especially in 2010, the International Year for the Rapprochement of Cultures, for which UNESCO has the lead role within the UN system. The goal of the International Year is to celebrate the world's cultural diversity and help strengthen dialogue among cultures. Ensuring greater linguistic pluralism in international social science will, in this respect, not just strengthen social science. In so far as social science is one aspect of the self-understanding of contemporary societies, linguistic pluralism will also contribute directly to a truly global, and appropriately diverse, self-understanding.

Furthermore, Article 27.1 of the Universal Declaration of Human Rights stipulates that everyone has the right to share in scientific advancement and its benefits. This is not the best known of the fundamental human rights, but it is not the least important. In so far as social science provides benefits – which are the corollary of the damage bad social science can do, via misguided policies – it is essential and urgent to create the conditions in which they can be truly shared. The knowledge divides identified by the 2010 *World Social Science Report* are barriers to such sharing. They are thus among the key challenges that need to be addressed by the international community, by each state at its own level, and by national and international scientific associations.

As long ago as 1974, the UNESCO General Conference adopted a Recommendation on the Status of Scientific Researchers which, among other things, emphasized 'the need to apply science and technology in a great variety of specific fields of wider than national concern: namely, such vast and complex problems as the preservation of international peace and the elimination of want and other problems which can only be effectively tackled on an international basis'. After more than a third of a century, the world has not lived up to this commitment. It is time to take it seriously, and for that we need social science to take its place in an integrated landscape of science and technology, and policy-makers to listen – among other voices – to what social science has to say. The 2010 *World Social Science Report* makes a welcome and valuable contribution to these crucial tasks.



Pierre Sané
Assistant Director-General for
Social and Human Sciences
UNESCO

Preface

One planet, worlds apart – same map?

A celebration of success

Never before have there been so many social scientists in the world – many more than the 200,000 population of Margaret Mead's famous Samoa. Never before have the social sciences been so influential: economists run ministries of finance, political scientists staff public administrations and MBAs run corporations. Indeed, social scientists have not just entered boardrooms, but since Kinsey also bedrooms. Never before have social scientists had such an impact on public opinion, in terms of both how the world is seen and how it is acted upon. Terms that were once specialized – for example, 'comparative advantage' or 'self-fulfilling prophecy' – dot the media and have entered everyday language. However, in spite of this impact, humans face crises that tax their understanding and their capacity to cope.

Social science: a mixed blessing

Social scientists' foresight has been poor at key junctures, and social science's influence a mixed blessing. Social scientists did not foresee the fall of the Berlin Wall in 1989, which was afterwards prominently interpreted as 'the end of history'[1] – the final victory of constitutional democracy and free markets. As the current economic crisis was unfurling in October 2008, Alan Greenspan, recognized as 'the maestro', and the chair of the US Federal Reserve from 1987 to 2006, conceded that his free-market conception of shunning regulation was deficient. 'Yes, I found a flaw', he said in a congressional hearing: 'That is precisely the reason I was shocked because I'd been going for 40 years or more with very considerable evidence that it was working exceptionally well.'[2] His social science map no longer provided guidance. In Malawi, the World Bank has undertaken self-criticism for pushing private markets, opposing government regulation and fertilizer subsidies aimed at promoting cash crops for exports – a policy that resulted in food shortages.[3] More broadly, from Marx and Myrdal to the Washington consensus, development theories have been only modestly successful.

Furthermore, part of the diagnosis of the present global economic predicament is that social scientists were instrumental in constructing – or misconstructing – both the toxic 'financial instruments' and flawed institutions. More than that, social scientists, sometimes for opportunistic reasons, did not understand how their own creation worked or monitor how it unfolded. In short: if it is not good when the social science models of the world are misconstrued, it is even worse when its models for the world lead to misconstruction of the world itself.[4]

A confluence of crises, increasing demand for social science

Notwithstanding these, and no doubt other, problems, the demand for more social science and better social science is likely to increase. This is the result of the state of the world, and more specifically of what could be called 'a confluence of crises': that is, contemporary crises that mutually reinforce one another. The climate is worsening, largely as a result of human activities, and the consequences of this change will be dire for humans. Given modern modes of travel, epidemics can spread faster than at any previous time in human history. Economically, the world faced the worst global crisis since the 1930s in 2008–09. Social conflicts arising from divergent religious worldviews have multiplied. These crises prove that the planet is one indeed, and one commons at that.

The planet is becoming more crowded – more than 2 billion people will be added to the global population over the next 40 years.[5] The world's population is not just growing, it is also greying, with dependency ratios increasing on all

1. Francis Fukuyama, 1992, *The End of History and the Last Man*, New York: Free Press.
2. *New York Times*, 23 October 2008.
3. 'Ending famine, simply by ignoring the experts', *New York Times*, 2 December 2007.
4. See, for example, the commentary by Harvard professor Dani Rodrik, 'Blame the economists, not economics', http://www.project-syndicate.org/commentary/rodrik29 (accessed 3 March 2010), or the speech by the *Financial Times* chief economics commentator Martin Wolf in November 2008, 'A time for humility', http://blogs.ft.com/economistsforum/2008/11/a-time-for-humility/ (accessed 3 March 2010).
5. See UN Population Division, http://esa.un.org/unpp/p2k0data.asp (accessed 20 September 2009).

continents.[6] The number of poor may also be increasing.[7] Obtaining food is becoming precarious for more millions of people across the globe: the first Millennium Development Goal, the eradicating of extreme poverty and hunger by 2015, may be unattainable.[8] Water resources are becoming scarcer; nearly 900 million people have inadequate access to safe drinking water, while about 2.5 billion have inadequate access to water for sanitation and waste disposal.[9] The crises affect those worst off most adversely.

The net outcome of this confluence of crises is that conflicts, old and new, increase and intensify. They are exacerbated by several factors. One is that the peoples of the world are more tightly coupled in the sense that impacts from one country spread wider, faster and stronger than at any time before in human history. We learned from the present economic crisis that Asian and Latin American countries were not decoupled from the American or European economies or vice versa; rather, impacts cascaded and ricocheted around the world in less than eighty days. We have learned from AIDS, SARS and the H1N1 ('swine') flu virus that no country is an island to itself, and that viruses travel without passports. What happens to a country is increasingly decided outside its own borders. The fact that we live on one planet means that there are no safe havens. Wise responses depend on our understanding of how the world works and how it can be changed.

Social science emerging from the Enlightenment and the Industrial Revolution

To a great extent, the social sciences grew out of the seventeenth-century European Enlightenment, when new ideas about religion, reason, humanity and society were merged into a fairly coherent worldview that stressed human rights, individualism and constitutionalism. Studies of alien societies were used as a contrast when analysing a country's institutions and customs. A range of new, fundamental conceptions was articulated, for example:

- about the autonomy of the individual and inviolable rights
- about individual freedom and the sovereignty of the people
- about the tripartition of state power and the independence of the state from religious supremacy
- about the unfairness of inherited privileges
- about the principles for organizing a market economy.

Equally basic to the birth of Modernity was the recognition that a plurality of opinions and an open, critical debate were necessary to gain new insights and for citizens to forge their own history. Education for all, including women, was articulated as a political goal. A free press and the dissemination of knowledge were regarded as a means for enlightenment and personal development. Power, it was argued, could only be legitimate if it promoted the welfare of the people. Even today, many of these issues remain contentious.

The development of social theory has accelerated in periods of rapid social change. For example, the Industrial Revolution was accompanied by an intellectual revolution: that is, a fundamental change in the thinking about how the economy works and what the guiding principles for economic policy should be. A key part of the analysis focused on the divergence between, on the one hand, the increase in the output and wealth of nations, and on the other, the effects of competition on the conditions of workers; that is, the impact of unfettered capitalism on social dislocation and the misery of labourers, including women and children. This story about the changing interrelationship between industrial production and social conditions is not history. It is an unfolding story of life on the globe, now called globalization, which signifies an ever more unfettered flow of goods, monies, peoples and ideas. Globalization has been justified and accelerated by social theories, but in turn, it challenges social sciences' current understanding of the continuing processes.[10]

6. UN Department of Economic and Social Affairs, Population Division (2002), *World Population Ageing: 1950–2050*; http://www.un.org/esa/population/publications/worldageing19502050/ http://www.un.org/esa/population/publications/worldageing19502050/
7. 'World Bank poverty figures: what do they mean', http://www.stwr.org/globalization/world-bank-poverty-figures-what-do-they-mean.html (accessed 3 March 2010). In 2009, an estimated 55 million to 90 million more people will be living in extreme poverty than anticipated before the crisis. See http://www.un.org/millenniumgoals/pdf/PR_Global_MDG09_EN.pdf (accessed 3 March 2010).
8. According to FAO's *Hunger Report 2008*, another 40 million people have been pushed into hunger in 2008, bringing the overall number of undernourished people in the world to 963 million, compared with 923 million in 2007, http://km.fao.org/fsn/news-events0/fsn-detail/en/news/8903/icode/ (accessed 3 March 2010).
9. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2008), Progress in Drinking-water and Sanitation: special focus on sanitation (MDG Assessment Report 2008), p. 25; Updated Numbers: WHO-UNICEF JMP Report 2008.
10. Three examples are Francis Fukuyama (1992) *The End of History and the Last Man,* New York: Free Press; Samuel P. Huntington (1996) *The Clash of Civilizations and the Remaking of World Order,* New York, Simon & Schuster; and Joseph E. Stiglitz (2002), *Globalization and its Discontents,* New York: Norton, each of which has generated extensive debate.

Crises are not anticipated

The themes introduced above are not new, but are still topical. They have been addressed and analysed for two centuries; rethinking them today is, however, timely and pertinent. They concern all the social sciences, since not just national economies are changing, but also ethnic boundaries, institutional arrangements, cultural habits and individual mindsets. In other words, living on one planet integrated by advancing technologies, expanding exchange and real-time communication means a mismatch between globalization and governance; that is, between the reach and adversity of impacts and the range and ability of existing institutions to deal with them. Few people anticipated the present confluence of crises. The question is whether we did not see it coming because we used the wrong spectacles, or simply because we never looked properly, even after the first whistles were blown. There is also considerable professional disagreement on what is to be done, on effective remedies and the impacts these may have on what will happen in the near or distant future. Social scientists clash on many of these crucial questions.

The state of the art: what should be the ambition?

In many ways, the social sciences themselves are fragmented. Indeed, some argue that the disciplines are in disorder, that there is not one 'social science' but many; rather than one paradigm, there are competing schools. This is a problem because we are increasingly made aware that while we live on one planet, we belong to worlds apart. And if the social sciences are not even on the same map, what should be done? Does a more integrated world require a more integrated social science?

Several attempts at Grand Theory have been challenged or have disintegrated: for example, Marxism, structural functionalism, also socio-biology and the neoclassical synthesis. Should we retain this (grand-theoretical) ambition? Is there one social science or many? Should we strive for what physicists call 'a theory of everything'? Can there be a single encompassing theory of all human behaviour? What is our situation now – what theories do we have to start with?

First of all, we have no single, generally accepted model of humanity.[11] We can draw on a wide range of such models, from the Freudian conception to 'administrative man',[12] and increasingly the less calculating, less predictable and partly irrational relatives of 'rational man'. As the faith in simple rational actor models has been shattered, a series of half-breeds has been developed, a whole bestiary of model actors with engaging stories about the properties they are supposed to embody. Some of the most interesting ones have been developed in cognitive psychology and behavioural economics.[13] Amartya Sen, for one, has advised us to set aside a one-dimensional approach to human identity, which results in the 'civilizational and religious partitioning of the world', and adopt a multiplex conception.[14] Is such a conception more appropriate in modern societies which function as mixing vessels for the reassortment of partial identities from different cultures and epochs?

Not only have the social sciences produced a wide range of 'humanoids' – that is, theoretical constructs that are our lookalikes – there is also a wide range of mechanisms at our disposal. These mechanisms range from self-fulfilling prophecies to prisoners' dilemmas, from cobweb models to selection models, all useful for interpreting and explicating different actual situations or events. Should our goal be to identify such mechanisms, explicate their logic and then eclectically use and combine them to explain why different social processes unfold as they do? Should our goal, as Robert Merton had it, be 'theories of the middle range'[15] rather than Grand Theory? Or, as James S. Coleman argued, should we search for 'sometimes true theories'[16] that are useful for interpreting and illuminating different specific phenomena, rather than strive for a Theory of Everything? In general, these and other issues and questions press on social science.

11. The term was coined by Herbert Simon (1957) *Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting*, New York: Wiley.
12. The term 'administrative man' is also associated with Herbert Simon and his modifications of the classical model or 'rational man', characterized by bounded rationality and 'satisficing'.
13. Among the themes of behavioural economics is the use of rules of thumb, heuristics and cognitive bias rather than rational decisions, the framing of problems, which affects decision making and market inefficiencies. For a popular introduction to some of the topics, see Dan Ariely (2008) *Predictably Irrational: The Hidden Forces That Shape Our Decisions,* New York: Harper Collins.
14. Amartya Sen (2006) *Identity and Violence: The Illusion of Destiny,* New York: W. W. Norton.
15. Robert K. Merton (1968) 'On the sociological theories of the middle range', in *Social Theory and Social Structure*, enlarged edition, New York: Free Press.
16. James S. Coleman (1964) *Introduction to Mathematical Sociology,* Glencoe, Ill.: Free Press.

The task: simultaneously addressing the state of the world and the state of the art

What is the moral to be drawn from the state of our art? I would advocate not so much interdisciplinary research as cross-disciplinary or even integrated research: that is, research that in its very design, execution, application and presentation brings together the humanities and the natural and social sciences in joint research projects.

Climate change, and managing disasters and catastrophes, are examples of topics requiring such integrated research. Climate change is the unfolding of the forces of nature triggered by human action. We cannot change the way the forces of nature work, but we can change the ways humans act. This is why integrated research is critical for the destiny of our planet afflicted by climate change: identifying its social causes and mapping its human impacts, calculating costs and advising policies – all well within the purview of social science. Social science must help measure, assess, negotiate and organize, and in the process, help preserve human diversity and culture. The message of the Intergovernmental Panel on Climate Change is that the planet itself may be imperilled: that is, that the forces that have been unleashed through energy use or pollution, if not addressed immediately, intelligently and forcefully, may cause irreversible damage to our common global environment.

When I say 'immediately, intelligently and forcefully', I am no longer talking about natural phenomena but about human responses, about social science knowledge and about evidence-based policy making. More than that: it is a plea for integrated research where the humanities and the natural and social sciences jointly address natural phenomena, social processes, institutional design, cultural interpretations, ethical norms and mindsets.

We have to address simultaneously the state of the world and the state of the art, the course of events and our capacity to analyse and cope with them. In order to make social science relevant, pertinent and potent, we as social scientists have to scrutinize our concepts about how society works, and engage in vigorous self-examination of how our approaches fare in order to define common tasks and set a shared agenda. Societies and behaviours are forever changing – partly as a consequence of the models and interpretations of social scientists.

Hence, striving for the likeness of a theory of mechanics or the chemistry of natural phenomena unaffected by how we analyse them would be in vain. However, we can be optimistic with respect to the role that the social sciences can and must play in addressing the state of the world and the confluence of global crises that we face, even if we have to relinquish the ambition of finding an all-encompassing global theory of social behaviour and development.

Indeed, a token of the optimism is this 2010 *World Social Science Report* which UNESCO entrusted the International Social Science Council to produce. The ISSC is grateful for this challenge and the opportunity it provided for continued close collaboration with UNESCO.

Gudmund Hernes

President, International Social Science Council

Acknowledgments

This Report is the product of a cooperative effort. The selection of themes, topics and authors was made by the WSSR Editorial Team under the guidance of the Editorial Board and with the support of scholars and advisers worldwide. The authors are essentially responsible for the quality of the content of the different chapters. The editorial team wrote the different chapter presentations, introductions, unsigned articles and boxes, executive summary and overall conclusions.

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David E. Apter passed away on 4 May, before what was possibly his last piece of writing came out in the present Report. He was a scholar who truly transcended several social science disciplines. In addition to his article, he provided support and insightful comments throughout the preparation of the Report.

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This paper was presented at the ISSC World Social Science Forum, Bergen, Norway, May 2009. The audio file is available at www.worldsocialscience.org

A long version of this article is available at www.unesco.org/shs/wssr

UN assists elections in Burundi
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General introduction

In 1999, UNESCO published the first *World Social Science Report*. Ten years later, UNESCO asked the International Social Science Council (ISSC) to prepare this second edition, which is published in 2010. The main goal of this new Report is to present an overview of the social sciences in the different areas of the world.

Today's fast-changing global reality presents new challenges to social sciences, and this Report addresses their capacity to respond to them. Since the first Report, social science has expanded fast and become globalized. Social sciences are now produced and taught almost everywhere in the world. Yet their production, their reach and their use are still marked by disparities and fragmentation. This publication analyses these divides and the extent to which they undermine the ability to address challenges which have themselves become global. It takes stock of worldwide developments in social science over the first decade of the twenty-first century and focuses on the knowledge divides that affect them.

Growth or crisis for the social sciences?

At the beginning of the twenty-first century, social sciences are taught in most if not all universities. The number of social science students, lecturers, professors and researchers has increased rapidly, as has the number of books and articles produced in different languages. As a result of this production, a large number of social scientists work not only as scholars and researchers, but also as experts in national public administrations; they advise their governments and sometimes steer the development of their economies. Advances in information technology allow social scientists to communicate more often and more quickly, among themselves as well as with civil society. In the first decade of the twenty-first century, social sciences expertise remains in high demand from policy-makers, media and the public. Social scientists have knowledge and skills that are needed to identify, analyse and decipher structures and changes in society, as well as the seeds of future change. Much is expected from social sciences knowledge and expertise when seeking to solve challenges such as, to name just a few, poverty, climate change and the food crisis.

With the success and growth of social science come criticisms. Every discipline seems to be accused of major misdeeds. Economists are often blamed for being too engrossed in abstract, sophisticated models and for losing sight of social reality. Too confident in the value of the market, they did not warn against poor financial practices and did not foresee, much less prevent, the biggest financial and economic crisis of the present globalized era. Political scientists are sometimes accused of not anticipating deep changes in opinion in society, of not foreseeing election results correctly, or of being compromised by contact with the polling industry. Sociologists are blamed for failing to identify major social trends, or for doing so too slowly. More generally, social sciences have been going through a crisis of recognition and through broad epistemological debates for several decades.

While decision-makers and society in general would require more input from social sciences to solve global and local problems, some social scientists prefer distanced analysis and critical observation, and refrain from engaging in action. Some are blamed for over-specializing, developing theoretical models and addressing only academic discourse. Others are accused of being too local and of not theorizing enough, thus losing global relevance. These tensions have animated debates among social scientists for many years, but have become more acute following recent changes in the overall context of social sciences.

Recent changes in the social environment of the social sciences

Three changes in the environment of social science production are particularly likely to affect their content, role and function. These are first, globalization, leading to the parallel internationalization of some public concerns and of social science research itself; second, changes in the institutional and social organization of social sciences; and third, the increased role of new information technology (IT) in the production and dissemination of social sciences.

Economic and financial globalization is not a recent phenomenon. But its effects on people's lives have

become more obvious. They include increased inequalities between and within countries, between and within regions of the world, and between those who have access to knowledge and those who do not. A much less familiar aspect of globalization is the internationalization of higher education and research, including social science research. Some issues that used to be analysed at national level have become global concerns. The mobilization of the international community in the fight against poverty around the Millennium Development Goals (2000), the issue of water and food security, and recent debates and mobilization over climate change and sustainable development are all cases in point. The internationalization of social science research, and its mobilization in connection with global issues, is likely to influence both the type of research done, which will become more interdisciplinary, and the choice of research themes in different parts of the world.

Rapid changes in the mode of production of social science research are also likely to influence its content and function. In most regions of the world, these disciplines were – and still are – developed in universities and rely mostly on public funds. Pressure to limit or reduce public expenditures, which is a consequence of economic globalization and of the neoliberal paradigm that dominated economic thinking throughout the period under review; the pressure for more diversified sources of funding; the increased use of managerial tools in the management of research systems; and the increased production of knowledge outside universities, are all changes in the organization of social sciences whose impact on content, quality and relevance needs to be assessed.

New technologies and digital tools constitute a third type of change. They allow new questions to be raised, and encourage new and larger forms of collaboration. They radically change the ways in which materials can be found, displayed and analysed. They facilitate the construction of databases and broaden access to them. Information technologies and new collaborative tools are evolving rapidly. If it is impossible to predict where this road leads, preliminary assessments are possible.

As a first literature review has suggested, very little is known about the three changes mentioned above and how they have affected social sciences. Yet social scientists are well aware that ideas, methods and data are never completely independent of their mode of production and of the form of their social environment. One of the objectives of this Report is to address these gaps and contribute to a better understanding of the current dynamics of the social sciences worldwide, their geography, and the institutional, material and social structures of their production and circulation.

The 1999 *World Social Science Report* paid considerable attention to the history and prospects of social sciences, to intellectual trends in their contents and organization, and to their methods and data. This 2010 Report focuses more on organizational and institutional aspects of the production, dissemination and use of knowledge. The reasons for such a focus – which was approved by the WSSR Editorial Board in its first meeting – are:

- Many of the intellectual trends and debates outlined in the 1999 Report are still structuring social science disciplines today.

- A comprehensive review of disciplinary trends worldwide goes well beyond the scope of one single report, assuming it is possible to carry out such an exercise at all. Such an exercise is very difficult to carry out without a huge international and interdisciplinary research team. The explosion of social sciences fields and subfields, the exponential increase in themes, objects and methods, the varying definition of social sciences, and the fact that much social science research produced in local languages remains largely invisible, all complicate this task.

- As mentioned above, it is widely accepted among social scientists that ideas and concepts are highly dependent on institutional and historical context.

The 2010 Report does not neglect the intellectual and substantive dimensions of the social sciences nevertheless. It limits itself to a few aspects: boundaries between disciplines, subdisciplines and epistemic

communities; and tensions between hegemonic ideas, methods and problems and counter-hegemonic currents of social science research. The Report analyses the dynamics of the divisions and connections between researchers, and how they affect the quality and relevance of social sciences.

The theme: knowledge divides

A divide is generally defined as the distance and the depth of the division between two units. Divides will be analysed in the following chapters on the assumption that they reduce the ability of social sciences to analyse social reality and address global problems. Yet although social sciences have divisions, not all divisions are problematic. Some are produced by well-known social processes, such as the division of labour. The Report investigates when divisions, diversities or asymmetries undermine the strength, quality or efficiency of social sciences.

For any observer of social sciences worldwide, the most striking divide is between countries and regions. There is not much in common between a social science department in a well-endowed university of the global North and a social science research institute in a Southern country suffering from economic and political instability. Underlying this regional divide are many other divides, such as the capacity divide between countries that have large number of researchers, well-functioning institutions and research systems, and other countries that do not. Unequal production and asymmetries in international visibility are other aspects of this regional divide. The linguistic dimension is closely connected to the regional divide in a world where English journals and bibliographical databases dominate and possibly dictate the hierarchy of research agendas.

From an epistemological point of view, social sciences have been diverse and are characterized by a multiplicity of methods, approaches, disciplines, paradigms, national traditions and underlying political and social philosophies. To many, this diversity is an asset and not a divide. To others it is a liability because it prevents the social sciences from addressing burning issues effectively. The extent to which this is the case is discussed in the Report.

Other divides concern access to knowledge, including databases, books and academic journals. The production of social science knowledge in recent years has been marked by increased competition between institutions and between researchers, as a result of ranking and of increasingly quantitative methods of evaluation and project funding. The Report discusses whether these trends result in improved quality and relevance for social science.

Defining the social sciences

The Report analyses all social sciences, calling upon specialists in different disciplines, but without entering into the specifics of the recent intellectual or institutional changes in each discipline. A constant debate in the social sciences concerns the boundaries of social science. This debate has found different regional, epistemological and historical answers. For historical reasons, the social sciences are often defined as the disciplines that are in between the humanities and the natural sciences. As a result, the decision on which disciplines are parts of social sciences and which are not varies a great deal from one country to another and over time. In some countries education is considered part of social sciences, in others it is not. In some countries history is part of social sciences; in others it is part of the humanities. Some countries – and consequently some authors in the Report – do not include professional fields such as business and management; others do.

We have adopted a pragmatic and institutional approach to the problem of defining social sciences. In this Report we have considered as social sciences all the disciplines whose professional association is part of ISSC. Consequently we have tried to involve as many representatives of different disciplines as possible. Authors used different disciplinary definitions, which often correspond to those used in their country. When providing statistics, a number of authors are unable to separate social sciences from humanities, and therefore they discuss trends concerning both. When comparing

statistics from one article to another or from one country to another, the reader should keep in mind that various definitions are used. Where education, legal studies, business and management are included in social sciences, the proportion of social science students, professors and researchers in the overall figure will be larger than for a country which uses a more restrictive definition. In order to clarify the issue and to allow more comparisons, we decided to produce statistical tables on the production of social sciences in major countries. These statistics appear in Annex 1. The author of the Annex, who worked in collaboration with the UNESCO Institute for Statistics and OECD, explains the difficulties in obtaining reliable statistics and the issues that result from problems of categorization and international comparison. This is a first and major endeavour, even though data is still missing for a large number of countries. We hope that this data will be improved in subsequent reports.

Production of the Report

An Editorial Board composed of renowned scholars of different disciplinary and geographic origins advised the editorial team on the content, format and structure of this Report. The Board met twice during the production of the Report, followed its progress and approved its conclusions and recommendations.

After a preliminary analysis of the literature on the current trends in the social sciences and on recent contextual changes affecting their production and diffusion, we produced a list of issues to be covered and a tentative outline. This early process led to an international call for papers. This call was advertised in a variety of social science research networks, in regional associations of social sciences, among ISSC members and on the ISSC websites. Several hundred proposals reached the editorial team. Proposals were then selected on the basis of their quality and relevance to the outline. While doing so, attention was paid to the geographical, gender and disciplinary distribution of authors. One concern has always been to ensure that researchers from all parts of the world, and from the various disciplines of the social sciences, have a voice.

In addition, selected papers on the state of social science in different regions, and the Annex on basic statistics on the production of social sciences, were commissioned. Institutional partners of ISSC have been invited to contribute to special sections, such as those on major trends and issues in social sciences by region. Several keynote speakers at the ISSC World Social Science Forum, which took place in Bergen, Norway, in May 2009, were also asked to contribute a paper. On the basis of literature surveys, a small series of additional authors were invited to contribute a paper. This process led to the large number of papers included in the Report – more than 80. Yet not all regions, nor all themes that were intended to be included, are covered in the present Report. Some of the gaps have been filled by the editorial team preparing short articles, but most gaps will have to be addressed in future Reports.

Structure of the Report

This Report is primarily addressed to policy-makers, to agencies financing and evaluating social science research in different countries (for example research councils), international organizations and development agencies concerned with social issues, and social science research associations. It should also interest academic institutions and researchers, as well as the many civil society users of social sciences such as non-governmental organizations (NGOs) and the media.

The Report starts with an analysis of some global problems as perceived by renowned specialists from different social science disciplines (Chapter 1). In this chapter, the regional councils of social sciences also give their views on the major trends and issues in social sciences in their different regions. Chapter 2 focuses on the institutional geography of social sciences. It provides a detailed description of the state of social sciences in nine different regions of the world, with an emphasis on organizational aspects of social science research. Chapter 3 analyses the inequalities in knowledge production that result from major inequalities in capacity across regions and countries. The two following chapters analyse the effect of the internationalization of social sciences. Chapter

4 illustrates the extent to which some countries are more 'central' than others to the production and dissemination of social sciences, while Chapter 5 discusses the impact of such inequality on the content of social science knowledge and the plurality (or lack of it) in their production.

Chapter 6 looks at issues arising from present divisions between social science disciplines, fields and subfields, as well as the division between the social and natural sciences. It discusses the problem of interdisciplinarity already discussed by the 1996 International Gulbenkian Commission on the Restructuring of Social Sciences.

Chapter 7 continues this theme by discussing divisions that may emerge from growing competition in higher education and research due to the application of new management methods. The two following chapters analyse the divisions and interactions between social science and society, reviewing in particular the various forms of knowledge dissemination (Chapter 8) and the sometimes tense interactions between social sciences and decision-makers (Chapter 9). The last chapter outlines the main conclusions of the Report and identifies future lines of action (Chapter 10).

Each chapter contains several articles produced by different authors. These have been regrouped in sections. Each chapter and section starts with an introduction that summarizes the major issues raised.

A bibliography and list of references is to be found at the end of each chapter. Due to the large number of articles presented, the size of each has had to be limited. A longer version of some articles, or a longer bibliography, will be found on the ISSC and UNESCO websites. When this is the case, it is indicated by a specific sign in the margin. A few papers were presented at the World Social Science Forum in Bergen, and an audio version of their presentation is also available on the web. This is also signalled in the Report with a sign.

This report is a unique collection of information on the institutional and organizational aspects of social sciences, and on the various divides that characterize their production and use. The articles highlight the enormous but skewed growth in social science production; the large but uneven influence of this production on society and on policy-making; the explosion and comprehensiveness of the themes covered, despite the continued fragmentation of social science knowledge; and the globalization of social sciences, despite the persistence of geographical and knowledge gaps in the social science map. We hope that the Report will prove useful and relevant to different readerships, and that its recommendations will lead to constructive discussions in a wide range of different circles.

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Climate change hits poor people hardest. Thailand
© Still Pictures/UNEP/Werchai Wansamngan

Chapter 1
Social sciences facing the world

Flooding in UK, 2007
© Still Pictures/UNEP/C. James

Social sciences facing the world

Chapter presentation

Ernest Rutherford, the Nobel Prize winner for chemistry, famously said that the only possible conclusion in social sciences is that 'some do, some don't'. This may be true of some research, but not of all. Rutherford's belief in hard, natural sciences was so strong that he downgraded 'the rest' as 'stamp collecting'. But were he still alive, he might amend his position. Maybe he would even admit today's need for collaboration between different types of knowledge. Overcoming global challenges and understanding major trends in human societies have become multiplayer games. And they are games in which the social sciences can make a difference. The social sciences are concerned with providing the main classificatory, descriptive and analytical tools and narratives that allow us to see, name and explain the developments that confront human societies. They allow us to decode underlying conceptions, assumptions and mental maps in the debates surrounding these developments. They may assist decision-making processes by attempting to surmount them. And they provide the instruments to gauge policies and initiatives, 'and to determine what works and what does not'.

This chapter has two focuses. In the first section, distinguished scholars in different disciplines engage with global challenges and major trends in societies: environmental change, poverty, financial crises, inequality, marginalization, ageing and the future of cities. It is obvious that some social sciences are particularly suited to illuminate specific challenges or trends. Here, for instance, a demographer (Chamie) discusses population trends, an economist (Milanovic) the validity of indicators of global income inequality, and a sociologist (Sassen) the development of global cities. But other pairings appear more counterintuitive: a geographer (O'Brien) writes on global environmental change, an anthropologist (Gupta) on poverty, a geographer (Harvey) on the financial crisis, and a political scientist (Apter) on marginalization and violence. So this portrait of the world is also a mirror of the richness of the social sciences, and the fertility of their tools and perspectives when it comes to understanding today's developments in human societies.

But even this picture of global developments in specific social sciences does not tell us much about the different trends affecting the social sciences across the world, especially outside Europe and North America. This is the focus of the second section of the chapter. In it, councils for social science research that are members of the International Social Science Council portray the main challenges and trends affecting disciplines and institutions in their regions. They are the Arab Council for the Social Sciences (ACSS), the Latin American Council of Social Sciences (CLACSO), the Association of Asian Social Science Research Councils (AASSREC) and the Council for the Development of Social Science Research in Africa (CODESRIA). They bring to light how social, political, economic and environmental challenges frame and shape diverse research policies, agendas, and funding programmes. The contributions to the second section also underscore the areas of research and action on which the social sciences should focus, and where their contributions would be most urgently welcome.

1.1 Social sciences and global challenges

Introduction

To say that the social sciences face the world has a double meaning. It refers to the necessity for social scientists to confront and deal with the challenges and trends affecting human societies. And it also suggests their role in observing these phenomena. In the first meaning, the observers are mainly concerned with responding adequately to challenges and trends. In the second, the focus is rather on examining these challenges and their analytical outcomes. The contributors to this section target the two connotations: they try to grasp the quality of the challenges and trends, and they assess their implications for academic and research purposes.

The world depicted here is one of profound and menacing developments occurring at the global and local scales. Challenges such as environmental change, poverty, financial

crisis and inequality, as well as trends affecting human societies such as ageing, marginalization and the rise of cities as strategic economic spaces in the global economy are occurring everywhere but take on different forms according to local contexts. The authors discuss a wide array of challenges and trends, but other challenges such as gender issues, public health concerns, security, food crisis, migrations, diversity and integration, and burning issues and trends could also have found a place in this section. The present selection reflects the priorities identified in the foremost international conferences of recent years, such as the United Nations Millennium Summit in 2000 and the Copenhagen Conference on Sustainable Development in 2009.

The authors do not make any secret of the fact that today's challenges and trends in human societies are also challenges for their disciplines, and are forcing them to adjust. Developing the right instruments and categories of observation is a condition for the assessment of current developments and where they are leading us (Chamie). Results can be surprising, even daunting at times. Different characterizations of inequality, for instance, produce very different pictures of the extent and evolution of global inequality (Milanovic), but social science provides methods that are particularly appropriate for developing and debating the tools with which societies can observe and assess their development. The contributors to this section share the conviction that today's global challenges require revisiting former methodologies and approaches (Apter, Harvey), and even the development of new ones altogether (Sassen, O'Brien, Gupta). This is the most striking feature of the following contributions.

Innovation thus becomes a key word in this section, and the different contributors largely regard innovation in terms of interdisciplinarity. Each of them is a proud representative of core social science disciplines: O'Brien and Harvey are geographers, Gupta is an anthropologist, Sassen a sociologist, Apter a political scientist, Chamie a demographer and Milanovic an economist. Even if the traditional disciplinary boundaries remain in their contributions and the topics, vocabulary and literature are discipline-bound, the channels for innovation that they propose nonetheless confirm how blurred the frontiers between the respective social sciences have become. They agree on the necessity of collaboration between the social sciences, or interdisciplinarity. Some authors make concrete proposals for interdisciplinary collaborations (for example, O'Brien in this section, and see more on this in Chapter 6), and most of their analyses agree that burning issues require some degree of interdisciplinary analysis.

There is a growing conviction among social scientists today that more attention needs to be paid to the plurality of contexts. This red line runs through many of the chapters that follow, but is explicitly expanded in two directions in this section. One is the realization that cultural dimensions form these contexts. Worldviews, beliefs, institutions, culture and history shape the way different people perceive and react to a phenomenon. This may sound like a truism, but the implications of cultural differences appear with more clarity than ever in the face of the current global challenges. In the case of poverty, for instance, unitary definitions ('those who live on less than US$1/day') and solutions that were supposed to be valid everywhere have been revealed as ineffective when actions by the poor, and therefore the meaning of poverty for those who experience it, have not supported the proposed solutions (Gupta).

We also realize increasingly that no matter how central beliefs and worldviews are, culture itself does not furnish the last word on contexts. Rather, a local context is the sum of a realm of economic, social, gender, ethnic, institutional, political, technological, environmental and cultural dynamics. Understanding these dynamics, and developing methodologies to make them visible, are conditions for the development of adequate, locally embedded responses to major trends and developments (O'Brien, Milanovic). Even authors who plead for the production of new global theories insist that they pay close attention to the ways in which people interpret their realities (Apter). There are no context-free responses to global challenges that are applicable everywhere.

Where do these considerations bring us with respect to social sciences' contributions in the face of recent global developments in human societies? Do they imply that only context-specific theories and models are valid and pertinent? This requires careful thinking and debate.

Responding to the global environmental change: social sciences of the world unite!

Karen O'Brien

Global environmental change is a challenge to traditional disciplinary research practices. The scale, rate, magnitude and significance of changes to the global environment have made it clear that 'research as usual' will not suffice to help individuals and groups understand and respond to the multiple, interacting changes that are now occurring. The social sciences have an important role to play in providing the knowledge base and inspiration for new policies that promote resilience, sustainability and social change.

Global environmental change is a challenge to traditional disciplinary research practices. The scale, rate, magnitude and significance of changes to the global environment have made it clear that 'research as usual' will not suffice to help individuals and groups understand and respond to the multiple, interacting changes that are now occurring. 'Research as usual' is unlikely to mobilize societies to press for the changes that are necessary for a more sustainable future. The social sciences have an important role to play in providing the knowledge base and inspiration for new policies that promote resilience, sustainability and social change.

Global change research has shown that changes to the global climate system, the water system, biodiversity, land cover, marine ecosystems and ecosystem services in general are closely linked to human activities, and that these changes cannot be understood and addressed without closer attention to the interactions between human and physical systems. In recent years there has been an expansion of research on coupled social-ecological systems, as well as a growing emphasis on the human dimensions of global environmental change. But the full potential of social science contributions has yet to be realized. The integration of different types of knowledge, different perspectives on human–environment relationships, and different approaches to science can help global change research to foster the transformations that are needed to address such pressing challenges as climate change. For instance, the ways in which individual and collective beliefs, values and worldviews influence behaviours and systems have not been adequately integrated into global environmental change research. Nor has the relationship between cultural factors, human development, institutional changes and governance been adequately linked to the dynamic biophysical changes that are presently taking place. Anthropology, psychology, sociology, political science, economics, science and technology studies and of course geography are among the fields that can contribute to an integrated understanding of global environmental change. Yet the need for a greater contribution by the social sciences and humanities also calls for a change in research practices. In the following paragraphs, I identify three emerging directions for research, each of which can potentially assist society to deal with the challenges posed by global environmental change.

Greater attention to relationships and interactions across disciplinary boundaries

While disciplinary research in the social sciences has provided valuable insights into human culture, political systems, social organization and so on, global environmental change research requires that these insights be combined with 'outsights' from other disciplines to show how different factors interact and affect one another. The development of Earth Systems science within the natural and physical sciences shows the potential benefits and gains from interdisciplinary research. An interdisciplinary approach across the social sciences and humanities can similarly foster interactions and feedback that can be used to identify barriers and catalysts for change. Interdisciplinary social science research does not, however, have to replicate the systems approach of Earth Systems science. Instead it can be grounded in a framework that recognizes individuals' and groups' subjective dimensions, which influence human agency and hence behaviours and systems. An interdisciplinary approach to the social sciences can provide stronger input into existing understandings of coupled social-ecological systems.

Growing recognition that different worldviews and different types of knowledge can create different truths, as well as different ways of responding to environmental change

The social sciences integrate ontological and epistemological differences that lead to alternative understandings of physical and social processes. Understanding the relationship between rationalism, empiricism, constructivism and other approaches can provide insights into a range of possible actions and responses to global environmental change. Likewise, understanding the role of local knowledge, traditional ecological knowledge, religious and spiritual beliefs, and attitudes to technology can provide valuable insights into sustainable forms of social innovation and governance. A recognition that not all actors and cultures see the world in the same way also raises important ethical questions about global environmental change, including the question of whose views and whose values count, and about the rights and responsibilities of present generations when it comes to non-humans and future generations.

Acknowledgement that context plays a key role in understanding the drivers of and responses to global change

People- and place-based research can contribute to a greater understanding of the wide range of alternatives to current economic development models, models of governance, and social and environmental responses to global change. Social science research shows that it is seldom environmental change alone that challenges societies. Changes in the environment are closely linked to dynamic economic, social, cultural, ecological, institutional, technological and political contexts. These contexts often call for responses that address multiple stressors and respond to interlinked challenges. Consequently, there is a need to facilitate access to knowledge and technology that is relevant to the contexts in which people are living and experiencing environmental change. Separating issues of development, poverty reduction or gender rights from global environmental change and considering it as a separate 'box' that can be addressed through research and policies independent of other social processes will most probably lead to a dead end.

These three research directions are producing methodological innovations, including a greater role for action research, qualitative research and the co-production of knowledge. The decisions and actions taken by humans in the coming decades will have a critical effect on ecosystem health, biodiversity and human security. Most obviously, decisions about energy will profoundly affect the future trajectory of climate change. The biogeophysical sciences have greatly contributed to our understanding of global environmental change, including to the idea that we are now living in the Anthropocene Era, in which human influence on the environment is a decisive factor. It is now clear that human responses to global environmental changes will define the world's future. Human society must meet its responsibilities, and social science research must serve as a cornerstone both for our understanding and for the promotion of a new model of global change; a model in which concerns for ecosystem health and human well-being form a basis for much broader interpretations of human development and a far deeper commitment to sustainability. ◡

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The construction of the global poor: an anthropological critique

Akhil Gupta

The growing attention being paid to global poverty raises a number of analytical questions. What are the origins of this sudden interest in global poverty? How is it to be explained? Why did it arise at this particular historical juncture? And what are its effects on international institutions, nation states in the North and South, and most importantly, on the world's poor?

Since the late 1990s, poverty has once more become an important issue on the international agenda. However, what has emerged is not just poverty per se, but a certain discourse on 'global poverty'. If we chart, somewhat unscientifically, the number of publications in which the term 'global poverty' has been used, we notice a 500 per cent increase from 1999 to 2005. The new consensus on global poverty culminated in the UN Millennium Declaration (September 2000).

The growing attention being paid to global poverty is unquestionably a positive development. However, it does raise a number of analytical questions. What are the origins of this sudden interest in global poverty? How is it to be explained? Why did it arise at this particular historical juncture? And what are its effects on international institutions, nation states in the North and South, and most importantly, on the world's poor?

The poor on the policy agenda

In order to understand global poverty's centrality on the policy agenda, we must first rule out the convenient explanation that growing interest in the topic is due to a sharp increase in the number or proportion of people living in absolute poverty. The available data actually points to a steady decrease. The number of people living with less than US$1 a day fell from 1.47 billion in 1981 to 969 million in 2004. As a percentage of the world's population, the drop is even more significant, from 40 per cent in 1981 to only 18 per cent in 2004 (Chen and Ravallion, 2007, p. 21, Table 1).[1]

A series of other convergences may help to explain the growing interest in global poverty.[2] One set of explanations can be found in political and economic events (Noël, 2006, pp. 313, 318–19; Kanbur, 2001, p. 1083). These include:

- protests organized by 'global civil society'
- the rise of social democratic governments in the major European countries in the 1990s
- the East Asian crisis of 1997 which provoked a rethinking of the wisdom of implementing structural adjustment programmes in countries with large populations of poor people
- internal disagreements and differences between and within multilateral institutions.

The World Bank and the International Monetary Fund (IMF), allied to executive power in the United States of America, have been in support of the 'Washington consensus', while the United Nations agencies that deal with social issues, such as the United Nations Children's Fund (UNICEF), the UN Development Programme (UNDP), and the UN Research Institute for Social Development have not.

Another possible explanation for the newfound visibility of the poor may have to do with neoliberal globalization's effects in terms of wealth distribution. Neoliberalism has contributed to a massive upward redistribution of wealth (Harvey, 2005, pp. 9–19). We must also mention the tremendous influence of thinkers who have emerged as advocates for the poor: Jeffrey Sachs, Amartya Sen, Peter Singer and Paul Collier, to name just a few. However, no

1. We might see a reversal of this trend with the current global recession, and the food crisis that preceded it. The 2008 Millennium Development Goals report cautions that possibly 100 million more people will be in extreme poverty as a result of the food crisis.

2. The overall trend of a sharp downward spiral in the number of people in absolute poverty should not hide the fact that in some parts of Africa, sharp increases in the number of poor people have been recorded.

matter how insightful such thinkers have been, favourable conditions for the reception of their ideas have enabled them to have a substantial impact. I shall now argue that the timing and visibility of the discourse on global poverty is also related to recent transformations affecting neoliberalism.

Neoliberalism and global poverty

The chief institutional mechanism by which this renewed emphasis on poverty has been implemented is a 'new Washington consensus' forged in late 1999 by the World Bank and the IMF: the Poverty Reduction Strategy Papers (PRSPs).[3] The PRSPs are country-driven, result-oriented strategies that bring national development plans in line with neoliberal globalization by emphasizing growth, free markets and an open economy (Weber, 2004, p. 197; Craig and Porter, 2003, p. 53). However, they differ from structural adjustment programmes through their emphasis on the need for broad-based growth strategies, good governance, decentralization, empowerment, investments in health care, education and human capital, and social protection for those who are adversely affected by adjustment processes.

These papers can be interpreted as a 'Third Way' solution to harmonize economies in the global South to neoliberal globalization without completely disregarding the human costs that are associated with such 'adjustments'. In this view, the renewed interest in poverty expressed through the coordinated actions of the World Bank and the IMF on PRSPs is really about inventing a new form of governance to control developing countries and to prevent the rise of alternative social and political models (Weber, 2004). Craig and Porter (2003, p. 53) make a similar point: PRSPs, they argue, 'obscure power relations and restrict practical and political options, while exacting heavy establishment and compliance costs'. Taking a broader perspective, Sindzingre (2004, p. 176) argues that the extensive focus on poverty is politically regressive since it displaces concerns with global inequality and postpones a real discussion on development.

For Noël (2006, p. 322), the rhetoric of global poverty has been adopted cynically as a means of legitimizing neoliberal globalization. In this view, the importance that is given to global poverty in the written statements of multilateral organizations, G8 countries and other global economic elites serves to conceal the real agenda of structural change, giving it a more politically acceptable facade. Craig and Porter (2003, p. 54) argue, for instance, that the logic behind PRSPs is clear: 'global economic integration first, good governance second, poverty reduction following as a result, underpinned by limited safety nets and human capital development'. In this view, poverty reduction lies at the margins of a global agenda that is grounded in a particularly unequal vision of economic integration (Noël, 2006, p. 323).

Another sceptical view of the promotion of global poverty as the poster child for the current era is that poverty, vulnerability and risk help create a 'reserve army of the unemployed' for global capital. The argument is that nomadic capital can exploit relatively immobile labour through the implicit threat of downward mobility. It suggests that people tend to be more vulnerable and exposed to market risks from the moment that their livelihoods depend on aid and transfer payments. Paradoxically, the global poverty discourse draws attention to the disastrous circumstances that can befall any worker, thereby serving as a tool to discipline labour in the global economy.

I would like to add a few more critiques that bring into question the concept of global poverty. What does it mean to speak of global poverty? In what sense is poverty global and what implications does formulating poverty in these terms have for the kinds of solutions that are proposed to eradicate it?

Contextualized thinking about poverty

We could talk about poverty as being global in two ways. First, the term is used to designate a particular social group or category of individuals (for instance, those who live on less than US$1/day). Second, it serves to highlight the structural and institutional mechanisms that operate on a global scale and that produce poverty. According to this interpretation, global poverty points to the facet of poverty that can be traced to the actions of global institutions and global structures.

The first definition is the traditional way of defining global poverty. But it suggests, if only implicitly, that there is some reason to include all poor people in one category. Counting the poor is certainly an important reason for defining poverty in this way. This concept of global poverty favours a context-free, or at least contextually thin, understanding of poverty. It looks for unitary explanations and for uni-

3. I am contrasting this 'new Washington consensus' to the Reagan era when the previous 'Washington consensus' was forged. At that time, the World Bank and the IMF pushed relentlessly and dogmatically for structural adjustment and free markets.

versal solutions (more complete markets, empowerment, participation, transparency, decentralization and so on).[4] The goal is to find what works in a particular local setting, and then 'scale up' to other settings. This is a fundamental premise of major development institutions including the World Bank, national governments and transnational non-governmental organizations (NGOs).

From an anthropological viewpoint, we should press for a way of thinking about poverty that first considers the meaning of poverty for those who actually experience it before attempting to find solutions. Indeed the actions of the poor as social agents depend on their own understanding of poverty. We know from the study of famines that even when people are dying of starvation, they make culturally and socially significant distinctions in order to decide what kinds of food are edible, who gets to eat whatever little food is available, and in what order (Greenough, 1982; Sen, 1983). Even under extreme conditions, the assumption that certain goods are vital is faulty. Vigdis Broch-Due (1995, p. 4) argues that 'Poverty, like all images and concepts, is an unstable construction, changing with context, culture and social conflicts situated in history.'

We can broach the broader point about context dependency by highlighting three important points. First, we cannot have meaningful solutions to poverty unless we understand how the poor comprehend their own situations. Indices used to measure poverty, such as the US$1/day income measure, fail to question what those income measures might mean to the people who are so classified. Although people whose income is below US$1/day might be categorized as 'the poor', they may find that they have little in common with each other.

Second, in calling for a contextually specific understanding of poverty, I am not making a classical anthropological case for 'the local' and hence for smaller scale. I am arguing for a specific theory of the articulation of global, national and local structures. Even if global and national structures are identical, we may need different solutions for different regional and social contexts. I contend that 'solutions' to poverty will need to vary depending on geographical location, but also because of gender, caste, ethnicity, religion and other factors. My argument for complexity and non-reducibility is no doubt a frustrating conclusion to social engineers who wish to find 'ready-to-use' and 'broadly applicable' solutions. Nevertheless, it is the only logical outcome if we decide to consider seriously the mantras of decentralization, participation and empowerment.

Such contextually dependent understandings of poverty acknowledge the role of historically enmeshed inequalities in creating poverty for certain social groups in a particular region. A 'one size fits all' approach, scaled up from another setting, might actually increase inequality, or push more people into poverty, than an approach tailored for a specific place (Gupta, 1998).

The ideological shifts that made neoliberalism and market triumphalism possible also meant that the critique of global and national inequality could no longer be articulated with any conviction in the public sphere. Once the relation between poverty and inequality had been sundered, the only way to deal with the problem of poverty was through an ethical discourse grounded in human rights. In this sense, global poverty (as the term has been used here) could only emerge as a problem once the critique of capitalism as a generator of global inequality and extreme poverty was no longer tenable.

Poverty as a flow

In a forthcoming book, Anirudh Krishna formulates a critique of certain aspects of anti-poverty policies that are built on the premise that poverty is a stock rather than a flow. Policy 'solutions' are aimed at lifting those below the poverty line out of poverty, yet the success of these solutions would be far greater if they prevented people who are not poor from becoming poor. It is ironic that the search for invariant methods of poverty alleviation leads to a distancing from the very features that are most responsible for global poverty, namely historically grounded inequalities, asymmetries of power, and the inability of the poor to access global labour and commodity markets.

In focusing resolutely on national poverty eradication plans, the PRSPs do not address the fact that the elimination of global institutional and economic inequalities may be more effective than any action taken at a national or local level. The removal of agricultural subsidies for farmers in the USA and Europe (including the subsidies for irrigation), the internalization of pollution costs (caused by vehicle emissions and other factors that contribute

4. Discourses of empowerment, participation, transparency and decentralization have been used constructively by many different organizations in civil society. My critique of universal solutions is that they restrict and predetermine the range of possibilities. They force social agents and social groups that have a more complex understanding of local realities to fit their plans of action within these cookie-cutter formulas, but they do not always prevent them from using these categories to their own ends.

Teenager working, Pakistan
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to global warming), and the elimination of some of the restrictive aspects contained in the TRIPS Agreement[5] (which keep the price of medication prohibitively high) would contribute to changing the structural factors that lie at the root of poverty far more than the 'scaling up' of micro-credit.[6] Yet the focus of development institutions and expert knowledge continues to be on the latter type of solutions. If there are invariant conditions that contribute to global poverty, they are likely to be found in the structures of global institutional arrangements, such as agricultural subsidies, externalization of pollution costs, and restrictive trade regimes such as TRIPS. However, it is precisely these structures of inequality that go largely unaddressed in the current discourse on global poverty.

The paradox of global poverty is that it has drawn worldwide attention to a phenomenon that is in need of urgent action from a range of global players, yet by decontextualizing poverty, it invites 'solutions' that are largely ineffective. Raising the alarm about the extent of poverty is not sufficient to combat it effectively. Lack of attention to meaning, historical inequalities and structural conditions will inevitably slow down the process of poverty alleviation. The wrong strategy may actually reinforce ideas about the intractability of poverty whose ultimate effect is the normalization of human suffering.

5. Trade-Related Aspects of Intellectual Property Rights: intellectual property rights in the WTO.
6. My point here is not to downplay the importance and utility of micro-credit. I fully realize that it has played a very important role, particularly in the lives of poor women. However even this innovation, once scaled up, has made credit costlier and more difficult to obtain for the poor. My larger point is that other important structural changes have been ignored because they would compel changes in global power arrangements, and that development institutions could do more good by providing the intellectual arguments and institutional support for such changes than by interfering in micro-credit programmes and trying to scale them up.

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Measuring global income inequality

Branko Milanovic

Measurements of global inequality depend on the way income or consumption is defined, on the assumptions made regarding income-sharing within households, and on the conversion of local currency incomes into international dollars. Including data on the real income of individuals from household surveys, instead of using countries' mean income, is a definite improvement when measuring inequalities worldwide. However, much remains to be done to improve the quality and comparability of data.

Measuring inequalities and identifying whether they have increased or decreased, particularly through the effects of globalization, is an issue that has come to the forefront of debates between economists. For several years the international agenda focused on poverty and how to improve the material conditions of the poorest. Yet psychological studies have invariably shown that people care not only about their absolute income, but also about where they stand in the social pyramid, and whether they think their position is fair (Frank, 2005). Globalization has facilitated increased awareness of other people's incomes. Therefore, the perception of inequalities among both the poor and the rich can potentially lead to serious tensions within and between countries.

Measuring income inequality raises a number of complex methodological problems. While comparing mean income between countries is not new, the measurement of global inequality is a relatively recent topic. In the past, several economists have measured inter-country inequalities, comparing the per capita gross domestic income (GDI) between countries (Kuznets, 1965), but it was not until the mid-1990s that the first calculations of inequality between world citizens were made.

Different concepts of income inequality

It is important to keep in mind three main concepts of global income inequality. Concept 1 measures inequality between countries' mean incomes (inter-country inequality). Concept 2 measures inequality among countries' mean incomes, weighted by the countries' populations. Concept 3 (global inequality) deals with income inequality between world individuals.

The study of inter-country inequality, Concept 1, is concerned with the convergence or divergence of mean incomes among countries. This research has generated a huge literature but it tells us little about income inequality among world individuals.

Concept 2 inequality is a step forward because it takes into account countries' different population sizes. Weighting mean countries' incomes by population size is fairly accessible and low cost: data is needed on only two variables: GDI per capita and population. However, this method does not take into account inequality within countries, and implicitly assumes that each individual within a country has the same per capita income, which is obviously false. This last assumption has to be abandoned if we want to calculate 'true' global inequality. In order to do so, we must have access to national income distributions, which are only available from household surveys. Moreover, household surveys must be available from most countries around the world for the results to be globally representative. Such data only became available for China, the Soviet Union and its constituent republics, and large parts of Africa, from the early to mid-1980s. This is Concept 3.

Methodological issues in measuring global inequality

A series of methodological issues arise when calculating global income inequality.

First, what 'income' should be used in the comparisons? Normally, it should be the mean income from household surveys. However, the mean disposable income from these surveys is often lower than the GDI per capita, and in some cases substantially so. This is not a mistake, but a matter of definition. GDI includes components such as retained profits, build-up of stocks, and government spending on administration, education, health and defence, which are not part of household disposable income as estimated from household surveys. The gap between the two is particularly large in countries where the state spends a

significant amount on 'free' public education and public health. These are funded by direct taxes, which are not included in disposable household income.

Could we then combine the GDI per capita with distributional statistics derived from household surveys? This cure is worse than the disease. Scaling up survey income data by a given parameter (the ratio between the GDI per capita and mean income from household surveys) allocates the difference across the board, to both the poor and the rich. We know this to be inaccurate because retained profits and capital gains are received disproportionately by the rich, who also tend to benefit more on a per capita basis than the poor from publicly financed health and education. This 'solution' actually makes things worse, and is also internally inconsistent. It accepts the income distribution obtained from a survey, but does not trust the mean income calculated from it.

There was a quantum leap when more household surveys were made available. Increasingly standardized household surveys are also coming into use across countries. 'Income' could therefore be used to measure inequality in global studies, as it does in national studies. However, this does not solve the problem entirely. National definitions of survey income are not identical in every country. In poor countries, the valuation of home consumption and the income of the self-employed is a problem. In richer countries, the issue is how publicly funded health provision should be taken into account. In middle-income countries, the underestimation of very rich people's capital incomes is the greatest concern.

Second, there is disagreement over whether global inequality should be measured in income terms at all. Alternatives include consumption and expenditure measurements. It is often argued that these are better indicators of welfare and that they are capable of being measured more accurately, because households do not hide them as much as they do income. But there are advantages to using income too: it shows real economic potential. A millionaire who lives austerely is still an economically very powerful person.

Third, which exchange rates – market exchange rate or purchasing power parity (PPP) exchange rates – should be used to convert local into internationally comparable incomes? The use of market exchange rates clearly underestimates the welfare of people in poor countries, who face lower price levels than people in rich countries. If we want to compare individual welfare worldwide, the use of PPP exchange rates is a must. But our knowledge and understanding of PPP rates is still defective. The most recent, and largest ever, International Comparison Project came up with results that showed price levels in most of Asia to be much higher than had been estimated before on the basis of previous exercises. In particular, price levels in China and India were found to be more than 50 per cent higher, which led to dramatic reductions in their real (PPP-based) incomes and welfare, and hence to significant increases in calculated global poverty and global inequality.

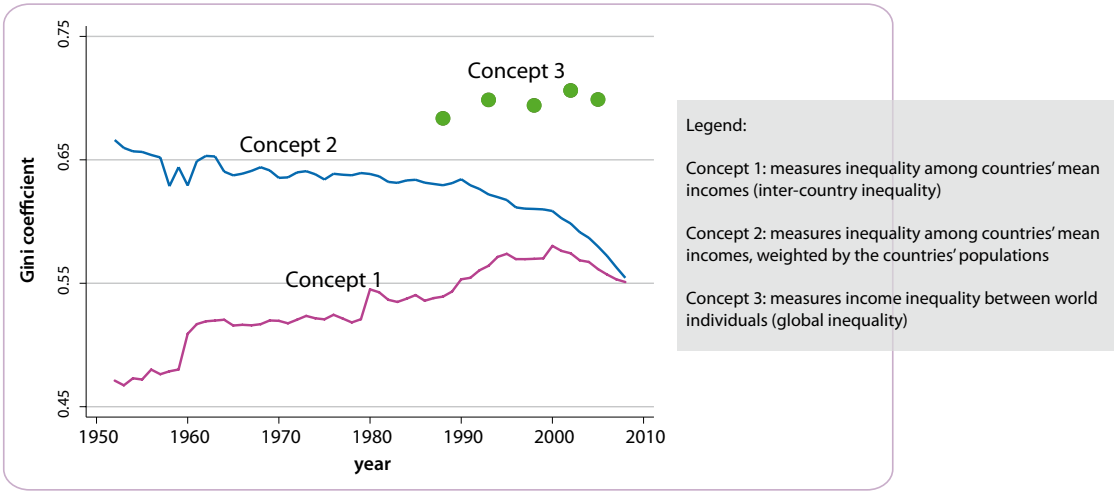
Fourth, should household incomes, which we normally obtain from surveys, be spread equally across all household members? Or should we allow for economies of scale? To reach the same level of welfare, two people living together need less than each of them would have spent separately, while children's consumption requirements are less costly than those of adults. This is important because household size differs systematically between countries. Since richer countries tend to have lower household sizes, the use of per capita measures underestimates welfare in poor countries and thus overestimates global inequality. The consensus so far has been that inter-country and global comparisons should be done on a per capita basis, partly to conserve comparability with national accounts that use GDI per capita.

How big is global inequality and how did it evolve?

The three approaches to measuring income inequality produce a wide variation of results, as shown in Figure 1.1. According to Concept 1, inter-country inequality increased steadily from 1980 until around 2000. This means that countries' mean incomes diverged. (Inequality is measured by the Gini coefficient on the vertical axis. Gini ranges from 0, perfect equality, to 1, maximum inequality.) According to Concept 2, inequality in the world has decreased during the past twenty-five years. This was largely because of high growth rates in China, and more recently in India. If China's and India's current growth rates continue for another decade or more, they will be a powerful twin duo for the reduction of global inequality.

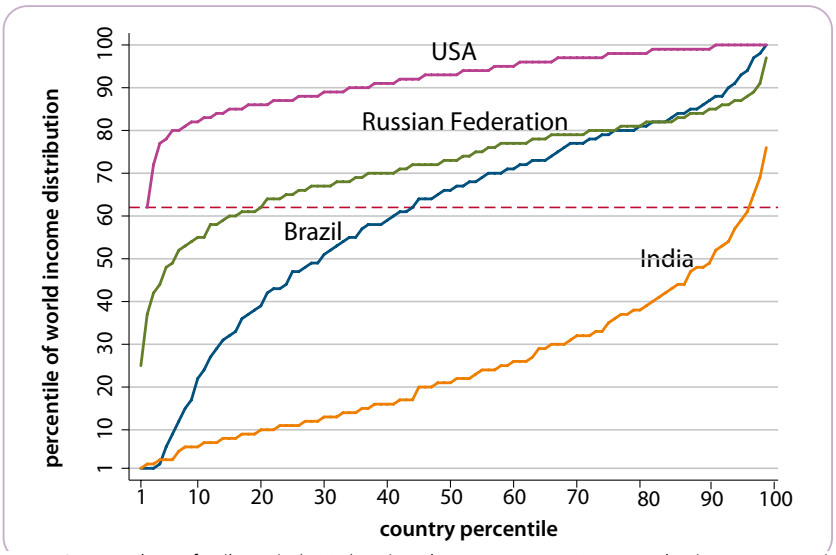
Using incomes from household surveys to compute Concept 3 global inequality (Milanovic, 2005) shows that the Gini coefficient fluctuated, increasing after the economic collapse of Eastern Europe and widening within-nation inequalities in most OECD countries, China and the Russian Federation, but decreasing with China's economic growth. While global inequality seems not to show a clear trend, it is clear that it is extremely high – Gini is around 0.7. This means that global inequality is significantly higher than the inequality found in any single country, including South Africa and Brazil, the most unequal countries in the world, whose Ginis are around 0.6.

Figure 1.1 — The mother of all inequality disputes: three ways of looking at global inequality, 1952–2007



Source: Own update of Milanovic (2005), using the most recent 2005 purchasing power parity.

Figure 1.2 — Position of different countries and their income classes in global income distribution



Source: Own update of Milanovic (2005), using the most recent 2005 purchasing power parity.

An important question is how much of global inequality is due to differences in mean incomes between countries and how much is due to income differences between individuals living in the same country. Unlike the situation that prevailed at the end of the nineteenth century, when most global inequality was due to within-nation income differences (we could call this 'class' differences), today more than 80 per cent of global inequality is explained by differences in countries' mean incomes. We can call this 'locational' income differences or the citizenship premium (see Milanovic, 2009).

Although they are less important, inequalities within countries are not negligible. The interaction of 'between' and 'within' inequalities is illustrated in Figure 1.2, which plots the position of each percentile (running from the lowest, 1st, to the richest, 100th) of different countries' income distributions in the global distribution. For example, the poorest percentile of Americans are better off than 62 per cent of the world population, but the poorest percentile of Russians are only better off than 25 per cent of the world population. Income distribution in the USA hardly intersects at all with Indian

income distribution. Only 3 per cent of the richest Indians are better off than the poorest Americans. Such examples can be multiplied. However, countries are not homogeneous entities composed only of either rich or poor people. Consider Brazil. Its population spans the entire spectrum – the poor being among the poorest in the world, and the richest belonging to the highest global income percentile.

Conclusion

Measurements of global inequality depend on the way income or consumption is defined, on the assumptions made regarding income sharing within households, and on the conversion of local currency incomes into international dollars. Including data on the real income of individuals from household surveys instead of using countries' mean income is a definite improvement when measuring inequalities worldwide. But much remains to be done to improve the quality and comparability of data, and it is to be hoped that in some not too distant future a fully-fledged global household survey, perhaps led by the United Nations, will be organized.

It is often implicitly assumed that the data on changes in global inequality can be interpreted as telling us whether globalization is globally equalizing or not. While in the most abstract way this is so, the causal link between globalization and global inequality is in fact very difficult to make. This is because globalization might affect the growth rates of poor and rich countries differently, might lead to either the widening or shrinking of national income distributions (which differ between poor and rich countries), and might tend to benefit either populous or small countries more. Depending on how these various channels of influence interact, and how strong each of them is, globalization's overall effect on global inequality could vary. Hence statements about the relationship between globalization and global inequality are highly time-specific and contingent on past income history, rather than general.ب

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A financial Katrina? Geographical aspects of the financial crisis

David Harvey

For a geographer, talking of a subprime crisis necessarily involves talking about the urban crisis that generally accompanies it, in which the most vulnerable are usually the first to suffer. Similar patterns of geographical concentration of foreclosures, and an overlap with social and racial origins, emerged in practically every major city in the USA. Regardless of the urban structure, patterns always signal neighbourhoods in which speculative housing development was seeking new markets.[1]

My interpretation of the present world financial crisis is very much shaped by my geographical background and my reading of Karl Marx's *Capital*. We have all heard about the financial aspects of this crisis, and the succession of financial events that it comprised. But considering that capitalism annihilates space to ensure its own reproduction, I wish to focus here on what happened on the ground, in the US cities that were the primary victims of the collapse in real estate that led to the financial crisis.

If we observe the geographical distribution of foreclosures in Cleveland, for instance, we notice that they are concentrated in certain specific areas of the city. Their distribution mirrors the geographical distribution of the subprime lending as well as that of the African-American population in the city (hence the title of my paper – a 'financial Katrina'). Every foreclosure represents a particular personal history and tragedy. For a geographer, talking of a subprime crisis necessarily involves talking about the urban crisis that generally accompanies it, in which the most vulnerable are usually the first to suffer. Similar patterns of the geographical concentration of foreclosures, and an overlap with social and racial origins, emerged in practically every major US city. Regardless of the urban structure, patterns always signal neighbourhoods in which speculative housing development was seeking new markets.

Let us now reflect on the particular case of Cleveland, the implications of the crisis in terms of urban change, and its consequences for the people who live and work in these urban settings. In such a context, municipal governments are getting to the point where they can no longer provide basic services to their constituents. They have to cut back for two reasons. First, their main source of income – the property tax – is in decline. Second, they are shut out of the credit markets and cannot borrow at any reasonable rate. So at the same time as this crisis is unfolding in various neighbourhoods and urban areas, it becomes increasingly difficult for municipal governments to respond in a creative and constructive way, since their assets are decreasing.

This raises another important question. If we look back in history, we find that there has been a series of financial crises over the past twenty to thirty years, most of which were triggered by the property market. In 1992, for example, the Swedish banking system essentially went 'belly up' as a result of excessive involvement in property speculation. The USA had its savings and loan crisis as well, costing approximately $200 billion to get out of. The crisis that unfolded in South-East Asia began in Thailand, and there again the property market was involved. The end of the Japanese boom in the late 1980s had a lot to do with excessive engagement in land and property markets as well as with excessive engagement on the stock exchange. In 1973 there was a huge property market crash – about six months before the oil price hike – which brought down numerous financial institutions.

If we go back in time, we notice earlier links between the expansion of property markets and the expansion of mortgages. The 1853–68 property boom in Second Empire Paris ended with the collapse of the financial institutions. In other words, there has been a long history of this sequence of events within capitalism. With the current crisis, history appears to be repeating itself, only this time on a different scale.

1. This paper is the abbreviated version of a presentation given at City University of New York Graduate Center, 29 October 2008; for more information see http://davidharvey.org/2008/12/a-financial-katrina-remarks-on-the-crisis

Why is there such a relationship? Part of the answer lies in the fact that throughout capitalism's history there has been a capital surplus disposal problem. Capitalism is always about producing a surplus in the form of a profit. This implies that there is always more at the end of the day than there was at the beginning. Part of that 'more' gets put into producing more 'more' the next day. As a consequence there is a perpetual process of compound growth. Historically the target, when capitalism is healthy, has generally been a compound growth rate of around 3 per cent. Even when there is a 'mad cow disease economy' (as we have right now) the target remains a rate that is above 0 per cent. There are therefore various historical periods in which there is an 'excess of liquidity': a tremendous amount of money in circulation that nobody knows exactly what to do with.

How will the 3 per cent growth rate be absorbed? One solution has been to expand geographically, for example from Europe to the USA or Argentina in the nineteenth century. In more recent times, people have been sending their surplus capital to China, thereby securing their compound rate of growth. The second possibility is to invest this excess liquidity in property. The interesting thing about property is that, particularly when people are building and financing it, a number of years go by before they actually realize they have over-produced, enabling them to absorb their surplus liquidity. Eventually, however, there is a crash of some sort. It sounds astonishing that only five years ago the head of the IMF stated that the world was awash with surplus liquidity. What the evidence is now showing is that political pressure was used to push this liquidity into new areas, particularly mortgage finance. In the USA, political pressure was placed on US federal mortgage and finance companies (Fannie Mae and Freddie Mac) in order to get them into the subprime business. This idea had been circulating ever since the Community Reinvestment Act of the late 1970s. For a certain segment of the working population, subprime mortgages had worked, at least until the recent push that was due to surplus liquidity. Surplus liquidity is the real heart of the current problem.

Every time property markets and financial institutions have picked up after a crisis, financial innovation has been required in order to do it. This was true in 1853 in Paris. It was also true in 1945. A large proportion of the surplus liquidity and productive capacity available after 1945 was indirectly absorbed through the process of suburbanization in the USA. However, that suburbanization required new financial configurations, new state policies (particularly the GI Bill of Rights) and new tax incentives, for instance tax breaks on mortgages. The entire structure of mortgage finance was revised to facilitate the suburbanization process. That process came to an end in the 1960s and 1970s. A different kind of dynamic then began to settle in. Financial innovation became crucial. The urbanization process needed to absorb the surplus had to go global (it went to China, it went to India …). A global reform of the financial structure was necessary. Mortgages were bundled up in specific ways, getting them into institutions that started to spin off other institutions. Financial innovation became a way of accommodating these new configurations. For example, the financial system came up with derivatives. The derivatives market is an astonishing affair. It now involves betting on the value of unusual underlying assets such as weather futures (whose market worth is US$4 billion) and pollution rights. Just a few years ago, while the global economy was worth US$40 trillion, an estimated US$286 trillion was circulating in the derivatives market, and in 2008 US$600 trillion circulated in this market. We like to think that there is a big crash going on in Wall Street. While admittedly some of the hedge funds have gone bankrupt, four hedge fund managers drew down personal incomes of over US$3 billion each out of these markets last year.

How is this possible? Why do states allow banks to innovate and behave as they please? Why do governments no longer concern themselves with the people? This reminds me of what took place in New York City (NYC) during the 1975 fiscal crisis. That fiscal crisis was part of a more general crisis in municipal finance across the USA. But it was deeper in NYC for some very particular reasons. This crisis of municipal finance followed on from the crisis of 1973, which started in property markets and spread over into financial institutions. During this crisis, investment bankers organized a financial coup against the elected government of NYC, essentially taking over its financial functions and mandating its policies. This period has taught me two basic principles for how to interpret the practices of neoliberalism, as opposed to its ideological mask. The first is to protect financial institutions at all costs. In other words, in the event of a conflict between the well-being of financial institutions and the well-being of the people, priority must be given to the former. The second principle is that governments are no longer to look after the well-being of a population, but rather to create a good business climate and therefore to encourage investments, whatever the cost. The theory behind that was of course that if investment is attracted, a rising tide will eventually 'trickle down' from the ceiling.

These two principles were for me what guided neoliberal politics from 1975 onwards. They became central to IMF practices and policies. When the IMF dealt with Mexico in 1982, it basically bailed the country out so that Mexico could

pay back investment bankers in NYC. It then proceeded to 'discipline' the country in order to ensure a 'good business climate'. This is where the neoliberal mask came in. It all has to be left to the market, it all has to be about individual responsibility – people cannot expect the nanny state to take care of them. In other words, the ideological mask was one thing and actual practices were another.

One visible outcome has been the biggest ever loss of assets for African-Americans (as the map of Cleveland indicates). My suggestion is that their losses represent the upper class's profit. Marxist geography invites us to analyse the connection between the map of Cleveland and what is going on in Wall Street.

Governments have of course taken equity stakes in order to avoid a new cycle. But this is not enough. We have to think about how to organize the banking system so that it can go into a place like Cleveland and stabilize the situation by rebuilding neighbourhoods and rebuilding lives. The banks on Wall Street will not do this by themselves. If this does not work, we need to create a new bank, a national reconstruction bank, and give it sufficient resources to go into places like Cleveland and work with the municipal government to reconstruct neighbourhoods. More generally, this new bank should contribute to the reconfiguration of the US urban system so that it becomes more energy-efficient and contributes to the creation of real employment opportunities. In other words, a national reconstruction programme is in order. One way of achieving this could be through the nationalization of one of the banks in order to make sure that its decisions are in line with the general interest.

What about the 3 per cent compound growth rate? In 1850, the global economy (counting both goods and services) was estimated at approximately US$135 billion. In 1950, it was valued at US$4 trillion at constant value and in 2000 at US$40 trillion. Today it is valued at around US$46–48 trillion. Imagine a 3 per cent compound rate of growth based on that starting point! Another way of imagining it would be this: a 3 per cent compound rate of growth on activities that are confined to a 50 mile radius around the city of Manchester and a few other hotspots is one thing. However, a 3 per cent compound growth rate on everything that is going on in China, Japan and South-East Asia, in Europe, in North America, in Latin America, and in the Gulf States is something altogether different. A rate of 3 per cent entails a doubling of economic activity every 15 years. And the ultimate result is the formation of fictitious bubbles where assets are pushed up very hard and then suddenly crash.

What we really have to do is to take hold of the surplus so that the people who produce it (that is, workers in the real economy) control the surplus and are able to dispose of it. They are the ones who should start thinking of the construction of a totally different world. Yet the folk on Wall Street are still making massive amounts of money. What we are seeing right now is that assets are not being consolidated for the benefit of the people, but are being reconstituted and reconstructed around a particular class configuration. In other words, we are witnessing a consolidation and centralization of class power into the hands of a few institutions that escape public control. Unless we fight this tendency, by the time we come out of this crisis we shall end up running straight into the next one.

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Foreseeing future population challenges

Joseph Chamie

The major population challenges that we will be faced with in the twenty-first century are becoming evident: population growth, urbanization, population ageing and international migration. These trends, and the accompanying critical demographic differentials, have significant social, economic, environmental and political consequences at the global, regional, national and subnational levels. Effectively dealing with the world of tomorrow requires us to understand, anticipate and address these global population trends.

The evolution and rapid growth of the world's population raises new and important challenges. Demography is vital to understanding and anticipating future changes in population that will shape the world through the twenty-first century.

Historical developments

For most of history, the world's population has grown at a very slow rate. In the very earliest period, small human populations were concentrated in eastern and southern areas of Africa. Some 60,000 years ago, these populations expanded not only along the coastal and inland areas of the tropics of Africa but also to the coasts of South Asia and Oceania. This migration continued so that 30,000 years ago, most of Eurasia as well as significant portions of the western hemisphere were settled.

Thousands of centuries were needed for the global human population to reach 300 million by the year AD 1 (Table 1.1). Towards the close of the fifteenth century, the world's population was approaching the half-billion mark, representing an increase of some 200 million over a period of 1,500 years. When Thomas Malthus wrote his famous essay on population at the end of the eighteenth century, the world's population had not yet reached 1 billion.

Despite the fact that human populations had already started to move to distant lands, some of the most important migration flows between continents began during the sixteenth century at a time of rapid European population growth, and spread westward. By the middle of the eighteenth century, less than 3 per cent of world's population (then approximately 800 million people) lived in the Americas. By the middle of the twentieth century, the proportion of the world's population living in the Americas had increased nearly sixfold to 14 per cent.

Before modern times, practically all of the world's population lived off the countryside. A thousand years ago, only a minute fraction of the world's population – less than 1 per cent – lived in towns or cities. By 1700 this proportion had hardly changed, and only five cities had more than 500,000 inhabitants: Istanbul, Tokyo, Peking, Paris and London. By 1800, approximately 3 per cent of the world's population lived in cities or urban centres. By 1900, this proportion had grown to around 15 per cent.

In striking contrast to earlier periods, the twentieth century was one of revolutionary demographic developments, unparalleled during all preceding centuries. The unprecedented growth in the world's population in the twentieth century dramatically impacted the course of life on this planet. The world's population practically quadrupled during the twentieth century, growing from 1.6 to 6.1 billion people. The twentieth century also ushered in radical changes in human survival and reproduction. Numerous vaccines for diseases such as smallpox or polio

Table 1.1 > World population milestones

Population	Year (AD)
0.3 billion	1
0.5 billion	1500
1 billion	1804
2 billion	1927
3 billion	1960
4 billion	1974
5 billion	1987
6 billion	1999
7 billion	2011
8 billion	2025
9 billion	2045

Source: United Nations Population Division.

Two generations, Pakistan
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were developed; average life expectancy at birth extended beyond 60 years, and at the global level, the average number of children per woman dropped by half. In addition, the world's population was increasingly concentrated in urban areas, with close to half of humanity living in towns and cities by the end of the twentieth century.

High levels of international migration were another significant demographic feature of the twentieth century. After slowing down in the wake of the First World War and during the Great Depression, there was a significant increase in migration during and after the Second World War. Decolonization also contributed to the growth in migration flows. By 1960, there were an estimated 77 million migrants in the world; fifty years later the number had almost tripled to 214 million.

Five upcoming trends

In the coming decades, major population challenges can be expected.

First, the planet will have to sustain a much larger population than today. With annual increases of 78 million, today's global population of 6.8 billion will almost certainly reach 7 billion by 2011 and most probably 8 billion by 2025. After that, things are far more uncertain. If fertility rates continue to decline and reach the projected replacement levels, the world's population could stabilize between 9 and 10 billion in the second half of the twenty-first century.

Second, practically all of the world's future population growth will occur in the world's less-developed regions. Africa's population is projected to double by 2050, reaching the 2 billion mark, and the populations of Asia and Latin America are also projected to increase markedly over the next 40 years (from 4.2 to 5.2 billion and from 589 to 729 million respectively). In contrast, a number of European countries, as well as Japan and the Republic of Korea, are entering a period of population decline. However, Australia, Canada, New Zealand and the USA are expected to continue growing, largely as a result of international migration.

Third, while population ageing was an important demographic development during the twentieth century, demographic ageing will become even more critical during the twenty-first century. The proportion of the world's population aged 65 or older is likely to double by the middle of the century. In a number of countries such as Italy, Japan and Spain, one in three people is expected to be 65 or older in 2050.

Population ageing raises serious issues such as increased immigration, the financial viability of pension systems, and the adequacy of existing health-care systems for the elderly. Today's social security, pensions and health-care budgets are in the black largely because of the favourable demographics of the past. A declining active population and a growing number of pensioners are expected to lead to what many label a 'red ink' society.

The ageing of the population presents even greater challenges for many less-developed countries, which are ill prepared to deal with the growing needs of their elderly populations. These countries already have low levels of economic development, and the ageing process there is occurring at a far quicker pace than occurred historically among developed nations. Consequently, most developing countries lack the necessary institutional mechanisms, such as pension or health-care systems, for the provision of even the most basic assistance and care for their ageing population.

Fourth, the majority of the world's projected population growth over the coming decades will take place in urban areas, where the majority of humanity now resides. Over the next three decades, urban areas in less-developed regions are expected to double in size, growing from about 2 billion people today to close to 4 billion by 2030. There will be a significant increase in the number of very large cities, or megacities, with populations of 10 million or more.

Fifth, international migration is expected to remain high throughout the twenty-first century. The more developed regions are expected to continue to be net receivers of international migrants, with an average gain of more than 2.5 million per year over the next 40 years. Today, many European countries already rely on international migration for their modest population growth, to replenish their shrinking labour forces and to support and care for their ageing populations. At the same time, the populations of most sending countries continue to grow relatively quickly, with many working-aged individuals having difficulties in finding steady employment and increasingly resorting to illegal immigration.

Conclusion

While the future remains uncertain, the major population challenges that we will be faced with in the twenty-first century are becoming evident: population growth, urbanization, population ageing and international migration. These trends, and the accompanying critical demographic differentials, have significant social, economic, environmental and political consequences at the global, regional, national and subnational levels. Effectively dealing with the world of tomorrow requires us to understand, anticipate and address these global population trends. Enhancing demographic research is an essential ingredient to meet these challenges. Demography provides both a powerful microscope with which to view the underlying dynamics of humanity's changes and a far-reaching telescope foreseeing the coming population challenges and their likely consequences for other vital issues such as climate change, energy consumption and natural resource depletion.

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Cities in today's global age

Saskia Sassen

Much is known about the wealth and power of global firms and financial exchanges. What is less clear is why cities should matter more in a globalized world than in the preceding Keynesian decades. Nor is it clear in what ways the financialization of a growing range of economic sectors affects cities. Major current structural trends are generating new types of social and spatial inequality that ultimately alter the meaning of the urban and the civic. This is especially evident in global cities.

As recently as the 1970s, many of our great cities were in physical decay and were losing people, firms, key roles in the national economy, and their share of national wealth. The leading cities of the three major economic powers – New York, Tokyo and London – were bankrupt. But as we moved into the 1990s and 2000s, a rapidly growing number of cities re-emerged as strategic places for a wide range of activities and dynamics. This has, at least in part, been due to the new economic role of cities in national economies and in an increasingly globalized world.

Much is known about the wealth and power of global firms and financial exchanges. Their ascendancy in a globalizing world is no longer surprising. New information and communication technologies are also generally recognized as the servants of economic globalization and as providing its tools and infrastructure. After 20 years of corporate economic globalization, we know that these firms and exchanges are highly susceptible to crisis. Since the 1980s, there have been five major global financial crises, in addition to adjustment crises in over 70 countries. Finally, the latest crisis has made the extreme levels of financialization visible across almost all economic sectors throughout most of the world.

What is less clear is why cities should matter more in a globalized world than in the preceding Keynesian decades. Nor is it clear in what ways the financialization of a growing range of economic sectors affects cities, especially global cities. Finally, while inequality has long been a feature of cities, major current structural trends are generating new types of social and spatial inequality that ultimately alter the meaning of the urban and the civic. This is especially evident in global cities, which become the sites of new kinds of political actors and practices.

From the Keynesian city to the global city

In their early histories, cities, were above all centres for administration, small-scale manufacturing and commerce. They were mostly the space for rather routinized endeavours. The strategic spaces in which major innovations were happening were government (the making of social contracts, such as the welfare state) and mass manufacturing, including the mass construction of suburban regions and national transport infrastructures.

The most common and easiest explanation of why cities became strategic in a global corporate economy is the continuing need for face-to-face communications and for creative classes and inputs. However, in my reading, these are surface conditions which cannot fully explain the new phase.

The rise of cities as strategic economic spaces is the consequence of a deeper structural transformation evident in all developed economies. This affects cities at multiple levels, from the provincial to the global. At the heart of this deep structural trend is the fact that firms in all economic sectors (from finance and insurance to mining, factories, transport systems and hospitals as well as governments at all levels) are today buying more services, such as insurance, accounting, legal, financial, consulting and software programming. Until recently, most firms, governments and households produced these services themselves. Now they are bought from a rapidly expanding specialized intermediate service sector. An increasing number of households are also buying these services, but this is part of final consumption rather than of the intermediate economy.

These kinds of intermediate services tend to be produced in cities, no matter how rural the location of the mine or steel plant that they service. So even an economy based

on manufacturing or mining will feed the urban corporate services economy. Firms operating in more routinized and subnational markets increasingly buy these service inputs from more local or regional cities. This explains why we see the growth of a professional class and its associated environment even in cities that are not global. Global cities differ because they are able to handle the more complex needs of firms and exchanges operating globally. It is only in its most extreme forms that this transformation feeds into the growth of global cities, cutting across the binary divide between the national and the global.

The outcomes of this structural condition become wired into urban space. The growth of a high-income professional class and high-profit corporate service firms becomes visible in urban space through the growing demand for state-of-the-art office buildings, and for luxury consumption and residential space. The growing demand for such buildings and spaces has led to massive and visible displacement of more modest-income households and modest profit-making firms, no matter how healthy these may be from the perspective of the economy and market demand. In this process, urban space itself is one of the actors producing the outcome.[1]

This partly explains why architecture, urban design and urban planning have played such critical roles. From the 1980s onwards we have seen the partial rebuilding of cities as platforms for a rapidly growing range of globalized activities and flows, from the economic to the cultural and political. This explains why global cities became also objects of, as well as for, investment when this global phase took off in the 1980s. It also explains why global cities expanded so rapidly as globalization proceeded. In turn, each of these new global cities became an object of investment – cities as diverse as Dublin and Buenos Aires in the 1990s, and Istanbul in the 2000s. Dozens of cities entered this pattern at one point or another in these two decades.

1. My most pessimistic scenario in my new project, *The New Wars and Cities: After Mumbai*, is that conflict is now wired into urban space itself. This is partly due to gentrification and displacement, and the resulting politics of competition for space. In some cities (for example, New York and Los Angeles) this has taken the form of massive direct and indirect eviction of lower-income people and enterprises from the gentrifying areas as well as the rise of gangs claiming and controlling neighbourhood space. In other cities (in Europe and Shanghai) it takes the form of new racisms that can lead to physical violence. In some cities (São Paulo and Rio de Janeiro), at its most extreme, it takes the form of partial sporadic urban warfare, including warfare in prisons. See http://www.opendemocracy.net/article/the-new-wars-and-cities-after-mumbai (Accessed 28 November 2008.). See also http://cgt.columbia.edu/events/cities_and_new_wars/

When I first developed the global city model in the 1980s, my starting points were the global networks of firm affiliates, global financial exchanges, global trade routes and global commodity chains. The emergent scholarship on globalization examining these global operations emphasized geographical dispersal, decentralization and deterritorialization, and rightly so. But I was interested in the territorial moment of these increasingly electronic and globally dispersed operations. At that time, I proposed to focus on New York and Los Angeles, which seemed to be major territorial nodes. However, my methodology – starting with firms' and exchanges' global operations, and tracking the sites where they went – forced me to recognize that during the 1980s, it was New York, London and Tokyo that stood out, with Los Angeles lower on the list.

Applying this methodology today leads us to a vastly expanded global geography of sites. There is more of everything – global cities, export processing zones, offshore banking centres, and massive warehouses that are just one stop on global trade routes.

The multiple circuits of the global economy

There is no such entity as 'the' global economy. There are global formations, such as electronic financial markets and firms that operate globally. But the current era's key feature is a vast number of highly particular global circuits – some specialized, others not – that criss-cross the world, connecting specific groups of cities. While many of these global circuits have long existed, what began to change in the 1980s were their proliferation and their increasingly complex organizational and financial frames. These emergent inter-city geographies have begun to function as an infrastructure for globalization. They also increasingly urbanize global networks.

Different circuits contain different groups of countries and cities. For instance, Mumbai is today part of a global circuit for real-estate development that includes investors from cities as diverse as London and Bogotá. While coffee is mostly produced in Brazil, Kenya and Indonesia, the main trading place for coffee futures is Wall Street – even though New York does not grow a single bean. Each of the specialized circuits in gold, coffee, oil and other commodities involves particular places, which will vary depending on whether it is a production, trading or financial circuit. And then there are the types of circuits that a firm such as Wal-Mart needs in order to outsource the production of vast amounts of goods, including manufacturing, trading, and financial/insurance service circuits. If we were to track the global circuits of gold

as a financial instrument, London, New York, Chicago and Zurich would dominate. However, the wholesale gold trade places São Paulo, Johannesburg and Sydney on this map, with Mumbai and Dubai added through the trade in gold for and in jewellery – much of it aimed at the retail trade. While New York and London are the world's biggest financial centres, they do not dominate all markets. Chicago is the leading financial centre for futures trading. In the 1990s, Frankfurt became the leading trader for British treasury bonds, of all things. These cities are all financial leaders in the global economy, but they lead in different sectors and they are different types of financial centres.

Global economic forces are not the only ones to feed the formation and development of this proliferation of circuits. These are also fed by migration, cultural work, and civil society struggles to preserve human rights, the environment and social justice. NGOs fighting for the protection of the rainforest function in circuits that include Brazil and Indonesia as homes of the major rainforests, the global media centres of New York and London, and the places where the key forestry companies that buy and sell wood are headquartered – Oslo, London and Tokyo. There are particular music circuits that connect specific areas of India with London, New York, Chicago and Johannesburg.

Adopting the perspective of one of these cities reveals the diversity and specificity of its location on some or many of these circuits. These emergent inter-city geographies begin to function as an infrastructure for multiple forms of globalization. The critical nodes in these inter-city geographies are the highly specialized capabilities present in each city, more so than the cities as a whole. These are strategic inter-city geographies, consisting of multiple and diverse circuits.

Another critical part of being a global firm or market is that it ultimately means entering the particularities of national economies. This explains why these global actors need more and more global cities as they expand their operations across the world. Handling these national factors is a far more complex process than simply imposing global standards.

This process is easier to understand if we consider consumer sectors other than the organizational and managerial ones addressed in this article. For example, a routinized operation such as McDonald's adjusts its products to the national cultures in which it operates, which might be in France, Japan or South Africa. The global city contains the resources and talents that are needed to bridge global actors and national specifics. This explains why cities' specialized differences are so critical now, more so than is usually recognized. In turn, this explains why the world's many and very diverse global cities do not just compete with each other. Collectively, they also form a globally networked platform for the operations of firms and markets as well as a variety of other actors, from NGOs to cultural organizations.

The network of global cities has expanded as more and more firms have gone global and entered a growing range of national economies. The management and servicing of much of the global economic system takes place in this growing network of global cities and city-regions. While this role only involves certain components of urban economies, it has contributed to the national and global repositioning of cities.

This repositioning, and the fact that cities do not simply compete with each other, takes on added importance at a time when cities are at the forefront of a range of governance challenges that are usually understood as being purely global. Many cities have had to develop the capabilities needed to handle these so-called global challenges long before national states signed international treaties or passed national laws. The air-quality crises in cities such as Tokyo and Los Angeles in the 1980s had to be dealt with (and were) as a matter of urgency, without waiting for national governments to pass car emissions laws.

Cities are forming new kinds of alliances to confront global firms and to address the new environmental challenges. These are only two of many possible types of engagement that cities might embark upon.

There is not one model global city

While there is competition between cities, there is far less of it than is usually assumed. A global firm does not want one global city but many. Given the level of specialization of globalized firms, the preferred cities vary from firm to firm.

The many different specializations of cities and urban regions in today's global economy arise from their specific deep economic history, which is of fundamental importance for the type of knowledge economy that a city or a city-region ends up developing. This goes against the common view that globalization homogenizes economies. The extent to which this deep economic history matters varies, and partly depends on the economic particulars of a city or region.

Globalization homogenizes standards – for managing, accounting, building state-of-the-art office districts, and so on. It does, however, need diverse and specialized economic capabilities. The capabilities to globally trade, finance, service and invest need to be developed; they are not simply a by-product of the power of multinational firms and telecommunications advances. Different cities have different resources and talents for producing particular types of capabilities. The global city is a platform for producing such global capabilities, even when this requires large numbers of foreign firms, as is the case in cities as diverse as Beijing and Santiago. The world has more than 70 major and minor global cities. Each contributes to the production of these capabilities in its home country, and thereby functions as a bridge between its national economy and the global economy.

A large 2008 study of seventy-five cities rated the top cities for worldwide commerce. Not one of them ranks at the top in all of the 60-plus variables, and not one gets the perfect score of 100.[2] The scores for the top two cities are 79 for London and 72 for New York; further down, the city ranked 10th, Amsterdam, scores 60, and Madrid 59. London and New York – the two leading global cities – rank low in several important aspects. Neither is in the top ten when it comes to starting or closing a business.

Perhaps most surprising is that London ranks 37th on contract enforcement and 21st on investor protection. Singapore ranks number 1 on both variables. Less surprising is that New York ranks 34th on liveability, defined in terms of health and safety. In the global South, cities such as Mumbai and São Paulo are in the top group for financial and economic services, but their overall score is decreased by their low rankings on ease of doing business and liveability, given their low levels of well-being for vast sectors of the population. Perhaps most surprising is the rise of small European cities such as Copenhagen and the fall of large US cities such as Los Angeles.

In the growing number of global cities and their differences, we witness the larger story of a shift to a multipolar world. The US cities' loss of position, compared with the 2006 survey, is part of this shift. It is not that the USA is suddenly less important. Instead other regions of the world are rising, and there are multiple forces feeding their multi-sited economic, political and cultural strengths.

2. The 2008 *Mastercard Worldwide Centres of Commerce Index* (Mastercard Worldwide, 2008), for which the author was a panel member, ranks 75 cities according to more than 60 variables that cover a wide range of conditions – from macro-level factors such as political and legal frameworks, to the particulars of how easy it is to execute an import or export operation, how many days it takes to open and to close a firm, liveability factors and a city's global recognition.

New types of informal economies and urban innovation

The new spatial and economic inequalities take specific concrete forms. One of these is the recent growth of informal economies in major global cities in North America, Western Europe and to a lesser extent Japan. Much of today's informalization is actually linked to key features of advanced urban capitalism. This explains the particularly strong growth and dynamism of these informal economies in global cities, including a mostly overlooked development: the proliferation of an informal economy of creative professional workers including artists, architects, designers and software developers.

The decline of the manufacturing-dominated industrial complex that characterized most of the twentieth century, and the rise of a new, service-dominated economic complex, provides the general context for informalization. Demand for informally produced and distributed products and services is encouraged by the growth of a high-income, high-profit urban sector. This generates a demand for craftwork, design and low-income, labour-intensive products and services, such as prepared food and a range of household services.

The new creative, professional informal economy is partly a function of an expanded supply of university graduates who find themselves in a shrinking labour market. More significant is the active demand for design inputs into a vastly expanded range of products, services and built environments. The migration of young, middle-class university graduates to cities, especially global cities, has stimulated a proliferation of informal studio work that may eventually become formalized. Starting informally is a means of exploring opportunities and options. Once such an informal creative economy exists, it greatly expands opportunities and networking potential for artists and professionals. Operating at least partly informally allows these professionals to function in the interstices of urban and organizational spaces which are often dominated by large corporate actors, and to escape the corporatization of creative work. In this process, they contribute two very specific features of the new urban economy: its innovativeness and its new frontier spirit. We can see this as a reinvention of Jane Jacobs' urban economic creativity.

These new types of work informalization match the formal deregulation of finance, telecommunications and most other advanced economic sectors pursued in the name of flexibility and innovation. But while formal deregulation was costly, and was paid for by tax revenues as well as private capital, informalization is low-cost and is largely the responsibility of workers and informal firms themselves. Conditions akin to those in the global cities of the North may produce a new type of low-income informal economy in cities of the global South, alongside the older, survival informal economies and the professional, creative informal economy.

Conclusion

This type of analysis has theoretical and political implications. The fact that global firms need cities – and indeed groups of cities – unsettles common notions of the mobility of capital and the capacity of electronic networks to escape territorial limitations, and hence the regulatory frameworks of territorial governments. Politically, this means that it should enable these cities' political, corporate and civic leaders to negotiate more benefits for their cities from global firms. This could lead to positive outcomes if the governing classes can see that these global economic functions will grow better in the context of a strong and prosperous middle class, rather than in the polar inequality that exists among a growing share of households. European global cities have done better than global cities in the USA precisely for this reason.

The trends in the new rising cities of the global South track the now-familiar trends of the global North: the growing numbers of the very rich and the very poor, along with increasingly impoverished traditional middle classes. In these cities, there will be fewer modest middle-class households and fewer modestly profitable economic sectors. These were once the major economic presence in these cities, and they are critical to the urban economy because their incomes are most likely to be fully spent there. Their presence provides built-in resistance to the spatial and social reshaping of cities along extreme, polar class lines.

We urgently need to innovate on the front of urban governance. The old bureaucratic ways will not do. Ours is a whole new urban era, with its share of positive potential as well as miseries. In cities, our governance challenges become concrete and urgent. National states can keep talking; urban leadership needs to act.

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Chicago, Illinois. A global city
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Marginalization, violence, and why we need new modernization theories

David E. Apter

The hypothesis is that insofar as development-cum-marginalization results in the individualization of risk, the more frequent will be efforts to collectivize it. Collectivization of risk takes many forms, including so-called fundamentalisms, 'tribalism' and extreme sectarianism. Each becomes useful in terms of transforming the risk-taker into the risk-maker, whether through confrontation, social movements, extra-institutional protest, terrorism or, more occasionally, revolution.

A better name for this paper would have been 'outline of a theory of practice', Pierre Bourdieu's title for his magisterial study uniting a structuralism of sorts with a phenomenology of sorts. Here, I want to present my own version of such an 'outline'; one that includes a structural argument about some of the social and political consequences of scientific innovation in a context of modern global development, as well as a logic of contradictions produced by the way the latter makes use of science and innovative knowledge. I want to connect this logic of contradiction to the political condition of negative pluralism, a condition that undermines the basic premises of democratic institutions embedded in positive pluralism. I will also attempt what might be called a palimpsest – an outline of a new kind of modernization theory. Like its earlier version, this theory will emphasize the structural, but in its newer version, emphasize more phenomenological themes.

In the more particular context of this Report, I shall also be concerned with some of the pitfalls arising from science itself, especially as applied instrumentally. As I see it, one of the presumed virtues of the social sciences is that by applying theories to facts, we can uncover what has hitherto been hidden from view, and by so doing redefine relevance, identify new problems and turn attention to what otherwise might have remained obscure. To put it differently, I see the task of the social sciences as the reasoned interpretation of experience through the discovery of valid generalizations and their application to particular events. We seek theoretical and useful knowledge to which both the unique and the familiar contribute. Within that frame, science, and particularly social science – despite profound differences with respect to the appropriate forms and fashions of the scientific enterprise – provide opportunities to enrich understanding, not only about how to 'do' social science, but also how to think about it, and how best to evaluate where it stands in the order of things, and in the process change the order itself. But what if that 'order' is conventionalized by the social sciences themselves, so that they become part of the problem rather than the solution? Hence, the political and theoretical argument I propose requires us to look at the wider effects of social science knowledge on the institutions and conditions in which it operates.

With this perspective in mind, I want to try my hand at 'revealing' what I think is a range of problems hidden beneath the kind of theory that purports to deal with the 'big' contemporary problems: war and peace, recession and prosperity, justice and violence. These consume our daily lives and impinge on us as citizens and scholars. My starting point is something we can designate as global developmental, whose social consequences are visible in the multiple crises we confront today and obscure others waiting down the road – some of them stemming from the very efforts to use science and information, knowledge and education to resolve them. In short, I intend to discuss some of the ways in which the spread of rational inquiry itself, not to speak of the institutions devoted to that end, can – in a context of modern global development – lead to serious perversities in social and political life. A bifurcation in public space and private roles, whose consequences will be touched on below, is not the least of these consequences.

Among those consequences are social differences that break down what in large measure constitutes common understanding. Indeed, even common-sense causes and effects become different from the prevailing norms for people most penalized by the process of development. These differences include what will be recognized as

applicable, valid rules of the game. It is not only in so-called 'failed states' that people marginalized by the development process live under conditions of great personal risk, and confronting a rogue environment, see threatening and random perversities around them. In short, I want to address some of the structural conditions that in effect privatize public institutions and, at worst, make democracy a form of paralysis, a kind of bad joke. Hence, in this essay, the concern is with the negative social and political effects of knowledge itself, and its consequences in the opportunity and meaning structures that affect people in their daily lives, including some of the social pathologies that knowledge exacerbates rather than ameliorates.

The structural argument

Among the consequences of global development are quantum leaps in scientific and technological knowledge. Applied as productive outputs, these have a continuous and creative impact on social life. The impacts are highly differentiated, depending on where we stand in the social system. If, for some, the effects include opening up opportunities and expanding choice, for others, these same factors prejudice rather than add to their prosperity. This results from a bifurcation between those whose roles are marginalized in the productive process and those whose roles (by becoming more and more functional) are elevated to the status of elites. This suggests a structural model with two opposite poles, a condition of extreme marginalization leading to a virtual condition of functional superfluousness, and a knowledge-producing class of ever greater functional significance. We might consider the 'pulls' between these tendencies as a kind of dialectic, not in terms of a proletariat as Marx would have it, but in ways of looking at the world as well as at life opportunities, conditions and circumstances. The marginalized are depatrimonialized, displaced and dispersed – and in both 'metropoles' and 'peripheries'. Social vulnerability goes with such displacement from normalcy (Wacquant, 2009).

I do not want to overstate the case. That there have been vast benefits from globalization cannot be denied. At its best, capitalism remains innovative, creative, entrepreneurial, stimulating and imaginative. But the point is that these very virtues have become part of the problem, a problem that is built into the industrial process itself, as the following explains:

1. Growth depends on increasing productivity.
2. Increased productivity depends on innovations in design and their application to product outputs.
3. Such output applications increasingly take the form of capital-intensive industry at the expense of labour-intensive industry.
4. This results in redundancies in the labour-intensive sector, especially among the unskilled and poorly educated.
5. Prolonged unemployment, especially among the least skilled and most poorly educated, turns an economic condition of unemployment into a social condition of marginality.
6. Marginality represents a sector of functionally superfluous people for whom no prospects for improvement are easily available.
7. Marginality individualizes risk.
8. Risk reduces the efficacy of programmes designed to help those displaced by institutional means, including schools and training programmes and the like, which validate failure more than realize success.
9. The more such social pathologies spread, the more difficult it is to eliminate the negative consequences of risk without vast state expenditure on compensatory and welfare programmes (which are almost invariably inefficient).
10. Increased state expenditure brings rising social overhead costs.
11. Such costs reduce the state's ability to mediate and balance appropriate principles of equity and growth.

At least two points should be noted about this line of argument. It is as much a sociological argument as an economic one, and a psychological argument as much as a sociological one. The first and second are structural, the third is psychological, and all three are ingredients of a political argument about negative rather than positive pluralism and growing political violence (despite vast expenditures on arms and military adventures). In short, the emphasis here is on social and political pathologies produced by global capitalism.[1]

1. No one-to-one correspondence between, say, workforce marginalization, social polarization and political violence is implied in these comments. Nor is marginality all of a piece. There is the marginalization of the downwardly mobile and the newly unemployed. There is the marginality of the urban ghetto and the rural township, the Paris banlieues and the slums of Nairobi and so on. And with them go vast differences in the terms of the social and cultural life in each. To some degree, these are dependent on where race, religion, ethnicity, clanship or combinations of these are predominant influences.

In this argument, risk plays a central role. The greater the degree of marginalization, the greater the likelihood that those functionally displaced in these terms will use alternative forms of identity. These alternative identities serve to mobilize, to establish mutual confidences, and above all, serve as ways to collectivize risk. My hypothesis is that insofar as development-cum-marginalization results in the individualization of risk, the more frequent will be efforts to collectivize it. Collectivization of risk takes many forms, including (especially in the absence of reasonable socialist alternatives) so-called fundamentalisms, 'tribalism' and extreme sectarianism. Each becomes useful in terms of transforming the risk-taker into the risk-maker, through confrontation, social movements, extra-institutional protest, terrorism or more occasionally revolution: in short, violence. These latter themes are of course as old as social science itself, and each has its own literature, which it would be pointless to recount or deal with here. However, many of these themes were perhaps intrinsic to the kind of 'systems theory' that characterized early modernization theories. It might make sense to say something about that original perspective before trying to turn it on its head in terms of truths and consequences.

Modernization theory as a theoretical point of departure

Among the many things that the 'old' modernization theorists ignored were the ever higher social overhead costs which, developmentally induced, forced themselves on us politically, while remaining unrecognized by still dominant political, economic and sociological models. Today, we see the fallout of such defaults. If my assumptions are correct, models are now needed that are better able to connect the structural conditions prevailing today – economic as well as social – to more interpretative modes of analysis. Indeed, a good many of the facts we are after lie in what people say about their circumstances, how they interpret their condition, and the narratives they form, from and out of which they construct a logic of action. When it comes to matters of protest, we particularly need to be able to read words and acts like a text (a social text, as Geertz would have it), and to see what such readings reveal politically in terms of compensatory principles.

In fact, as regards a more phenomenological turn, the old modernization theory was on the verge of exploring some of these issues when it came to an abrupt end. The categories – functionalities, development, structures, role differentiation, innovation and others which are equally emblematic – used in what was called systems theory were about to take a more phenomenological turn, especially in the last work of Talcott Parsons. Before that could really happen, however, modernization theory effectively disappeared. Ironically the phenomenological emphasis survived, but deriving as it did from such diverse sources as linguistic theory, analytical structuralism, interpretive sociology and even literary theory, it never attained more than dubious status as belonging to the corpus of social science *tout court*. Despite such status, I would argue that it essential to a revised and more relevant form of modernization theory that is relevant for current purposes.

Let me be clear. On the whole, the old modernization theory disappeared for good reasons. Moreover, even at its peak, it was influential but never dominant in the social sciences, and it was always the object of suspicion (which applies even more so to interpretive theory today). Among the many weaknesses of early modernization theory was that its categories ignored the important ways that people interpreted 'systemically defined' reality on the ground. There was much talk about norms and values, but in the abstract rather than concretely. On the whole, it ignored the events and actual circumstances of roles and the lives as lived within them. Missing was much sense of how interpretation acted to change that reality itself. As a result, a good number of the theory's more confident predications turned out to be, if not wrong, then not right enough – such as the rise of secularism at the expense of the sacred (Andrain, 2008), and the self-evident rationalities of choice and self-regulating markets. Missing from modernization theory was what later also came to be called cultural sociology – not only more phenomenological concerns, but politics as interpretation, as acting out, as performance, as symbolic behaviour. Even if we accept that the driving force of development was industrialization, and development was the driving force of modernization, over time it has become clear that universal functionality does not so easily ride roughshod over prevailing and more parochial particularisms such as race, ethnicity, religion, and differences of language and kinship.[2]

In this sense, modernization theory failed to see how industrialization, notwithstanding extraordinary increases in productivity, generates implacable social problems and

2. Anyone who today reads Kerr et al., *Industrialism and Industrial Man* (1960), or case studies of innovation, such as those by Burns and Stalker, *The Management of Innovation* (1961), can see how persuasive such ideas of modernization appeared to be and how beguiling as policy and practice.

political instability, and increases public and private risk.[3] In this regard, the radical and Marxist critiques that preceded and succeeded modernization theory were more prescient. Modernization theorists, for all their broad perspectives, never dreamed they would live to see the old metropoles peripheralized, with China, India, Brazil and other countries becoming the new engines of industrial growth at the expense of the old. Little attention was paid to some of the less benign and enduring legacies that served as the context for much of the world in which modernization was occurring, namely imperialism, whose aftermath included serious distortions in local social life, and what might be called pathologies of alien power and control. There was even less concern with the impact that imperialism had on the 'imperialists' themselves and with metropoles being treated as insular, self-sustaining sources of modernization, and not heir to its backlashes.

There were other early modernization theory failures too. Attacked by a barrage of critical theories – dependency, neo-Marxism, and their variants – a good many critiques were also a response to the ferment occurring on the ground in much of the developing world (not to mention its occurrence within the metropoles themselves). Beginning in the late 1950s there was a virtual explosion of local and international protests, solidarity movements, pan-Africanism, and developing-world expressions of socialism and nationalism, with radical socialist metropoles emerging in Accra, Conakry, Algiers, Cuba and Pyongyang, not to speak of such hot spots of visible imperialism as the Mau Mau rebellion in Kenya, Vietnam and the Algerian War – events to which most modernization theorists remained largely oblivious. It was not Parsons who addressed these issues but Fanon.

Structurally, then, modernization theory failed precisely in those aspects in which it should have succeeded. It argued that development and modernization would lead to benign effects, diversity, complexity, differentiation and pluralization. But all these turn ugly in the face of profound cleavages between citizens. Is there any point at all in going back to earlier forms of modernization theory? I think the answer is yes. I believe modernization theory had greater depth and theoretical power than its critics have given it credit for. Above all, it was about systemic change. Societies were its primary units of analysis. Its central problem was how to examine the possibilities of functional integration by societal systems and subsystems under conditions of rapid transformational innovative change. However, if it has any relevance today, it would be for examining the breakdown of functioning institutions and the ensuing disorder and violence.

New modernization theory and negative pluralism

I have suggested that if we start with the structural predicaments and the logic behind them, as described above, a new modernization theory can become useful for the recognition and the analysis of negative pluralism. It has been suggested that market-driven growth favours capital-intensive industry over labour-intensive industry at the expense of employment. This produces the need for people with high educational, training and technical attainments. Required too is an educational process that creates a divide between the technologically literate and the technologically disadvantaged. The resulting polarization goes well beyond theories of class division to cognitive differences, each with its own deployment of intelligence. This exacerbates differences in which cleavage politics takes the form of negative pluralism, i.e. one in which interests are raised to the level of principles. This highlights differences of religion, caste, race, language and other categorical affiliations, and turns them into often-profound convictions, exaggerating differences rather than minimizing them, and favouring the potential for conflict over mediation. In turn, this reinforces and perpetuates differences that threaten prevailing institutional frameworks, renders party politics a war by other means, and undermines the ideals of a democratic political system. By adding a more phenomenological understanding of how people read the logic of their situation and act on that, we can begin to understand how and why even the best-laid and most predictive structural understanding is so frequently up-ended in events. In fact, in these respects, none of the successors to modernization theory fared any better than the systems of which it was so critical. As a result, the social sciences are perpetually chasing after unanticipated events, especially those that not only redefine facts on the ground, but also the analytical space within which knowledge and understanding occur.

What can democracy mean under such circumstances? Virtually all liberal doctrines contain an assumption – explicit or implicit – that for the most part citizen choices are rational. Choosing is itself a function of the market-place, whether economic (goods and services) or political (votes and candidates, facts and values). Ends are open in both, but with rationality, the magic of the market is

3. Aside from my own work on nationalist movements and protest, very few modernization studies emphasized social movements. Among the exceptions were Neil Smelser (1963) and, much later and in a very different tradition, Alain Touraine (1984) and Anthony Giddens (1985).

to produce collective outcomes. Each is independently equilibrating, and in tandem, the two constitute a moving equilibrium. Democracy as a moving equilibrium works when the private economic market dilutes concentrations of power in the political market, while the latter reallocates wealth in the economic market according to preferred principles and preferences manifested in both markets. In effect, democracy is a model of mutually compensatory and distributive consequences. The better it works, the more integrative and stable the society and state become.

It is when democracy works in this fashion that we can speak of positive pluralism – the kind that concerned modernization theorists. Differences of principle are accommodated as interests, which, appropriately mediated according to appropriately weighted and allocated priorities based on fair rules of representation, allow for faith in the future. We can believe that if interests are not serviced politically or economically at one point, they will as a whole or in part be serviced at another point in time. Diversity, then, is a choice. The proliferation of difference enriches society rather than dividing it. But if the two markets reinforce each other by concentrating both wealth and power in the same hands, the opposite happens. With polarization reinforced by both the economic and the political markets, and when risk and uncertainty become the common condition of those marginalized or becoming marginalized, the likelihood grows that groups will form that favour their own ends at the expense of others.

In short, where positive pluralism begins with the assumption that where it counts, people are more alike than different, negative pluralism begins and ends with the assumption that the differences between human beings are more significant than the similarities. When group interest replaces individual choice as the basis of representation and accountability, and the compensatory propensities of the double market become sticky or fail, with insensitive leaders and parties failing to address perceived inequalities – especially in the economic sphere – the conditions for negative pluralism grow. Interests are elevated to the level of principles, which are difficult to negotiate. Under such circumstances, the mobilization of political groups, which is normally integral to the democratic process, produces instead the mobilization of difference. If the latter breaks out in confrontation and violence, the first casualty is a common understanding of the public sphere (Habermas to the contrary). Under such conditions, 'last shall be first' doctrines become acceptable and protest drives the equilibrating process, using extra-institutional forms of opposition. Negative pluralism is a function of prolonged insensitivity and non-responsive reciprocity between economic and political markets.

With negative pluralism, opportunities for political entrepreneurship multiply. Opportunities are opened for new forms of organization and power, and the formation of new criteria of membership, jurisdiction, obligation and even trust in a world without trust, often using 'tradition' as a mode of legitimization. Defined as the ability to sustain loyalty and punish betrayal, power is one of the important preconditions for anti-state movements that claim to act on behalf of victims. They encourage people to act in concert, provide the opportunity to transcend their individual limitations, and, even in the context of violent acts, create both symbolic and moral capital in the absence of other kinds. In these respects, 'negative pluralism' drives out tendencies towards the kind of tolerance and flexibility we associate with positive pluralism.

Where positive pluralism defines the terms and conditions of freedom and choice, negative pluralism defines the terms and conditions of identity and affiliation. Under marginalizing conditions, 'identity' is more important for the degree to which it allows less tolerance of others. The more 'choice' is limited to the functionally significant and 'identity' defines the functionally superfluous, the less likely will the first be to do their work properly, and the more state and society will be in conflict.

To summarize, a refigured modernization theory provides us with some of the analytical tools to confront how negative pluralism downgrades the similarities between human beings and elevates the differences, transforms interests into principles and claims into rights, and maximizes cleavage politics. It reinforces parochial communitarianism and collectivizes individualism. Difference becomes the priority basis of representation and accountability. Universal sectarianism thus poses the unanswerable question of how tolerant of the intolerant a democratic political system can be, especially when political parties and movements become locked into stalemates that thwart the institutional bases of accommodation, accountability and consent.

A new analytical framework for social sciences

It will be noted that this discussion has used functional theory of a kind embedded in early modernization theories, but transformed into opposite conclusions. For all that, however, a new modernization theory needs to recognize that modern global economies will continue to be market- and technology- driven, and that high capitalisms will

produce major economic, political and social crises. Nor is there much doubt that government and the state will favour enterprise over community and the functionally significant over the functionally superfluous, conditions that lead to chaos on the ground. So much so, that to force changes in policy outside the conventional institutional frameworks will always be difficult, regardless of swings in public mood and fortune. What is clear today is that in so many different circumstances, conditions and political settings, a growing proportion of citizens feel socially and politically abandoned.

These are conditions under which no democratic institutions can work well. They are conditions that effectively disenfranchise significant numbers of citizens whose governments refuse to listen. Hence, it is not so surprising that as those at the top, the functionally significant, gamble with money in the spirit of enterprise combined with organizational discipline, those at the bottom gamble with their lives and those of other people, with each activity producing its own social order and rules of order. Today's modernization theory needs to take into account the significance of risk and gambling, both of which are critical components of global capitalism. And this in turn will require redefining the rules of power and obligation, accountability and consent in terms of the functions, roles, institutions and structures of contemporary political systems.

To study modernization today, we need to bring institutions back in, as well as the role of networks and performance. This requires theoretical frameworks capable of comparing cases and situations in light of the hypotheses developed here, and in structural, normative and behavioural terms – what earlier modernization theorists meant by systems. The old modernization theory emphasized adaptation, mutual adjustment, and the boundary limitations of order. The radical critique emphasized the opposite – modernization as perpetually disequilibrating, disordering, making even the most secure institutions and polities precarious. Taking these together as a reconstituted modernization theory, we might hope to establish criteria for a new moral ontology, a normative standard for determining appropriate and compensatory strategies – those most likely to render technology and functionality more hospitable to social and political reform.

While there is little prospect of a capitalist dénouement in favour of realizable socialist alternatives, this does not mean that we must accept that the way today's world works is the way it has to work. Start with the principle of global capitalism as the moving finger of modernization, assume that it incurs increasingly high and unacceptable human costs, and the arguments made above become a fresh theoretical starting point. It allows us to anticipate some of the more critical and ongoing predicaments with which – whatever their form – governments, states, regimes and societies will have to contend, and to suggest strategies and politics, many of which are objects of suspicion, within more orthodox forms of contemporary political and social analysis.ب

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1.2 The view from the regions

Introduction

In the second section of this chapter, various social science research councils, member organizations of the International Social Science Council, introduce the trends affecting the developments of their disciplines in their region. The Arab Council for the Social Sciences (ACSS) does this for the Arab countries, the Latin American Council of Social Sciences (CLACSO) for Latin America and the Caribbean, the Association of Asian Social Science Research Councils (AASSREC) for Asia Pacific, and the Council for the Development of Social Science Research in Africa (CODESRIA) for Africa. The stress is on developments in regions that remain to various degrees at the periphery of the North American and European cores of social science production. Their goal is to describe these trends and to identify the challenges to social sciences in years to come.

This regional survey points to the strong focus of international social science research on precisely the global challenges and major trends in societies tackled in the first part of this chapter. It confirms the new and more global nature of these developments around the world.

However, there are also regional emphases in social science research, identifiable trends mirroring specific contexts. Discussions on issues arising from the region's political conflicts and from development agendas are central in the Arab region. Demographic and migration challenges form the core of numerous studies in Asia Pacific. Poverty and inequalities remain crucial in Latin American and Caribbean countries. And the processes of reconciliation and transitional justice are focal points for social scientists in African countries.

The various councils for social sciences research thus portray moving research landscapes in which new themes emerge, but which also remain intimately connected to their regions' recent history. They point to important ways in which socio-political processes have interacted with developments in social sciences in the different regions in recent decades.

The social sciences seem especially suited to tracking regional transformations in the context of global change. In the years of African decolonization, the numbers of departments and of social scientists in Africa grew noticeably, even if they remained relatively small for such a vast continent. A similar growth in the number of departments and an overall improvement in social science research capacity took place in Latin America and the Caribbean in the 1950s and 1960s, in keeping with the socio-political dynamics that transformed the region at the time. Social science research in the Arab countries took off in the 1970s, driven by attempts to develop new theories, models and topics suited to the analysis of changing Arab societies. Similar developments occurred in Asian countries, such as China, where economic and social transformation in the late 1970s led to an urgent need for social science analyses.

These regional surveys also depict what the regional councils see as the main challenges for the further development of social science research in their region, and here again, the context appears crucial. CLACSO underscores the risks of isolation, ACSS the incapacity of social scientists to participate in public debates in the Arab countries due to political conditions. AASSREC stresses the sharp contrasts in the research landscape across the region, and mentions the potentially dramatic effect of global warming in the major deltaic area and islands of the Asia Pacific region. CLACSO worries that poverty and inequality hamper the development of social sciences in Latin America and the Caribbean. And CODESRIA points to the lack of research infrastructures in many African countries. As different as these regional challenges are, the four councils agree on the need for social science research to focus on improving research networks and infrastructures for collaboration, and on supporting weaker countries.

Arab Council for the Social Sciences (ACSS)

www.arab-council.org

Seteney Shami and Moushira Elgeziri

In the Arab region, the social sciences are shaped by a context characterized by severe socio-political, economic and environmental challenges, instability, and by diverse and divergent research policies, agendas and funding programmes at national and regional levels. Three main fields of social inquiry can be identified: the challenges of the post-independence Arab state, issues arising from 'global' and developmental agendas, and fields emerging from interaction and opposition to Western scholarly agendas.

In the Arab region, the social sciences are shaped by a context characterized by severe socio-political, economic and environmental challenges, instability, and by diverse and divergent research policies, agendas and funding programmes at national and regional levels. At the risk of reductionism, we can identify three main fields of social inquiry. The first and most established is the literature on the challenges of the post-independence Arab state, including the quest for democracy, the elaboration of Arab identity and nationalism in the context of changing regional dynamics, and the Arab–Israeli conflict. The second are the issues arising from 'global' and development agendas, whose local contexts are addressed by NGO-based research. These issues are perhaps best summarized by the UNDP's *Arab Human Development Reports*, which pose the challenges of the region as a knowledge deficit, a freedom deficit, and a deficit in women's empowerment. To these challenges we should add research on economic development concerns such as trade, labour markets and poverty. Finally there are the themes and fields of research arising from interaction with, and sometimes opposition to, Western scholarly agendas. Among these, questions of gender, Islam, social history and comparative politics are predominant.

Within these regional agendas, we can also discern specifically national concerns, especially where there is a fairly robust research community, as in Lebanon, Egypt and Morocco. These concerns are shaped by particular questions regarding the relationship between the state and society, and issues related to social segmentation, urban life and the politics of culture.

In the 1960s important contributions arose such as Samir Amin's centre/periphery development theory, and critiques of Orientalism by Anouar Abdel-Malek and Abdullah Laroui. The 1970s and 1980s saw a proliferation of scholarly production and regional circulation, often fuelled by a drive towards the 'indigenization' of the social sciences. The present landscape is characterized by partial agendas, local concerns and the general alienation of Arab intellectuals who are reluctant to take, and discouraged from taking, part in public discourse. Both the state and religious authorities curtail academic freedom to a significant degree. So satellite television and blogging are more powerful as media of critical debate than scholarly production. To avoid confrontation with the Arab states and at the same time engage in high-quality products that ensure recognition on the international academic scene, many Arab scholars write in foreign languages for a mostly non-Arab readership. However, in recent years, some Arabic journals and books have drawn attention and triggered discussions, due to their theoretical rigour or the importance of the topics addressed.

Jemaa el-Fna Square, Marrakesh, Morocco
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These books and journals include:

- Al-Sourty, Y. I. 2009. *Authoritarianism in Arab Education,* Kuwait, Alam Al Ma'refa.
- *Idafat, the Arab Journal of Sociology,* issued in print and online by the Arab Association for Sociology with the Center for Arab Unity Studies.
- Lahsan, W. and Ashraf A. K. (eds). 2009. *Secularism: Confused Concepts*. Beirut, Ru'ya.
- Najjar, B. (2008). *The Refractory Democracy in the Arab Gulf*. Beirut, Dar-al-Saqi.
- Bahithat (in press). *Women and Money*. Beirut publisher.

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Association of Asian Social Science Research Councils (AASSREC)

www.aassrec.org

John Beaton

The broad themes that unite social science research in the Asia Pacific region are employment, social mobility and equity, security and safety, education, population, health, globalization, adaptation to climate change and the governance required to manage these matters. There is a divide in research capacity due to funding differences and other factors, particularly the isolation of scholars in developing countries.

Within the overarching themes, social scientists in the region often focus their research on practical issues that are pertinent to measuring individual and community well-being. This is particularly true of social scientists employed by government-supported agencies. It is increasingly recognized that although social scientists should be concerned with local issues, there are some universal themes (for example, poverty, equity, population and health). These themes transcend national boundaries and promote collaboration and a regional view.

In most Asia Pacific nations, intergenerational and geographical issues are of current importance. The young increasingly abandon rural life for the opportunities cities appear to hold. Skilled and unskilled workers move from homelands to distant or foreign soils to exploit economic opportunities. This topic links specialists in migration, labour, identity, citizenship, language, politics, law and perhaps even the full range of social science disciplines. Most Asia Pacific social scientists are deeply committed to understanding emerging patterns of multiculturalism and the conditions that can give rise to harmonious societies rather than dislocation, anomie, crime and wasted lives. Economic cycles can drive prosperity or poverty, and both outcomes have practical consequences in social upheaval and failures in social cohesion. In recent decades, the great economic success of Thailand, India, China, Viet Nam and elsewhere has produced over-populated cities, uncontrolled pollution and the loss of social infrastructure. Understanding how governance, institutions, trust and security can contribute to confident and hopeful lives is important for social scientists and their governments.

While some countries, notably the Democratic People's Republic of Korea and Myanmar, remain poorly integrated in the region, they are not unique in this respect. Nations with small populations are particularly susceptible to isolation through poor communications and economic barriers.

Social scientists recognize that factors such as rising sea levels and marine transgression in low-lying areas will affect nations differently, but rich peri-coastal agricultural lands and the peoples who subsist on them will be under the greatest threat. This suggests the need for social science knowledge to assist with coordinated multinational regional agreements regarding adaptation and security. Flooding in major deltaic areas such as the Ganges, Indus, Irrawaddy and Mekong sometimes provides stark but informative models for future social, economic and political issues that will accompany global warming in many areas of the world. Across the region there are highly variable political architectures and processes to address such issues, and each will need social science knowledge to address the problems arising from them.

'Clean' government is clearly present in a number of countries, but pockets of corruption and episodes of institutionalized mismanagement of public agencies persist everywhere. Political scientists keenly observe the current trends toward democratization and representational government, and are increasingly positioned to provide knowledge-based policy recommendations to enhance public well-being.

Thanks to information technology, young scholars in the Asia Pacific region are better connected to the world social science literature than ever before, and the diversity, overlap, commonalities and dilemmas of current social science themes and topics are no longer privileged information available only to the elites. Of equal importance to the next generation of scholars are the increasing opportunities for research travel, collaboration and employment in developed countries. Here synergies and collaborations provide Asia Pacific social scientists with enhanced opportunities to identify and frame thematic issues, and to understand trends in the context of the world social science environment.

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Latin American Council of Social Sciences (CLACSO)

www.clacso.org

Alberto D. Cimadamore

Substantial knowledge has been produced on crucial topics such as violence, social conflict, the role of the state, democracy, employment, education, indigenous peoples, religion, social justice, environment, integration, development, inequality and poverty, as a result of an evolving strategy of inter-institutional and international cooperation. In some of these topics (for example, economic and human development, democracy and education), Latin American scholars have made outstanding contributions to world social science.

Latin America and the Caribbean have been contributing in an original way to the social sciences since at least the mid-twentieth century, when their production acquired distinct traces within a more institutionalized academic environment (Segrera López, 2000). The development of this creative tradition of social research has been conditioned by the countries' political and economic evolution in recent decades. Some of the effects can be observed in the relatively low levels of financing and coordination within (and among) the national scientific systems. These are institutional limitations that impact individual and collective scientific outputs, as much as they do international academic cooperation at the regional level.

Several challenges emerge from the complex reality that the social sciences in the region face. The most important of these challenges is the need to sustain the production of high-quality and socially relevant research connected to and disseminated within the education system and the decision-making process. The important social problems shared by the countries in the region demand knowledge-based policies to overcome them while simultaneously posing a challenge to academic cooperation and calling for institutional support for independent and critical social science research. This is particularly relevant in times when the ideological premises of neoliberalism have been transformed into economic and social policies that weaken the state's capabilities to fulfil its basic functions, thus affecting the public education and research systems.

However, the lack of incentives for the development of critical social sciences has not been the only effect of the region's prevailing political economy during the past three decades. The negative impacts on most relevant social indicators are found in official reports, which show unacceptable levels of poverty, exclusion and inequality everywhere in the region in spite of renewed economic and human development.

In this context, where Latin America has the sad title of the most unequal region in the world, social science has a crucial role and mission. Such an enormous challenge calls for strong support for research environments that can produce superior scientific outputs, which are needed to inform policy for meaningful social change. In Latin America, the financing tools are mostly in the hands of international cooperation agencies and governments, and these tend to be reticent in supporting critical social knowledge. Who would like to be openly criticized by those they are supporting, for their performance on core social issues for which they are largely responsible? The answer to this question explains the fate of financial and structural support for critical social sciences in societies that desperately need meaningful social change.

Despite these restrictions, it is possible to identify niches where the region's social sciences community could make a difference with the tools at hand under current circumstances. These actions might not be ideal – a full solution would include stronger structural and institutional support for social sciences – but some would be achievable while members worked on obtaining more comprehensive support.

Substantial knowledge has been produced on crucial topics such as violence, social conflict, the role of the state, democracy, employment, education, indigenous peoples, religion, social justice, environment, integration, development, inequality and poverty, as a result of an evolving strategy of inter-institutional and international cooperation. In some of these topics (for example, economic

and human development, democracy and education), Latin American scholars have made outstanding contributions to world social science.

As well as being a resource-sharing strategy that can maximize the use of scarce funds, horizontal cooperation directed towards the creation and dissemination of critical social science research outputs is a practical and effective way of boosting research. Networking is an effective strategy to foster creativity and productivity in social science, especially in times of relatively low resources. It can also be a realistic and efficient strategy to improve the quality and impact of social science production and sharing.

The Latin American Council of Social Sciences (CLACSO), the most relevant social sciences network in the region, has selected networking as the option for improving the production and sharing of social science-relevant knowledge within the region.

Despite its financial limitations,[1] CLACSO has been able to systematically promote and support a critical social science agenda within its growing network of more than 250 research institutions. Since its inception at the end of the 1960s, CLASCO has been driven by an effort to maximize its impacts in the world of social science, and in the formulation of policies to overcome the most urgent social problems.

For historical reasons, the Council's objectives and strategy have mostly been centred on the region. The cooperation strategy now faces the challenge of creating and sustaining the production of meaningful knowledge with institutions outside the region, to deal with the growing list of global problems that affect all us.

An example is the joint endeavour between CLACSO and the Comparative Research Programme on Poverty (CROP) of the International Social Science Council. From the beginning of this decade, it has consistently supported a focus on social research on the causes and effects of, and solutions to, poverty from a relational perspective. This perspective's close connection with social inequality contributes to an explanatory and normative body of research. Other research that CLACSO supports covers a wide range of topics, via activities sponsored by other core academic initiatives such as the Working Group Program and the South–South Program.

These and other research and education initiatives link thousands of social scientists all over the region, and elsewhere, through platforms specially designed for collaborative academic work. These include the Electronic Academic Network (RAEC), the Social Sciences Virtual Library Network, the Virtual Campus and the Social Science Graduate Network.

Beyond these, there are still several important scientific challenges that need to be dealt with in the present and near future. These are the need to develop more and better theories, capable of guiding research that addresses the most prominent regional and social calamities; encouraging the use of comparative methodologies to assess and improve such theories in complex and heterogeneous historical contexts; and advancing the dissemination of research outputs in order to facilitate their use by both academic and decision-making bodies.

1. CLASCSO resources come mostly from international cooperation. Members of the network are university research centres (65.3 per cent), independent research centres (30.9 per cent), and governmental and regional organizations (3.8 per cent), in 25 countries.

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Council for the Development of Social Science Research in Africa (CODESRIA)

www.codesria.org

Ebrima Sall

Which idea of Africa does today's social science offer? The present paper provides an answer on the basis of the social science research made in Africa, and elswhere. The author shows that the conversations between the social sciences and the humanities, and between social sciences in Africa and in other parts of the global South, are becoming livelier and cover a growing number of themes.

In *The Idea of Africa*, Mudimbe (1994, p. 12) asks the following question: 'Which idea of Africa does today's social science offer?' In this paper, I try to answer that question by looking primarily at social science research within Africa that has for long been, and still is, faced with the question of autonomy. In the first section of this paper, I look at the reasons why autonomy became an issue, and how the African social science community has been trying to address it. In the second section, I examine some of the major issues and themes in social science research in Africa from the late 1990s to date.

The challenge of autonomy

Africa had some of the first institutions of higher learning in the world,[1] and many great intellectuals, such as Ibn Khaldoun and Ahmed Baba, some of whose works are considered great social science texts to this day. However, social sciences as we know them today came to Africa through encounters with the West, particularly during the colonial era.

Autonomy became an issue for the social sciences for at least two reasons. One is that in the immediate aftermath of the wave of decolonization that swept through the African continent in the late 1950s and early 1960s, the formation of epistemic communities was regarded as a condition for and a logical consequence of the struggle for political independence. Autonomy was perhaps as important for the social sciences in Africa as political independence was for the continent generally. The dominant epistemological order in Africa, as in the rest of the world, was that of the West, and the first and second generations of African scholars were trained in the West (Mkandawire, 1995, 1999). Many of the new universities established in Africa in the late 1950s and early 1960s were for a time affiliated with French and British universities. The heavy dependence on resources from the West, particularly in the 1980s and 1990s, made the autonomy of the social sciences in Africa a major issue of concern. Beyond the question of resources, the question posed was: who sets the research agenda?

In the five decades or so that have elapsed since the wave of decolonization swept through the continent, and fifteen years after the official abolition of apartheid, the institutional and demographic bases for social science research, teaching and related activities have undergone deep transformation. From a very small number at the end of the colonial era, African universities are now close to a thousand, and still growing at breakneck speed. Both governments and private providers are setting up new higher education institutions. Research centres, institutes, networks and NGOs are also mushrooming.

However: '… the Euro-American epistemological order remains central in the African Academy. Since the colonial encounter, the construction of scholarly knowledge about Africa has been internationalised both in the sense of being an activity involving scholars in various parts of the world and the inordinate influence of externally generated models on African scholarship' (Zeleza, 2007, p. 2).

The challenge of autonomy, and of developing interpretative frameworks that are both scientific and universal, and relevant – that is, 'suitable' for the study of Africa and of

1. Al-Azhar University in Cairo, founded in AD 970–72, is a good example. In the fifteenth century, the University of Sankoré in the town of Timbuktu, in present-day Mali, was a great institution. So were other institutions in present-day Morocco, Tunisia and other countries.

the world from the standpoint of Africans themselves – is still very real.

From the late 1950s to the early 1990s, the African social science community grew in size, but still remained relatively small. In most countries, the institutions of higher education and research were few in number, and often new and weak. The research environment was less than ideal, given the poor socio-economic and political conditions that prevailed. This led to poor funding for higher education and research, and to violations of academic freedom. The key concepts and theoretical frameworks with which most African scholars worked were 'made in the West'. Western interpreters, as well as African analysts, have been using categories and conceptual systems that depend on a Western epistemological order. Even the most explicitly 'Afrocentric' descriptions and models of analysis, explicitly or implicitly, knowingly or unknowingly, refer to the same order (Mudimbe, 1994).

The efforts of regional social science councils such as CODESRIA and OSSREA, and professional associations of sociologists, anthropologists, political scientists and the like, to address the problems of autonomy have therefore been geared towards building a networked, self-aware community of scholars. Some explicitly sought to participate in the building of what has been called an 'African library' to replace what Mudimbe called the 'colonial library'. The modern African library would of necessity be made up not only of written texts, but also of oral and visual 'texts'.

One of the major difficulties that the social sciences had, and still have, to face is fragmentation, as well as the fragmentation of the African community of scholars as a whole. This fragmentation was largely, but not exclusively, due to the colonial partitioning of Africa into more than 50 states, most of which are small and economically dependent. Outside North Africa, where Arabization has been a major development in recent years, social science research is mostly conducted in European languages, particularly English, French and Portuguese. The building of a 'networked community of scholars' therefore required efforts to transcend disciplinary, linguistic, gender, generational, regional and ideological divisions. Some regional councils (CODESRIA, for instance) have also tried to develop alternative mechanisms for the setting of standards in scholarship. These include the creation of forums such as the Africa Review of Books, and an Africa-based social science indexation system.

Another major challenge has been to bridge the gulf that separates 'modern' scholars from the extremely rich and vibrant intellectual traditions that Africa had in the past and from the non-Europhone intellectual traditions of today (Jeppie and Diagne, 2008; Kane, 2003). The rediscovery of old texts is one manifestation of a strong determination to reconnect with the works of great intellectuals such as Ibn Khaldoun (Alatas, 2006) and Ahmed Baba, and there have been moves to tap into the rich contemporary non-Europhone literature. The rediscovery of the Timbuktu archive (Jeppie and Diagne, 2008; Kane, 2003) has led some to argue that Africa, like Europe, had its own Age of Enlightenment (Kane, 2003; Amselle, 2008). This Enlightenment most certainly had its own downside, as did the European Enlightenment. It is, however, significant enough to cause us to view the history of the social sciences and humanities in Africa in a new light. What Mudimbe calls the 'colonial library' (Mudimbe, 1994) was not the only library that ever existed in Africa. There was a Muslim library, as well as a larger non-Europhone library (Kane, 2003; Amselle, 2008).

For much of the time, however, efforts geared towards building an African library have used borrowed concepts, theories and paradigms. The social dynamics of African societies was read by analogy, as was the interpretation of African experience. The challenge of autonomy, as Adesina (2006) has argued, still remains a major one for the social sciences in Africa.

Breaking away from, or going beyond, the 'statist' logic that has tended to dominate most interpretative frameworks in the social sciences has also not been easy. The statist approach has led to what has been called a kind of 'command science' (*La science du commandement*, Ouédraogo and Sall, in press), science in the service of the dominant powers and the dominant order. Their approach is to read society from an externalist point of view. Their main aim is to decipher, categorize, name, label or map social groups, phenomena or dynamics. The process is more or less part of a state project consisting of what James Scott calls 'making societies legible' (1997), in order to make them 'governable'. The alternative project is a fundamentally emancipatory one (Neocosmos, 2006). Colonial ethnography and ethnology have been closely associated with the colonial project that they are regarded as serving. Much of the recent literature on governance, whose main preoccupation has been how to make whole societies and certain social classes and groups 'governable', is informed by a statist philosophy that, these days, comes in many guises.

The major debates

The first issue to become the subject of very lively debates over a long period of time was the historicity of African societies. Colonialism meant the denial of a 'civilized' African past. The struggle of the African elite for a 'civilized' identity, as against being characterized as backward or inferior, made history the battleground for reclaiming a new, singular historical trajectory of glory for itself. 'African historians demonstrated that African societies had a glorious past' (Ouédraogo and Sall, in press).

For a time, state- and nation-building were perhaps the most important issues debated in the social sciences in Africa. This was understandable, given the newness of the many socio-political formations that emerged from decolonization processes. A number of studies focused on boundaries and cross-border networks and movements, on national integration processes, ethnicity and so forth. Studies on rural and agricultural development, and on strategies and prospects for industrialization, also proliferated.

The emphasis in these debates then gradually shifted towards issues related to the economic crisis and structural adjustment, poverty, the informal sector, social movements and democratization, human rights, land and agrarian issues, gender issues and urbanization. In the early 1990s the effects of economic and political liberalization – rising poverty levels, the spread of armed conflicts and associated phenomena such as refugees, displaced populations and child soldiers – were twin processes that were extensively researched and discussed in journals and other academic publications. The HIV/AIDS pandemic, climate change, transformative social policy, the pervasive marketization of higher education and of the social sciences themselves, and the political and economic integration of the continent, are among the issues that currently occupy many scholars. So are issues of corruption and political succession.

The mid-1990s were profoundly marked by the Rwandan genocide on the one hand, and on the other hand, the end of apartheid in South Africa. These contradictory developments gave rise to a number of studies on violent conflict, the processes of reconciliation and transition justice.

Mahmood Mamdani, following Samir Amin, Issa Shivji and Jimi Adesina and several other scholars, has argued that:

> *We are at the cusp of a third phase [in the recent intellectual history of the social sciences in Africa] which needs to be driven by multiple ideas. I suggest the following: (a) development in the post-neo-liberal era; (b) citizenship and rights in an era of state and civil crisis; and (c) re-thinking African history, philosophy and social thought in light of the Timbuktu archive, following the joint contributions of Ousmane Kane [2003], and Suleymane Bachir Diagne and Shamil Jeppie [2008]. The issue of re-thinking Pan-Africanism in light of contemporary challenges is important, but should form a sub-theme of the second big idea above (Citizenship and Rights …).*
>
> (Mamdani, 2009)

The search for ways of responding to and rolling back neoliberalism seems indeed to be one of the single most important issues and challenges for African social science research in the twenty-first century. The recent global financial crisis has led to a partial rehabilitation of neo-Keynesianism and new interest in developmental states and in social democracy (for instance, Mkandawire and Adesina's works on transformative social policy). However, in the social sciences themselves, neoliberalism has led to a high degree of marketization, which has resulted in

Internally displaced person awaits food ration, Sudan. How does he see the world?
© UN Photo/ T. McKulka

increased fragmentation, as Burawoy (2007) has argued, rather than in the 'opening' and greater unification that the Gulbenkian Commission report (1996) authored by Wallerstein and his team seemed to have observed. In the context of the African academy, the forms, manifestations and consequences of the marketization of the social sciences themselves are yet to be fully understood. We have spent much more time and effort studying the marketization of higher education (Mamdani's 2007 study on Makerere University is a recent example) than on the study of the marketization of the social sciences per se. Understanding the pervasive logic of neoliberalism in a whole range of domains, from trade to the environment, is also crucial.

In conclusion

The social sciences in Africa are still faced with challenges at the epistemological and the institutional levels. Overall, however, they have reached a fairly high level of development, with a growing number of seminal works, such as Mafeje's (1971) critique of the ideology of tribalism, Ifi Amadiume's (1987) work on gender relations, Mama, Imam and Sow's (1997) work on the engendering of social science itself, and also Mamdani's (1996) work on citizenship, Mkandawire's (1999) work on democratic developmental states, and transformative social policy, Moyo's (2006) work on land, and Amin's (2008) work on alternatives to neoliberal globalization (including his recent papers on the global financial crisis). The list is long.

The conversations between the social sciences and the humanities, and between those in Africa and the social sciences in other parts of the global South, are becoming livelier and cover a growing number of themes. The 'African library' is therefore taking shape, and the range of 'texts' in it is becoming broader.

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Is the Executive Secretary of CODESRIA. His most recent publications include *Frontières de la citoyenneté et violence politique en Côte d'Ivoire* [Citizenship and Political Violence in Côte d'Ivoire] (co-edited with Jean-Bernard Ouedraogo, 2008) and *Human Rights, Regionalism and the Dilemmas of Democracy in Africa* (co-edited with Lennart Wohlgemuth, 2006).

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Chapter 2
The institutional geography of social science

Bubel village in Orissa: map showing areas where 'scheduled' or lowest caste people live
© UNESCO/O. Brendan

The institutional geography of social science

Chapter presentation

The differences between regions and countries in the status of social science research could hardly be greater, yet the need for social science is the same throughout the world. Civil actors, citizens and policy-makers everywhere require the analyses of social scientists to make sense of global and local evolutions and challenges, and to move ahead with responses, adaptations and change. However, the diversity and the discrepancy between the size, the institutional structures and the overall condition of social science research systems around the world are astounding. Systems have expanded and continue to generate new knowledge in different regions of the world. The number of higher education social science students is increasing rapidly everywhere. But in many low-income countries, and in sub-Saharan African countries in particular, social science institutions are facing a critical situation: insufficient public subsidies, deterioration of the scientific profession, changes in the modes of knowledge production, a relative decline in the number of books and articles produced, and on top of everything else, the brain drain.

This chapter focuses on the institutional organization of social science research systems in different regions and countries, and highlights the institutions involved, the structures of agenda-setting, the financing mechanisms, the evaluation procedures, the status of research, relations with policy analysis and other issues. It provides a geographical outlook on these trends and practices, and shows their interconnections in different contexts.

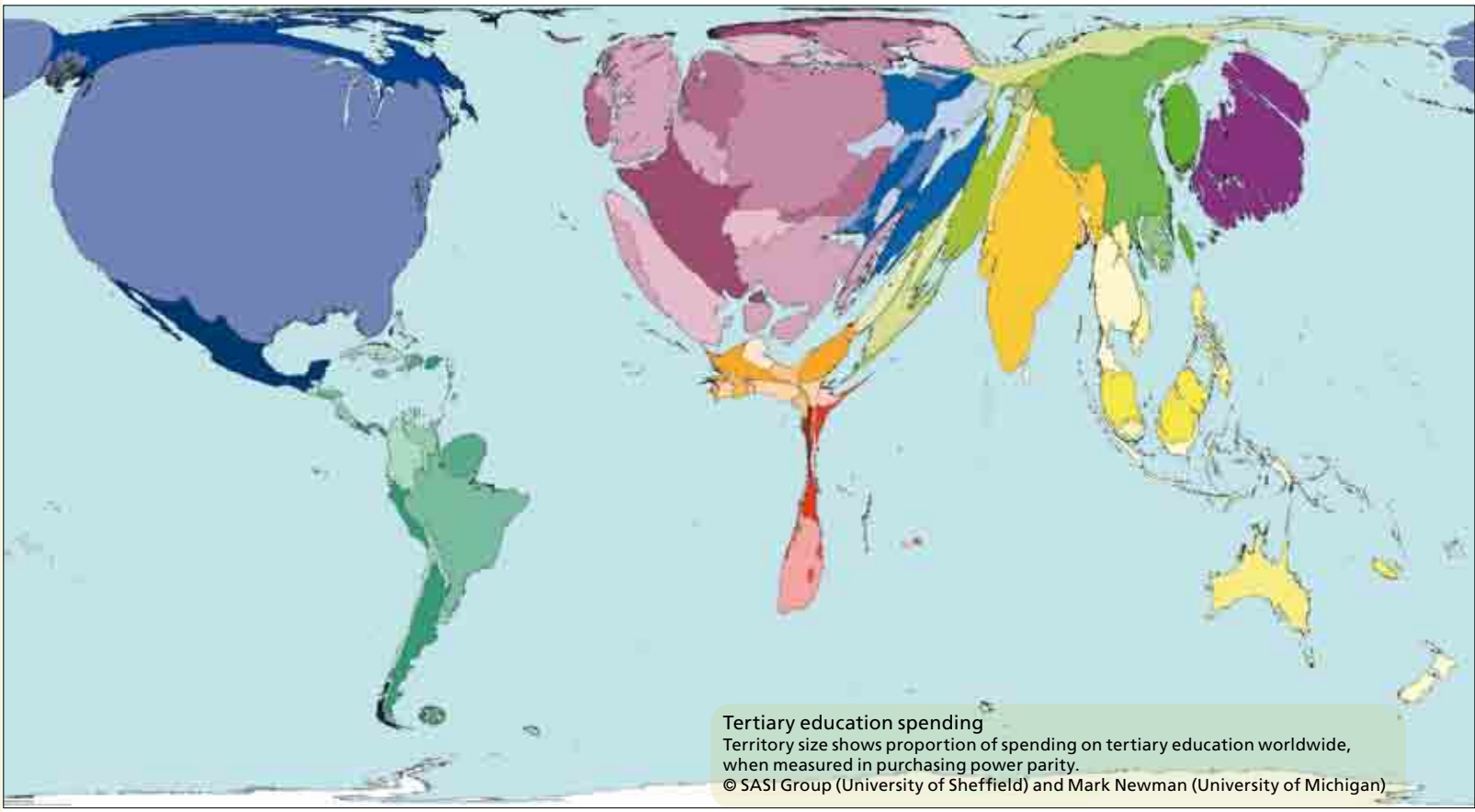
The authors of this chapter have used various methods to delineate and describe what they regard as the most striking issues in the evolution of social science research in their region and country: bibliometrics, local and regional databases, surveys, statistics, reviews of recent studies and consultations of networks of researchers. But more significantly, all of them draw on their experience as privileged observers of the social science in their region.

By discussing data such as the number of social scientists, their financial resources, their working conditions and their output (expressed for example by the number of students graduating in social sciences, the numbers of publications or the number of journals edited) the authors sketch formidable divides between and within regions and countries. In Latin America, 90 per cent of higher education institutions do not produce any research at all, while over two-thirds of all postgraduate programmes are offered by public universities in Brazil and Mexico, and this is where most research is taking place (Vessuri and Sonsiré López). In sub-Saharan Africa, 75 per cent of academic publications in the Web of Science database come from South African, Nigerian and Kenyan social scientists, and from only a few universities. Similar disparities in the knowledge production process and concentration in major universities and research centres can be found in other regions.

In most countries, research is predominantly conducted in universities or in research centres associated with them. In countries previously under Soviet influence, social science research continues to be carried out broadly in institutes and academies outside universities (Pipiya; Huang). Public research centres where academics can devote themselves entirely to research and do little or no teaching also exist in western and Central Europe. Those research academies, centres and institutes have long traditions of achievement and are not likely to disappear in the near future. Worldwide, however, the dominant tendency is to grant universities broader responsibilities for the organization of research, and to maintain links between research and teaching.

Many regions and countries have seen an increase of short-term applied research conducted outside universities by consultancy firms and non-governmental organizations (NGOs), at the request of international donors or private foundations. In low-income countries this trend follows the relative or absolute shrinking of public funds allocated to universities, for research in general and to social sciences in particular. The tendency is so strong that we can talk of a 'deinstitutionalization of research' (Mouton) in sub-Saharan Africa but also in South Asia. In such conditions, academics rarely have the chance of working on long-term projects involving strong theoretical considerations. In these regions and countries, short-term empirical research (Arvanitis, Waast and Al-Husban) dominates, and often it is conducted by poorly qualified consultants. In developed countries as well, more and more research is undertaken by NGOs and privately funded think-tanks outside universities.

Funding is almost everywhere an issue. This is obviously the case where state subsidies have become the exception rather than the rule. There social scientists and research centres have become completely dependent on external donor funding. But funding is also an issue in richer countries where fewer public resources are allocated



Tertiary education spending
Territory size shows proportion of spending on tertiary education worldwide, when measured in purchasing power parity.

directly to research institutions and universities, and where competitive allocation of funds and project funding has become predominant. In developed countries, mixed public and private funding of research institutions is already a growing phenomenon (Van Langenhove), and this is now expanding to many other regions and countries. The agencies in charge of distributing such funding have become major institutional players. The United States of America has no such reliance on one central public funder. The diversity of funding sources in that country has been a source of the vitality of its research in social sciences (Calhoun). Other countries can also count on a tradition of private or semi-private support, be it through foundations (for example, in western and Central Europe), liberal elites (Egypt, Lebanon), or influential families (the Gulf States) but not to the same extent as in the USA. The extent to which funding agencies at national or international level (for example, national agencies, foundations, multilateral and bilateral financing organizations) influence the research agenda and the conduct of the research itself raises concerns in many countries in the global North and South.

The status of social science research in society, and society's influence on public debates and policy, are addressed in several of the following articles. In some countries (for example, China and Brazil), social science research is considered essential to support the country's development, while in others natural science is given all the attention (Krishna and Krishna; Pipiya). In some regions or countries research is not well regarded, but because of their public presence as columnists, advisors or think-tankers, social scientists enjoy broad social recognition. Finally, while the issue of academic freedom in developed and democratic countries is mainly concerned with the choice of research topics and this is the subject of lively discussion and debate, the question in other regions concerns censorship and the different ways in which the state tries to control the content of research. This issue, and others only touched upon in the following articles, require greater attention.

Social sciences in North America

Craig Calhoun

In global terms, the most distinctive feature of North American social science, besides its size, is the extent of the investment made in time, facilities, training and incentives for research since the Second World War. In both the USA and Canada, social science research has grown substantially and very high educational standards have been achieved.

North American social science exerts a large global influence due to its scale, its research productivity and the number of international social scientists educated in its Ph.D. programmes. There are more than 100,000 social scientists engaged in academic research in the USA and Canada. Thousands more with an advanced education in social science work in government, private business and non-profit organizations. The influence of social science is also strong in a range of professional fields from management to public health, education and social work.

In global terms, the most distinctive feature of North American social science, besides its size, is the extent of the investment made in time, facilities, training, and incentives for research since the Second World War. In both the USA and Canada, social science research has grown substantially and very high educational standards have been achieved.

In both the USA and Canada, professors and students are drawn from a wide range of national backgrounds, and campuses are important sites of international exchange and connection. Social science departments have also been leaders in the pursuit of gender, ethnic and racial equity, although their success here varies. Most departments hire new staff from outside, and in most departments there is a great diversity of theories, methods, intellectual orientations, empirical foci and questions addressed.

Growth and differentiation

Social science has been a part of North American life since the colonial era. But until the late nineteenth century it was largely a non-academic enterprise. Social science flourished in the context of social reform movements, both religious and secular, and in the development of social welfare institutions. It was advanced by both middle-class advocates of moderate reform and more radical partisans of populism, agrarian reform and workers' movements. A strong engagement with evolutionary theory and ideas of progress linked reformers and academics, and both groups fed the academic establishment by pressing for the collection of detailed and robust social statistics. While social science in the USA retains connections to social movements and social reform, they have become attenuated since that era.

Between about 1870 and 1910, social science disciplines were consolidated by the founding of major departments, academic journals and professional societies. Social science disciplines took the lead when the USA adopted the Ph.D. degree as a standard and remodelled undergraduate curricula to emphasize disciplinary concentrations. At the same time, an effort was made to counterbalance disciplinary organization with interdisciplinary agenda-setting and improvements in research methods. These were among the central goals for the Social Science Research Council when it was founded in the USA in 1923.

After the Second World War, North American universities expanded dramatically. Social science courses were among the fastest growing, and this demand ensured employment for Ph.D. graduates. During this period, enduring institutional patterns were established. As well as disciplinary departments, universities created interdisciplinary programmes, centres and institutes. Among the most prominent foci for these were international area studies, urban studies and survey research. Later, race and ethnic studies, gender studies and environmental studies would be organized in similar ways. There was an expansion of government support for both pure and applied research, and especially in the USA, a major expansion of foundation funding, commonly focused on addressing social problems or supporting international development.

Social science attracted students engaged with social issues. During the student movements of the 1960s, it both informed radical thought and was attacked for not being radical enough. For most disciplines, rapid growth ended in the mid-1970s. Exceptions are economics, psychology and new fields such as communications. Professional schools grew rapidly and interdisciplinary fields expanded, such as international studies and gender studies. Enrolments in the remaining social science disciplines began to expand again in the 1990s and are generally robust today. In the USA, about 340,000 students receive Bachelor's degrees in social science fields annually – about 20 per cent of all graduates (NIES, 2008).

The major social science associations based in the USA all include substantial Canadian membership and recurrently hold their annual meetings in Canada. Their proportion of Canadian members varies from subject to subject, but they all consist mainly of researchers based in the USA, and this sometimes leads to the neglect of Canada's specificity. There are also Canadian associations in each field, with overlapping memberships. In general, Canadian social science disciplines are about 5 to 7 per cent of the size of their counterparts in the USA (CAUT, 2009).

While the disciplines are broadly similar, there are some national variations between the USA and Canada. The presence and prominence of First Nations has influenced both Canadian anthropology and political science, leading to further exploration of group rights and related issues. Likewise, Canada's multilingual and multicultural constitution and high rates of immigration have drawn the attention of many social scientists. Research on the environment and social service delivery also figures more prominently in Canada.

Table 2.1 > Membership of major North American disciplinary organizations, 2009

American Psychological Society	20,000
American Economic Association	18,000
American Political Science Association	15,000
American Historical Association	14,000
American Sociological Association	14,000
American Anthropological Association	10,000
Association of American Geographers	10,000

Source: Individual association self-reports, rounded down to the nearest thousand.

Note: The American Psychological Association is much larger – about 150,000 members – and includes a majority of practising psychologists who are not actively engaged in research. The American Psychological Society represents a partially overlapping constituency of mainly academic researchers. The discipline of history is larger than the number above would imply. Many historians belong to more specific associations such as the Organization of American Historians or other groups organized by period or region.

Funding and agenda-setting

North American social science is based overwhelmingly in universities, and researchers are also teachers, though in more elite institutions teaching demands are moderated to allow time for research. Canada is more egalitarian, and the system in the USA is more hierarchically differentiated. Inequality in the USA is tied to competition over relative standing, though neither the USA nor Canada use official national ranking systems to evaluate universities or departments. Research productivity and citation indices loom large in the variety of unofficial indicators to which administrators pay attention.

In Canada, funding for social science research comes centrally from the Social Science and Humanities Research Council (SSHRC). Formed in 1977 (consolidating earlier government funding offices), the SSHRC works mainly by providing grants for investigator-initiated projects. In recent years, the SSHRC has secured increased funds, partly by committing itself to thematic initiatives that can shape research agendas. Since receiving SSHRC grants is an important criterion of evaluation in many Canadian universities, there is anxiety over how open the process will be to different lines of research. Canadian social scientists also receive support for applied research from other government agencies at the federal and provincial levels.

In the USA, there is no primary, centralized government funder, and funding diversity is a major source of vitality for US social science. The National Science Foundation (NSF) is the most influential funder of basic research in the social sciences. Its Directorate for Social, Behavioral, and Economic Sciences primarily funds investigator-initiated projects through the peer review process. This is thematically open, though some researchers believe the process is biased in favour of certain research methods. The NSF does not fund applied research but does undertake initiatives to increase the scientific work done on certain themes.

Though the NSF is the main US Government funder of basic social science, the vast majority of government funding for social science research comes from other federal agencies ranging from the National Institutes of Health to the Departments of Education, State, Commerce, Agriculture, Transportation, and Housing and Urban Development. Funding from the Defense Department is particularly controversial, though recent programmes have increased the extent to which funding is available for basic social

science research not tied to military operations. Most states in the USA also fund social science research at some level.

If decentralization and plural objectives are the hallmarks of government funding in the USA, the pattern is only intensified by the large role of private foundations. Some major foundations like Carnegie and Rockefeller date from the early twentieth century, but foundation funding grew substantially after the Second World War. The Ford Foundation was a leader. New foundations continue to be established, reflecting the creation of large private fortunes. The biggest is now the Bill and Melinda Gates Foundation. Interest in health issues looms large at foundations in the USA, along with questions of global governance, new media, education, poverty reduction and security. USA-based foundations fund globally, though disproportionately in the USA. They have been funders of international social science, both in Europe – especially after the Second World War, when the Ford Foundation backed the creation of France's Maison des Sciences de l'Homme – and in developing countries.

Most foundations aim to improve the human condition, and have historically supported social science because they expect it to contribute to this mission. In recent years, however, many have become disillusioned, arguing that social science is too academic, too little concerned with informing public dialogue, and too focused on specialist agendas rather than large social issues. They have sometimes sought to stimulate agendas with new funding, but recently many have shifted funds away from social science and towards organizations oriented to direct practical action.

In addition to direct grants to individual scientists, foundations and government agencies fund various efforts to encourage new lines of research and increase the mobilization of existing social science knowledge to inform policy-makers and the public. The Social Science Research Council is a private 'operating foundation' founded for this purpose. It has been influential in the spread of quantitative methods, the establishment of area studies fields, and advancing research in fields from business cycles and economic growth to cities, migration and religion in public affairs. In addition to grants and fellowships, it works by establishing interdisciplinary committees and research groups. In recent years, this approach has also been adopted by the MacArthur Foundation, which has established networks supporting research on themes from adolescent development and juvenile justice to socio-economic status and health. The Russell Sage Foundation, the only major foundation in the USA focused entirely on social and behavioural sciences, has taken a similar approach, notably in shaping the emergence of behavioural economics and studies of trust.

Despite the large role of government and foundation funders, the primary support for social science research in the USA and Canada comes from employment as university faculty members. This provides time and facilities for research, though in unequal amounts depending on the university resources. In recent years, there have been fiscal strains, particularly in state-funded institutions, and the inequality between and within institutions has grown. At even the richest universities, social scientists are acutely conscious that funding has grown much faster in the natural sciences and at many professional schools. Social science and humanities departments are more dependent on funding streams associated with undergraduate teaching. Further institutional upheavals may lie ahead. A financial crisis at the University of California, for example, has resulted in cuts that fall heavily on the social sciences and humanities.

Institutional pressures as well as resources promote productivity, but also keep it channelled in a competition for standing within disciplines. This encourages many to stay focused on long-recognized themes at a time when there are major changes in the world that social scientists study. Despite this, there is a great deal of intellectual ferment and excitement, and growing talk – if not yet much reality – of breaking out of customary disciplinary and subdisciplinary boxes. Some of this is encouraged by new research techniques such as neural imaging, by new interdisciplinary relations (notably to the biomedical sciences) and by a focus on major public problems such as environmental degradation.

Public engagement

An important recent concern in North American social science has been that academic research has become too inward-looking, oriented to highly specialized intellectual subfields and not to broader public concerns. In fact, this concern is as old as the disciplines themselves. The idea of interdisciplinarity was introduced when the Social Science Research Council (SSRC) was founded in 1923. Interdisciplinarity was not then regarded as an end in itself. It was valued as the basis for bringing different sorts of knowledge to bear on public issues. The same agenda informed the creation of interdisciplinary centres at universities. But disciplinary departments have remained more powerful, especially with regard to employment decisions. They rely mainly on a reward system heavily focused on the discovery of new knowledge. This usually

means an emphasis on incremental improvements within established explanatory or descriptive agendas rather than synthesis for students or the public, or indeed broader efforts to reorient scientific inquiry.

The desire for more public engagement has been reflected in discipline-specific efforts to nurture 'public sociology', 'public anthropology' and so forth. Scale is an issue. With 10,000 anthropologists or 15,000 political scientists, it is possible to sustain highly specialized subfields and many media of inside communication. Indeed, the concern for public communication is accompanied by a desire for more communication across subfields, addressing important general questions within disciplines. This has informed the creation of new journals, such as *Perspectives in Politics* and the *Journal of Economic Perspectives*, that seek to fill a gap between the general press and highly specialized academic publications. Similar desires to inform public debate and to address issues that are under-represented in specialist publications also shape the use of new media, as social scientists create web-based publications, podcasts and blogs.

Disciplinary and subdisciplinary specialization, and the emphasis on internal academic communication, peaked in the late twentieth century. North American social science is increasingly oriented outward and focused on pressing public problems. To these, social scientists bring both substantial accumulated knowledge and an impressive array of analytical approaches.

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Institutional aspects of the social sciences in Latin America

Hebe Vessuri and María Sonsiré López

Some of the challenges to social science in Latin America are to build renewed theoretical approaches capable of guiding research and action. These approaches should also have the potential to overcome the most prominent social and natural problems, to address the networking of researchers, to improve output dissemination and use in academic and decision-making bodies, and to ensure the financial and institutional sustainability of scientific research committed to social advancement.

In the 1990s, an economic model of international competitiveness, following the so-called Washington consensus, was widely introduced in Latin America. This model replaced the previous development model based on the substitution of imports. The new model was based on the assumption that if the economy were allowed to grow unhindered, increased productivity and higher income would allow people to take care of their health, education and retirement needs with as little help from their governments as possible. This assumption has, however, been questioned. The gist of the debate is to explain a situation in which underdevelopment and democracy, inequality and 'good' governance, economic growth and lack of distributive justice may coexist in conditions where the state is efficient, the economy is competitive and large pockets of poverty are being reduced, but high levels of income inequality nevertheless persist.

In the Latin American region, major socio-economic changes – fast economic growth coexisting with major inequalities – raise a new set of social and economic issues of which the public were unaware just a few years ago. The social sciences can be crucial in providing understanding of the complexities and contrasts of this variegated social landscape. This paper presents the institutional aspects of the region's social sciences, trying to find some clues to their mixed results in terms of quality and relevance.

The changing institutional landscape of the social sciences

In Latin America, the implantation and early development of the social sciences assumed different forms in keeping with each country's political and cultural specificities. From the 1950s to the 1980s the complex political context, particularly in the Southern Cone countries (Argentina, Uruguay and Chile), forced many social science researchers into exile. Thus the institutionalization and professionalization process of many social science disciplines occurred in a framework of international exchanges. This framework expanded the field's orientation towards a regional Latin American perspective.

The main institutional actors have been universities, science councils, public and private social science research centres, NGOs, consultants and consultancy firms, and regional centres such as the Latin American Council of Social Sciences (CLACSO), the Latin American Social Sciences Faculty (FLACSO) and the United Nations Economic Commission for Latin America (ECLA). In the region, these agencies have had a strategic role in the definition of dominant research themes. Between 1950 and 1970, ECLA was among the key centres for the creation of knowledge and critical social thought about issues related to Latin American 'underdevelopment', such as state–society and centre–periphery interactions. This involvement resulted in an original contribution that inspired social and political reflection and action for decades. In the absence of national policies to set social science priorities, CLACSO became the regional body shaping the field's expansion.

Universities are crucial institutional actors. The evolution of the social sciences in Latin America can only be understood by taking into account the changing relationship between the public universities and the state, and the conflicts and social movements which have involved universities. They have led to the partial transformation of universities and to the creation of new institutions. The expansion of higher education in Latin America, especially since the 1970s, produced a substantial increase in the number of social

science and humanities students. This increase was related to the expansion of private-sector higher education, a phenomenon that varied between countries. In Argentina, 79 per cent of all higher education students are still in public institutions, while private enrolment far surpasses public enrolment in Mexico, Colombia, Costa Rica, Chile, the Dominican Republic, and above all Brazil. Brazil has one of the most privatized higher education systems in the world, comprising 72 per cent of students and 90 per cent of institutions (Días Sobrinho and Lemaitre, 2007). It is also worth mentioning that 90 per cent of higher education institutions in the region are only engaged in teaching activities. Most research is carried out at postgraduate level, where some public universities play a major role. In fact, more than two-thirds of all Latin American postgraduate programmes are offered by the public universities of Brazil and Mexico (Brunner, 2003).

In most countries a science council is the state agency that funds research, training researchers by granting scholarships and funding graduate programmes. Some councils, such as CONICET in Argentina, CNPq in Brazil, and CONACYT in Mexico, have their own institutes, often linked with universities. In some countries (Argentina, Brazil, Colombia, Chile, Mexico, Costa Rica and Venezuela), the science councils provide substantial funding. They have also contributed to the emergence of social science research communities, without interfering with their content and orientation. In general, social science research communities have developed their own agendas, policies and research approaches. But science councils have recently assumed a more active role in redefining research agendas by asking social science research to tackle certain social agenda issues. Poverty eradication has become a top priority of some governments in the region.

Independent social science research centres, NGOs and consultancy firms include a range of institutions of varying age and commitment. Research centres date back to the 1940s. They grew and acquired visibility as a response to the military regimes' closing down of the Southern Cone universities' social science institutes and programmes in the 1960s and early 1970s. In Brazil, CEBRAP was founded in 1969 by a group of university professors, some of whom had been expelled from their universities by the military dictatorship. To date, CEBRAP's main focus has been the analysis of Brazilian reality. Similarly, when the March 1976 military coup led to the disempowerment and impoverishment of Argentine universities, the social sciences came under direct attack and precarious independent academic centres like CEDES and CISEA were created (Trindade et al., 2007).

NGOs and consultancy firms comprise a very varied mix. They are more dependent on government and international funding and the sale of specialized services than are the independent institutions. Short-term consultancies, particularly in Central America and the Andean countries, prevail over more ambitious, high-quality research. The presence of international research funding also has an impact on research agendas throughout Latin America.

There is no reliable information about the distribution of social science researchers in different employment sectors, but it seems to be diverse. In 2007 in Argentina, for example, 41 per cent of full and part-time social science researchers worked for private universities, 24 per cent for public universities, 25 per cent for non-profit non-academic entities (NGOs and others), 7 per cent for public, non-academic organizations and 1 per cent for firms (MINCYT, 2008).[1] Costa Rica's situation is very different: in 2006–07, 86 per cent of social science researchers were in the academic sector (public and private), 12 per cent in the government sector, 2 per cent in non-profit units and 0.25 per cent in international agencies (MICIT, 2007).

The growing importance of social science training and research

Between 1970 and 2000, social science experienced much greater growth than any other knowledge field. In 2006, 57 per cent of university graduates in the region were in social sciences.

Postgraduate education grew particularly fast. Masters courses in social sciences have expanded rapidly. In 2006, they comprised 42 per cent of the total Masters degree market. The trend is different at the doctoral level. Here social science plays a relatively minor role in terms of student numbers, but has shown a considerable growth rate (14 per cent in 2006) (RICYT, 2008).

Brazil makes the greatest effort to train graduates by Ph.Ds and Masters degrees. Today it can produce 10,000 Masters graduates and a little over 2,500 Ph.Ds in the social sciences and humanities per year (CAPES, 2007). Government and the non-academic public sector seem to be absorbing considerable numbers of these social science graduates.

Brazil, Ecuador and Guatemala, together with Bolivia, Trinidad and Tobago, Uruguay, Argentina and Chile, form a

1. This appears to be a result of Argentine science policy in recent years, which has been characterized by the sustained growth of research funds allocated on a competitive basis to researchers in different centres, public or private, while the number of full-time lecturers in public universities has remained stagnant.

group of countries in which social science accounts for 10 to 20 per cent of all researchers. The other group comprises Colombia, Costa Rica, El Salvador, Paraguay and Venezuela. Here social science researchers represent 21 to 30 per cent of all researchers. Mexico constitutes a group of its own, with social science researchers representing 59 per cent of all Mexican researchers.

In 1999, local socio-institutional contexts for the development of research and the training of researchers showed important weaknesses due to unfavourable working conditions. Many Masters and Doctoral programmes did not even include research. Today, the larger countries (Brazil, Mexico and Argentina) are becoming centres of attraction for students and researchers from other countries and for international cooperation.

Trends in the funding and evaluation of research and researchers

The public-sector funding crisis has favoured the expansion of private universities and research centres. As a general trend, a deprofessionalization of the higher education teaching staff is noticeable, and the number of full-time researchers is declining. Funding for competitive projects has grown in importance, while the institutional funding allotted to universities has diminished. This has increased conflict between teachers and researchers, between institutions, and between institutions and ministries. In many cases, multilateral financing organizations such as the Inter-American Development Bank (IDB) have driven this tendency.

In parallel to this trend, some governments have established mechanisms to evaluate researchers' performance since the 1980s. Competition and excellence are emphasized by special programmes or agencies. In Argentina, Brazil, Colombia, Chile, Mexico, Venezuela, and more recently Uruguay, researchers' productivity determines their careers' permanence and progress. Productivity also facilitates access to funding. In these countries, governments have delegated assessment to the researchers themselves via the scientific community's own criteria, as determined by the National System of Researchers (SNI) in Mexico and the Program for the Promotion of Researchers in Venezuela (PPI).

As early as 1976, Brazil developed a system for evaluating postgraduate programmes coordinated by the Coordinating Agency for the Improvement of Higher Education (CAPES), a move unparalleled in Latin America. CAPES introduced clear rules and incentives, and provided important infrastructure inputs like broad, open access to international publications through a special CAPES subsidy. This led to a quantum jump in Brazilian participation in international publishing as well as in the country's ability to train researchers and professionals with advanced degrees (CAPES, 2007; Russell and Ainsworth, in this Report).

In other Latin American countries, however, the effects of incentive programmes have not necessarily been satisfactory. There is a good deal of criticism, even among more successful countries, of the rules and procedures that have to be navigated, although they may be a significant source of extra income and social status. The challenge faced by this type of programme is to elaborate a formula that guarantees quality, respects the autonomy and preferred work methods of researchers in different knowledge fields, and does not overburden them with repetitive bureaucratic paperwork.

Supplementary measures should be implemented which might increase the alternative funding sources available to the social sciences. Methods should be explored that foster collaboration and networking with larger research teams rather than focus on rewarding individuals, and which increase the quality and visibility of Latin American scientific publications.

International mobility

The emigration of scientists, engineers and social scientists has long been observed in the literature on development, politics, science and technology, and higher education. Particularly since the 1960s, it has been analysed as damaging to community-building efforts and therefore as an obstacle to development strategies. In the 1970s and 1980s, researchers left for political reasons. Later on, they did so because of economic and working conditions. While the majority emigrated to the northern hemisphere, which has often meant a loss of local research capacities, the circulation of researchers in the region has fostered an awareness of commonalities and shared culture, and the possibility of a new interplay between social actors in the construction of integrated intellectual projects (Didou Aupetit, in the Report).

The emerging agenda

Towards the end of the 1990s, social science in the region entered a period of self-evaluation. Many social science researchers spoke of a crisis in the field and of new challenges posed by twenty-first-century developments. Social science was said to have lost much of its critical edge in its contribution to the analysis of social and cultural phenomena. At best, it became more instrumental to social management, and at worst, a trivial practice of little social use. In the universities, a new mode of thinking

emerged, which was associated with the New Public Management approach which prevails in OECD countries. A new discourse on themes such as the market, marketing, productivity, competitiveness, rationalization, governance, procedures and management, grew popular in some areas, replacing the traditional debate on dependency theory that had been dominant in the 1970s.

Do these changes mean that the region's previous social science research agenda (sovereignty, legitimacy and power) has been forgotten? It does not seem so. By the middle of the first decade of the new century, when several centre-left and left-wing governments came to power in the region, the political landscape changed again. There has been a strong resurgence of concern with the very unequal distribution of power and resources in today's world. In addition, there have been movements towards regional integration in which social, economic and political thought have played a fundamental role, trying to fill Latin American social science's political theory gap.

Thus, in the 2000s we have seen a change in many of the programmes that ruled social science in the 1990s. We have witnessed a return to some of the ideas that guided regional social science in the 1960s and 1970s. Old theoretical perspectives have been vindicated, such as the subjectivities of indigenous and other marginalized social groups, contestations by feminism, cultural studies and science studies. Among the themes that are resurging or being reformulated are social movements, social participation, multiculturalism, endogenous development, Latin American identities, education and urban violence. At the same time, new topics have emerged, such as those related to the media, information and communications technologies, the deepening of democracy, sustainable development, and climate change (CLACSO's website).

Perspectives and challenges for the social sciences

Increasing and often contradictory demands put enormous pressure on public authorities. Even in the best circumstances, with good governments and economic growth, the daunting social problems facing Latin America in areas such as health, poverty, education, employment and living conditions will endure for decades to come. Nevertheless, they can be faced, reduced and better administered if proper policy decisions, based on appropriate information and research, are taken and if public authorities' administrative and managerial competencies improve.

In most Latin American countries, social conditions have improved slowly due to faster economic growth. But they remain far from satisfactory. Improvements have been too slow, the problems of an ageing population and urban decay bring new and very difficult challenges, and crucial social, economic and political problems are addressed with varying degrees of success. Nonetheless, there are many individual examples of good practice. In this new scenario, some of the challenges to social science are to build renewed theoretical approaches capable of guiding research and action. These approaches should also have the potential to overcome the most prominent social and natural problems, to address the networking of researchers and the integration of results in such a way as to constitute a renovated regional view, to improve output dissemination and use in academic and decision-making bodies, and to ensure the financial and institutional sustainability of scientific research committed to social advancement.

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The state of social science in sub-Saharan Africa

Johann Mouton

The social sciences in sub-Saharan Africa continue to operate under conditions that are seriously under-resourced. The fact that there is still sustained and vibrant social sciences research in countries which, with a few exceptions, have little government support, poor institutional facilities and many other challenges says a great deal about the resilience and resolve of the scholars concerned.

Introduction

In sub-Saharan Africa, social sciences and the humanities are predominantly practised within universities. A few countries have government-funded research institutes devoted to the social sciences (for example, the Human Sciences Research Council in South Africa). Independent social research institutes (for example, the Institute for Basic Research in Kampala, and again, many examples in South Africa) and research NGOs are more prevalent in many countries. An increasing number of these research institutes and centres are funded either through international agencies or by donor organizations with little if any government support. But it is not surprising that the history of social sciences in this region is intimately related to the history of African universities.

As Sall (2003) rightly observes, the independence, nation-building and development euphoria of the 1960s and 1970s; economic and social crises; the subsequent structural adjustment process, mainly induced by external actors; the crisis of the state; and the spread of armed conflict have all left their mark on the social sciences, on higher education and research institutions, and on researchers and research communities in Africa. More recently, democratization processes in increasing numbers of African states, the end of the Cold War, globalization, the general conversion to liberal economic doctrines, the information and communications technology revolution, and the popular and intellectual struggles that these processes have engendered, have all impacted on the social sciences in various ways.

Before independence, there were colleges, university colleges or fully developed universities in countries such as Sierra Leone, Ghana, Nigeria, Ethiopia, Uganda, Senegal, Rhodesia and Nyasaland, Egypt, Morocco, Algeria, Tunisia and South Africa. However, the development of social science research and the teaching of the social sciences are very much post-colonial phenomena. Even in South Africa, which has had universities for more than 150 years, university-based social science research only really developed and expanded in the era after the Second World War. In many African nations the post-colonial state built most of the research and training institutions (universities, institutes and centres) in the first few decades after independence, mainly since the 1960s.

Trends in research output

It is well known that Africa's share of world science as measured by papers published in ISI indexes has been declining steadily over the past decades.[1] Various studies by Gaillard, Waast and others have examined this issue (Gaillard, Krishna and Waast, 1997), but arguably the most comprehensive and up-to-date bibliometric analysis of this trend is captured in Robert Tijssen's 2007 article in *Scientometrics*.

In his analysis, Tijssen shows that sub-Saharan Africa has fallen dramatically behind in its share of world science production – from 1 per cent in 1987 to 0.7 per cent in 1996 – with no sign of recovery. This diminishing share of African science overall does not reflect a decrease in the absolute number of papers, but rather an increase in output below the global growth rate. Africa has lost 11 per cent of its share in global science since its peak in 1987; sub-Saharan science has lost almost a third (31 per cent). The countries of North Africa – Egypt and the Maghreb

1. We are aware that any exclusive focus on papers published in the more than 9,000 journals of theThomson ISI Web of Science ignores a significant body of scholarship published elsewhere: either in local journals or journals (very often francophone or lusophone) not included in the ISI indexes.

(Algeria, Mauritania, the Libyan Arab Jamahiriya, Morocco and Tunisia) – accounted for the modest growth in the African share of the worldwide output from 1998 to 2002.

Table 2.2 presents the breakdown of ISI papers for the social sciences and humanities (SSH) over the past 20 years by country. Only countries that produced more than 200 papers over this period are included. The table shows that over this time, output has increased steadily with an overall growth rate of 112 per cent. A number of countries that did not produce many papers in the ISI journals twenty years ago have recorded huge increases. The noticeable exception is Nigeria, with a negative growth rate (-27 per cent), presumably an indication of the impact of the high-level brain drain on that country. South Africa's domination in sub-Saharan Africa is evident; the country produces about half of all output in the social sciences and more than three times more than Nigeria, the second most productive country.

A breakdown of output by university reveals the domination of South Africa. Eight of the top ten and eleven of the thirty most productive universities are located there. However, the data also raises the question of whether a critical mass of universities exists in the region, which is able to maintain a steady annual output. Only the top seventeen universities are able to produce an average of twenty papers per year in ISI journals. Many traditionally strong universities in countries such as Nigeria, Kenya, the United Republic of Tanzania and Zimbabwe struggle to maintain even these levels of output.

In an attempt to address African journals' lack of presence in international indices such as ISI, the International Network for the Availability of Scientific Publications (INASP) launched a project in 1997 to give African journals greater exposure – African Journals Online (AJOL). According to the latest figures, more than 340 journals are currently indexed in AJOL, which is based in Grahamstown in South Africa and managed by the National Inquiry Service Centre. Of these 340 journals, approximately 100 are categorized as being in the social sciences or the humanities (SSH). This list does not represent all SSH journals published in Africa, but it does allow us to gain a sense of local social science scholarship. We counted the articles produced in the 78 AJOL journals during the period 1999–2007. In addition, we also counted the number of articles published in the 120 SSH journals published in South Africa during the period from 1990 to 2007.

When we look at articles published in AJOL as well as in South African social science and humanities journals, the overall scholarship picture changes considerably.

Table 2.2 > Social science and humanities output by country in sub-Saharan Africa according to ISI, 1987–2007

Year / Number of articles	87–89	90–92	93–95	96–98	99–01	02–04	05–07	1987–2007	% distribution	Overall growth rate 1987–2007
South Africa	975	1,089	1,196	1,462	1,482	1,906	2,785	10,895	50.7%	+185%
Nigeria	748	626	438	382	341	475	542	3,552	16.5%	-27%
Kenya	182	153	189	189	259	353	414	1,739	8.1%	+127%
Zimbabwe	106	145	127	168	122	154	163	985	4.6%	+54%
United Republic of Tanzania	71	63	99	106	111	130	238	818	3.8%	+235%
Ghana	50	87	88	96	124	101	137	683	3.2%	+174%
Botswana	41	42	71	119	117	137	133	660	3.1%	+224%
Ethiopia	42	57	42	56	65	108	147	517	2.4%	+250%
Uganda	16	24	46	60	79	103	159	487	2.3%	+890%
Cameroon	17	54	41	51	66	81	95	405	1.9%	+2,282%
Zambia	72	36	44	25	23	33	73	306	1.4%	+325%
Malawi	25	36	54	40	22	30	48	255	1.2%	+920%
Namibia	7	10	33	38	28	40	48	204	0.9%	+2,814%
Grand total	**2,352**	**2,422**	**2,468**	**2,792**	**2,839**	**3,651**	**4,982**	**21,506**	**100.0%**	**+112%**

Table 2.3 > SSH articles in sub-Saharan Africa by source, 1990–2007

Distribution of articles by index		1990–1992	1993–1995	1996–1998	1999–2001	2002–2004	2005–2007	1990–2007
SSH articles in ISI journals		2,422	2,468	2,792	2,839	3,651	4,982	19,154
SSH articles in non-ISI journals	Non-SA AJOL journals				1,136	1,565	2,247	4,948
	South African journals	4,877	5,252	5,058	4,840	4,746	5,900*	30,673
Total		**7,299**	**7,720**	**7,850**	**3,975**	**9,962**	**13,129**	**54,775**

Source: 1990–2007

Note : There are many South African journals in AJOL which in this table have been counted under South African journals

* Conservative estimate based on information in *SA Knowledgebase*.

First, we see that international publication in ISI journals (19,154 articles during the period 1990–2007) only constitutes about one-third of the total social science scholarship in the region. Given that these figures exclude significant francophone journals and journals not listed on AJOL, the ISI share is undoubtedly even smaller in practice than this figure suggests.

Second, leaving aside South Africa, a small number of countries again produce the biggest shares of the AJOL output: Nigeria (37), Ghana (7), Ethiopia (6), Senegal (5), the United Republic of Tanzania (4), Uganda (5) and Zimbabwe (4). However, of the total (78) number of non-SA AJOL journals on this list, 27 have not produced any articles since 2006. Finally, these figures show how invisible African scholarship in the social sciences and humanities is, and why initiatives to give these publications greater exposure by supporting journals, open access repositories and other measures are so important.

Research institutes, centres and networks

The lack of government support for social science research in sub-Saharan Africa translates into very little support for research institutes and centres dedicated to the social sciences and humanities, whether based at universities or effectively operating as NGOs. CREST compiled a list of research centres dedicated to the social sciences in twenty-five sub-Saharan countries excluding South Africa. Of these, only seventy-nine (or 53 per cent) had an active website at the time of writing this chapter. But even having an active website does not necessarily mean that the website has current contents: we assessed a website as 'current' if it contained news or listed events at the centre during the period from 2007 to 2009. According to our assessment, only 65 (43 per cent of the overall total) of these websites have contents that could (very charitably) be regarded as recent.

A noticeable exception to this trend is the state support for the Human Sciences Research Council (HSRC) in South Africa. The HSRC is a parastatal body, more correctly one of nine science councils, which receives core funding from the South African Government under the national science vote. Its mission is to conduct strategic and applied social science research in support of national developmental goals. In recent years, because of cuts to its parliamentary grant, it has been forced increasingly to compete with other South African research institutions including universities and NGOs for international and national contracts. But it remains a significant national asset with a research staff complement of nearly 165 social scientists working in areas such as democracy and society, education and science, HIV/AIDs and health systems, poverty and development, the world of work and others. More information can be obtained from its website: www.hsrc.ac.za.

The precarious state of many of the SSH research centres in the region is indicative of a more general trend in research and scholarship in many African countries – the deinstitutionalization of science. With the decline in the number of robust and vibrant university-based research centres, we are witnessing an increase in transnational and regional research networks. It could be argued that such networks are emerging as a direct result of globalization, greater international collaboration and increased access to the internet. At the same time, such networks are also filling the void left by the lack of strong national research centres. The vast majority of these networks focus on interdisciplinary and more applied fields of the social sciences. Examples are the SAHARA network for the social aspects of HIV and AIDS, and the African Labour Research Network. These networks are predominantly sustained by international agency funding. Most of them are engaged in a range of activities which include research but also capacity-building and training, networking through conferencing and other means, as well as advocacy and policy work.

Modes of knowledge production

What kind of social science is being practised in African countries? Here we discuss two 'types': academic science in universities, and consultancy science for international (overseas and locally based) organizations.

Academic science refers to science practised by individual scientists or groups within universities. Much of this research is underfunded and is published in local journals that are not internationally visible. This form of research is very often driven by the individual scholar's priorities and interests, and is ultimately aimed at advancing their career. Given Africa's lack of a research infrastructure (strong-research centres with a critical mass, sustained funding and institutional continuity), these scholars end up engaging in projects that do not translate into building institutional capacity.

This individualistic research does not have much influence on society and rarely carries much weight. Governments and decision-makers – but also university bureaucrats – are impressed and influenced by size (large centres, networks and think-tanks) and continuity in scholarship over time. Where social science scholarship is primarily individualistic, it is unlikely to be taken seriously or to influence policy. So its status will be low to negligible.

Perhaps even more serious are the intellectual consequences of this form of research. It leads to fragmentation of effort, lack of critical dialogue within a community of scholars and often a lack of methodological rigour. Discipline-based work will eventually decline and basic scholarship such as social theory will also suffer.

Individualistic research is one side of the coin, of which the other face is consultancy research. 'Consultancy' social science refers to the widespread practice of academics engaging in consultancy work – mostly for international agencies and governments – to augment their meagre academic salaries. It is most prevalent in specific disciplines such as the health sciences, business studies, ICT, and monitoring and evaluation work, but is still widespread and on the increase. In an attempt to quantify the extent of consultancy work in many African countries, and also to shed more light on the underlying reasons for its growth, CREST recently completed a study in the Southern African Development Community region which addressed a number of these issues.[2] The results show that more than two-thirds of all academics in the fourteen SADC countries regularly engage in consultancy.

What were the respondents' main reasons for engaging in consultancy? We distinguished between the responses of South African and other SADC-country scholars, but there was very little difference between these two regions in the answers to our first two questions. First, consultancy is undertaken because the respondent enjoys the variety in topics that this brings (87 per cent versus 82 per cent); second, consultancy is undertaken because of the demand in the market (32 per cent versus 38 per cent).

The other reasons provided, however, demonstrate large differences between the South African and other respondents:

- Inadequate salary (cited as a reason by significantly more SADC respondents): 54 per cent in South Africa and 69 per cent elsewhere in SADC.
- Consultancy advances my networks and my career: South Africa 39 per cent, SADC other 72 per cent.
- My research interests are not addressed by my own institution: South Africa 18 per cent, SADC other 47 per cent.
- Consultancy improves my knowledge and skills: South Africa 78 per cent, SADC other 92 per cent.

A further breakdown by scientific field revealed significant differences, mostly in an expected direction. Large percentages of respondents in the more applied scientific fields where there are close links with industry and also government, such as applied sciences and technologies, earth sciences, engineering and material sciences, engage in different forms of consultancy. Academics in the economic and social sciences also reported high levels of consultancy engagement. In both groups, the majority of respondents reported carrying out consultancy. Perhaps the most surprising result is that a majority of academics in the humanities (61 per cent) indicated that they do some form of consultancy work. The overall picture points to the wide prevalence of consultancy work across all scientific disciplines.

Funding of social science research

State funding of social science research in sub-Saharan Africa is the exception rather than the rule. The majority of social scientists in the region depend on international donors such as Sida/Sarec, NORAD, DANIDA, on the Netherlands, French and British governments in Europe, on various foundations in the USA (most notably Ford, Rockefeller, Mellon, Kresge, Kellogg, Atlantic Philanthropies and Carnegie) or on IDRC in Canada, for their research funding. A distinction should be made between those grants that support social science research more directly (as is the case with CODESRIA, and the Organization for Social Science Research in Eastern and Southern Africa (OSSREA), and more indirect institutional support aimed at strengthening scientific institutions, such as Sida's support of journals in Ethiopia and Carnegie's support of libraries and ICT networks in East and West Africa.

A recent study of the role of international funding in countries in Southern Africa confirms these trends, and perhaps for the first time, indicates how dependent academics in the region are on such donor funding. The study of the SADC countries evoked responses from more than 600 academics. The results showed that a very substantial 42 per cent of all respondents from SADC (South Africa excluded) indicated that they source between 70 per cent and 90 per cent of their research funding from overseas, compared with only 6 per cent of South African respondents. The responses show very clearly the dependence of SADC scientists on international funding, and conversely, how little domestic funding is available for research. The actual state of affairs is probably even worse than these figures suggest. The scientists in our sample were identified because they are the most active and productive researchers in their fields and countries.

2. Study conducted by the Centre for Research on Science and Technology at Stellenbosch University under commission for the Southern African Regional Universities Association (SARUA). Final report is available from the SARUA website: www.sarua.org

Themes in social science research

To what extent does science in the region (including both the social sciences and the humanities) address the most important development goals of the respective countries? Do scientists pursue research that is consistent with national priorities, or are these of secondary concern?

A breakdown of the SADC study by field of research shows that we always need to keep in mind differences between scientific areas. The results show that significant proportions of scholars in all fields either agreed or strongly agreed with the statement that their research agendas are consistent with their countries' development goals. For scholars in the arts and humanities, this percentage was 75 per cent, for the economic and management sciences 87 per cent, and for the social sciences 83 per cent. These proportions compare favourably with fields such as agriculture and health, which are traditionally regarded as the more applied sciences.

Another thematic area to which the social sciences are making an increasingly significant contribution is the burgeoning scholarship on HIV/AIDS in Africa. A bibliometric assessment of the number of HIV/AIDS-related articles with SADC institutional affiliation has shown a steady increase over the past 17 years, from 2,156 in 1990 to 3,305 in 2007, especially between 1999 and 2006. This trend is mainly due to an increased output in the medical and health sciences, but publications in the field of the social sciences and humanities have also increased since 2000 despite a small decline in 2007.

Major challenge for social sciences in sub-Saharan Africa

This review has demonstrated that the social sciences in sub-Saharan Africa continue to operate under conditions that are seriously under-resourced. The fact that there is still sustained and vibrant social sciences research in countries which (with a few exceptions) have little government support, poor institutional facilities and many other challenges says a great deal about the resilience and resolve of the scholars concerned. We should also add that most official science policy statements and national research plans make little mention of the social sciences. The emphasis is on the health sciences (especially HIV/AIDS, tuberculosis [TB] and malaria), popular priorities such as biotechnology and nanotechnology, and the more applied sciences. Where reference is made to the social sciences and humanities, they usually appear in an appendix, in support of the natural sciences. A noticeable recent exception is the latest strategic thrusts of the Department of Science and Technology in South Africa, where the humanities and social sciences are identified as one of five main priorities.

Building an individual and institutional research capacity remains the main priority for the social sciences in the region. And although there are many examples of research capacity-building initiatives sponsored and supported by various international agencies, donor organizations and foreign governments, there is still very little consensus about the most effective approach (Simon, 2000). Debates continue, for instance, on investing in individuals or institutions (Costello and Zumla, 2000; Nchinda, 2002), whether postgraduate training in the global North exacerbates the brain drain (Nchinda, 2002) and on southern African control of research budgets (Lansang and Dennis, 2004; Nchinda, 2002). The science institutions in many sub-Saharan countries have been systematically eroded and destroyed over the past three decades through international economic policies as well as by the devastating effects of domestic policies and events. The cumulative effect of these policies over time has been a decline (at least in relative terms) in scientific output, changes in modes of scientific work, the devaluing and degrading of the science profession, and of course, the brain drain.

Many commentators (Aina, Zeleza and Mkandawire to mention a few) have commented on the lack of indigenous African theories and conceptual models to address the region's social dynamics and challenges. This is not a new observation. It is clear, however, that this call for theoretical innovation and more sociological imagination is even more relevant in an age of globalization and internationalization, of the continuous decline of key scientific institutions including research centres, societies and journals, in many countries, and of the widespread lack of government support for social sciences research in sub-Saharan Africa.ب

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Social sciences in the Arab world

Rigas Arvanitis, Roland Waast and Abdel Hakim Al-Husban

The Arab world is home to a large number of talented students and academics, but the social embedding of science remains unsteady and research does not play a specific role. There are however significant differences between regions and countries: histories, social contexts, institutional arrangements, the role of the state, and past and present development models must all be taken into account.

The Arab world is home to a large number of talented students and academics. Paradoxically, no specific goal has been assigned for their research. As one of us observed:

> *the social understanding of science considers obtaining a PhD degree as the end of the reading and research process. The degree rather than the research record is what determines an individual's social status, both outside and inside the university.*
> (Al-Husban, 2008)

In other words, the social embedding of science remains unsteady and research does not play a specific role.

This general statement must be nuanced since there are significant differences between regions and countries: histories, social contexts, institutional arrangements, the role of the state and past and present development models must all be taken into account. By integrating these criteria, four different research and innovation models seem to emerge: the Gulf countries, the larger developmentalist states (Egypt, Iraq, the Syrian Arab Republic), the Maghreb, and the Middle East.

Four regional models

The Gulf countries

Having obtained their independence in the 1960s and 1970s, most of the Gulf countries have adopted an 'Anglo-Saxon' approach to research, leading to the creation of 'elite' universities specializing in the natural and exact sciences, and to the development of partnerships with foreign countries and institutions. The human and social sciences, on the other hand, are relatively closed to collaboration with foreign partners and priority is given to Arabic-speaking academics. A pragmatic approach to science has come into being, which largely draws on local issues. In the social sciences and humanities, an instrumental approach to research dominates: sociology effectively takes the shape of social engineering, economics is primarily business-oriented, and Islamic philosophy or law is dominant within the humanities. Research is mostly restricted to universities. It is sometimes funded by the state but more generally by foundations and is increasingly produced by an expanding number of foreign professors. In order to handle the 'post-oil' era, Gulf countries are allocating resources to manage the transition towards a knowledge economy. In order to do so, they import Western skills and expertise, through the creation of Gulf country campuses of internationally recognized universities (the Abu Dhabi chapter of the Sorbonne, for instance) (Romani, 2009).

The larger developmentalist states

From a very early stage, Egypt (as well as Iraq and to some degree the Syrian Arab Republic) established a mass education system – including universities – whose purpose was to train a technical workforce capable of implementing their development model of mass production geared to domestic markets. The so-called 'developmentalist state' (Amsden, 2001) played the main economic role. When it changed orientation, it also abandoned its monopoly over education. Private colleges and universities proliferated (doing little if any research) while the overall quality of public higher education diminished. It suffered from underfunding, leading to low staff incomes and status, and overcrowding. A number of academics and researchers have moved (at least temporarily) to the Gulf countries, where the increase in demand produces higher wages for foreign and Arabic-speaking academics. In Egypt, a substantial number of academics are drawn towards consultancy and expert positions. Support for research is mainly channelled through foreign – and more rarely local – funding agencies. Research no longer depends solely on state funding. These

new dynamics have significantly transformed academic hierarchies to the benefit of externally funded networks rather than state patronage.

The Maghreb countries

The Maghreb countries (Morocco, Tunisia and Algeria) have adopted an institutional and intellectual model that draws its inspiration from Europe (especially from France) with which they have important scientific relations. Following independence, they set up universities and prestigious polytechnic institutes, highly selective schools for high-ranking bureaucrats and business leaders. They also established national research centres that focused on a variety of different fields, including the social sciences. State oversight remains strong, and nationalist and secular governments are managed by technocratic elites. The entire education and research system functions without private-sector support, which (even lately) has been unable to carve out a significant share of the research activity. Scientific talents and vocations are abundant, and research is recognized and accepted as a career.

The Middle East

In stark contrast to the larger developmentalist states and the Maghreb countries, the smaller Middle Eastern countries (Jordan, Lebanon) have centred their social and economic models around commerce and international trade rather than on industrial mass production. In these countries, most universities are private and quite recent. Private institutions do little research, except for the two oldest and most prestigious ones: the American University of Beirut (AUB) and Saint Joseph, established in Beirut in 1863 and 1875 respectively. The Lebanese University, set up in 1953, is the only public university in Lebanon. It mainly focuses on teaching (concentrating half of the country's student population) rather than research. Two or three others can be cited in Jordan: Jordan University in Amman and Yarmuk University at Irbid (which include human and social sciences, while the very good JUST University at Irbid is only for S&T disciplines).

A number of commercial research centres, consultancy firms and NGOs have recently been created in the social sciences in response to demand for internationally funded field studies from foundations and universities.

The social grounding of the social sciences

As in other scientific disciplines, social sciences training and research in the Arab world are mostly performed by academics who work in public institutions. They generally equal or outperform other university sciences numerically. Students in the human and social sciences account for two-thirds to three-quarters of total enrolment figures, and faculty members for a third to a half of total staff (Table 2.4). The main difference between the social sciences and other disciplines is not so much the working conditions (professional status, wages, careers, funding) but the ways in which they affect and are received by society. The social sciences are intimately related to local problems and realities. Research results are often published in local languages for a local audience. They reflect local values and understandings. They are not only influenced by these values, but can also have an influence on them. The social sciences are sensitive to the social environment and to its support to them.

Social and political environment

Arab societies are generally governed by social communities, lineage relations and religious beliefs, which all tend to impinge on creativity. A highly critical report from the United Nations Development Programme, written by recognized regional experts, has highlighted inadequate relationships to knowledge as one of the three main handicaps hindering progress in the Arab states (UNDP and Regional Bureau for Arab States, 2002). The report criticized a trend at both the teaching and family education levels to hinder freedom of thought, leaving little room for creativity. In societies that are dominated by power, wealth and patriarchal values, knowledge has a relatively low social status. Furthermore, the state and the political sphere dominate all other activities. There is a trend within authoritarian regimes to exercise a heavy control over the social sciences, limiting freedom of thought and setting boundaries in terms of acceptable and unacceptable areas for research and teaching (Al-Taher, 2004).

Table 2.4 > Proportion of human and social sciences students and faculty members in the total number of students and faculty in selected Arab countries, circa 2004

	Morocco	Algeria	Tunisia	Jordan	Kuwait
Percentage students	78	49	62	61	65
Percentage faculty members	41	27	32	50	48

Source: ESTIME background reports (all countries except Kuwait) and UNESCO special initiative of the Global Forum on Higher Education and Research (Kuwait). Data refer to Morocco 2003/04; Algeria 2000/01; Tunisia 2004/05; Jordan 2003/04; Kuwait 2004.

Support for science through policy

Nevertheless, when we look at the overall figures, science is actually developing in the region (Arvanitis, 2007; Satti, 2005). Despite its reservations and doubts, the state has done a great deal for research through regulatory measures,

notably by linking academic careers to research activities. As a symbol of modernity (the Gulf), rationality (Tunisia), national unity (the Syrian Arab Republic), or the development model (Nasser in Egypt, but also Algeria), higher education, and to a certain degree research, has at one time or another benefited from the support of national governments. Despite a few exceptions in some specific periods in Egypt or Algeria, governments have not totally restricted academic freedom as happened in other parts of the world. Instead they have tied academia down to centrally controlled institutions (public services, research centres, polytechnics and even universities), preventing the emergence of autonomous scientific communities. In certain instances, modernist factions in power have developed strong alliances with the promoters of scientific activity in order to advance their own struggles in the political sphere. Algeria offers the clearest example of such a 'socio-cognitive bloc' (El Kenz, 1997), periodically uniting the research avant-garde with 'technocrats' in order to defeat the 'patrimonialists' (as the two opposed views of Algeria were labelled). This is a volatile and fragile form of support since it is conditioned by the regime, the factions in power, political alliances and personalities. In certain cases, policy changes reflect strong ideological oppositions over the role that scientific or religious knowledge should play in society (El Kenz, 1997; Waast, 2006).

Other non-state sources of support for science

Fortunately there are other sources of support for scientists who wish to devote more time to scholarly activities. International scientific collaborations help researchers to keep up to date and to gain access to funding. Over the past few years, the European Union has greatly influenced the research agenda in the region. Other countries such as Egypt or Jordan have privileged the development of ties with the USA (Pasimeni et al., 2006; Rodríguez Clemente and González Aranda, 2007).

Throughout these countries, a diversity of 'sociocognitive blocs' contribute to link scientific activities to specific communities or social groups, such as liberal elites in Egypt and Lebanon, influential families in the Gulf states, or the technocratic strata in Algeria. Despite its idiosyncratic nature, this feature is paramount in explaining the appearance and survival of research groups and agendas. This has also been the case in peripheral countries on other continents (Vessuri, 2006). The very content of research in social sciences reflects these alliances by promoting a role for social sciences that can be qualified as a support to development rather than a critical stance toward society.

Finally, the growth of science appears to stem from the professional norms that are internalized by a few individuals during their training, and by specific institutions (at least one or two per country) that compete for international recognition and which use research to demonstrate their value and status.

The multiple roles of scientists

The adverse features that have just been mentioned help us to understand the scientific community's tendency to hold a variety of different professional positions, which are not always linked to research. This is due not necessarily to financial pressure, but rather to the desire for status. It is also a response to social and family pressures. Close relatives and the people in an individual's direct social environment do not generally regard the job of 'researcher' as a proper professional activity. It does not have the same recognition as 'professor', 'doctor' or 'engineer,' for instance (Al-Husban, 2008).

Social scientists' participation in the public sphere has risen. It now involves writing in reputable news magazines and newspaper opinion columns, working for think-tanks, organizing symposiums, taking part in empowerment initiatives, holding other more 'reputable' professional jobs (lawyers, entrepreneurs, political party representatives or government officials), and getting involved in policy design and political activism. All these activities are time-consuming, and have consequences for the type of research that is being undertaken in terms of methodologies (often hyper-empirical and instrumental), topic choices (linked to development issues), and the targeted audiences (wider public rather than academia). As a result, researchers who work in this way can look more like consultants or political activists than scholars. Their reputation is more grounded on a personal basis than in their role in collective research activities, their contributions to a school of thought or their actions to advance academic institutions.

Increasing demands for the social sciences

Demands for the social sciences arise from a variety of sources: from local businesses, from specific groups seeking legitimization (factions or lineages looking for historiographers), from the general public (interested in law, for instance), from the state (social engineering) and from the media (news corporations and television channels interested in culture and current affairs).

There are also steadily more international demands for social science. They include foreign scholars seeking local

correspondents and partners (for example, in the political sciences or in archaeology), and more recently, international organizations (the United Nations Development Programme [UNDP], the United Nations Children's Fund [UNICEF], the UN Economic and Social Commission for Western Asia [ESCWA] and so on) seeking empirical studies and fieldwork on hot social topics. Foreign foundations (for example, the Ford Foundation, German foundations and large NGOs) have supported scholars in the region in their efforts to stimulate intellectual life there.

Various consequences of these changing priorities have been observed. The first is a change in the hierarchy of disciplines: those in poor demand (which curiously include economics) are pushed aside, whereas others that have a strong empirical and local orientation are promoted. These include anthropology, law and political science (Al-Husban, 2008; Kabbanji and Moussaoui, 2007). The second consequence is the emergence of new priorities in topic choice. Researchers subcontracted by foreign sponsors tend to uncritically adopt the 'global agenda' for their own business reasons. Others focus on conventional topics so as not to shock the local public. The third and most visible consequence relates to institutions. Growing international demand for the social sciences has led to a proliferation of private research centres in the Middle East. These are devoted to empirical studies and take part in empowerment activities. Such centres are generally set up and managed by young 'science entrepreneurs'. These are often talented scholars who keep one foot in the university system while simultaneously acting as a globalized elite mediating between local audiences and foreign sponsors (Hanafi and Tabar, 2005). These centres hire would-be academics on a contractual basis, introducing yet more diversity into their working conditions, and creating a proletariat of temporary investigators, transforming the structure of the research profession.

National or global social sciences?

In most countries, there are universities that adopt high standards for their academics and function as sanctuaries for research. In others, a few scholars stick to research, which they pursue in order to seek promotion and also by inclination. An inquiry into the research topics most favoured in the region shows that the chosen themes are influenced by national concerns. Literature, history and law are most active and valued, ahead of socio-anthropology and the political sciences. The research topics of local social scientists do not necessarily match those of foreign specialists working on these same countries (Rossi and Waast, 2003). Much engaging research goes unnoticed abroad, mainly because it is published in Arabic and rarely translated; and also because it is not necessarily connected to the global agenda. The bulk of the research output is centred on local issues (maybe too much), using hyper-empirical approaches rather than comparative analysis. Certain, generally young, scholars express a greater interest in international perspectives, notably when they join private research institutes to escape local mandarins and clichés. Yet even their research output goes generally unpublished, mainly because international funding bodies are more interested in 'edible' reports and practical research, rather than theoretical research.

The Arab world mostly has a common language and there is significant circulation of talent, which is principally drawn to the Gulf, with very limited movement between the Maghreb and the Mashreq. But intellectual cross-fertilization is confined to the subregions. Publishers and translators, as well as university syllabuses, are generally specific to their country of production (Mermier, 2005; Sghir Janjar, 2005). With some notable exceptions, the work of authors from other parts of the Arab world is neither well known nor sought after. Interest exists primarily in publications from Europe or North America. The academic scene is predominantly national in scope. When it does go beyond national borders, it tends to be globally rather than regionally oriented.

What role for research?

There is a wide variety of research-oriented bodies in the Arab world: real capacities, dedicated establishments, publishers, audiences, interested media, international funding bodies and governmental bodies. While social research is growing, it seems to lack a specific and socially acceptable role. In other disciplines (engineering, biomedical research and various natural sciences), research benefits from a relatively high degree of support, particularly in countries that are moving towards a knowledge economy in which innovation takes precedence over the exploitation of natural resources. But the usefulness of the social sciences is usually under debate. They tend to be regarded as a cultural activity, perhaps like a museum, or an ornament for their local sponsors. Alternatively they can be seen as a pragmatic social engineering activity with commercial opportunities, sponsored by foreign funding agencies. Rarely are they seen as a critical body of knowledge cultivated for its own sake.

This means that there is a growing imbalance between different types of research (public and private) depending on the approach taken to it, which may be reflexive or

instrumental. There has recently been an infatuation for products targeting non-academic audiences, either local or foreign. Instrumental studies, empirical field research and action research that seek to directly influence society are all promulgated. Academic essays, theorization, methodological progress and reflexive analysis appear to have progressively lost ground. Tensions between different types of activity are of course positive. However, in the Arab countries, these tensions are not regulated within scientific communities but rather externally via the state or the market.

What are the prospects? Predictions are always risky since much depends on the attitudes of the state and of scientific communities. In an uncertain political context, it is interesting to note that several governments have expressed a sudden interest in the social sciences, recruiting a number of young academics and launching evaluations. This proves their increased awareness and justifies substantial funding efforts. Morocco and Algeria are good examples of this; Jordan, Lebanon and Egypt are less determined. The Gulf countries, which some observers consider to be the source of a future 'Arab Renaissance', are paying increasing attention to the arts and humanities and to the social sciences as a component of the future knowledge society.

In order for these new forms of support to produce positive results, scientists must agree on more formal and collective forms of organization. These might include labelled and assessed research units or laboratories such as the ones established or planned in the Maghreb, common research projects – far-reaching and linked to additional funding, as in some private bodies – and a keen sense of professionalism and responsibility.

If the social sciences are to be recognized as sound sources of constructive critiques and suggestions, they will have to become less atomized and less dependent on external factors. They will need to reinforce and consolidate their own self-regulated scientific communities, watching over the ethos of the profession, restoring interest in theory and rigorous methodology, and above all organizing and adding flavour to a vivid public scientific debate.

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The status of the social sciences in China

Huang Ping

Some of the issues on which social scientists are currently focusing in China include rapid urbanization and massive rural–urban migration; pension system reform; health care; education for all; housing; and political issues such as the reform of the legal system and the rule of law. Other themes include governance and social justice in the information-age society, ageing, and achieving a more harmonious order in a large and multicultural society that is better integrated into the globalized world network.

Historical overview

In terms of what we see today, the status of the social sciences in China can be traced back to the late nineteenth and early twentieth centuries, when the first generation of Chinese students and scholars returned from Western countries, mostly the UK and the USA, after completing their degrees or their research.

After the Second World War and since the founding of the People's Republic of China in 1949, social sciences in China have developed along three traditions: Chinese scholarly academia, especially Confucianism, Daoism and Buddhism; focusing on economics in line with Soviet influences and Marxist studies; and later, Western approaches.

During the Cultural Revolution (1966–76), social sciences almost disappeared and were hardly taught. After the opening-up process initiated in 1978, social sciences, along with science and research in general, were resumed and given a mandate to support the reform process. The Soviet influence gradually disappeared, and Western, especially US, social science approaches became the most influential. Sociology, for example, had been banned since 1952 and was reintroduced in 1979. During the past decade, traditional Chinese academic traditions have been reintroduced in universities and have caught the interest of an increasing number of students.

Institutional landscape: actors in social science research

The key executive institution in the field of science, technology and innovation is the Ministry of Science and Technology (MOST) under the State Council. MOST is responsible for formulating the national medium- and long-term development plans, and for formulating and implementing policy guidelines in the field of science and technology.

Another key institution is the Ministry of Education (MoE), which also falls under the State Council. Amongst its various important tasks, it is responsible for managing higher education and postgraduate education. Furthermore, it is responsible for planning and directing higher education institutions' research work in all sciences, including social sciences and the humanities. It also manages educational funds, and formulates guidelines and policies regarding fundraising and financial allocations.

The key actor and scientific institution for social sciences and humanities research is the Chinese Academy of Social Sciences (CASS), which again falls under the State Council. CASS used to be part of the Chinese Academy of Sciences (CAS) until 1977, when Deng Xiaoping was about to launch reform and open up China to the outside world. He regarded CASS as the government's top think-tank, as well as the National Centre for Social Sciences and Humanities Research.

The following points need to be highlighted regarding the institutional landscape:

- Members of academe are traditionally gathered in the Shuyuan (House of Scholars and Learners). Shuyuan is an element of, and maintained, by CASS as the top national research institution, and its remit includes the humanities. CASS was established in 1977, growing from the Chinese Academy of Science's Department of Philosophy and Social Sciences. The Department of Philosophy and Social Sciences, called Xuebu, had a staff of 2,200 in fourteen institutes (for instance, Economics, Archaeology, History and Law institutes) in 1976. Today, CASS has thirty-seven research institutes and more than 150 research centres, carrying out research activities covering about 260 subdisciplines of different levels of importance, as well as a graduate school. It employs more than 3,500 research

staff of whom 50 per cent hold higher degrees (M.A. or Ph.D.). CASS's mission is to promote the development of social sciences and raise the level of social sciences and the humanities to support China's reform and opening-up process. CASS applies the policy of 'making the past serve the present and foreign things serve China'.

- When China began to introduce Western social sciences in the late nineteenth century, universities became the largest bodies for these subjects in terms of both teaching and research. After the communist revolution in 1949, higher education and research were functionally separated according to the Soviet model. Research was concentrated in CASS and government research institutes, while the universities focused almost exclusively on teaching. After the initiation of the reform process, universities were given the means to rebuild their research capacities. Today, there are social sciences faculties in almost all universities, and the number of professors, the courses they teach, as well as their publications in economics, sociology, political sciences and legal studies, are all increasing.
- A number of elite universities have re-emerged for social science research, mainly Tsinghua and Beijing universities as well as Fudan University in Shanghai. These institutions have developed significant research and teaching activities in the social sciences. Moreover, they offer conditions that attract top social scientists.
- Some research institutes focusing on research and development (R&D), policy analysis and support have developed in government agencies, particularly since the 1980s. A number are well known, such as the Research Centre for Development Studies under the State Council. Others may be smaller but are nonetheless quite active.
- Resources for social science research are allocated to researchers at universities and to research institutes through the National Social Science Foundation, which was established in 1978. This used to be managed by CASS, but in 1990 became an independent agency under the State Council. In addition to this research council, CASS funds research in its own institutes.
- Finally, in the past 20 years, non-governmental research centres and institutes have emerged. They focus on hot social issues and are funded from all over the world.

University spending mostly goes on the natural sciences and engineering. According to China's science and technology indicators (2004), only 5 per cent of universities' R&D expenditure is on social science and humanities. Thus, CASS remains the main actor in social science research, and only elite universities can attract social scientists from CASS.

Over the past decades, the mechanisms that these agencies use to allocate resources to the social sciences have undergone regular revision and fine-tuning, as discussed in Wei's papers in the present report.

Policy on social science research

Social science policy in China is largely influenced by science policy overall. In the past few decades, the general direction of the science system has been towards the marketization and downscaling of the dominant institutions to modernize them and make them more productive. With this objective in mind, China has moved from block to project funding, as have many other countries.

Since 1978, social sciences have been assigned three functions: training high-quality personnel, supporting policy-making and long-term plans, and being a channel for learning from abroad. More specifically:

- The universities have all re-established or empowered departments of economics, political science, sociology, anthropology and law. As a result, capacity-building in the social sciences has improved remarkably in both the universities and the national research institutions. In 2005, there were more than 1,300 Ph.D. graduates in the social sciences, and the country had 53,880 full-time social science researchers. The budget for the social sciences and the humanities, including teaching and research, has been increasing by about 15 to 20 per cent every year since 2003. Young students who want to become researchers in social sciences have to finish their graduate studies and obtain a postgraduate degree from one of the best universities, including a Ph.D. from a world-class university such as Oxford or Harvard.
- Supporting policy-making: social science research has developed in both quantity and quality. Starting with the rural reform of the early 1980s, economists, but also sociologists and legal experts, were asked to support the country's social transformation. This help was later expanded to cover all the issues that face the whole of society. Never before have social sciences had such an impact on China's social policy and social change.
- International collaboration and learning from abroad: China has a long history of international collaboration. CASS is the key institution engaged in such collaboration, participating in conferences, cooperating with foreign

academic organizations and universities, inviting foreign SSH academics to China and cooperating with funding organizations.

The Chinese Government has also sent a large number of postgraduate students to study social sciences in the USA, Europe, and Japan. After completing their doctorates they are encouraged to return to China to teach and do research by being guaranteed good positions once they come back. Some are offered scholarships to study abroad on the condition that they return. The Chinese Government is also maintaining relations with Chinese scholars who live abroad, encouraging them to return for short periods to collaborate with local research teams or to engage in activities that can support China and its research.

In the twenty-first century, social sciences in China are becoming even more significant. Following an assessment by the Chinese Government, social sciences are considered as important as natural sciences for educating the younger generations and for promoting the country's economic, social, legal, political, cultural and technological progress.

As in all other sciences, pressure has been applied to social scientists to publish in international journals. Incentives have been put in place to encourage them to do so. This has resulted in a growing number of Chinese articles in international social science journals. But the relative growth in the number of Chinese papers in the Social Sciences Citation Index is considerably lower than the growth in natural science publications included in the SCI-E, the expanded Science Citation Index (see statistics in the Annex to the present report).

Competition has increased and a new evaluation system has been introduced with a view to improving the performance of public research organizations and guaranteeing the efficient use of public resources (see Wei's article in the present report). There are many – perhaps too many – national and local exams for younger or even middle-aged researchers who want to continue with an academic career or who wish to be promoted. This results in quite a significant time input and intellectual effort on the one hand, and high competition for short-term outcomes on the other.

Status of researchers

There was a time in China when the social sciences were considered less important than natural sciences and when social scientists had fewer opportunities for research, benefited less from funding and enjoyed less public recognition. When China became engaged in its deep social transformation, which involves economic reform, urbanization, political change and state-building, the social sciences, such as economics, sociology and political sciences, became key to supporting and monitoring change. Now the social sciences are the basis for policy-making alongside the natural sciences and humanities.

Social scientists now enjoy much greater prestige than many other professionals and more than their counterparts in other countries, including many developed countries, even if they still earn far less.

Social sciences and policy-making

The role of social sciences in China today is illustrated by their impact on policy-making. In the past, social sciences were essentially academic disciplines, taught at universities to educate the younger generation and practised in research institutions to develop new ideas on the way society should evolve. Today, while maintaining these functions, social sciences have become progressively more engaged in supporting policy-making at different levels – central, provincial, and local – and in organizing social interaction between the public and policy-makers. One way they do this is by conducting public opinion surveys. Social science researchers have become more deeply involved in social change by providing their insights and 'solutions', and by studying social issues with which both the public and policy-makers are concerned. Today social scientists have become interpreters and even 'legislators' of social change in China, though not necessarily in policy-making bodies or official agencies.

Major issues and priorities

The eleventh five-year plan, which runs from 2006 to 2010, identified three areas of major challenge for China:

- growth, competitiveness, employment and sustainability in a knowledge-based society
- societal trends in China and its citizens
- China in the world: understanding change in the interactions and interdependencies between world regions and China.

Some of the issues on which social scientists are currently focusing include rapid urbanization and massive rural–urban migration; related to this are social issues such as social welfare and social security, which includes pension system

reform; health care; education for all; housing; and political issues such as the reform of the legal system and the rule of law. Other themes include governance and social justice in the information-age society, ageing, and achieving a more harmonious order in a large and multicultural society that is better integrated into the globalized world network.

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Social sciences in South Asia

Venni V. Krishna and Usha Krishna

The focus of this article is to map out major trends, issues and problems confronting the growth of social sciences in the region. It analyses the changing trends in social science research, and focuses on the gradual shift taking place in each country's mode of knowledge production in social sciences.

The six decades of the post-war era have witnessed an impressive growth in the number of universities, specialized research institutions, private corporate bodies, international agencies, and governmental organizations and NGOs conducting social science research in South Asia. The expansion of the social sciences in the region's various countries has followed several different trajectories. There are sharp differences between countries in their institutional structures for social science and the pace at which they have grown. This variation is due to factors ranging from the size of the country to the historical context of the colonial and postcolonial era that shaped the emergence and development of these countries, the nature of the political regime, and differences in social, economic, religious and cultural factors. The focus of this article is to map out major trends, issues and problems confronting the growth of social sciences in the region[1]. It analyses the changing trends in social science research and focuses on the gradual shift taking place in each country's mode of knowledge production in social sciences.

In 1947 there were only twenty universities in South Asia, of which India had eighteen. Initially these universities carried out a large part of the professional research in social sciences, enjoying a near monopoly of knowledge production. However, this situation is undergoing fundamental change, and universities are losing their monopoly. Moving away from Mode 1 knowledge production (in the style of Gibbons et al., 1994) to Mode 2 has led to the development of new knowledge production structures and funding arrangements in the South Asian region as a whole. This is the result of diminishing public support for academic research combined with the emergence of new actors undertaking research.

1. These include disciplines such as economics, sociology, political science, history, geography and psychology.

India dominates the social sciences in South Asia, overshadowing its neighbours such as Pakistan, Bangladesh and Sri Lanka. Partly this is because it is the largest country. In addition, it is the only country in the region where the relevance of social sciences for policy-oriented research and as an academic discipline has long been recognized and institutionalized. The article analyses the situation in India before briefly reviewing the social sciences in other countries.

India

Actors and agencies in social science research

In general, four types of institution conduct social science research in India:

- educational institutions comprising social science departments at universities and postgraduate colleges under universities
- research institutes set up by government departments
- government-funded, but legally autonomous, specialized research institutes
- research units and programmes set up or funded by private agencies, foundations and NGOs.

In India, universities and publicly funded research organizations are still the main actors in knowledge production. The University Grants Commission (UGC), the main body administering universities, has played a crucial role in promoting social science research in India. There are currently 400 universities of which about 80 (with about 350 departments) are engaged in teaching social sciences and doing research. The UGC has initiated a programme to fund Centres of Advanced Studies at university departments with outstanding faculty members. In addition, different government departments have set up

a number of specialized institutes[2] to conduct research on specific social science topics.

The Indian Council of Social Science Research (ICSSR), which is the second most important funding agency, was established in 1969. Its main objective was to nurture academic social science research by establishing autonomous research institutes in different parts of the country. So far, twenty-seven such institutions have been set up with funding from central and state government. Besides these, two other autonomous government-funded organizations have boosted the study of history and philosophy.

In the post-liberalization and globalization period of the past fifteen years, a number of non-governmental research institutes and private consultancy firms have been founded to carry out specific goal-oriented research. Public universities and research institutes continue to be the main academic research actors, but they find it increasingly difficult to sustain themselves on public funds alone. They have to attract private and international funding, and to combine sponsored and consultancy research with academic research.

Until the 1980s, the ICSSR, UGC, government departments and the Planning Commission were among the important funding sources. Since the beginning of the 1990s, various private foundations and trusts have begun funding social science research projects and programmes. Besides agencies such as the Tata and Birla Trusts and the Ford Foundation, which have been funding social science research for decades, corporate firms supporting social science research have established a number of new foundations. Furthermore, there has been an increase in international funding. India, like the whole of South Asia, has witnessed an increased flow of funds from multinational agencies such as the World Bank, the Asian Development Bank, the European Union and other agencies. Consequently the funding of Indian social science research is quite substantial, although no estimates are available of its total magnitude (ICSSR, 2007).

Like its funding patterns, India's research culture is gradually changing. Instead of pure academic research being carried out, there has been a spurt in the number of applied projects and policy-oriented research programmes. The Indian social science community is concerned about this trend (ICSSR, 2007). But in India, unlike its neighbouring countries, the problem of international funding agencies governing the research agenda is not acute. Most social science research remains publicly funded.

Social science research output in India

In 2005–06, 45.13 per cent of the 11.028 million students in India enrolled in institutions of higher learning were studying the arts and social sciences. If we add commerce and education, the percentage increases to 64.60 per cent. The total faculty strength at this time was 4.88 million at 400 universities and 18,000 affiliated colleges. Approximately half this number were employed in arts and social science faculties. A somewhat similar ratio applies to social science doctorates, which accounted for 42 per cent of the 17,989 new Ph.Ds in all fields in 2005–06. Again, if we add commerce and education, the percentage increases to 50 per cent.[3]

According to the Scopus database, India is the only visible South Asian country in terms of research publications at the international level. It ranks thirteenth in terms of the top twenty-six social science producing countries, which are led by the USA and the UK. India has a world share of 1 per cent with its 13,596 publications from 1996 to 2007 (Gupta, Dhawan and Ugrasen, 2009). On looking deeper into the trend during this period, it becomes clear that Indian social sciences witnessed either a relative stagnation, or a declining trend compared to China. The latter published 606 papers in 1996 compared with India's 706, but by 2007 China outpaced India twofold. The available data also reveals that only nineteen institutions of higher learning, including universities, published fifty or more papers. They accounted for 28.39 per cent of the total publications during the 1996–2007 period (Gupta et al., 2009).

It is surprising that despite such a large base of students, faculty and institutions in the social sciences, only a small number of institutions could make their presence felt at the international level through their research publications.[4] This

2. These are, for example, the Indian Council of Agricultural Research, the Indian Council of Medical Research, the Institute of Applied Manpower Research, the National Institute of Educational Planning and Administration, the National Institute of Health Administration, the National Centre for Agricultural Economics, the Indian Institute of Public Administration, and the National Institute of Science, Technology and Development Studies.

3. In India, business management and commerce are not included in the arts and social sciences, although psychology is. The data is from University Grants Commission, India, *Annual Report 2005–06*, http://www.ugc.ac.in/pub/index.html#annual (Accessed 12 May 2009.)

4. The quantum of research conducted in languages other than English is not much and there is very little published work available in other languages, as there are hardly any journals of repute in languages other than English.

quantitative insight into the status of social science research can be interpreted in various ways, but it seems to suggest that social sciences in India are characterized by a 'sea of mediocrity with islands of excellence and visibility'. There is, in fact, a double-bind institutional and intellectual crisis in social sciences. As the ICSSR Report (2007, p. 20) observes:

> *while the scale and range of social science research in the country have been expanding, the nature, scope and quality of research output, as well as its contribution to a better understanding of socio-economic processes and shaping public policy is widely perceived to have fallen short of expectations and also not commensurate with the resources spent on them.*[5]

A crisis in Indian social science?

According to Guha (2008, p. 35), 'the term [crisis] is well merited, for the crisis of Indian social science'. Leading scholars agree on at least three problematic features of the growth of Indian social sciences, which have also been underscored by two review committee reports.[6] These are:

1. There has been no significant growth in the number of public research institutions. Since the 1969 founding of the Indian Council of Social Science Research (ICSSR), which houses twenty-seven research institutes, there has been no major expansion of public research institutions. Many of these institutions have recently come under critical public scrutiny and evaluation. As Partha Chatterjee (2008, p. 39) notes, 'only half dozen or so ICSSR institutes are today genuinely viable as research and training institutions in the advanced academic disciplines of the social sciences'. Of the 400 national universities, only a small proportion, 15 to 20 per cent, are teaching and research-based universities, while 80 per cent can be regarded as teaching universities only.[7] Unlike what can be seen in science and technology, the relative stagnation of research universities has severely constrained the prospect of social science research growth.[8] As a part of its tenth five-year plan, the UGC has created a window of competitive funding for infrastructure and centres of advanced studies in social sciences. But the amount of funding available has remained quite limited and it is mostly confined to urban-based universities. Social sciences accounted for a mere 8 per cent of India's national science and technology research budget in 2005–06. The current eleventh five-year plan has, however, planned a substantial increase in budgetary allocations for higher education and research. Its impact will only be visible in future.
2. The second issue relates to the emergence of the rapidly growing private and business enterprise sectors, creating a new demand for social science research for business management, commerce, marketing, media and other fields. This has had a negative impact on the conventional social science fields. New actors such as corporations, industrial associations, NGOs, and private trusts entering the research field to conduct specific goal- and mission-oriented research attract the 'cream' in social sciences and contribute to an 'internal brain drain'. These new actors and networks, emerging at both the local and global level, complement the research carried out by universities but also provide social scientists with better opportunities and wean them away from the university system. The external brain drain problem, once restricted to the sciences and engineering, now also concerns the social sciences and humanities (Guha, 2008, p. 35).
3. The third issue is autonomy from political interference. Objectivity is problematic in social science research, and ideological rivalries are not necessarily based on intellectual and methodological quarrels. Major research projects on, and funding for, politically loaded subjects such as religion, caste and ethnicity both become subject to political steering. Scholars generally agree on the need to delink the ICSSR in particular, and social science research in general, from political interference.

Status of researchers

Barring some centres of excellence in India, social sciences as a whole are accorded low priority in the whole South Asian region. This leads to social scientists having a low status and limited career opportunities. Social sciences by and large – whether in research or in government – are not perceived to be very lucrative compared with business and management subjects. A general apathy on the part of social scientists, and their lack of interest and expertise, accentuate the prevalent notion that the social sciences are irrelevant, with the exception of economics. Economics is generally regarded as the most prestigious and lucrative

5. The role of economists is an exception to this general view.
6. These are the ICSSR Review Committee Report (2007) and the Social Science Research Council Report (2002), prepared by Partha Chatterjee et al. for the New-York-based Social Science Research Council.
7. This is our assessment, which some educationists in Delhi endorse.
8. Research universities undertake both teaching and research, striving to uphold the Humbodtian ideals of teaching and research excellence. They draw relatively more funding than teaching universities, which also undertake research, but only to a very marginal extent.

discipline, providing the best career opportunities.[9] Conversely, limited career opportunities have led to a recent decline in students studying disciplines such as history, geography and political science at a higher education level in the region. Sociology, a relatively new discipline compared with others, offers better opportunities due to the NGO sector's rapid growth.

On the whole, social science researchers' career opportunities are very limited and social scientists form a substantial part of the unemployed educated population. This is particularly true in underdeveloped and backward areas of the region where university education standards are low and research quality is substandard.

Pakistan

Social science research in Pakistan was a low priority for the state until the early 1980s, and the relevance of social science subjects was not recognized (Inayatullah and Tahir, 2005). Unlike engineering, medicine and other natural sciences, they did not offer direct solutions to the problems confronting the society. There were, however, specialized research institutions, such as the Applied Economics Research Centre (AERC) established at the University of Karachi in 1973. In the 1980s and 1990s, AERC was recognized as one of the country's leading research institutions. New and vibrant institutions have since emerged, but they operate more on a consultancy basis.[10] Despite quantitative expansion, little research work has emerged from the universities and social science departments of Pakistan.

The state's neglect of social sciences has meant that no strong, rational social science tradition could be established. Consequently the research carried out at both the theoretical and empirical levels is inadequate and of poor quality. A number of scholars, including Inayatullah and Tahir (2005) and Ul Haque (2007), lament this state of affairs. Unlike in India, Pakistan's Council of Social Sciences took a long time to emerge. Only in 1983 did the University Grants Commission establish the Centre of Social Sciences and Humanities (COSH). It was aimed at promoting and improving education and research in social sciences in higher education institutions, and introduced the concept of the social sciences into Pakistani academic discourse for the first time. But at a practical level, COSH did not have much impact on the development of these subjects. Eminent scholars made various attempts (in 1993, 1998 and 1999) to set up a council of social sciences, but failed on the issue of autonomy, as they did not support a council located in the state sector. Finally, a group of social scientists succeeded in registering the Council of Social Sciences (COSS) as an autonomous organization in 2000. This is an important milestone in the development of social science research in Pakistan. Since its emergence, COSS has produced a number of publications highlighting the relevance of social science research to a better understanding of Pakistani society's social fabric and its implications for the development process.

Sri Lanka

In Sri Lanka too, the government has not prioritized social science research. The Grants Commission, the main body of the university system, was established in 1978. Its primary function is to plan and coordinate university education and allocate funds to higher education institutions. These are primarily teaching universities and their research output is very limited in quantity and quality. Many are state universities and are unable to attract highly qualified staff.

Besides universities, some government agencies are engaged in generating and interpreting data in specific sectors with a view to implementing the ministries' development agenda. One of the autonomous institutions engaged in social science research is the Institute of Policy Studies (IPS) funded by the Netherlands Government and the Government of Sri Lanka. This is a policy think-tank engaged in research on various socio-economic issues. The past few decades have witnessed a significant growth in the NGO sector conducting social science research. However, no data is available on the number of agencies and social scientists engaged in this sector.

Bangladesh

In recognition of the importance of social science research for a poor and developing country, the Bangladesh Social Science Research Council (BSSRC) was founded in 1976. It is the main body responsible for the promotion and development of social science research in the country. It is also responsible for coordinating the activities and programmes of organizations engaged in social science research. Other faculties and departments are also recognized for the quality and range of their research. There are also a few independent, non-profit, non-government institutes. However, social science research has been a low priority for the Bangladesh Government. The BSSRC has not really impacted the promotion of research significantly, nor are working conditions for social scientists generally

9. In India but also in Pakistan and Bangladesh.
10. All these are research institutes and attract funding from international sources and, to a lesser extent, from government sources.

effective.[11] Currently Bangladesh has some 950 social scientists, mainly at three universities and four specialized research institutes. Like other countries in the region, Bangladesh is witnessing an extraordinary growth in social science research catering to the NGO sector.

Conclusion and prospects

There seems to be consensus among social scientists that, with a few exceptions, the quality of both teaching and research in social sciences is declining in South Asia. The accountability factor is virtually absent and peer evaluation systems are weak in publicly funded research institutions and universities. Social scientists and eminent scholars are seriously concerned, and via various forums, they have actively tried to draw policy-makers' and the academic community's attention to this neglect.

Compared with science and technology, the funding of social science research is marginal in the region as a whole. Within the region, India has the longest and strongest tradition of public funding for social science research. Nevertheless, even this has not been as high as desired in recent years. In the absence of adequate governmental support for social science research in Pakistan, Bangladesh, Sri Lanka and to a lesser extent India, foreign agencies are increasingly playing a crucial role in funding, but also in determining the content and direction of research. The donor-driven shift towards Mode 2 knowledge production is causing social scientists in the region considerable concern. This calls for a serious commitment to increased public funding to encourage independent, objective research that could contribute to a better understanding of socio-economic and political trends in the region.

The declining status of research, poor funding and poor career options have combined to produce brain drain problems in the region. Economics is the most affected discipline, as some of the most talented Indian and Pakistani economists work in foreign countries. Serious policy attention is needed to arrest the brain drain and attract the best students to social sciences.

Knowledge production is very unevenly distributed in the region. There is a wide knowledge gap between India and the smaller countries. Unlike these countries, India, with its large pool of intellectual capital, its institutional structures and its government support for social sciences, has been able to produce a mass of empirical knowledge, which has contributed to a better understanding of its society and culture. To some extent this knowledge has also been used by policy-makers for developmental purposes and to create a more just and participatory society. In comparison, social science research in Pakistan, Bangladesh and Sri Lanka is still trying to establish a professional footprint. The bulk of research relating to these countries' societal issues is undertaken by foreigners or by local scholars who have settled in the West. Thus, the nodal points from which knowledge is produced are located outside the countries, research is externally sponsored and the research agendas are imposed from abroad. This raises the issue of how far knowledge produced in this way can cater for local needs.

Governments in the region are slowly recognizing the importance of the social sciences in dealing with a multitude of socio-economic problems. They are taking measures that include increasing budgetary allocations for higher education, particularly in India. Creating an infrastructure and a research climate will require a massive effort and an infusion of adequate funding in social science institutions. India could play a significant role in promoting social science research in the South Asian region. The South Asian Association for Regional Cooperation in Social Sciences should be activated as a platform for catalysing regional cooperation and development in the social sciences.

11. Although its website mentions that there would be a national register of social scientists by 2004, there was no further information on this in 2009.

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The status of social sciences in Europe

Luk van Langenhove

Over the past twenty years, the organization of social sciences research in Europe has undergone serious reforms. Perhaps one of the unique features of social sciences in Europe today is that they are organized at both the level of individual states and at the European supranational level. Another major change is the increasing role that funding mechanisms play in steering research.

Europe can be regarded as the cradle of the social sciences. The concept itself first emerged in the French language in the 1790s, while the origin of social sciences can be traced back to a number of European developments such as the French Revolution, the rise of capitalism and the emergence of the modern sovereign states (Van Langenhove, 2007). Today, social sciences in Europe are firmly institutionalized in universities along the disciplinary model. Here we cover western and Central Europe, while the situation in The Russian Federation is described in another article.[1]

Over the past twenty years, the organization of social sciences research in Europe has undergone serious reforms. Perhaps one of the unique features of social sciences in Europe today is that they are organized at both the level of individual states and the European supranational level. Another major change is the increasing role that funding mechanisms play in steering research. Funding agencies have been set up in parallel to research organizations, and allocate funds on the basis of projects at the national as well as regional European level. Besides different national funding schemes, Europe counts a growing number of regional (supranational) funding schemes, which also define priority themes to be studied. Amongst them are the programmes of the European Research Council (CERC), the COST Programme[2] and the Framework Programmes of the European Commission. As a result, the social science research agenda in Europe (or at least the EU-27) is driven by both national and EU concerns.

In general, one can say that the current organization of social sciences and humanities research in Europe is gradually turning away from their previous models of organization. These had numerous differences but shared certain common features such as:

- relatively stable research careers
- the hegemony of tenured positions (in public or private universities as well as in state research organizations)
- a concentration of research within publicly funded universities, academies and research centres
- a frequent overlap between teaching and research
- the relative autonomy of academia
- the organization of research along strict disciplinary lines.

The European Commission's approach to research involves defining thematic priorities and emphasizing interdisciplinary work. In response, research systems in Europe are slowly moving towards a model in which research is project-driven, reactive to external incentives and characterized by the growing role of external and mixed-mode funding, which involves public, private and charitable funding. It is more interdisciplinary and involves more public–private initiatives, more cross-sectoral collaboration, more reference to users,

1. This article borrows heavily from chapter 1 of the report 'Emerging Trends in Socio-economic Sciences and Humanities in Europe', delivered in 2009 by an expert group set up by the European Commission and chaired by Poul Holm (Metris Report, 2009). Members of this group were Poul Holm (chair), Nicolas Guilhot (rapporteur), Dalina Dumitrescu, Gabriele Griffin, Arne Jarrick, Istvan Rév, Gulnara Roll, Daniel Smilov, Piotr Sztompka, Françoise Thys-Clement, Panos Tsakloglou, Luk Van Langenhove and Gerhard Wolf. The full report can be downloaded at http://ec.europa.eu/research/social-sciences/pdf/metris-report_en.pdf (Accessed 4 March 2010.)

2. COST: European Cooperation in Science and Technology.

stakeholders and research beneficiaries, and increasing internationalization.

When these changes were implemented at the policy level, they were in part meant to remedy the shortcomings of a previous system characterized by low levels of accountability and innovation.

This article will explore the changes in the institutional structure of social science research in Europe and the possible tension between national and supranational organizations.

The weight of social sciences and humanities in European research

There are major national variations in the importance of the social sciences and humanities across Europe. During the late 1990s, the share of the social sciences and humanities of overall spending on R&D across all sectors (including government, higher education, non-profit and corporate) varied from around 4 per cent to as much as 25 per cent in some exceptional cases. In Germany, for instance, it was around 8 per cent of total R&D spending. For most European countries, the figure would have been somewhere below 15 per cent. Germany and the UK together accounted for half of the public European funding for the social sciences.

In terms of output, according to Scopus and SSCI publication data, the EU-27 Member States, together with the USA, are the world's largest social science producers (2007 statistics in Annex I to this Report).

Funding and agenda-setting

In terms of both R&D expenditure and the number of researchers, the social sciences and humanities in the EU-27 are mostly located within the higher education system. Universities remain of great importance for the training, career progression, housing and proper functioning of research communities. Some countries nevertheless have important public research administrations and centres that are separate from universities.

Each European country has its own organizational structure for setting priorities and distributing public funds. In most cases, there is a social science research council, or a social science division within a broader, integrated research council, that acts as the major agenda-setting body.

Since 2007, there has also been a European Research Council focused solely on fundamental research. But this is a funding body, not an agenda-setting body. As was mentioned above, a major change is the increased role played by funding agencies, which may possibly influence the research agenda. Most European countries now have established agencies that fund external research. Only a few, such as Italy, Spain and Greece, do not yet have such steering institutions. The importance of these institutions, and particularly their possible influence on the research agenda, should be assessed. The separation which they bring about between research-performing institutions and research-funding agencies introduces a certain distance between research practice and research steering. How this distance affects the research process is a question that is still in need of thorough answers. A crucial issue of control over the research agenda is whether funding agencies operate in a responsive mode, where they react to proposals from the scientific community, or in a programme mode, which allows them to define the broad orientation of national research efforts themselves.

Another striking aspect of knowledge institutions' evolution over the past decades has been the increasing role of mixed-mode funding. This role is unevenly developed across the various European countries. Its development relates to the different ways in which new forms of university governance have taken hold, involving other public-sector, industry and private-sector stakeholders, and increasing accountability requirements in the public research sector.

Unlike in the USA, private donations play a relatively minor role in research funding in Europe. But with public research funding in relative decline, research institutions and researchers across Europe are increasingly encouraged or obliged to seek external funding or *Drittmittel* (third-party funding) to secure their research, and in many instances their jobs. This has the effect of linking education and research more closely to the labour market and research to the demands of industry and the charitable sector.

As mixed-mode funding becomes more common in European social sciences and humanities research, foundations play a growing role in the organization and funding of research, as well as in scientific agenda-setting. Existing foundations like the Volkswagen Stiftung in Germany, and Leverhulme and Rowntree in the UK, continue to support research projects that dovetail with their funding priorities. These foundations wish to loosen the legal framework in which they operate.

There has also been a proliferation of entities funded for research purposes. At the national level, funders now support

projects, centres of excellence, research clusters, private–public collaborations and so on. At the European Commission level, funding has moved from the support of relatively small research teams to investment in research groupings of varying and increasingly large size, including integrated projects, networks of excellence and other structures.

Non-university research sectors have increased their share of social sciences and humanities research, more in the social sciences than in the humanities. Non-academic organizations and consultancies such as SMEs and NGOs are becoming increasingly important actors, bringing a wide range of social interests to bear upon the research agenda. All of this adds complexity to the ecologies of knowledge production.

An important research-funding player is the European Commission, which provides a range of supranational funding schemes. The most important one is the Framework Programme (FP), a multi-annual set of priorities and objectives for R&D funding. The Seventh Framework Programme (FP7) is running from 2007 to 2013. However, only a small percentage of the available money is spent on the social sciences and humanities (see Table 2.5). There are also the Marie Curie grants. Some of the technological programmes have been supporting social sciences research. Finally, the ERC supports social sciences and humanities research.

Table 2.5 > European Union. Social Sciences and Humanities Framework Programmes (FP) budgets 1998–2013 (in € million)

Programme	Overall budget	SSH budget	SSH budget share, percent
FP7 2007–2013	50.521	623	1.23
FP6 2002–2006	17.883	270	1.51
FP5 1998–2002	14.960	155	1.03

FP: Framework Programme of the European Community for research, technological development and demonstration activities

EU research programmes are not the only transnational social sciences and humanities initiatives in Europe. Other, smaller initiatives exist as well. One is NORFACE,[3] a network founded in 2004 to foster transnational cooperation between twelve Nordic and UK research social sciences councils.

3. New Opportunities for Research Funding Agency Cooperation in Europe.

Together this results in a very diverse and layered research funding landscape for the social sciences and humanities in Europe.

Some consequences of the funding reform

The reform of research funding in different European countries led to tension between traditional academic research, based on a long-term vision, secured status and relative autonomy, and the project-based and output-driven model characterized by short-term objectives and more external constraints, including reporting requirements and the proprietary status of results. This form of organization is also held responsible for the casualization of academic work. Here, significant intra-European differences can be observed in the two models' respective importance. In countries with strong academic institutions, the two logics coexist, but resources that went directly to academic institutions are increasingly shifted to funding agencies. An example is the newly created Agence Nationale de la Recherche in France. In eastern Europe, on the other hand, the situation is less favourable. Universities are characterized by a shortage of resources, hierarchism, poor pay and difficult working conditions. So externally funded institutions and think-tanks capable of mobilizing important resources have generated an internal as well as an external brain drain. Many English-speaking academics found new professional outlets in the non-academic research sector or abroad. These created a challenge to traditional institutions, such as the old academies of science which held sway prior to 1989 and continue to be influential to varying degrees.

Funding agencies' overall impact on research performance, on scientific quality, and on the wider ecology of knowledge in social sciences and humanities, is a question that still requires extensive and comparative research.

Career prospects are fundamental for the maintenance of healthy research communities. The pressures of just-in-time research, the need for flexibility in academic recruitment and the changing economics of university management have contributed to a significant transformation of the academic labour market. One of the most striking aspects of this transformation is the relative decline of tenured positions for academic staff, combined with the exponential growth of contingent academic labour, while the total number of academic or research staff is increasing. In the UK, for instance, 44.8 per cent of university contracts were fixed-term in 2003, as opposed to 39 per cent in 1994. In France, contingent personnel in the higher education and

research sectors have increased at a rate of 2.76 per cent per year since 1999. While these figures cover all subjects, the same tendencies certainly apply to the social sciences. These developments contribute to the general deregulation of academic work, as contingent employment is generally dependent on local rules. The multiplication of ill-defined and precarious positions that take up an increasing – if invisible – share of academic work bears witness to this transformation.

While these transformations are mostly justified because they make knowledge production more flexible, their real effects on the quality of research are not well known and should be scrutinized. The increase in contract-based research performed by a contingent workforce and the concomitant reduction in tenured positions do not only change the status of the researcher, they also alter the time-frame of research, the constraints – financial and otherwise – under which it is conducted, the capacity for independent inquiry and the diffusion of the results.

New accountability requirements in higher education and research have resulted in an output-driven culture, dominated by performance evaluations in increasingly quantifiable terms. These favour results-driven research, whereas project-based research tends to be ad hoc, limited in time to specific 'deliverables' stipulated in advance. Resources of personnel, instrumentation, funds and so on are aggregated to pursue these objectives, increasing the importance of entrepreneurial skills in the research environment.

The ascendancy of the project as a dominant form of social science research organization, and of output-driven research more generally, is an aspect of the tendency towards ever-greater degrees of responsiveness, flexibility and external mobilization of research capacities. This has important consequences for the nature of scientific inquiry and for the general production of knowledge. As flexible knowledge production becomes a significant model for academic work, the cycle of research results tends to be shorter. The shift towards project-based research tends to generate greater discontinuity in the research process, since some questions or new perspectives that emerge in the course of research are not explored beyond the terms and timeframe of the initial project. The trend towards 'problem-driven' or 'output-driven' research is not only a question of format and organization, as it affects the nature of the questions that can be addressed. The organization of research into 'projects' prioritizes certain types of inquiry over others, thus transforming the overall ecology of knowledge production.

Trends in research evaluation

The audit and accounting culture, which has come to dominate publicly funded research in many European countries, has fostered the development of new evaluation practices. In a more flexible research environment where access to funding is key and where prior achievements (and the social networks they produce) are constantly mobilized to secure funding, evaluation has become a key mechanism for selecting research proposals, channelling funds and adjudicating scientific authority. This has resulted in a significant increase in the research environment's competitive nature. The implicit rationale is that competition will deliver excellence and better research. Whether it does this remains to be demonstrated.

The pervasiveness of evaluation practices in European countries and at the EU level is matched by their diversification in terms of benchmarking practices, bibliometrics, assessment standards, rankings, impact factors and citation indices. Although they are sometimes contested, these evaluation criteria are now important to hiring decisions, the choice of publication outlets, remuneration, funding and career advancement. Perhaps the main challenge for the social sciences in Europe will be how to combine the disciplinary approach, which is used to evaluate researchers, with the multidisciplinary approach of many fields prioritized for EU funding. There seems to be a growing distance between disciplinary paradigms and multidisciplinary projects in the social sciences in Europe.

Conclusions

These trends in the organization and funding of the social sciences in Europe will undoubtedly continue to influence both agenda-setting in these disciplines and their wider impact. Meanwhile, there are ongoing changes in what policy-makers and social scientists regard as important topics for study. In 2009, the European Commission set up a High-Level Expert Group to review emerging trends in society and their implications (Chapter 2 of the Metris Report). The experts pointed out that European societies are currently being redefined by changes in their demography, the evolution of their systems of governance, technological advances, and new approaches to their self-understanding, all of which translate into changes experienced in everyday life. The experts used conceptual mapping to identify a number of priority themes that call for coordinated European funding. They are welfare, migration, innovation, the post-carbon society, the crises of value and valuation, space and landscape, time and memory, the technologization of the social sciences, the

iconosphere, governance and regulation and, finally, the future of democracy in a globalized world.

The expert group's overall conclusion was that today, the role of the social sciences and humanities has moved from the old agenda of social engineering and national identity-building to a wider set of contributions to society. But, as noted by Pohoryles and Schadauer (2009), the challenge is to find ways of integrating the available existing knowledge, which is often generated in isolated ways, into an overarching framework that fosters our understanding of society and contributes to its transformation.

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Flash
Direction for European social science – the need for a strategy

There is an urgent need for European institutions to work together to develop a strategy with ambitious goals for social science and to invest in the means – particularly the training of future generations of scholars and computing infrastructure – to deliver those goals.

European social science is a product of its history and of the heterogeneity of Europe. It is also adapting to the new reality of Europe and the questions to which that gives rise. The diversity of Europe makes it a splendid laboratory for the social sciences, and there are encouraging signs, within individual countries and in the European Union, of social science's impact on policy formation. Demand from students for courses in social science is strong and growing. But there is need for even more fundamental and 'joined-up' thought about the needs of societies coping with information technology, climate change and the democratic deficit afflicting many European nations.

In contrast with the field in the USA, European social sciences are strongly rooted in the humanities, and emphasize the historical roots of economic and social development. There are more social scientists at work in universities in Europe than in the USA, and their record in research and publication is strong. National schools exist in a number of disciplines. There are particular strengths in social and political theory and in historical approaches to subjects such as sociology. Marxism as a political ideology has been widely rejected, but the influence of its emphasis on class and power relationships within society lives on. European scholars have been particularly influential in measuring income and wealth inequality, and in exploring the consequences of inequality on health and other social outcomes. Quantitative approaches have gained ground, but their value is still sometimes questioned and training in such methods still lags. However, Europe has been particularly successful in developing survey methodologies – exemplified by the European Social Survey – and in the collection and analysis of longitudinal data sets.

Nationally through research councils, and through the Framework Programmes of the European Union, increasing emphasis has been placed on social science as an aid to the solution of political and economic problems. While this realization of the potential of social science is a welcome change from the earlier emphasis on technological solutions, basic research – and in particular interdisciplinary inquiry drawing on recent advances in other fields such as biology and neuroscience, or research in social and political theory – may not receive sufficient attention. It is, however, appreciated that the European Union's investment in social science research is increasing and that three social science projects are being proposed as components of the overall European Strategy Forum on Research Infrastructures (ESFRI). CESSDA (www.nsd.uib.no/cessda) links together the social science data archives of Europe, the European Social Survey (ESS – www.europeansocialsurvey.org) ensures that we have comparable data on social and political attitudes across Europe, while SHARE (www.share-project.org) provides valuable data on health, ageing and retirement. But their full potential will only be developed through rigorous training of the next generation of scholars.

The US National Science Foundation has recently set out an ambitious research programme in brain function, complexity science and the genetic and environmental factors shaping identity and diversity, which are all seen as the domain of social science. This will require large investment in infrastructure to enable social and natural scientists, working together, to 'link cells to society'. Although individual European scholars are expert in such fields, and psychology in particular is strong in Europe, no equivalent programme is currently envisaged and the mechanisms to develop one are lacking. There is an urgent need for institutions such as the

European Science Foundation, national research councils, the European Research Council and the European Union to work together to develop a strategy with ambitious goals for social science and to invest in the means – particularly the training of future generations of scholars and computing infrastructure – to deliver those goals.

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The status of social sciences in the Russian Federation

Liudmila Pipiya

The revival of the domestic social sciences and humanities will, to a large extent, depend on human resources and an appropriate government science policy. There is currently a need for wider understanding of their position as one of the main intellectual resources needed to help solve the state and society's problems. The government still underestimates the role of the social sciences and the humanities, while official science and technology policy does not assign any special importance to them in terms of state programmes and support mechanisms.

This paper presents a brief overview of the current status of the social sciences and humanities in the Russian Federation. It sheds some light on Russian capacity in the social sciences and humanities, and outlines the most challenging issues for these disciplines in the Russian Federation.

After the collapse of the Soviet Union, the Russian Federation inherited a large scientific and technological potential as well as an advanced position in basic science and in a number of priority areas for applied research and development. The Russian Federation is also traditionally strong in the humanities, but for a long time social studies were only interpreted from the point of view of Marxist ideology. Consequently the development of social studies diverged from that in the countries of Western Europe. Since the collapse of the USSR, a great number of unresolved problems demanding urgent solutions have accumulated in the Russian science and technology system during the years of reform.

The social sciences showed the first signs of transformation almost twenty-five years ago, during the perestroika period. This was a liberalization of the dominating Marxist–Leninist system rather than a radical change, but sociology was finally acknowledged then as a separate field of science. This liberalization, which allowed access to the diversity of world social science theories and concepts, laid the foundation for the 1992 transformations after the historical disintegration of the Soviet State.

In the 1980s, the social sciences in the Russian Federation included psychology, economics, education, sociology, legal studies and political sciences. In the mid-1990s, social geography and information sciences were added to this list. The humanities comprised basically the same subjects as before. But it must be emphasized that the social sciences and humanities have experienced a dramatic transformation in their disciplinary structure. Disciplines such as scientific communism and scientific atheism disappeared completely, reappearing as political science and religious studies. Historical materialism and Marxist–Leninist dialectics changed from dominant ideological frameworks to mere philosophical concepts.

The institutional landscape of Russian social sciences and humanities

Although there is no special policy for the social sciences and humanities, the following organizations and bodies, which tend to influence overall science and technology

policy, are common to both the social sciences and humanities and the natural sciences (Zavarukhin and Pipiya, 2007):

- Ministries, agencies and bodies defining and coordinating state policy. These include the President's Council on Science, Technology and Education; the Ministry for Education and Science of the Russian Federation; the Ministry of Economic Development and Trade of the Russian Federation; various Russian state academies of sciences, of which the Russian Academy of Sciences (RAS) is the most important; and various interagency and government commissions and working groups.
- Funding agencies. Most government support for Russian science and technology is directly allocated to public research organizations in the form of subsidies to cover basic capital and recurrent expenditures. The rest of the state R&D budget is assigned to research organizations on a competitive basis through agencies such as the Russian Federal Agency on Science and Innovation, the Russian Agency for Education, the Russian Foundation for Basic Research (RFBR), the Russian Foundation for Humanities (RFH), and other federal and regional bodies.[1]
- Regulatory agencies. The Federal Supervision Service in Education and Science regulates and develops the legislative base that applies to sciences and education.

The Russian Federation still benefits from a substantial science base and a well-developed education system. Overall, the Russian science system remains relatively strong despite the ageing of its researchers and the brain drain, which was particularly severe during the 1990s.[2] According to state statistical data, 3,957 organizations were involved in research and development in 2007. Of these, 53 per cent were public-sector organizations and include state higher education institutions.[3] The latter constitute 29 per cent of all public organizations undertaking R&D (ISS RAS, 2009a; 2009b). No data is available on the number of government research organizations, particularly institutions of higher learning, involved in the social sciences and humanities. But of the 471 institutes of the Russian Academy of Science (RAS), 95 were engaged in research on social sciences in 2007. They employed 25.4 per cent of all social science researchers (ISS RAS, 2009a). The other three-quarters were mainly employed in the higher education sector.

There were 1,108 higher education institutions in the Russian Federation in 2007, 658 state and 450 private ones (ROSSTAT, 2009);[4] 64 per cent of the students in public institutions specialized in the social sciences and humanities, and almost 98 per cent of students at private higher education institutions were studying social science and humanities disciplines (Pipiya, 2007).

NGOs engaged in social science and humanities research are a new phenomenon in the post-Soviet era. Data on them are contradictory. On the one hand, there has been a blossoming of centres engaged in a number of sociohumanitarian disciplines, mostly in economics and political science. According to Yurevich (2004), more than 100 sociological centres and more than 300 political science research centres have emerged in recent years. On the other hand, standard statistics reveal a negligible number of NGOs undertaking R&D. NGOs tend to be small, flexible organizations, which respond quickly to market demand for research, but they do not – and are hardly able to – undertake in-depth research that thoroughly analyses trends and developments in modern societies. On average they employ five to ten people, compared with several hundred in a typical public research organization. Although they have limited research capacities, they do develop new forms and methods of research management and contribute to research diversity in the social sciences and humanities.

R&D personnel

The Russian Federation had some 23,200 social science and humanities researchers in 2007: 13,740 (59 per cent) in the social sciences and 9,489 (41 per cent) in the humanities (Table 2.6). Women constituted about half of these. Economists made up half of the social science community. In recent years, there has been an increase in the number of researchers in pedagogy, a trend stimulated by the presidential initiative that turned education into a national

1. As a result of changes in governmental structure in March 2010, competitive funding functions were handed over to the Ministry for Education and Science.
2. The Russian Federation has suffered a reduction in its number of R&D personnel. In 2007, the number of researchers was half of what it had been in the early 1990s. Usually, analysts mean the emigration of professionals to other countries when they use the term 'brain drain'. However, science and technology suffered their most dramatic losses by researchers and technicians leaving for other economic sectors. Between 1991 and 1999, the number of researchers decreased by 458,500, and technicians by 128,200, of whom only 18,200 emigrated.
3. Here, the public sector means the government sector and state higher education institutions (mainly universities) undertaking R&D.
4. However, a considerable part of teaching staff in private HE institutions (31.1 per cent) comprises individuals with multiple contracts who do their main work at state universities.

priority in 2006.[5] With this project, the government invested considerable funds to improve the overall situation in primary and secondary education. The enhanced prestige of teachers and the wage-push in education have had a positive impact on research on education.

The number of political scientists doubled from 1999 to 2007, but this cannot be attributed to government policy. It is more the result of a greater demand for political science research.

An issue of particular concern is the ageing of the R&D personnel, a phenomenon that poses the danger of losing continuity in science. This is probably due to the difficulties of attracting young talent. This issue deserves continuing attention.

Table 2.6 > Researchers by SSH field, Russian Federation, headcounts

	1999	2003	2007
Social sciences – total	13,534	12,565	13,740
of which:			
Economics	7,818	7,282	6,843
Law	506	475	702
Education	1,670	1,573	2,454
Psychology	701	667	951
Sociology	805	1,087	917
Political science	149	181	338
Other social sciences	1,885	1,300	1,535
Humanities – total	7,884	8,187	9,489

Source: ISS RAS S&T database.

The state of social science research in the Russian Federation

Russian social science communities are dynamic, but are not as well developed as their Western counterparts. They are often driven to produce superficial analyses under pressure for quick results. Those who pay the costs of research often control the research agenda. On the whole, there is a lack of well-grounded and argued research and reflections on society's most acute problems. These include regional disparities, the increasing gap between the rich minority and the poor majority, migration and migrant assimilation, the marginalization of and extremism among youngsters, and crime and drug addiction. A lack of independent funding sources not connected to the establishment hinders the emergence of diverse concepts, models, and logical frameworks that could provide the scientific underpinnings to address topical problems.

When the Iron Curtain fell at the beginning of the 1990s, Russian social scientists were exposed to the social science research experience accumulated in Western countries by the translation of many influential books banned during the Soviet period. Foreign foundations that established offices in post-Soviet Russia and offered their programmes to Russian researchers also contributed to enlarging the scope of Russian social science. Knowledge developed in the West and applied to Russian social practice in turn led to a reformulation of the original Western theories and hypotheses.

During the 1990s, the Russian Federation was largely a supplier of scientific raw material (survey data, the results of expeditions, new archival materials and so on), while the scientific end product was produced in the USA or Western Europe. Even now, Russian participation in international projects in the social sciences and humanities has not reached a level that would allow it to be said that Russian social sciences have been successfully integrated into the international research community.

The social science community's secondary role can be explained partly by a severe shortage of domestic funds for these subjects, but also by the dramatic loss of prestige suffered in Russian society by both research and researchers. The financial shortage in the social sciences and humanities is no longer as acute as it was ten years ago, but there are very few signs of a recovery and an increase in social scientists' status. Other factors, including the lack of English among many social scientists, the ageing of research personnel, and the weak institutional support for networking, also hamper the integration of Russian social science and humanities into the international system. A task-oriented and long-term policy for these areas is therefore needed to change the situation.

On a more positive note, Russian social sciences and humanities have kept their originality, which is based on the nuances of the Russian people's national social features and mentality. With the exception of political economy, most social science disciplines appeared in the Russian Federation much later than in most European countries. The most topical social and humanistic problems of eighteenth- and nineteenth- century society appeared in Russian novels and stories long before Russian scientists studied them. These features are specifically reflected in the approaches

5. There are four national priority projects: Health Care, Education, Habitation, and Development of the Agricultural Sector. They are aimed at the solution of socio-economic problems in the socially most important sectors of the economy. They started in 2005, but the main activities within the projects began in 2006.

used by Russian social sciences and humanities, in their subjects, and in their basic theories and methodologies.

Resources and funding for science research

The Russian Federation spends more on knowledge creation processes than most countries with similar levels of gross domestic product (GDP) per capita. Total R&D spending is approximately 1.1 per cent of GDP. About 62 per cent of Russian R&D is financed by the state (ISS RAS, 2009b).

Two budgetary foundations run the main competitive grant systems for R&D projects: the Russian Foundation for Basic Research (RFBR) and the Russian Foundation for Humanities (RFH). Initially the RFH was a subdivision of the RFBR responsible for supporting social sciences and humanities. Some of the RFBR grants – normally for hard sciences – were also distributed to interdisciplinary projects, which could include social sciences and the humanities. Since 1994, the RFH has operated as an independent foundation on the same principles as the RFBR. Its budget is 1 per cent of the federal budget appropriations for civil R&D. The RFH faces the same problems as the RFBR: a small budget spread over too many projects. The result of grant distribution per region shows that the main scientific centres (the Moscow and St Petersburg regions) receive the greatest number of grants and projects.

More competitive allocation of funds and project funding should help increase the quality and relevance of research. This would, however, require a more diversified institutional network to distribute funds, as well as clearly established procedures. Nevertheless, practice is changing slowly. Both foundations face the challenge of improving the transparency and openness of competition. There is a great deal of variety in the evaluation methods used, the criteria for selecting experts, and the financial decision-making systems.

However, it should be stressed that with the establishment of these foundations, a new culture has started to develop in the Russian research community. Like similar agencies in Western countries, their distinctive features are open competition for funds, a bottom-up approach to establishing research projects, and accountability. These features are not always applicable to other funding instruments.

As we mentioned above, the Russian Federation has received an essential share of its financial and organizational support for the social sciences and humanities from abroad. Foreign foundations and organizations were extremely important in the 1990s and at the beginning of the 2000s. Western approaches to scientific systems and to capacity evaluation also became known in the Russian Federation in the 1990s, for example through the activities of the International Science Foundation (ISF), also known as the Soros Foundation. This has had a long-term impact on Russian science.

There is currently uncertainty in Russian science and technology policy about which approach would work best. The government should undertake targeted and weighted interventions with regular and rigorous evaluations and reviews, dropping initiatives that fail to produce results. This initiative should cover all federal programmes, which comprise a large part of Russian R&D, and should use independent expertise when evaluating the efficiency of programmes. At the moment, the evaluation of government initiatives, which involve considerable financial resources, remains the prerogative of state officials, and is not delegated to independent expert groups.

At least two federal target programmes should be mentioned with respect to the social sciences and humanities. They are: 'R&D in Priorities for the Russian S&T Complex in 2007–2012' and 'Research and Education Personnel in Innovative Russia in 2009–2013'. Other government initiatives relate to the development of the federal universities and the national research universities framework. The development of federal and national research universities will stimulate the integration of science and education in different forms (research universities, base faculties, joint laboratories, science and education complexes and so on). This development aims at improving the quality and efficiency of research and teaching as professional occupations, and enhancing their prestige to attract bright youngsters to these professions. When scientific organizations and institutions of higher learning are integrated, it is easier for them to attract talented youth, to solve their social problems, and to develop programmes for financial support.

Social science production and outputs

Monographs, books of collected articles and papers in scientific journals dominate the presentation and dissemination of research results in the social sciences and humanities. According to the available statistics, the overall published output in 2003 included 8,221 monographs, 9,154 books of collected articles, 24,538 textbooks and 29,1087 scientific papers (Mindeli and Kasantsev, 2005, p. 207). These statistics show that the Russian social science and humanities community has shown a strong ability to self-organize over the past two decades.

Hundreds of projects on different scales, ranging from the creation of students' discussion clubs to massive scientific and educational programmes, have been undertaken and completed, with support from international and Russian funds and from regional sources. A number of electronic networks and professional associations have been established, for example the Russian Philosophy Society, the Russian Society of Sociologists and the Russian Association of Political Science.

There is a need for a system that could objectively evaluate the results of scientific activities in order to make effective administrative decisions regarding Russian science and education. It might involve a citation index based on Russian scientific journals rather than on the ISI Science Citation Index, which is widely applied in the anglophone world. Some steps have been taken in this direction, but much remains to be done. Many Russian journals, including reviews, which are well known in the Russian scientific community, are not included in the Social Sciences Citation Index (SSCI). The SSCI is basically oriented to English-speaking journals, or at least journals providing a bibliography and summaries in English. Language is the main barrier that still isolates the Russian social science and humanities community from the rest of the world. To acquaint researchers in other countries with Russian research will require considerable effort, and focused shifts in Russian science policy. However, this does not seem to be the priority of Russian policy-makers for the near future.

The current reform of Russian science is basically aimed at increasing the efficiency of science, technology and innovation, emphasizing developments that could have a positive economic effect in the long term. The social sciences and humanities are not priorities and it seems that they are not in line with the government's focus on innovation and economic achievement.

Conclusion

Under the totalitarian Soviet regime, the social sciences and the humanities suffered more than the hard and natural sciences. The revival of the domestic social sciences and humanities will, to a large extent, depend on human resources and an appropriate government science policy. There is currently a need for wider understanding of their position as one of the main intellectual resources needed to help solve the state and society's problems. The government still underestimates the role of the social sciences and the humanities, while official science and technology policy does not assign any special importance to them in terms of state programmes and support mechanisms.

There is an invisible border that isolates the social science and humanities community from the government, policy-makers and other political elites in this country. This does not mean that top Russian decision- and policy-makers do not need advice and advisers on a variety of societal issues. The reality is, however, that they prefer to recruit their advisers from people who are politically or economically influential or have a certain reputation, without considering their professional background. The only explanation for this situation is that the social science and humanities community does not currently have a strong voice. Furthermore, the 'great expertise' of the past, represented by the inherited scientific establishment such as the Russian Academy of Sciences, has lost its influence. The domination of the individuals concerned faded because of their advisory positions during the communist era and because of the failure of the economic reforms of the late 1980s.

It should be recognized that at the beginning of the twenty-first century, Russian society appears unable to formulate answers that adequately encompass the scale of the problems it faces: creating an economy capable of producing all that is necessary for a 'big society'; forming a political system adequate for an effective economy; and developing the required critical mass of an elite with high intellectual and moral qualities. This is a task of enormous proportions for any society.

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Social sciences in Aotearoa/New Zealand and the Pacific region

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This report, focused on change in the last decade, is structured in relation to four emergent trends: new epistemological and methodological perspectives and practices from indigenous Māori, Pasifika, New Settler and new policy scholarship; improvements to research infrastructure; greater international visibility and dissemination; and increased interdisciplinary and intersectoral collaboration.

Introduction

Social scientists in Aotearoa/New Zealand and the Pacific region are working on researcher-initiated and policy-relevant research via a wide range of agencies. Consolidation in the sector through new initiatives and funding reflects the emergence of new leadership within the social science community and increased cooperation between academic and policy interests. In Aotearoa/New Zealand, funding for social science research emanates from a variety of sources, directly through and within the eight universities, and from other sources such as Crown Research Institutes, government departments, the Health Research Council and the Ministry of Research, Science and Technology (MoRST).

Perspectives and practices

Aotearoa/New Zealand is one of the larger island groups in the Pacific and was colonized by the UK through a Treaty negotiation with indigenous Māori in 1840.[2] It is now also home to large numbers of newer Pacific migrants who began arriving in significant numbers from the 1950s, largely in response to demands for labour and to subsequent family reunifications.[3] *Te tino rangatiratanga* (Māori self-determination or sovereignty), supported by the Treaty of Waitangi, has created ontological spaces within which Māori knowledge and research practices are influentially articulated (Durie, 2003; Smith, 2005). These spaces have been paralleled by the development of Pasifika research perspectives that reflect culturally informed rather than Western knowledge models (Smith, 2004). *Kaupapa* Māori research (research by and for Māori using Māori worldviews) challenges conventional epistemologies through its emphasis on synthesis, the interweaving of multiple strands, and differently conceived relationships between people and their environments (Durie, 2004).

Māori and Pasifika research praxis is now more widespread both in Aotearoa/New Zealand and in Pacific-based institutions than in the previous decade. Indigenous ethical perspectives have emerged in government-sponsored guidelines (Ministry of Social Development, 2008) and the Tofamamao Statement from UNESCO (2007). Applied work in public policy and public health is evident in the growing numbers of publicly funded Māori and Pasifika graduate students in expanding Māori and Pacific health and education research programmes. At least six content themes are emerging:

- youth voice and connectedness
- the practices and meanings of culture
- domestic violence and child abuse
- migration and urbanization
- gender issues
- the social, cultural, economic, political and demographic significance of these populations in Aotearoa/New Zealand.

1. With substantive input from Peggy Fairbairn-Dunlop, Tim McCreanor, Helen Moewaka Barnes, Cluny Macpherson, Charles Crothers, David Thorns and Richard Bedford.
2. The original Treaty, signed on 6 February 1840, between the British Crown and about 540 Māori *rangatira* (chiefs), continues to influence government decision-making, but lacking constitutional ratification, government positioning in relation to the treaty is ambiguous and poorly defined. See Humpage and Fleras (2001).
3. The six largest groups of Pacific peoples in New Zealand are Samoan, Cook Island, Tongan, Niuean, Fijian and Tokelauan, but there are also settlers from at least twenty-two other Pacific nations. See Macpherson (2008); also Bedford (2007).

In Aotearoa/New Zealand social science, the most frequently used methods and techniques are face-to-face surveys and interviews, the analysis of secondary sources, statistical analysis, textual analysis, and analysis of official statistics. But there is evidence of other, less familiar methods being explored and developed alongside *kaupapa* Māori approaches. These include Talanoa, Q methodology, visual methodologies, qualitative syntheses, and developmental evaluation approaches.

Enabling infrastructure

New institutional actors in social science research are shaping research funding and inter-university collaborations. Ngā Pae o te Māramatanga is one of Aotearoa/New Zealand's seven officially recognized Centres of Research Excellence. It has established support and made advances in research excellence, generating benefits for the Māori and society at large. Māori universities, Te Wānanga o Raukawa, Te Wānanga o Awanuiārangi and Te Wānanga o Aotearoa, a number of university-based Māori studies departments, *iwi* (tribal) authorities' research units and numerous private Māori research providers have been established. The Māori Association of Social Scientists (MASS) has been created to foster and develop Māori social science research capability and capacity.

A national project for building e-research communities has been established and a government-funded initiative, Building Research Capability in the Social Sciences (BRCSS), provides a platform for inter-university collaboration via advanced audiovisual communications. A New Settler forum, a Māori network and an Emerging Researchers Network operate via this system and actively engage postgraduates. In the period from 2000 to 2009, while increased numbers of Pacific students resident in New Zealand have been gaining qualifications in the social sciences, greater numbers of Pacific students have also been trained in social sciences in the University of the South Pacific, the University of Papua New Guinea, the National University of Samoa and the University of Hawaii.

The quality of research data in New Zealand has been considerably strengthened in the 2000s, with enhanced collections and greater access to official statistics. New, more systematic collections of official Pacific information – documents, policy information, census data and other statistical information – have also enhanced Pacific research capability.

International dissemination

The Social Sciences Citation Index shows a 50 per cent increase in publications relating to or about Australia, New Zealand or the Pacific, much of which is produced by local authors. Three new journals have been established – *AlterNative* out of Ngā Pae o te Māramatanga, *Te Kaharoa* focused on indigenous and Pacific issues, and *Kōtuitui*, a social science publication. The website Kiwi Research Information Service provides international access to a wide range of academic research. The international reach of journals, blogs and portals is facilitated by government commitment to encourage high-speed internet connectivity.

Interdisciplinary and intersectoral collaboration

A survey of New Zealand social sciences in 2006 showed that 63 per cent of respondents were engaged in interdisciplinary research while 28 per cent were in transdisciplinary research. A quarter of the respondents indicated that their key research was policy-relevant in the areas of education and training, social development and policy, health and disability, or people, family and society. Other significant sectors were business and trade, arts, culture and history, Māori, employment, environment and conservation, Pacific peoples, and government and international relations (Witten et al., 2006). Funding that privileges team-based research has increased the trend toward collaboration across sectors and disciplines. But maintaining robust and well-funded research streams for complex, interdisciplinary programmes addressing the social impacts of cultural, economic and environmental change continues to be challenging.

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Chapter 3
Unequal capacities

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Unequal capacities

Chapter presentation

Several papers in Chapter 2 referred to a decline in the quality of teaching and research in social sciences that has occurred in some countries in recent years; several also mentioned that there are large inequalities between countries and between institutions in the nature and quality of the social science research they carry out and the knowledge they produce. Knowledge production as measured by the number of publications in peer-reviewed journals is also very unevenly distributed across countries and regions (Chapter 4). Disparities in the volume, quality and visibility of social science research, and the continued supremacy of American–European social sciences, result in large part from disparities in research capacities. But how can capacities in social sciences be developed and improved? Governments, regional organizations and international agencies, UNESCO included, have been engaging with this issue for years. Strategies have been developed and attempts made to redress the divides, with varying degrees of success. Chapter 3 comes back to these issues, assesses some of these experiences, and addresses the challenges raised by the divide in social science research capacities.

Section 3.1 examines the social science research capacities at three levels – the individual, the organizational and the system levels – and argues that overcoming the limitations of research capacities calls for coordinated action at each of these levels. Section 3.2 examines the dramatic impact in some countries of consulting firms, private research institutes and non-governmental organizations (NGOs) on research capacity in social sciences. Section 3.3 discusses the effects of brain flows on these capacities. The last section reviews the experiences of countries that have improved their research capacities, and examines promising practices such as networks in social sciences.

Drivers such as differing levels of capacity, the privatization of research, brain flows and national strategies for the improvement of research are not specific to social sciences, and they are not limited to the global South. One problem facing anyone working on these issues, as the following articles repeatedly show, is the scarcity of data needed for the comparison of research capacities and for the assessment of strategies in different parts of the world, especially in the social sciences. There is an urgent need for data-gathering to support these comparisons and analyses.

3.1 Dimensions of capacities in social sciences

Introduction

Understanding what research capacities in social sciences are, and what limits them, is crucial for the development of an appropriate strategy for their improvement. Governments often equate building research capacities with training. To improve research capacities in social sciences, they establish graduate and postgraduate courses in social sciences, send students abroad, and in some cases facilitate international exchanges, through twinning programmes with first-rank international universities. These efforts focus on reinforcing the methodological and theoretical skills of individual social scientists, and providing better access to international research. But training large numbers of social scientists does not in itself suffice to improve research capacities at the national level. The production of knowledge supposes adequate institutional infrastructures, access to funding, and integration into scientific communities. This points to the existence of three levels of capacity: the individual level, the organization level and the overall system level. The degree of coordination between these three dimensions of research capacity determines the scope for capacity improvement of social science research systems.

Identifying and addressing knowledge deficits in social sciences research capacity is a priority for regional social science associations and councils, such as the Arab Council

for the Social Sciences (ACSS), the Latin American Council of Social Sciences (CLACSO), the Association of Asian Social Science Research Councils (AASSREC), and the Council for the Development of Social Science Research in Africa (CODESRIA). Within each region there are broad disparities in countries' research capacities, according to their size, funding capacity, institutional infrastructure and access to national, regional and international research communities. Larger countries tend to have bigger research communities and generally better infrastructures (AASSREC). Yet shortcomings in social science training, lack of finance and infrastructure, and low access to information tend to reduce the ability of social sciences to inform society and policy in many countries. In some countries researchers are subject to political manipulation, leading to low-quality social science research (ACSS).

With some variations, all the social science associations and councils are developing strategies to combat disparities in research capacity. They emphasize the training of individual researchers, provide refresher training in different research methods, facilitate contacts and exchanges with peers within the region, convene biennial conferences (AASSREC), produce refereed journals (CODESRIA) or develop regional research databases (CLACSO)

Kenya is a good illustration of the effect of lack of capacities at the three levels. Kenya is home to one of the oldest universities in Africa and one of its biggest producers of social science publications. Yet the effect of individual training on the country's research capacity in social science remains partial, because limitations at the institutional and system levels are not addressed. Consequently social scientists in that country face serious difficulties in carrying out their work and in the end do not publish in international peer-reviewed journals (Mweru).ب

Assessing research capacity in social sciences: a template

What are the main components of research capacity? How can it be strengthened? What are the main challenges that will become priorities for action? This template was sent to ISSC partners as a background document for their own assessment of existing research capacity in their region.

International development agencies such as the United Nations Development Programme (UNDP), the Organisation for Economic Co-operation and Development (OECD) and the World Bank have long been concerned with the development of country capacities, without which sustainable development cannot take place. They analyse the problem at three levels: the individual, the organizational and the system level. This distinction applies as well to the issue of research capacities. When assessing national or regional capacities to conduct social science research, it may be useful to separate the three levels.

The individual level

Have enough researchers the necessary education and professional skills to conduct research, using quantitative or qualitative research methods? Do they have the ability to identify research themes that are relevant to society, and to develop research questions? Increasingly also, researchers are requested to develop research proposals: do the researchers have the necessary skills to do this? Can they lead research teams, and can they communicate research results to improve public understanding, inform debate and advise policy?

An assessment of capacity development challenges at this level would look at the number of researchers, how they have been trained, their roles and the quality of the research they produce, the definition of which depends on the type of research promoted.

The organizational level

Well-trained researchers cannot do research unless there is demand for their skills, and unless they work in reasonably resourced organizations. Are there enough

research positions available to form a critical mass or a community of researchers in one or more institutions? How many and which institutions are sufficiently well funded to offer adequate infrastructure and an enriching research environment? The infrastructure necessary to do research in the social sciences is not as elaborate or as expensive as in the natural sciences but it includes computers, internet access, library and access to databases, journals and books. Is funding sufficient to allow fieldwork, recruitment of assistants, attendance at conferences and workshops, spending time abroad, and publishing?

The assessment of challenges at this level would look at issues like the type of research organizations (universities versus research centres and institutes), their status (are they centres of excellence, are they considered world-class or not?), their track record in terms of managing research programmes and publishing, their staff (are they stable, committed and available in sufficient numbers?), the quality of the infrastructure, the way they are financed, and last but not least, the opportunities they provide to publish and to collaborate and exchange information with other researchers at national, regional or international level.

Funding is a central issue, and needs to be considered from several angles. Do researchers bid for grants from national funding agencies? How dependent are they on funds from international agencies? How accessible are such funds? Is the level of financing sufficiently stable to allow research projects to be carried out over several years? What mechanisms of peer review and accountability are employed, and how does this impinge on capacity development?

The research system level and the overall national and regional contexts

Of concern here are the broader policy framework and socio-political context within which social science research operates. An assessment of capacity development problems and challenges at this level would need to consider four specific elements.

The first element concerns research policy. Is there a national policy that defines priority areas? Are there any indications of genuine interest in research on the part of the authorities or wider society?

The second element concerns the working conditions of researchers and their salary levels. The latter are generally linked to the salaries of the overall civil service, and cannot be modified by a single organization or even ministry. Do researchers have sufficient incentives to continue carrying out research rather than joining the private sector, or leaving their country? These include monetary incentives but not only. Are salaries sufficient for people to work full-time instead of looking for consultancies, moonlighting and working in other institutions, or leaving research to join the private sector or go abroad? Another series of questions relates to the incentives that may exist to encourage researchers to publish.

The third element concerns the country's overall level of stability and security.

The fourth element concerns the degree of academic freedom: freedom to teach, freedom to publish and freedom of the press. What tradition of academic freedom does the country have, if any?

Unsatisfactory conditions in any of these areas may reduce the scientific production, and may tempt academics to leave the country. When designing strategies to build capacity, certain negative conditions are easier to overcome than others. It is easier to train individuals than it is to retain them, and easier to create an institution than to create a community of researchers, or to maintain an enabling environment. But for success, all the elements have to be addressed.ب

Capacity development challenges in the Arab states

Seteney Shami and Moushira Elgeziri for the Arab Council for the Social Sciences (ACSS) www.arab-council.org

Current challenges in the Arab region require a concerted and wide mobilization of resources as well as the thoughtful identification of capacity-building modalities to respond to various needs. Major capacity-building targets ought to include the enabling of learning and the exchange of experiences within the region and the coordination of scientific and research policy across the region, as well as focused interventions for specific needs in different localities.

The *Arab Human Development Report* (UNDP, 2009) describes the Arab region as suffering from a 'knowledge deficit'. This is true but is also too broad a criticism, subsuming a number of complex deficiencies at the individual, institutional and systemic levels. The challenges are too big for small and fragmented regional research programmes to redress. They require a concerted and wide mobilization of resources as well as the thoughtful identification of capacity-building modalities to respond to various needs. Addressing the development of capacity regionwide means taking into account the huge disparities between the size and quality of the social science communities of the countries in the Arab region. It must also heed disparities in financial resources and allocations to social science education and research. Major capacity-building targets ought to include the enabling of learning and the exchange of experiences within the region and the coordination of scientific and research policy across the region, as well as focused interventions for specific needs in different localities.

Existing interventions have oscillated between capacity building for individual disadvantaged but promising researchers, and enhancing the capacities of highly specialized centres. This has been done by promoting new mechanisms for training and career opportunities, and by providing incentives for further education, field research and publication. A few endeavours have also targeted advanced graduate students to help them with dissertation writing and completion. On the other hand, little has been done in the past decade to either enhance existing institutions' capacity, or to create new ones specifically geared towards excellence in the social sciences or one of its branches. There are, however, an increasing number of networks that bring researchers together as individuals on a regional Arab level across the Mediterranean or in the Euro–Arab space, and globally to address specific, usually developmental, issues.

Despite the diversity of the region, Arab countries generally share certain common features. These include:

- Poor quality of education, particularly in the social sciences. Governments have given priority over the years to educational quantity at the expense of quality.
- Limited attention to, and marginalization of, the social science disciplines, while giving priority to natural, professional, and business and management studies, which are identified with modernity and development. Private higher education institutions barely pay attention to the social sciences.
- As a result of these factors, social sciences have a diminishing role in response to societal problems and public interest, and only a modest role in informing policies and effecting social change.

These three features are a consistent challenge to the development of the social sciences, whether in countries with established educational traditions but modest resources or in wealthy countries with a limited history of higher education. It is along these main axes that the newly established Arab Council for the Social Sciences seeks to make itself visible and effective.

At the individual level, much needs to be done to redress the shortcomings in social sciences training. This means addressing 'pipeline' issues (ensuring the supply of talented students into the social sciences) and curriculum and pedagogy weaknesses at university departments, especially given the increasing difficulties in accessing graduate training outside the region. Second, there

is a need to bolster scholars' sense of themselves as a research community by promoting collaborative research and scholarly exchanges. This community encompasses researchers within the region, but extends too to scholars in the diaspora, who contribute invaluable expertise and resources and wish to reconnect to their homeland and re-engage with its problems.

Arab researchers undoubtedly recognize the main challenges facing Arab societies, but are hampered by serious deficiencies in methodological training and by isolation from international debates and knowledge production. This applies most notably to the younger generation, who have suffered most from the deterioration in education. To redress these problems, it will be necessary to work on several fronts at the same time: training to increase skills, research and publications to produce knowledge, and networking to enhance the visibility and empower the voice of the region. The challenge is to carry out these tasks while not losing sight of, and promoting, established centres of social science teaching and research.

On the institutional level, we should recognize the diversity of institutions engaged in social sciences, including universities, research centres and research-oriented NGOs. These have differing research capacities and access to resources. Furthermore, the obstacles they face may not only be financial, but also infrastructural and related to building a beneficial research environment. NGOs tend to receive much of the international funding for research, but given the pace and burdens of contract research, issues such as research ethics, methodology, critical discussion and publication are neglected. Finally, the research community across the region suffers from a lack of access to information, including both official information, such as statistical surveys, archival materials and documentation, and 'private' information and grey literature collected by consulting firms and contract research organizations. Researchers abroad often have better access to such sources than researchers within the region.

Finally, Arab elites and states generally share a distrust of research and a desire to manipulate it. An important challenge is to build trust with policy-makers, especially those who might positively influence research policy and resources for higher education, while at the same time maintaining the independence and integrity of research and freeing researchers from the control of Arab governments. It is also crucial for the public to understand the social sciences' role in analysing their problems and improving their lives. If they fail to identify themselves with the public interest and public good, the social sciences in the Arab region risk reinforcing the image of research as an unnecessary luxury.

Seteney Shami and Moushira Elgeziri

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Social science research capacity in Asia

John Beaton for the Association of Asian Social Science Research Councils (AASSREC) www.aassrec.org

The Association of Asian Social Science Research Councils (AASSREC) comprises fifteen member nations that enjoy differing degrees of social science research capacity. Some rapidly developing countries such as India and China have very large and well-funded social science resources, while others are developing capacity as their circumstances allow. Besides grossly inadequate funding, their comparative isolation from regional peers and wider-world associations also impedes the progress of some Asian nations in the social sciences.

For the purposes of this discussion, AASSREC and other Asia Pacific nations' social science research capacity (which includes its impact capacity) can be regarded as the sum of the following elements:

- Human capital: the numbers of educated, trained and employed social scientists plus the postgraduate and undergraduate social science student population who will provide a sustained national research effort.
- Infrastructure and research funding: the buildings, facilities, archives and libraries, support staff and information technology that provide researchers with space and facilities. Here infrastructure includes direct or indirect financial support from governmental or other agencies.
- Connectivity: social science research is an important part of enhancing the public good, and research results must be made public through dissemination in publications or by other means. Connectivity also includes direct and unimpeded access to collaboration with government agencies, public institutions, industry, private individuals and organizations, international peers and professional bodies for the purpose of sharing ideas and information.

The research capacity divide in Asia

By the research capacity divide, we mean the distance between the aspirations of social science practitioners and administrators, and the actual conditions under which they attempt to contribute to the national good. It can be thought of as the degree of disjuncture in the three points above, particularly how infrastructure and connectivity consistently lag behind human capital irrespective of the degree of national economic development. Asian nations vary widely in this regard. Some enjoy relatively large and well-developed support for social science research capacity from government, industry and an international network of collaborators. These tend to be large nations with strong economies. Others have very limited resources. But in all cases, the infrastructure and other support available to social science researchers are a fraction of those provided to scientific and technological researchers in spite of the various and very evident human and social problems facing these governments. While the research capacity of the combined AASSREC nations is marked, their governments' grasp of emerging issues is not. Social scientists in developed and developing nations are equally frustrated that their knowledge is not quickly translated into improved well-being for their people. Social scientists in small, less developed nations may struggle to have any effect at all.

Challenges in developing research capacity in Asia

The nature of the research capacity divide in the various Asia Pacific nations is varied, complex, and in some cases currently difficult to deal with. Considering the three general elements contributing to overall capacity – human, infrastructure and funding, and connectivity – it should be possible to conceive a simple but informative matrix for the AASSREC nations. Such a matrix would convey a capacity assessment of each country at the individual, organizational and research system levels. Some nations have exceptional scholars who suffer from pitiable infrastructure support and little connectivity. Other nations may have numerous researchers and sufficient infrastructure support, but lack the connectivity to remain informed about sophisticated research methodologies and advances in their international colleagues' thinking. India, China, New Zealand, Australia and Japan have well-developed social science linkages with Europe and the Americas. Yet social scientists in most other AASSREC nations mostly have impermanent individual relationships

or weak institutional arrangements overseas. A couple of AASSREC nations have almost no connections beyond their own borders.

The individual level

Higher education must provide young minds with informed and stimulating mentoring. There is a threshold size for a viable research community, whose members can only be provided by higher education institutions, or by government research units. Opportunities for employment and promotion in Asia correlate with a nation's population size and research infrastructure investment, thus disadvantaging smaller nations.

The organizational level

Organizations must provide social scientists with infrastructure and also with opportunities to make their contribution to the national interest. Research systems in Asia are improving the connectivity that researchers require to engage internally and internationally with others, through information technology but also by face-to-face meetings at which efficient and meaningful understanding is achieved. A rare good news story is that thanks to the information revolution, researchers will now have the opportunity to leapfrog the previous infrastructural limitations. This will particularly benefit those in small countries who have suffered a lack of research support materials. Ready electronic access to research communications, including current debates, publication opportunities and research findings, will be a watershed in capacity development. This advantage will greatly enhance opportunities for all social scientists in AASSREC nations and others, especially the previously disadvantaged smaller countries

The research system level

It is in the interests of regions, as well as countries, to support a well-networked system of collaborating scholars and practitioners in the social sciences. Economic, political, ethnic and other social issues are rarely, if ever, unique to a single country. In a globalizing world, issues and potential difficulties can spread across national boundaries with exceptional ease and speed. To some degree, all social scientists in Asian nations suffer from an inability to share, compare and analyse their data, experiences and thoughts with their peers. Connecting organizations, such as AASSREC, provide nations with developing social science research capacity with the best opportunity to engage with their regional colleagues.

The challenge of understanding the bewildering complexity and interaction of social, economic and political systems in an ever-changing world has inspired social scientists in Asia and elsewhere to embrace the promising, but challenging, guiding principle that large-scale problems demand multi- and cross-disciplinary social science approaches. Furthermore, these problems require approaches that cross sectoral boundaries to the natural and physical sciences, engineering and the humanities.

India and China invest very significantly in publicly funded social research, while most other developing Asia Pacific nations are slowly improving their research capacities and are not well connected to international trends and developments in social science disciplines. Census and other macro-scale data is not generally well-supported and researchers may have limited access to data banks. This means that inter-regional comparative analyses suffer. Collaborative approaches by social scientists need greater and stronger opportunities to provide the knowledge that institutions and governments can use to help resolve difficult issues.

Most, but not all, Asia Pacific nations have peak associations for individual social science disciplines and collective organizations, such as social science research councils. Learned academies or discipline-based societies are numerous but not universal. A persistent problem in the region is the lack of meeting opportunities. The fifteen-member AASSREC convenes biennial conferences to promote mutuality and information exchange. These conferences reveal a commonality of social science issues, many of which focus on building harmonious societies characterized by equity, trust in institutions, meaningful employment, educational opportunities and access to health and social services. These issues are universal and there are opportunities for collaboration between Asia Pacific researchers and the developed social science institutions of Europe, the Americas and elsewhere.

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Social science capacity-building in Latin America

Alberto D. Cimadamore for the Latin American Council of Social Sciences (CLACSO) www.clacso.org

Promoting a way of thinking that is capable of relating social sciences to urgent social problems in Latin America requires an appropriate regional institutional environment. This goal has been one of the greatest challenges over the past forty years. One of CLACSO's central priorities is to empower centres from relatively less developed countries and areas by ensuring their social scientists' participation in the network, which itself contributes to capacity development.

Building capacity in social science can be an extended process. It involves the establishment, expansion and strengthening of institutional, operational and organizational resources capable of generating relevant knowledge for society at the local, national, regional and international level. This process tends to produce a greater understanding of the main problems that society or groups within it face by developing actions or policies to address them.

One of today's greatest challenges is to link social sciences and action. This need was explicitly acknowledged by UNESCO at its 2006 International Forum on the Social Science–Policy Nexus, which scientists and policy-makers from more than eighty countries attended. One of the main outcomes of the so-called Buenos Aires Forum was a call for the redefinition of the relationship ('nexus') between social science and action, which could be considered the primary goal of evaluating Latin American social sciences' capacity development. The question, still current, is: how is that goal to be achieved?

CLACSO was an active participant at the Forum. In striving to answer the question above, CLASCO aims at a redefinition of research design in social sciences. One aim of such a redefinition is to permit translatable results to be turned into policies serving the needs of progress and social change. In this regard, CLACSO's unchanging critical thought can be considered a crucial tool in the capacity-building process. This type of scientific thinking, which to some extent applies the critical theory approach, is intended partly to help understand or explain social reality, but also to identify the areas for improvement and the means to achieve it.

Promoting a way of thinking which is capable of relating social sciences to urgent social problems in Latin America requires an appropriate regional institutional environment. This goal has been one of the greatest challenges taken up by CLACSO over the period since 1970. It has done so by forming the largest network of social science research institutes in the region. This network brings together 259 research and higher education centres from 25 countries, including the largest and best-known regional state universities and NGOs devoted to social science research. These knowledge production and dissemination centres operate in historically and geographically heterogeneous environments which shape their actions. So one of the network's central priorities is to empower centres from relatively less-developed countries and areas by ensuring their social scientists' participation in the network, which itself contributes to capacity development.

The capacity-building core includes a group of interrelated activities geared towards:

- financing social science research with a critical thinking approach
- linking such research to postgraduate education at the regional level
- facilitating information and scientific research availability and dissemination by means of new technologies
- promoting actions targeted at relatively less-developed social sciences areas in order to ensure full participation in the network of regional scientists.

These actions focus on social, economic and political interest issues. They address the major problems facing Latin American societies, such as inequality, poverty, education, culture, democracy, environment, social movements, labour, social conflict, development and regional integration. Specifically, a regional programme of

poverty and inequality research studies addresses the most important social, economic, political and ethical problems afflicting Latin American and the Caribbean countries. While it is true that this is a regional programme, it focuses on relatively less-developed countries and offers research funding for these issues by organizing international seminars and postgraduate courses, both face-to-face and by distance teaching, in which the participation of young scholars, social representatives and decision-makers is promoted.

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Why Kenyan academics do not publish in international refereed journals

Maureen Mweru

An examination of most of the highly ranked journals reveals that few, if any, articles are published by academics from sub-Saharan African universities. This is the case even when the article's main topic directly relates to issues relevant to sub-Saharan Africa. The study outlined here aimed at explaining why African, and specifically Kenyan, academics do not publish in international refereed journals, and at taking into account academics' own viewpoints on how to increase their number of publications in such journals.

Although publishing in international peer-reviewed journals can be viewed as a source of credibility and authority in an area of specialization, an examination of most of the highly ranked journals reveals that few, if any, articles are published by academics from sub-Saharan African universities. This is the case even when the article's main topic directly relates to issues relevant to sub-Saharan Africa. So it seemed appropriate to investigate this matter. Kenya was chosen as the country for our investigation. The study aimed at explaining why Kenyan academics do not publish in international refereed journals, taking into account academics' own viewpoints on how to increase their number of publications in international refereed journals.

The study site was one of Kenya's main public universities, located in Nairobi. In-depth interviews and focus group discussions were organized to collect data from faculty members who had not yet published a journal article or who had only published one article in the past three years. There were five focus group discussions which brought together twenty-five faculty members teaching in five different university departments. Each focus group discussion consisted of five individuals, ranging in rank from tutorial fellow to professor. Interviews were also conducted with the five chairpersons of the five university departments. The notes made during the interviews were transcribed and transferred on to a document summary sheet. This information was then analysed according to themes.

Factors involved in limited publications

The following factors stand out in the data:

- lack of time and low salaries
- difficulties in obtaining recent and relevant books and journal articles
- negative reviews of submissions to journals
- the attitude of the university's administrative services
- the attitude of faculty.

Participants noted that the lack of time was a major contributing factor to the limited number of publications. Overcrowded lecture halls, an excessive number of exams to grade, numerous university meetings, and serving on various university committees were all cited as taking up any extra time that could otherwise have been used to write journal articles. Furthermore, senior faculty members complained about having to supervise up to twenty Masters' and doctoral students' projects and theses. Little time was left for research and publishing. In addition, those interviewed stated that if they did find some extra time, it was spent on teaching extra classes in private universities or colleges to supplement their incomes. Low faculty wages were therefore seen as a major hindrance to research and publication.

Low salaries were also mentioned in connection with research and fieldwork. In the absence of research funding and grants, academics use their own personal resources, which often results in less research time and thus fewer research findings to publish. Low salaries also mean that academics cannot afford journal access fees. They accused some journals of charging such exorbitant publishing fees – including for online access – that they could not keep up to date with current literature and research findings. A number of academics were unsure whether their research areas had already been covered, or of the latest research findings in their field.

In addition, the interviewed academics related the discouraging comments that they received from journal reviewers. In certain cases, reviewers suggested such major changes on the submitted articles that their authors simply did not take the trouble to resubmit them. Reviewers also called on the authors to read further and include more current literature, and as we have just seen, limited resources made it particularly difficult to do so. Certain participants also felt that the underlying reasons behind these reviews lay in a negative attitude towards sub-

Saharan-based scholars and their research, and a disregard for the issues that were addressed in the articles that were submitted. This is particularly interesting in view of the supposedly anonymous nature of articles when they are presented to reviewers.

University administrative services were accused of not doing enough to encourage publishing by faculty members. Academics who published in international journals, for instance, were not rewarded. Academics also felt that the administration did not place enough emphasis on the importance of publishing. Individuals needed to have published only three articles within a space of three years to be eligible for promotion from lecturer to senior lecturer. Many faculty members did not feel the need to do the extra work involved in publishing, and therefore stopped writing articles from the moment that they had published the necessary number of articles for promotion. A few of them argued that they were content and were not really interested in promotion, since the university employed them on a permanent basis. This air of resignation or fatalism could also be witnessed among junior faculty members, who pointed out that they had never been taught or guided on how to write journal articles.

How to increase the number of publications

A number of those interviewed felt that the university administration could support the effort needed for publishing by moderating class sizes as well as teaching and non-teaching assignments. Two suggestions were made in order to increase the quality and quantity of output: greater recognition for prolific academics, and a requirement that all faculty members publish at least one journal article per academic year.

Salary increases and the provision of research funds were regarded as potentially positive measures. They would mean that academics would no longer have to teach extra classes to increase their income. They could then spend a greater amount of time on research and publication. In addition, higher salaries would allow them to afford the publication fees demanded by certain journals. Differentiated journal access fees were also mentioned as a way of supporting and encouraging African and developing-country scholars, improving their access to current literature and existing research. Junior faculty members who gained greater access to peer-reviewed articles would get a clearer picture of what a 'well-written' journal article looks like. Junior faculty members also pointed out that they needed better guidance from their superiors on how to write for scientific journals, notably by getting them involved in research projects and writing up research findings.

Concluding remarks

Several measures need to be taken in order for the number of publications to increase. The creation of a positive climate for research (as mentioned by Proctor, 1996) is one of them. Research has to be valued, and greater time and effort must be devoted to it. Universities in sub-Saharan Africa, including Kenya, ought to provide greater support to their faculty staff. Although many universities in resource-poor countries such as Kenya might not possess the necessary funds to subscribe to international journals, they could support their faculty by identifying and subscribing to a few key journals.

Research funding also represents a critical factor. It has been widely acknowledged that without funding, research cannot proceed adequately (Proctor, 1996). However, in the current context of global recession, academics in developing countries are not always able to rely on developed countries in order to gain access to the funds they need. Perhaps it is time for sub-Saharan-based scholars to seek alternative sources of funding for their research. Faculty members also need to take steps to help themselves and each other, for instance through self-help groups in which they can exchange advice and guidance, including feedback on drafts of articles. This could also reduce the number of harsh reports they receive from reviewers. Self-help groups have been found to increase scholarly outputs in countries such as the USA (Pottick, Adams and Faulkner, 1986).

If Kenya, and sub-Saharan Africa more generally, are to become active members of the global intellectual or scholarly community, they will have to take note of the findings reported here. I would therefore insist on the need to encourage more research and publications by academics from developing countries by outlining the positive and lasting impacts their research findings could have on society. Senior faculty members must fulfil their responsibilities as role models to their junior colleagues and students. In other words, they have to produce quality research and publish their findings in international, peer-reviewed journals.

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3.2 Marketization of research

Introduction

The case of Kenya presented above highlighted how low incomes induce scholars to combine teaching at university and 'moonlighting', thus drastically diminishing their time for academic research and endangering the quality of their teaching. Funding scarcities in Africa and elsewhere often lead scholars to work as consultants and to stockpile short-term research contracts. Social sciences have gained visibility and some popular legitimacy as a result of these developments. But consultant-led research can nevertheless be problematic in problem-rich and resource-poor environments. Traditional university and institution-led research has various mechanisms in place to check the quality of the work produced. In contrast, consultancies are mainly responsive to the market and a specific client base. Quality control is often absent. Financial incentives encourage researchers to shift rapidly from one topic to another, a practice which increases the atomization of knowledge rather than thorough understanding of entire problematics (Richter and de Kadt).

In some regions, donor agencies have become the main source of research funding, with decisive outcomes for the kind of research undertaken. In the Arab East, for example, agencies finance research centres outside universities (such as NGOs and consultancy firms), in conformity with conceptions stressing the need to develop and empower civil society (Hanafi; Shami and Elgeziri). This has led to the formation of new elites, NGO leaders enjoying easier access to funding agencies. Again in line with international priorities, new research themes, such as gender, poverty, democracy and governance, have mobilized researchers. The research financed by agencies favours the collection of large data sets, privileging the production of quantitative indicators over qualitative and critical analyses, and over any understanding of the root causes of poverty (Hanafi).

The mushrooming of consultancy firms and NGOs drawing on a large number of social scientists amounts to an internal brain drain, which is no less problematic than the external brain drain, even if it is less talked about. How widespread these practices are, and how they impact on research, needs further attention. The first, paradoxical indications we have, however, suggest that the growth of these bodies does not result in as big an improvement of knowledge as might be expected. Instead of boosting research capacity and orienting quality knowledge production toward relevant policy issues, funding practices by agencies deplete them, by privileging short-term studies which do not facilitate the accumulation of knowledge and theorization.

The development of consultancies in South Africa

Linda Richter and Julia de Kadt

Although attractive because of its immediate relevance to real-world challenges, problem-oriented research has raised concerns about the empirical validity, conceptual strength and political susceptibility of its findings. Governments, intergovernmental organizations, aid agencies and donor groups insist increasingly on its use in shaping and evaluating development practice and policy. These growing demands for research are more and more often being met by independent consultants.

Social science has witnessed a surge in problem-oriented, context-specific and transdisciplinary research. Although this form of research is attractive because of its immediate relevance to real-world challenges and complex contemporary social problems, concerns have been raised about the empirical validity, conceptual strength and political susceptibility of its findings. Nonetheless, the popularization of this form of knowledge production has encouraged governments, intergovernmental organizations, aid agencies and donor groups, among others, to insist increasingly on its use in shaping and evaluating development practice and policy. These growing demands for research are increasingly being met by independent consultants.

Particularly during the 1990s, reductions in public funding for research in Africa crippled the capacity of academic institutions, rendering them incapable of responding to growing research demands. Instead academics, programme officers from aid and development agencies, and recent graduates were drawn by financial incentives to migrate increasingly towards problem-oriented research and to respond to requests for technical assistance by working on their own instead of via established institutions. Many of these individuals had relevant practical experience, but limited and fairly narrow research expertise (Waast, 2002). From the requisitioning agencies' point of view, stand-alone professionals can take on commissions at much lower prices than institutions with overhead costs, training commitments and the like. The resulting growing reliance on consultant-led research in the social sciences in Africa is now evident in professional associations and networks, particularly regarding monitoring and evaluation, and in the growing roles played by market research companies in the social policy and development domains.

Social science has certainly gained enormous visibility and popular legitimacy as a result of these developments, making findings more acceptable and the field more attractive to graduates. But the growing role of consultants creates problems at the same time, particularly regarding quality control and the development of a reliable body of knowledge. In order to become influential in universities and research institutions, researchers need doctoral degrees and multiple, peer-reviewed publications, criteria that help build skills and ensure quality. In contrast consultants, particularly in the African context, are not necessarily equipped with the training or inclination to review existing literature thoroughly and build on existing work. Peer review is not required, and consultants frequently move between topics, resulting in the atomization of knowledge. Finally, the growth of consultancy is primarily constrained by market responsiveness. If a consultant's work is valued by a client, additional and increasingly well-paid assignments are likely to follow. These incentives differ significantly from those that promote excellence in a traditional academic environment.

The combination of the practices and pressures shaping consultant-led research, its high visibility and its public legitimacy, all mean that it is particularly vulnerable to the generation and repetition of ill-formed and even incorrect ideas, often with substantial implications for policy and practice. This has been particularly well illustrated by the emergence and concentration of global attention on the 'AIDS orphan crisis'.

Paediatric HIV cases were documented in the earliest days of the epidemic, although it was only in the late 1980s that the care needs of children infected with or affected by the virus began to receive serious attention (Gurdin and

Anderson, 1987; Beer, Rose and Touk, 1988). The focus shifted in 1997, when estimates suggested that there were millions of AIDS orphans (Hunter and Williamson, 1997; UNAIDS, UNICEF and USAID, 2002). As ideas evolved through the grey literature, such as meeting reports and consultancy reviews, the discussion of the impact of HIV and AIDS on children narrowed to an almost exclusive focus on orphans, understood as children who had lost their parents and were dependent on a charitable world for assistance. The interventions envisaged in response were mostly limited to the provision of psychosocial support for the affected children.

In retrospect, it is perplexing that a complex, long-term and global phenomenon, with multiple ramifications for children and families, could be reduced to such simplistic ideas. Children will obviously be affected by adult illness in the home long before the death of their parents, and by asset loss and destitution after it. Children are also affected by ambient conditions, such as poverty, dislocation and conflict. However, these complexities were lost in the sheer size of the projected orphan numbers. Data were recycled through reports, primarily produced by consultants, and concerns about child-headed households and skip-generation families flourished. These developments occurred within a context of dramatically increased financial resources. International funding for HIV/AIDS, excluding increasing resources specifically for research, shot up from US$1.2 billion in 2002 to US$7.7 billion in 2008, a great deal of it directed to the worst-affected countries in southern Africa (Kates and Lief, 2009). The very success of the AIDS orphan image in fundraising and advocacy, together with the near absence of stringent, discipline-informed research, resulted in increasingly rigid perceptions and practices. The idea of AIDS orphans as the primary face of the epidemic's impact on children, shaping the use of so much of this funding, became increasingly difficult to challenge.

It took nearly twenty years for these simplistic ideas to be questioned by systematic reviews of academic work (for example, Bray, 2003), critical appraisal of predicted outcomes (for instance, Meintjes and Giese, 2006), and careful re-examination of oft-quoted data (for example, Richter, 2008). This re-evaluation originated in academic contexts, and guided substantial revisions of the ideas that had long shaped policy, programmes and research on children affected by HIV and AIDS. It is now clear that children are affected in multiple ways by their experiences of HIV/AIDS, and by the impoverishing effects of the epidemic on their families and communities. We have also learned that children who lose parents are unlikely to become unsocialized threats to society. Furthermore, the vast majority of so-called AIDS orphans actually have a surviving parent. Therefore, to be effective, assistance needs to reach not only orphans, but many other affected children. Interventions need to target vulnerable families and address the poverty that lies at the heart of the deprivation associated with HIV and AIDS.

While the work of consultants helped bring children and AIDS into the public view, generating widespread interest and support, it also led to the acceptance of underdeveloped ideas and data, and caused resistance to change in response to new evidence.ب

Linda Richter and Julia de Kadt

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Consultancies and NGO-based research in the Arab East: challenges arising from the new donor agendas

Sari Hanafi

Since the Washington consensus in 1989 and its recommendations for the support of civil society, the international community has contributed to the creation and subsidizing of research in centres outside national universities. The production of social-scientific knowledge in the Arab East (Egypt, Jordan, Lebanon, the Palestinian territory and the Syrian Arab Republic) cannot be understood without reference to the genesis of social sciences in this region since the colonial era and the political economy of the aid system.

The growth of the number of research centres in the Arab East is related to the proliferation of NGOs. Within this area, almost 122 centres involved in research activities emerged in the context of the political transition in the Palestinian territory and Lebanon and the economic transition of Egypt and Jordan. This abundance of NGOs is not specific to this region, but is also found in any developing country where the international community provides aid for promoting local civil society.

This contribution focuses on the region's research structure and production. I raise the following questions: Why have consultancies and NGO-based research developed? What impact do they have on the quality of the produced research and knowledge?

Aid system and the emerging NGO research centres

In the region, research centres off university campuses – whether private profit-making consultancy firms or NGOs – are flourishing. There are two specific reasons for this: the promotion and implementation of the peace processes in Lebanon (after the 1989 Taif Agreement) and the Palestinian territory (after the 1993 Oslo Accords), and the advocating and monitoring of economic liberalization in Jordan and Egypt. The donor community's keyword in these processes was the 'empowerment' of civil society.

This transformation of the donor agenda was linked to three complex processes. First, since the early 1990s, a fundamental shift in favour of NGOs has occurred in the political economy of aid. Internationally, this moment coincided with a change in the sources of aid to NGOs. global Northern and Southern NGOs' mutual, solidarity-based support withered. This support was replaced by bilateral and multilateral relations between global Southern NGOs and governmental and development agencies. Regionally, this period coincided with the 1991 Gulf War and the onset of the Madrid peace talks, which reconfigured Palestine's geopolitical status and recast the West Bank and Gaza Strip as sites of 'peace-making'.

Second, the new political economy of aid in favour of NGOs created new internal forms of social and political capital in the region. This led to the nurturing and founding of research centres at the expense of aid to universities, which were perceived as public institutions rather than as part of civil society. Although the international actors recognized the institutional pitfalls of moving research outside universities, they highlighted the benefits of supporting research within small-scale units which were unhampered by university bureaucracy and therefore more flexible and efficient. In respect of the Palestinian territory, they argued that these units could also sustain research when universities closed down as a result of internal political conflicts and curfews imposed by the Israeli occupation forces.

Third, local NGOs' entry into the aid channels led to the formation of a new elite. These were NGO leaders who positioned themselves locally within development channels and networked globally to become what Hanafi and Tabar (2005) call a 'globalized elite' who are familiar with the world of aid agencies. Intellectual entrepreneurs, expert sociologists and consultants emerged, becoming part of the donor agencies' networks and familiar with the cognitive code of donor agencies in the research field (Kabanji, 2005). Their actions were essentially based on debates, development paradigms and international standards not bound to their local context.

This new situation was marked by changes in aid policy, the emergence of NGO-funded research centres, and a three-dimensional crisis for national research systems

(financial, institutional and one of self-confidence) (Waast, 1996). New forms of knowledge production emerged. The consultancy firms and NGO research centres cherished by donors readily accepted the transfer of new activities and methodologies. They were supported by project funding, rather than by the long-term funding of coherent research programmes. This trend had serious negative consequences for the accumulation of knowledge and specialization, which is necessary to ensure good research.

New methods and areas of research

Since the 1990s, gender has become an important lens through which societies are studied in the Arab East, as in the rest of the world. Funding supports specifically favoured themes related to gender, such as the democratization of the Arab world, school curricula, the oral history of women's experience, and, more abstractly, patriarchal and semi-patriarchal domination. However, most of this research was not developed by undertaking a 'mainstream gender analysis', which is typical of research in the North and some parts of the South. Hence it remained somewhat superficial.

Funding organizations favoured fact-finding research projects based on unambiguous quantitative indicators. This 'fetishism of the quantitative' has been devoid of critical analysis and interpretation.

Eight research centres in the Palestinian territory and five in Jordan, for example, have been asked to centre their activities on the production of opinion polls on political issues and sample surveys on social issues. This is linked to the new notion of satisfying differentiated 'publics'. Citizens need to be satisfied with the government's actions and with donor interventions in the social and political spheres. Surveys and polls are used as scientific tools to measure and monitor the introduction of systems defined on the basis of preconceived models which are, in turn, based on experiences tested elsewhere, as well as to legitimize interventions (Bocco et al., 2006). NGOs' research centres in the region claim that the new citizens accept these monitoring, assessment and evaluation methods, thereby indicating the superiority of their analysis over universities' in-depth comparative analysis.

The study of poverty is another example. Poverty studies conducted in the Palestinian territory and Egypt have been directed towards surveying the 'poor', identifying where they live, so-called 'poverty mapping', and suggesting different measures of 'poverty alleviation'. Having discovered that the poor occupy certain neighbourhoods, specific interventions were proposed without examining why the poor live in these neighbourhoods or assessing the root causes of poverty, such as the role of the state in the distribution of resources and the negative impact of structural adjustment policies. Many of these studies have been carried out, sponsored and published by UN agencies, leading to action research and interventions that NGOs later implement. The sponsoring organizations often emphasize the collection of demographic data. The surveys that they sponsor are therefore descriptive in nature, based on assessing consumption and income levels, life expectancy, child mortality and literacy levels. A thorough analysis of this raw data and its interpretation on the basis of broader sociological, anthropological and historical studies is usually not on the agenda.

Conclusion

This paper has attempted to discuss the problematic development of research in the social sciences in the Arab East as carried out with external funding in research centres outside universities. It is argued that even though social research has recently flourished in the region, the studies tend to lack critical depth. This kind of donor-driven research (in the sense of Bourdieu) is developed and carried out by competing research entrepreneurs seeking contracts, rather than being structured by researchers reflecting different sensibilities in terms of historical analysis, social class or ideology. Many such projects are nothing but a succession of one-year initiatives meant to produce policy research. These research projects lead to too much quantitative research, including opinion polls, and aimed at identifying research questions that are often conceived without theories to support them. Such research does not enable its readers, and other citizens, to be critical of their society.

The most salient issue in the changes discussed above is the kind of funding available to research. The scarcity of public funds, the lack of financial support from the (sometimes) wealthy local community and the exclusive reliance on foreign funding hinder the research centres' ability to accomplish long-term planning and to hire suitable personnel. The atomization of research sites makes them vulnerable to attacks by political and security authorities as well as by different political and religious groups.

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3.3 Brain drain or brain circulation?

Introduction

Brain drain is the term for the long-lasting migration of highly skilled people from a less to a more developed country. More than 5 million people cross a border every year to come and live in a more developed country (UNDP, 2009); what share of this number is made up of social scientists looking for better research capacities and incomes is unknown. Many smaller and poorer countries, although the phenomenon is not limited to them, express deep concern that their investments in educating and training social scientists benefit other countries instead. Africa is particularly concerned, as a high proportion of well-trained African scholars, including many of the best-known, have left their country (Olukoshi). Brain drain, like any migration, occurs mainly for economic and political reasons. It is exacerbated by students completing graduate and postgraduate degrees abroad, and integrating into research institutions there rather than returning home. How serious is the phenomenon as far as social scientists are concerned? Is the effect of brain drain essentially negative or can it have some positive effects?

The phenomenon of brain drain can be analysed from a historical point of view. European brain drains contributed largely to reshaping the social sciences in the USA and granting them a definite pre-eminence over other academic disciplines (Jeanpierre); a similar process occurred, though to a smaller extent, in Latin America (Didou Aupetit). It was again troubled political situations – dictatorships in the Southern Cone – that later led to the migration of Latin American social scientists (Vessuri and Sonsiré López in Chapter 2).

The migration of scientists can be analysed from the perspective of the receiving countries (brain gain) or of the sending countries (brain drain). Large numbers of researchers are still leaving their country every year, attracted by better working opportunities, income and research conditions. On the other side, competition exists to attract students and researchers from neighbouring or developing countries. Beside the USA – the largest receiving country today – and Europe, other poles of attraction have developed, and have resulted in new North/North, or South/South movements, as well as in circular flows (Jeanpierre).

Measuring brain drain and brain circulation is complex. Are social scientists migrating more or less than natural scientists? According to the UNESCO Institute for Statistics (UIS), students in social sciences are less mobile than students in other disciplines, and tend to return home in larger numbers (Jeanpierre). On the other hand, there are students who move out of social sciences to study business or management studies because they expect to increase their chances of finding a position abroad (Khadria).

Several countries are trying to reduce the negative impacts of brain drain, and put in place incentives to stimulate graduates to come back after they receive their degree in a foreign university. Such incentives can include the guarantee of a position (for example, China, Mexico), or the establishment of international networks and collaborations with national researchers working abroad (Argentina, Colombia, China, the Philippines). But the efficiency of these measures remains limited as long as working conditions do not improve significantly in the sending countries (Didou Aupetit).

The discussion over brain drains and their effects has shifted recently, from a perspective stressing their negative impacts for sending countries to one identifying positive outcomes. An increasing number of researchers and agencies speak of brain gain and brain circulation to underscore the positive outcomes of brain migrations for sending countries. The Philippines is one country that has known constant migration flows of professionals and scholars since the mid-1960s, but the effect of this migration is not considered negative. The diaspora is central in building cooperation with scholars in their country of origin, thus helping their integration into international research networks (Miralao). Brain circulation is in fact a component of the broader circulation of ideas (Didou Aupetit).

The following papers all stress either explicitly or implicitly how thin the databases are that could allow international comparisons of professional migrations in social sciences, and their outcomes in different countries. International data on brain drain and brain circulation in social sciences need further development.

The international migration of social scientists

Laurent Jeanpierre

This paper describes recent efforts by national administrations, NGOs and international organizations to capture accurately the international mobility of students, scientists, engineers and highly skilled workers, and shows that the data vary considerably between regions and are not in an appropriate format for social science researchers. It also looks at some policies and initiatives developed to overcome the negative outcomes of brain drain.

It is estimated that between the 1960s and the 1990s, around 1 million scholars and students moved from developing countries to Western centres (Kallen, 1994). Global flows of scientists and highly skilled workers have since increased. In 2001, nearly one in ten tertiary educated adults in the developing world lived permanently in North America, Western Europe or Australia (Lowell, Findlay and Stewart, 2004). The figure is several times higher for some countries in Latin America, Africa and the Caribbean, as well as for the developing world's population of people trained in science and technology: 30 to 50 per cent of them live in the West (Meyer and Brown, 1999; Barré, 2003). In 2007, there were approximately 2.8 million international students studying abroad and, in principle, intending to return to their country of origin after completing their degrees. All these international migrations of highly skilled workers, researchers and students play an important role in the distribution of national research capacity. Under specific social conditions, they may also contribute to the internationalization of scientific disciplines. Nevertheless, given the current lack of consistent and comparable national and international data, it is impossible to weigh these two types of consequences and describe the overall flows of social scientists around the world.

A few national administrations (for instance, the US National Science Foundation), NGOs (for instance, the Institute of International Education) and international organizations (such as OECD, UNESCO, the International Organization for Migration [IOM] and the European Commission) have recently made efforts to accurately capture the international mobility of students, scientists, engineers and highly skilled workers, but these efforts do not offer a breakdown by field of study. The data also vary considerably between regions, and are not in an appropriate format for social science researchers.

Reasons for migrating are diverse. Scientists may flee political upheavals and wars in their home countries, or may be part of voluntary migration flows. Most of the scientific literature on the topic of scientific migration flows is concentrated on these human capital push and pull factors, and on their consequences for 'receiving' and 'sending' countries. This literature often offers more policy-oriented and normative, rather than descriptive, information, since keeping and attracting researchers and skilled workers have become an essential element of national economic policies.

Two patterns of migrations within a highly asymmetrical global structure

The history of the social sciences, however, gives us some indication of the international migration patterns of social scientists (Heilbron, Guilhot and Jeanpierre, 2008). Two directions are apparent in these transnational flows. Social scientists migrate from the main academic centres to the periphery in order to teach, export their skills, or do research and gather data. Franz Boas, who had left Germany for the USA in 1899, contributed to creating the first institutions of anthropological research in Mexico. French social scientists, like the historian Fernand Braudel, had some impact on the development of the social sciences in Brazil through their positions at the University of São Paulo during the interwar years. Favouring the entrance of foreign academics after 1954 helped Germany reintegrate with the international scientific community and become an important source of international co-authorship for the USA (Jöns, 2009).

In the opposite direction, talented young social scientists tend to leave a peripheral position for academic centres in order to be trained or work with the most eminent scholars. In anthropology, Bronislaw Malinowski left Poland for London in 1910, and in 1938 left the London School of

Economics for Yale University. In the past, imperial and colonial political structures provided a highly asymmetrical framework for such voluntary migrations, reinforcing the scientific creativity and productivity of the centre at the expense of the periphery (Brisson, 2008). Yet these migrations are not always voluntary. They may also depend on the social and economic conditions of researchers, on the status of academic and research positions, and on political constraints on scientists' freedom of speech. After the 1960s, intellectual migrations of social scientists to the USA had more critical consequences. The new legitimacy of cultural studies, the renewed development of area studies, and current interest in transnational topics are doubtless an effect of some transnational trajectories of prominent intellectual exiles in the USA (such as Arjun Appadurai, Homi Bhabha and Edward Said).

Some academic centres in the social sciences also attract scholars on a regional scale, as is often the case with the most prestigious South African, Indian, Japanese and Mexican universities today. There is an important intraregional migration of the highly skilled in Europe, the Americas and Asia. However, transnational disciplinary spaces of exchange show a highly asymmetrical structure, where Western countries, primarily the USA, generally hold a hegemonic position.

The scientific hierarchy of academic centres and national traditions is not the only explanation for the direction of transnational migration. During the twentieth century, most of the migration flows of scholars from Europe to North America reflected the US job market's relative openness to productive foreign social scientists.

Since it often resulted in a long-lasting integration abroad, forced migration contributed more than the voluntary form to the world geography of social science research capacities in the twentieth century. The most important of these migrations took place after 1933, with the exile of professors and researchers – a majority of them Jewish – from Germany and occupied countries in Europe. Several hundred scholars who already were or eventually became professional social scientists emigrated from Europe to the USA between 1933 and 1942. Their intellectual impact has profoundly reshaped and 'denationalized' North American social science, and was an important factor in consolidating its long-lasting global supremacy in the twentieth century (Fleck, 2007).

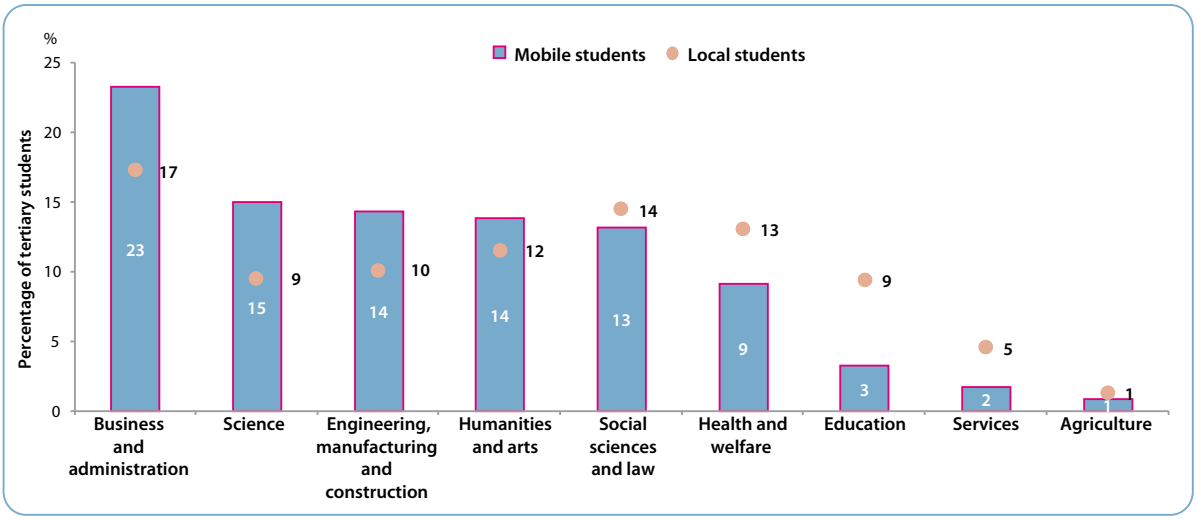
The expression 'brain drain', that is, the long-lasting migration of highly trained people from some countries to wealthier ones, was coined in the early 1960s to describe the rapidly increasing numbers of scientists emigrating from Europe and from developing or 'emerging' countries to the USA. It has increased significantly over the past two or three decades (World Bank, 2006), and the differences between voluntary migrations and forced migrations are sometimes blurred. In Turkey, Morocco, Central America, a number of African countries and the Caribbean, one-third to two-thirds of university-educated citizens have left their home countries. More African scientists and engineers work in the USA than in their home continent. The leading countries of the so-called global knowledge society draw on human resources worldwide. This is, however, no longer a North/South phenomenon; it also alters North/North and South/South relations.

The contemporary migration of students

The international migration of students is one of the most important issues in the current international competition for human capital. The number of international students has doubled in the past twenty years and is still increasing rapidly. Their international migration is partly due to wider access to higher education worldwide but also to a voluntary policy of international exchanges, especially in Europe. It is related to bad or worsening working conditions for scholars and students in their home countries, a lack of university places, and their perceptions of better career opportunities. With 595,900 overseas students, 25 per cent of them from China and India (in 2005), the USA is the largest recipient country. The UK, Germany, France and Australia are the next most attractive countries for foreign students. It should be noted that countries in which English is not spoken but which still offer low tuition fees continue to play an important role as recipient countries. China, India, the Republic of Korea and Germany are the most important sending countries. The main destinations of Chinese overseas students are the UK, the USA, Australia, Germany, Canada, France, Japan and the Russian Federation. Asian students represent 45 per cent of the overseas students in OECD countries. Intra-European flows of students are the second largest in the world after the flows from Asia to the USA.

Host countries benefit from these inflows as stay rates are often high. In 2003, more than half of the temporary visa holders who had received science and engineering (S&E) doctorates from US universities in 1998 were still working in the USA (Finn, 2005). Stay rates depend on country of origin. Between 1990 and 1999, the average stay rates of foreign S&E Ph.D. graduates in the USA were high among students from China (87 per cent), India (82 per cent) and the UK (79 per cent) (OECD, 2002). European Ph.Ds have a much higher stay rate than their counterparts from the

Figure 3.1 — Distribution of tertiary enrolment by field of education and origin of students, 2007



Note : The graph illustrates: 1. mobile students in a given field of study as a share of all mobile students; 2. local students in a given field of study as a share of all local students. Local students are defined as students who are residents or citizens of the country in which they study.
Source: UNESCO-UIS/OECD/Eurostat (UOE) and World Education Indicators Database (UNESCO Institute for Statistics, 2009: 45).

Republic of Korea and Japan. According to China's Ministry of Education, 24.7 per cent of the 700,000 students and scholars who left the country between 1978 and 2003 returned. Within this general picture, stay rates in any country are generally lower for graduates in economics and other social sciences than in any other disciplines.

It also appears that social sciences are not the most attractive disciplines for mobile students (see Figure 3.1).

Less numerous among the mobile students, future social science degree holders are also more numerous among those returning to their home country. The use of natural instead of formal languages in the social sciences may partly explain the lower rate of international migration in these fields. In any case, it is fair to assume that the brain drain is less important in social sciences than it is in physical and life sciences, business and engineering. A closer analysis of the case of the USA seems to support this result.

The case of the USA

The USA is the first country of destination for mobile students and scholars, but is also the country whose researchers and students are the least mobile internationally. It is the only country with a positive (temporary and permanent), migration balance with all other countries. For all these reasons, it is the centre of today's world system of scientific migration. It is thus interesting to focus more specifically on its foreign social scientists, since there are specific data on this knowledge domain.

Of the immigrant scientists and engineers in the USA, 14.2 per cent arrive with their highest degree in the social and related sciences, compared with 21.6 per cent from the engineering sciences (Johnson and Regets, 1998). Between 1993 and 1999, the most important sending countries for students graduating in the USA with a highest degree in the social sciences were India (with almost 27,000 graduates), Germany, Canada, the UK, China, Mexico, the Republic of Korea and Japan (with a little more than 12,000 graduates). Table 3.1 shows that foreign-born social science Ph.Ds from US universities are also less numerous than those from other fields.

Table 3.1 > USA: share of foreign-born doctorate holders in the national labour force by selected field, 2003 (per cent)

Field	%
All fields	34.6
Social sciences	16.9
Economics	31.5
Political science	24.2
Psychology	9.8
Sociology/anthropology	13.6

Note: These figures are underestimates.

Source: National Science Foundation, Division of Science Resource Statistics, Scientists and Engineers Statistical Data System (SESTAT), (2003). The data presented in this section came from NSF's SESTAT Integrated File database, which contains the results of three surveys conducted among people with college or graduate degrees living as permanent residents in the USA. http://www.nsf.gov/statistics/seind06/c5/c5s2.htm

Among them, holders of doctorates in economics and political science are more often foreign than those from other social science disciplines.

Overcoming the brain drain: some policy responses

Despite this general structure of scientific migration flows, all is not lost for origin countries; in some cases, there are positive side-effects of the brain drain (Gaillard and Gaillard, 1997; Meyer, Kaplan and Charum, 2001; Barré, 2003). Scientific socialization in one of the world centres has sometimes contributed to the reinforcement of national scholarship in the migrant's country of origin. For example, Florian Znaniecki was one of the pioneers of academic sociology in the USA but also one of the founders of sociology in his home country, Poland. The emigration of the highly skilled may also create an incentive for education in the sending country, and it may enhance international scientific collaboration. There is a positive correlation between the presence of foreign-born US Ph.Ds in the USA and the level of internationally co-authored articles with the USA (Regets, 2007). Indian diasporic scholars in the humanities and the social sciences have played an important role in the development of postcolonial studies, with positive effects for the humanities and the social sciences in their home country (Assayag and Bénéï, 2004). In the case of the Republic of Korea, the brain drain has been transformed into a 'brain gain'. In contrast, in countries where education policies favour techno-scientific knowledge over social-scientific knowledge, return rates are low among social science researchers.

In a number of countries, policies have been designed to improve the return rates of students and scientists (such as Austria, China, Germany, Finland, Canada, India, Japan and Singapore), or to promote immigrant and diasporic networks (for instance, in Colombia and South Africa). Policies have also been formulated to foster information flows between host and donor countries, and to build transnational intellectual networks. In 1999, 41 knowledge expatriate networks were identified (Meyer and Brown, 1999), their sizes varying from a few hundred to 2,000 members. NGOs and international organizations are also involved in similar initiatives (for example, the RQAN programme developed by the IOM to help African professionals to return to their home countries).

Whether these policies and initiatives will have the desired effect on the asymmetrical structure of national research capacities, and transform the directions and the importance of the flows of researchers and students in the social sciences, remains an open question.

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Passenger plane leaving Beirut
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From brain drain to the attraction of knowledge in Latin American social sciences

Sylvie Didou Aupetit

The heterogeneity of qualitative analyses of the brain drain from Latin America suggests that coherent information on this subject is hard to find. There is no consensus when it comes to defining the phenomenon: should it include graduates who have jobs in a different country from their place of origin? Should it only concern those who have a Ph.D? In this paper, we consider the latter. We shall try to demonstrate that, in the case of the Latin American scientific elites, the move abroad is just one aspect of a much larger phenomenon of international mobility.

Latin American and Caribbean academics in the United States of America: the invisible migration

Even though the flows of qualified migrants have diversified in terms of their actors and destinations, in Latin America they remain primarily oriented towards the USA. The USA offers numerous job opportunities, competitive wages, a high-quality research system and a good work environment. The existence of close-knit communities facilitates the integration of first-time arrivals. At the regional level, the USA is the most attractive centre for higher learning and graduation. In 2007, a total of 229 Mexicans, 180 Brazilians, 141 Argentinians and 121 Colombians obtained their Ph.D. in the USA.

The data also indicates that apart from Brazil, the doctoral apprenticeships of Latin American elites continue to be characterized by a high degree of international and bilateral dependence, in spite of the consolidation of national opportunities. This situation is particularly irritating for the countries of origin, because learning opportunities abroad tend to facilitate professional integration in the country of arrival. In addition, a number of those who work abroad have pursued their entire education in their country of origin. Governments in the global South increasingly feel that investment in the higher education system has been partially ineffective. This feeling is exacerbated by the fact that immigration rules are less restrictive for qualified individuals who wish to work in the most developed economies.

In 2003, naturalized and non-resident individuals constituted 19 per cent of the doctors and engineers employed in the USA and 16.7 per cent of those in the social sciences (Tsapogas, 2006). In the USA in 2001, 494,000 scientists and engineers of Latin American origin represented 15 per cent of the foreigners employed in the science and technology sector, including the social sciences. But among qualified migrants, proportionally more Latin Americans hold a Ph.D. or occupy research positions in the social sciences than is the case for international migrants as a whole. In the USA the social sciences, as a space of learning and professionalization, attract more Latin Americans than other nationals even though in certain disciplines, the USA competes with other developed countries (with France in sociology, for instance).

In the absence of more detailed data, it is difficult to answer two crucial questions regarding social legitimization and academic evaluation in the social sciences: have they a strong international component or do they continue to be closely anchored in their local territory? And has the brain drain altered their structures and agendas by encouraging deterritorialized research and foreign collaborations?

The internationalization of the social sciences in Latin America: from politicization to professionalization

In the twentieth century, Latin American universities attracted political refugees: Spanish Republicans, Jews from Germany and Eastern Europe, anti-Nazis, American victims of McCarthyism, and refugees fleeing military dictatorships in the Southern Cone. These new arrivals have contributed to the exchange of ideas and the advancement of knowledge. Today, these universities depend on the permanent or temporary return of researchers who have gone abroad, and on the transfer of knowledge through structured or informal networks. If we take into account the wider context (insecurity, violence, poverty) as well as the low university wages, poor working conditions and

heavy bureaucracy, it is no wonder that few people (in either the research community or government) believe in their capacities of attracting 'grey matter' into the region, especially in a context of increasing global competition (OECD, 2008).

In the 1990s, programmes aimed at encouraging the return of competencies were developed and strengthened through a series of complementary and targeted actions.[1] Systematic evaluations of the costs and benefits of these measures by country and by discipline are necessary. These evaluations will probably only produce significant changes if they are accompanied by a re-evaluation of research positions and better working conditions. This can be obtained through bilateral policies of research and staff capacity reinforcement, and by the simplification of project funding, management and evaluation procedures. The risk, if nothing is done, is of seeing the brain drain process continuing and getting worse.

Elite researchers in the social sciences in Mexico: from political exile to professionalization strategies

We do not know how many Latin American social science researchers are currently working abroad. In Mexico, the National Council for Science and Technology (CONACYT) has estimated that between 1980 and 1991, approximately 12 per cent of students with diplomas in the social sciences and humanities and 5 per cent of those benefiting from a Master's or doctoral fellowship were studying abroad. These tentative statistics, however, have not been updated since (Remedi, 2009).

However, CONACYT's National System of Research (SNI) database makes it possible to measure the number of diplomas that have been obtained overseas in the overall current structure of academic elites. For 2009, for instance, the data shows that there was a double dynamic of mobility, which echoes past policies at the intra-regional and extra-regional levels. Mexico has had a long tradition of open doors to political refugees at the regional level. It has also had a policy of sending students abroad with fairly long-term scholarships, to countries such as the USA, the UK, Spain, France and Germany. In the social sciences, 41.2 per cent of Mexican or foreign members of the SNI obtained their most advanced diplomas abroad (the system-wide average is 36 per cent). The choice of universities or research institutes often reflects historic trends. For example, a large proportion of social science professors at the Autonomous Metropolitan University traditionally attend the Ecole des Hautes Etudes en Sciences Sociales (EHESS) in Paris.

We also notice that while only 35.7 per cent of researchers obtained their higher-level degrees abroad in the lowest category of the SNI, the proportion reaches 57.5 per cent in the highest category. When it comes to the internationalization of elite learning in the South, a similar tendency can be observed both in terms of destinations and of the similarities between research areas (Didou Aupetit and Gérard, 2009).

Conclusions

While Mexico is not representative of Latin America, an analysis of models of academic mobility there points to a growth in the number of short- and long-term multidirectional movements in the social sciences, and in other domains as well. The social sciences do not have irreducible particularities. As in other research areas, brain drain in the social sciences is just one aspect of a wider process that is characterized by a generalization of exchanges both physical and virtual. In order to understand this process, more multidisciplinary comparative and qualitative research will be necessary at the continental level.

1. Guatemala, Jamaica, Mexico, Panama and Peru among others have set up repatriation and reintegration programmes for qualified individuals. Argentina, Colombia, Mexico, Uruguay and Venezuela have developed networks for talented individuals.

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Brain drain and brain circulation in South Asia

Binod Khadria

Neither the debate nor the literature on brain drain and brain circulation has paid much attention to the question of how the shift from source-country determinants of migration to destination-country determinants impacts on social science research capability in South Asian countries. There is not enough data available. However, one significant point worth considering is how the shifts in the global labour market have distorted the educational and career choices of tertiary-level students in South Asian countries.

A little over forty years ago, the *International Encyclopaedia of Social Sciences* (1968) carried an entry on 'migration' by Brinley Thomas. He wrote, 'The political, economic, and racial configuration of the US today is very much the outcome of three transoceanic migrations – the Pilgrim Fathers and their successors, the slaves from Africa, and European masses in the twentieth century.' Immediately thereafter, following the 1968 implementation of the landmark 1965 Amendments to the US Immigration and Nationality Act, a fourth wave of developing-country-born 'knowledge workers' began, which was the brain drain of the late twentieth century.

India, the largest country of the Indian subcontinent, which comprises the whole of South Asia, has contributed noticeably to the migration of social scientists – supposedly led by economists – to the USA. The following passage by Bryant Robey, cited in the *Immigration and Naturalization Service Yearbook 1990*, bears testimony to this:

America's immigrants… are not what they used to be.
The farmers and laborers from Ireland and Italy
who flocked to the shores
early in the century have grown old.
In their wake are physicians from the Philippines,
economists from India,
and entrepreneurs from Korea.

By the end of the twentieth century even this picture became passé. These immigrants were replaced by a fifth wave of migrants from India: the IT professionals endowed with generic information technology skills. The high-skill exodus from India and also from Pakistan, Bangladesh and Sri Lanka (the other major South Asian source countries) to the OECD countries is undergoing a silent change. Although 80 per cent of highly qualified migrants from India have continued to choose the USA as their ultimate destination for more than a decade – as have most migrants from Pakistan, Bangladesh and Sri Lanka – Canada is the second choice in North America and a route to the USA. The post-9/11 restrictions on immigration to the USA have made a few EU countries preferred destinations, with the UK regaining some of its lost ground. Australia and New Zealand attract South Asians to the Pacific region.

At the turn of the twenty-first century, hordes of Indian IT professionals returned home when the IT bubble burst in the wake of the American recession. They were eventually absorbed by the emergence of business process outsourcing (BPO), which triggered a wave of return migration. However, unexpected events such as the present global meltdown, which caused a panic of layoffs in the BPO sector in India, bring into question the sustainability of return migration to India. The financial crisis of 2008 onwards could even trigger aspirations that might drive fresh waves of emigration from South Asia.

Underlying these transitions and counter-transitions, there has been a consistent shift from source-country determinants of migration to destination-country determinants. In the twenty-first century, migration flows could become compellingly demand-driven and worker-seeking due to the OECD's requirement for workers. This contrasts with South Asia's oversupply of workers during most of the twentieth century, which made its migration supply-driven and work-seeking. As a result, the migration of the highly skilled from these South Asian countries tends to be thought of as a one-sided game of loss or gain. It is seen as an exodus in the twentieth century which is later transformed into brain circulation when the migrants return

temporarily and then re-migrate, or a brain gain when they return permanently and stay in the home country in the twenty-first century.

Neither the debate nor the literature has paid much attention to the question of how these shifts impact on social science research capability in South Asian countries. There is simply not enough data available. However, one significant point worth considering is how the shifts in the global labour market have distorted the educational and career choices of tertiary-level students in South Asian countries. There is a visible move away from the social sciences (and to a lesser extent even from natural sciences) towards commerce, computer science and management-related studies beyond school level. This shift has been visible in the enrolment of school-leaving students, who, at the college level, have to choose one of three streams: arts, science or commerce. Colleges advertise the number of vacant places that remain unfilled in sciences and social sciences after certain cut-off dates.

The collective ranking of choices has also altered in line with this trend. Foreign universities hold regular education fairs to enrol potential students, while multinational firms fund placement cells and carry out campus visits to recruit trainees and entry-level managers. These attract students with the high salaries available on the global labour market. This gives rise to a silent brain drain of potential social scientists. It involves the diversion of individuals to alternative education specializations even before they arrive at university, thus eroding the social science research capacity of these countries of origin.

At the macro level, the push and the pull factor stereotypes have not necessarily been the true drivers of the transitions and counter-transitions between brain drain and brain gain in South Asian countries. Instead, the main factors steering highly skilled people's future migration need to be identified. Furthermore, these factors need to be grouped in a generic classification based on what I would like to call an 'economics of strategic interests', which replaces the traditional 'economics of cost–benefit analysis'. I have grouped the strategic variables into three generic types: Age, Wage and Vintage.

The first, Age, involves neutralizing changes in age structure. This is being achieved in destination countries by attracting younger cohorts of temporary migrants, who replace the older cohorts that are sent back home.

Wage refers to the comparative advantage gained or lost by the country of destination or origin through the younger migrants being more cost-effective as they receive lower wages, perks and pensions, while the older returnees add to the cost of production.

Vintage implies the accumulation or loss of state-of-the-art know-how and skills occurring in the countries of destination or origin respectively. These skills are embodied in the younger generations of tertiary-level student migrants with their access to the latest curricula.

Given these emerging scenarios, there could be an interesting array of social science research in South Asia on the subject. Surveys on various Indian Institutes of Technology suggest that the opportunity of jobs or study abroad influences the kind of studies that people undertake at the undergraduate level. This may affect social science research in South Asia up to the doctoral level, given that 65 per cent of the costs of tertiary education abroad that families bear need to be recouped once the students enter the labour market after their graduation.

Practically speaking, innovations in South–South co-operation can also further the overall social science research capacity of South Asian countries. Intra-South Asian cooperation in social science research can be fostered by migration and dual citizenship for South Asians in other Southern countries such as Brazil, China and South Africa. One prerequisite for such innovation would be for the countries to abandon their 'stereotype cocoons of sovereignty' and think about alternative forms of transnationality. The outcome of the 2009 G-20 summit at Pittsburgh could be indicative of progress in this area.

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Rethinking the brain drain in the Philippines

Virginia A. Miralao

It was in the mid-1960s that brain drain came to be regarded as costly for the Philippines. It was seen to be draining human resources at a critical stage in the country's development, and wasting precious public investment in education and in citizens' skills formation. But evidence on the brain drain shows that it was less important, and for the social sciences in particular, than the public's perception of the phenomenon might suggest.

Concerns about the brain drain in the Philippines grew from the mid-1960s under the joint impact of new immigration policies in countries such as the USA, Canada and Australia, which opened their doors to highly skilled immigrants, and the imposition of martial law in the Philippines in 1972. The term 'Philippine diaspora' is used to describe the resulting outflow, estimated to stand presently at 8 to 9 million workers (or some 10 percent of the overall population) spread across more than 190 countries on all the continents.

Early concerns over brain drain

It was in the mid-1960s that brain drain came to be regarded as costly for the Philippines. It was seen to be draining human resources at a critical stage in the country's development, and wasting precious public investment in education and in citizens' skills formation. But evidence on the brain drain in the 1960s and in the next two or three decades shows that the brain drain was less important for the country as a whole, and for the Philippine social sciences in particular, than the public's perception of the phenomenon might suggest. Data is scarce on the number of experts living abroad. A 1967 study by the Institute of Philippine Culture concluded that the brain drain represented less than 18 percent of college graduates who went abroad to study, and was not causing a 'critical loss of personnel'. There are reasons to believe that at that time, the brain drain in the social sciences may have been even lower than these overall national estimates.

A 1987 paper by the Research Institute for Mindanao Culture identified the main constraints on the development of the social sciences as lying in insufficient capacity, low salaries, and inadequate libraries and research facilities, particularly in universities outside Metro Manila.

In the following decades, the shift in global labour market demand towards higher skilled and talented workers meant an increase in what is conventionally thought of as the brain drain, including in the social sciences. Although the statistics maintained by various government agencies do not provide sufficient information on the qualifications of migrants and do not allow good estimates of recent brain flows, many developments in the country's migration environment tend to negate the basic assumptions and interpretations of the brain drain.

Reinterpretation of brain drain in the 1990s

The first such development is the temporary nature of much contemporary migration. Most foreign fellowship programmes employ moral persuasion, or require a return-service contract, which helps ensure that foreign study fellowships lead to a 'brain gain'. A second development has to do with the responsiveness of Philippine colleges and universities to the demands of the global labour market. They are skilled at producing precisely the graduates whom other countries need. The brain drain assumption that outflows of skills and expertise create persistent local labour shortages seems even less true today than before. A third, related development has been the absence of a large domestic employment demand for the country's university graduates, and the role of the state in brokering their hiring and employment in countries where the demand for professional labour is high. Critics of government may find the state policy tantamount to encouraging a brain drain, but other groups may regard it as sound in terms of higher remittances and the possible transfers of knowledge via Filipinos returning from abroad. A fourth development has to do with the late return of known scholars who were studying abroad during the declaration of martial

law or left because of it. A fifth development concerns the growing number of Filipino professionals who divide their professional time and practice between their country of destination and the Philippines. And finally, we cannot ignore the role of associations such as the Philippine–American Academy of Science and Engineering (PAASE) and the International Conference on Philippine Studies (ICOPHIL) in developing exchanges. Quite a number of these exchanges result in collaborative research or projects between expatriate academics and their colleagues in the homeland. All these developments demonstrate how cross-border movements can potentially translate into a brain gain for the Philippines.

To conclude: contrary to the earlier talk of the Philippines' brain drain losses due to emigration, there is increasing reference today to the country's 'diasporic dividends', from remittances as well as from brain drain and gains. However, attempts to analyse and understand the evolving nature and consequences of Philippine social scientists' overseas migration are hampered by a lack of data. Filipino social scientists can lend their expertise to efforts to improve the country's migration databases and to research the many different impacts that the migration of highly skilled scientists, and specifically social scientists, have on research and development.

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3.4 Overcoming the capacity divide

Introduction

This section analyses strategies developed to overcome the capacity divide in large as well as in smaller countries. Different countries have used different strategies to build research capacity. Some common features include sending students abroad while capacity is built locally in selected universities, and providing support for institutions and researchers through a range of different networks.

If growing numbers of departments, Ph.D. graduates and publications are meaningful indicators of research capacity, Brazil and China are two cases of large countries that have succeeded in bolstering research capacity in social sciences. A comprehensive and well-resourced long-term policy, involving the implementation of postgraduate degrees in top-level universities, scholarships for studying abroad, programmes aiming at repatriating students with a degree from a foreign university, international fellowships allowing professors to spend sabbatical leave in foreign universities, as well as incentives to publish in international peer-reviewed journals, has been crucial in achieving this success in Brazil (Gusmão). In China a comparable voluntaristic policy was associated with a late 1970s change in economic policy in response to the social challenges then developing.

But small countries can also develop and sustain research capacity. Palestinian capacity in social science was built by training students abroad in some of the best universities and maintaining a vibrant community of researchers around the world. The diasporas and the internationalization of social science production explain the quality of Palestinian universities and research centres.

Other strategies, which are not referred to in the following papers, have to do with the new forms of distance education, such as e-learning and collaborative tools in digital social sciences. One such initiative built on new web technologies is provided by New Zealand's Building Research Capability in the Social Sciences (BRCSS) project, which is designed to increase inter-university collaboration by the use of audio-visual technologies (Peace, in Chapter 2).

Networking is another crucial component in developing capacity in social sciences. Several regional networks aim at promoting research and disseminating knowledge, drawing on some regional traditions of scholarship (Olukoshi; see also Shami and Elgeziri; Cimadamore; Beaton). Different networks of this kind exist in Africa, supported by international agencies. Regional initiatives aimed at improving research capacities in social sciences range from training and mentoring programmes to the production of joint teaching materials, enhancing connectivity and collaborations involving diaspora and local social scientists. Networks in the European Union play a similar role in enhancing collaboration between social scientists from Europe and other regions. National, regional or international disciplinary associations contribute similarly to the circulation of ideas and knowledge.

As Olukoshi makes clear, such networks and initiatives can only be successful if universities are strengthened.

Development of research capacities in the social sciences in Brazil

Regina Gusmão

The number of students in Masters and doctoral programmes at Brazilian universities has increased more than tenfold and the number of Masters and doctoral degrees granted per year nearly tripled in the past 10 years. Whereas the number of doctorates conferred in Brazil in the late 1980s had only been 3 per cent of those conferred in the USA, in 2005 Brazil was among the top ten countries in the world with regard to the number of Ph.Ds conferred.

The current structure of the Brazilian science, technology and innovation (ST&I) system is relatively new. Most of the higher education and research institutes now in existence, as well as most of the funding agencies, have emerged since the 1950s. Only in the mid-1980s did a complex, multi-institutional, consolidated structure begin to take shape; one capable of performing the tasks of coordinating, implementing and promoting government activities in the sphere of ST&I.

The systematic financing of ST&I dates back to 1951 and the creation of two federal agencies: the National Council for Scientific and Technological Development (CNPq) and the Ministry of Education's executive agency for higher education training (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES) dedicated respectively to fostering scientific and technological research and to preparing human resources to undertake such research. In 1967, the National ST&I System was consolidated into the National Innovation Agency (FINEP), which stimulates innovation in both the academic and the productive sector and currently serves as the executive organ of the National Fund for Scientific & Technological Development (FNDCT).

In Brazil, the public sector has historically been the primary source of financing for ST&I. Since their foundation, CNPq, CAPES and FINEP have played key roles in creating and maintaining the country's research infrastructure. All three federal agencies work in close cooperation with the Ministry of Science and Technology (MCT), which is responsible for defining national policy in conjunction with other ministries. These federal efforts are complemented by state efforts, especially in the more developed regions of South-east and southern Brazil, which have come to assume an increasingly important role in financing the sector (Landi and Gusmão, 2005).

Within this context over the past two decades, the stock of human ST&I resources has risen dramatically. The number of students in Masters and doctoral programmes at Brazilian universities has increased more than tenfold and the number of Masters and doctoral degrees granted per year nearly tripled in the past ten years, with a total of 33,360 M.As and 10,711 Ph.Ds conferred in all disciplines in 2008. Whereas the number of doctorates conferred in Brazil in the late 1980s had only been 3 per cent of those conferred in the USA – the world leader in this respect – this figure had risen to 21 per cent in 2005. In that year Brazil was among the ten top countries in the world with regard to the number of Ph.Ds conferred (Viotti, 2008).

The social sciences[1] currently account for 33 per cent of students working towards their Master's degrees and 26 per cent of those studying for doctoral degrees. The number of doctorates granted in these areas had climbed to 2,730 by 2008; this is more than three times the 1998 figure. Among the social science disciplines, education stands out (with about 660 Ph.Ds, or 24 per cent of the total), distantly followed by history, psychology, sociology and law (approximately 270 doctorates each). In the same period, the number of university professors at the postgraduate level in Brazil nearly doubled, reaching

1. In accordance with the source consulted, the social sciences are taken to include the so-called applied social sciences (administration, architecture and urbanism, urban planning, information sciences, communications, law, demography, economics, social services and tourism) and the humanities (anthropology, archaeology, political science, education, philosophy, geography, history, psychology, sociology and theology). Note that languages, literature and the arts are not included in the universe covered by the analysis (CAPES, Higher Education Information System. See: http://www.capes.gov.br/estatisticas).

47,500[2] in 2008; of these, 25 per cent (approximately 12,000) were in the social sciences.

In sum, thanks to the government having strengthened its efforts and investments in human resource development, the number of researchers in the social sciences nearly tripled in the 2000s. They now represent approximately 32 per cent of the researchers engaged in the national higher education and research system, or 37,500 from a total of 118,000.[3]

Evolution of Brazilian policy for the training of human resources and the enhancement of research capacity in the social sciences

The nationalistic ideal of turning Brazil into a world power – widely supported at the height of the military regime in the early 1970s – led the government to align its efforts with those of the scientific community to modernize the Brazilian university system and the national scientific and technological sector. The result was the definition of policies that had transformational effects. The large volume of resources made available through the new government funding agencies (CAPES, CNPq and FINEP) made it possible to professionalize the university system by allowing the full-time, exclusive dedication of teaching staff, as well as the implementation of a consistent postgraduate policy. The evolution of this policy is directly associated with the development of the National Postgraduate Programmes (PNPG) adopted in 1974 (Hostins, 2006).[4]

The objective of the First PNPG (for the period 1975–1979), which was linked to the First National Development Plan, was to structure the national postgraduate system and institutionalize it within the sphere of the university system, thus guaranteeing stable financing. Its outstanding features included the training of university professors, and an increase in the number of Masters and doctoral programmes and in the number of places on these programmes. In the Second PNPG (1982–1985), the emphasis was on the quality of higher education. The expansionist goals of the first plan gave way to the institutionalization of the system, which provided a framework for monitoring and evaluating programmes. Only in the Third PNPG (1986–1989) were postgraduate programmes first considered as being integrally linked to academic research activities. The Third PNPG therefore contained measures aimed at strengthening the ties between the academic community, the national ST&I system and the productive sector. During the preparation of the Fourth PNPG, which for various reasons was never published (Hostins, 2006), discussion was focused on the need to diversify the model and incorporate professional training courses. Finally, the Fifth PNPG (2005–2010) proposes expansion of the system along four lines:

- the training of teachers for all educational levels, including basic education
- the training of staff and specialized professionals for non-academic markets
- networking to offset regional disequilibria in the supply of postgraduate courses and to meet the demands of new areas of knowledge
- stimulating universities to cooperate at the international level, including capturing resources from international agencies (CAPES, 2004).

In brief, the Brazilian postgraduate policy was from the outset based on an effective medium and long-term policy and planning guided by a strategic perspective and maintained by different governments. This approach appears to have been fruitful, as indicated by the results presented in the sections that follow.

Creation and expansion of postgraduate programmes

Whereas there were only 57 doctoral programmes in Brazil in 1970, there were more than 300 in 1985, in addition to approximately 800 at the Masters level. By 2008, the total number of Masters and doctoral programmes had risen to 2,568,[5] of which 54 per cent were federal, 26 per cent were state or municipal and 20 per cent were private. In social science, the number of postgraduate programmes has risen to 692, a figure 2.4 times higher than in 1998. However, 70 per cent are still offered at universities in the south and south-east of the country. At the doctoral level, this regional concentration is even more evident, with 53 per cent of the current 295 programmes in social science offered at universities located in only three of the 27 Brazilian states, all of which are in the south-east: São Paulo, Rio de Janeiro and Minas Gerais.

Recently, efforts have been made to decentralize postgraduate education in the direction of the less-favoured regions of the country. These efforts have proven effective:

2. Including permanent, visiting and contributing professors.
3. Data from CNPQ, Diretório Grupos de Pesquisa-Censo 2008 (see http://dgp.CNPQ.br/censos).
4. Hostins (2006) presents an interesting and complete analysis of the various plans formulated since the mid-1970s, as well as of their impact on the Brazilian postgraduate system.
5. This figure includes Masters, professional Masters and doctoral programmes in all disciplines. Data from CAPES, GeoCapes Portal (see http://www.capes.gov.br/estatisticas).

whereas more than 90 per cent of the Ph.Ds were granted in the south-east in 1998, the figure, though still high, had dropped to 69 per cent by 2008.

In Brazil, as in most Latin American countries, the postgraduate system remains essentially public. However, the number of programmes at private universities (mainly at the Masters level) has risen sharply in recent years. In the social sciences, these institutions now grant 35 per cent of all the Masters and doctoral degrees, with a significant concentration in three areas: administration, law and education.

Since the 1980s, Brazil has systematically evaluated the postgraduate programmes offered in the country. This has significantly contributed to raising the quality of the courses offered and strengthening the institutions involved. In addition, this evaluation has provided inputs for the selection of candidates and the distribution of postgraduate grants. Programme evaluations – rated on a scale from 1 to 7 – are conducted every three years according to the system set up and operated by CAPES. Furthermore, the evaluations are based primarily on the scientific output of the programmes' teaching staff, researchers and students. Programmes assigned ratings of 6 or 7 offer doctorates of excellent quality, equal to the degrees conferred by the most important centres of learning and research in the world, and are characterized by high levels of insertion into the international community. Conversely, programmes attributed ratings of 1 or 2 perform poorly, failing to meet the minimum standards required.[6] Under the terms of the legislation now in effect, programmes assigned ratings of 3 or higher will continue to be officially recognized by the National Council of Education for the next three-year period, but those receiving lower ratings will not.

In 2008, 17 per cent of the doctoral programmes in the social sciences received ratings of 6 or higher, and 58 per cent received ratings of 5 or higher. At the other end of the scale, only 2 per cent were assigned ratings of 3 or lower, whereas 10 per cent had been assigned such ratings in 1998.

The outcomes of a bold grant policy

The social sciences have traditionally received less funding from the federal agencies than other subjects. However, the situation regarding postgraduate grants, which are offered directly to the approved candidates, began to change in the late 1970s and was wholly revised in the years that followed.

Of the grants for postgraduate studies offered by CNPQ in 1980, the social sciences received only 11 per cent for Masters studies and 13 per cent for doctoral studies. By 1991, the corresponding figures had risen to 34 and 25 per cent respectively. The other agency, CAPES, already directed 39 per cent of its grants for Masters studies and 32 per cent for doctoral studies to social science in the period 1980 to 1984 (Velho, 1997).

From 1998 to 2008, the number of grants offered by the two agencies for Masters, doctoral and postdoctoral studies in all areas increased by an average of 82 per cent (from approximately 33,000 to around 60,000 per year).[7] With respect to the social sciences, the number rose by 40 per cent over the brief period 2003 to 2008 to approximately 13,000 per year, 22 per cent of the total for all areas.

Sending students and professors abroad

The Brazilian policy on funding for research capacity development does not limit training to domestic programmes. Since the 1980s, major efforts have been made to send students abroad to study at different academic levels and in numerous fields of knowledge. During the 2000s, the number of grants the two agencies offer for postgraduate studies abroad rose by 75 per cent, from 2,100 in 1998 to 3,700 in 2008, with increasing emphasis on the postdoctoral level in recent years. In 2008 alone, 1,100 grants were granted to study social sciences abroad, mainly in France, the USA, Spain and the UK.

In the late 1990s, the scholarship grants for doctoral studies abroad also took the form of a sandwich programme, which allowed Brazilian Ph.D. students to take advantage of a more comprehensive cross-fertilization. These grants lasted from four to twelve months, with mandatory periods in Brazil before and after the period abroad, hence the 'sandwich'. The grantees have the status of visiting research scholars under the supervision of local researchers. Since 2005, the number of grants offered in sandwich programmes is higher than the number of full Ph.D. grants, and the gap is widening. Opportunities for sabbatical leave abroad for professors supported financially by the government were also developed.

6. Programmes rated 5 have a 'high level of performance', which is the highest rating for programmes that offer only Masters degrees. A rating of 4 indicates that the programme has a 'good performance', while a rating of 3 means it has an 'average performance', or meets the minimum standards required.

7. Data from Ministry of Science and Technology (MCT), Indicadores Nacionais de Ciência e Tecnologia (see http://www.mct.gov.br).

Impact of the new policy on the organization and productivity of research in the social sciences

This growing investment in research infrastructure and research-oriented human resources in various fields of knowledge has had a strong impact on the organization, development and dissemination of research in the country. According to the biannual survey conducted by CNPq, the number of active research groups in Brazil has increased fivefold over the fifteen years to 2008.[8] Between 2000 and 2008, the number in the social sciences alone rose from 2,600 to nearly 7,000, which is 31 per cent of the total. Of all the social sciences, education, with its 1,710 research groups – more than twice the number surveyed in any of the other areas – has the leading position.

The expansion and diversification of the active research groups, as well as the incentives associated with a good rating, are among the factors that have contributed to the progressive rise in Brazilian researchers' productivity. Within a ten-year period, Brazil has become one of the countries in the world with the most scientific publications. According to the Thomson ISI database, the country moved from twenty-third position in 1999 to fifteenth in 2008. This is an increase of 8 per cent per year (Bound, 2008).

The Brazilian publications in the World of Science database are concentrated in the areas of agriculture, biology, Earth sciences and space sciences. In contrast, articles concerning the social sciences represented only 3 per cent of the national output between 1997 and 2006. Since approximately 32 per cent of the researchers in the country are in the social sciences, it can be concluded (as have various authors) that unlike their counterparts in the hard sciences, Brazilian social scientists have yet to follow the world trend of publishing articles in English in internationally indexed periodicals. They continue to disseminate the greater part of their works in the form of theses or books written in Portuguese, which are not included in the ISI database. Indeed according to national databases (CNPq, 2008), social sciences articles represented 27 per cent of all the articles published in national specialized periodicals in 2008, but only 4 per cent of those published in periodicals with an international circulation. Social sciences did, however, account for 49 per cent of the academic books and 41 per cent of the book chapters produced in Brazil. In absolute terms, social sciences output has evolved quite positively, and articles in both national and international periodicals increased more than fourfold between 2000 and 2008.

New context, new challenges

Brazilian postgraduate policy has successfully contributed to the formation of a great number of well-qualified professionals in a wider range of fields than before. However, this expansion was not guided by a real appreciation of the labour market's demands – in terms of neither specialization nor the academic level demanded. In the past, the postgraduate programmes themselves absorbed almost all of the newly formed professionals, but this is no longer true.

A full understanding is yet to be gained of the employability of those who hold an M.A. or Ph.D. A recent pioneering study charts the key employment characteristics of those who received Ph.Ds in Brazil between 1996 and 2003 (Viotti, 2008). It shows on a preliminary basis that in 2004, 66 per cent of those who received Ph.Ds were employed at educational institutions, while another 18 per cent were in public administration, national defence or social security. Only 1.2 per cent were employed by the manufacturing industries. The study shows that holders of doctorates in the so-called 'applied social sciences' had higher rates of formal employment, as well as higher average wages than the others. According to Viotti (2008), this may indicate that the labour market most values individuals with doctorates in law, administration and economics. These are among the fields in which postgraduate programmes in Brazil, especially in private universities, have expanded most rapidly in recent years.

The target of the National Postgraduate Plan 2005–2010 (CAPES, 2004) is to award 16,000 Ph.Ds in 2010. However, for this goal to be achieved and to have truly positive and lasting effects, in-depth knowledge of job characteristics and of the sectoral demand for doctorates would be useful.

8. This figure excludes active research groups in private enterprises (from CNPq, Diretório Grupos de Pesquisa-Censo 2008, http://dgp.CNPq.br/censos).

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Flash
Building sociology in China

The introduction of sociological studies in China in the late nineteenth century stimulated thinkers in this country to explore groups and society in new terms and with methodologies previously unknown to them. Significant studies were made, but the many wars in the following decades hampered the development of sociology. Then the reorganization of disciplines and faculties three years after the 1949 revolution abolished sociology, deemed 'erroneous science'. From then until 1978, when the policy of economic reforms led to its reintroduction, research and teaching in sociology vanished from universities.

After that date, however, the chairman of the Communist Party of China, Deng Xiaoping, underscored the necessity to train sociologists again. The new challenges facing Chinese society, such as modernization, rural development, worker migrations and the relations between cities and rural regions, had given rise to a need for studies in social sciences. The rapid creation of the Chinese Association of Sociological Research and of the Institute of Sociology, both headed by senior sociologist Fei Xiaotong, allowed the organization of workshops in sociology. The first three gathered a total of about 100 participants who attended lectures by scholars from the USA and Hong Kong. The new, voluntaristic, policy toward social sciences in the early 1980s also led to the opening of departments of sociology in universities (eleven would be opened by the end of the decade), and some graduate programmes.

Research produced during this phase focused on the challenges facing Chinese society, but suffered from theoretical and scientific deficiencies. These gaps were filled progressively, and sociology in China improved remarkably from the 1990s onward, fostered by international exchanges, the sending abroad of promising graduate students and participation in international scientific dialogue. China's research capacity in social sciences was expanded to the point that the country counted 159 departments of sociology in higher learning institutions in 2007, with close to 2 million students. Today Chinese sociology enjoys an international reputation of its own. (Peilin, Yuhua, and Shiding, 2008; Roulleau-Berger, 2008)

Flash
Developing social science capacity in Palestine

The first research on Palestine was conducted by Palestinian agencies located outside the Palestinian territory. Generally associated with the Palestine Liberation Organization (PLO), these research centres began operating in the 1960s from Jordan, Lebanon and New York. They were mostly staffed by Palestinian refugees from the diaspora who had no physical access to Palestine. In 1967, the Israeli invasion of the West Bank and the Gaza Strip triggered the foundation of local Palestinian universities in both these territories. Since Palestinian youths could not travel to other Arab universities or have access to Israeli universities, six Palestinian universities were set up in the Occupied Territories in the 1970s.

The first Palestinian social scientists had generally received their secondary education in English during the British Mandate. Their command of English – as well as their relative wealth – enabled them to join US universities in the post-1948 period after the creation of Israel. A number of them were the first to staff social science departments in the newly founded Palestinian universities in the West Bank and Gaza. Subsequent generations of Palestinian social scientists received their secondary education in the Occupied Territories before going on to graduate from foreign, mostly Western, universities. Since none of the Palestinian universities had, and they still do not have, a Ph.D. programme in the social sciences, and since a Ph.D. is mandatory in order to hold a professorship, there has been a noticeable internationalization of Palestinian social scientists.

Ten social science departments or faculties, and numerous other research centres, currently operate within the Occupied Territories. In 2007, they employed 68 Ph.Ds in sociology, political science and anthropology. Of these, 60 hold a Ph.D. from a Western university and only 8 from other Arab countries. These figures point towards an early and resilient dynamic of internationalization within the social sciences thanks to associations with eminent international scientific institutions which have allowed local coercion to be bypassed.

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The contribution of social science networks to capacity development in Africa

Adebayo Olukoshi

The all-round expansion that characterized African higher education in general, and the social sciences in particular, during the 1960s was interrupted at the end of the 1970s as African countries began to slide into a prolonged economic crisis. This crisis, and the responses fashioned to deal with it, led to an unrelenting decline for the higher education system of most African countries which persisted for nearly thirty years. In the face of the multiple problems thus created for the social sciences, the role of social science networks became critical.

Historical retrospective

The first decade of African independence witnessed a massive public resource investment in the development of a higher education system which incorporated universities, polytechnics, and an assortment of specialized research and training institutions. But the pattern of rapid growth and all-round expansion that characterized African higher education in general, and the social sciences in particular, during the 1960s and most of the 1970s was interrupted at the end of the 1970s and in the early 1980s as African countries began to slide into a prolonged economic crisis. This crisis, and the responses fashioned to deal with it, led to an unrelenting decline for the higher education system of most African countries which persisted for nearly thirty years. These decades spanned the years from the early 1980s to date.

Any hope that the cuts which African governments introduced in higher education funding as part of their homegrown economic crisis management strategy would be short-lived was dashed by the International Monetary Fund (IMF) and the World Bank's introduction of stabilization and structural adjustment programmes. The thrust of these programmes was essentially deflationary, which meant that public expenditure continued to be squeezed and the higher education system was to be the worse for it. This was all the more so as the Bank encouraged a policy preference for basic education in Africa. Matters were not helped by acute shortages of foreign exchange, which saw imports of books and equipment virtually dry up. An inflationary spiral also took hold and real incomes collapsed as prices were decontrolled, national currencies were submitted to repeated rounds of devaluation, subsidies were removed and public-sector wages were frozen.

The decline of the African higher education systems

The collapse of African libraries and laboratories threatened the infrastructure of the higher education community, and led to the decay of the environment for learning and research. The decline in the quality of instruction was compounded by the collapse of the tutorial system which, in turn, was a fallout from the collapse of many universities' internal academic staff development programmes. Student unrest became frequent and increasingly violent. Many universities experienced 'blank years' during the course of the 1980s and 1990s, shutting down for prolonged periods, which resulted in the cancellation of entire academic sessions. Associational life on most university campuses and in most countries also suffered a sharp decline when disciplinary networks for staff and students could no longer be sustained. Likewise, local scholarly journals and other scientific outlets fell on bad times. The stage was set for an exodus of qualified personnel from the higher education system. This exodus was further spurred by concurrent outbreaks of political repression and civil war in many African countries at different times between the 1980s and the first few years of the new millennium.

Brain drain hits Africa severely

The brain drain from the African higher education system occurred in waves and consisted of different elements. In the first instance, there was an exodus of senior and mid-career nationals who, unable to cope with the unending crises in the national economy and the higher education system, or the outbreak of political violence and civil war in some countries, exercised a variety of options. A number of them simply left the system in order to enter the local private sector where they felt they could both exercise

their talents and earn a better income. Many went into the financial services sector, which was experiencing a mini-bubble on the back of the privatization and liberalization measures that governments had introduced as part of the IMF or World Bank market reform programmes. Others opted to remain in the public sector, but left the university system to take up senior political or administrative posts in government, especially against the backdrop of civil service reforms that were being carried out and the restoration of multi-party politics that was underway.

A further component of the brain drain from the higher education system, and perhaps the most serious aspect, comprised the senior and mid-career scholars who left to pursue their careers outside Africa. They took up positions in the USA, Europe, and even the Middle East and Australia. Estimates from a variety of sources have suggested that an average of 20,000 highly qualified professionals left Africa annually from 1990 onwards as part of the brain drain. Nigerian academics working at universities and colleges in the USA alone numbered about 10,000 at the dawn of the new millennium. During the course of the 1990s, it was estimated that 35 out of every 100 Africans sent to study abroad did not return to the continent, and the number was rising (IOM, 2005; Mutume, 2003; UN, 2002; Teferra, 2000).

The difficult conditions with which the academics who remained on the continent – either by deliberate choice or otherwise – had to grapple meant that they had no option but to augment their incomes from outside sources. Such strategies continue to be practised, but they are not always conducive to the pursuit of academic excellence or the development of a longitudinal research interest. Moonlighting and consultancy activities disconnected from scientific endeavour may have provided an income supplement, but they were also energy-sapping and distracting. The licensing of private universities, which had begun in earnest in the 1990s and which expanded massively in the new millennium, gave scholars opportunities to be mobile and even to advance their careers. However, these private universities resorted to offering permanent employees of public universities part-time contracts to act as the bulk of their teaching staff. This raised concerns that fee-charging institutions were continuing the erosion of higher education, as they did not seem prepared to invest in their own staff development.

The brain drain from the African higher education system affected all disciplines. But it is also arguable that the social sciences were particularly badly hit, for a variety of reasons. Among these was an incentives system which encouraged universities to generate income through consultancy services and executive degree programmes that did not favour the social sciences and the humanities. In turn, this resulted in higher education administrators deciding to rationalize courses. This saw the closure of some academic departments and the merger of others. Disciplines such as history, archaeology, philosophy, linguistics and classics were endangered in many countries. It was and still is not uncommon to find universities where social science and humanities departments have no professorial-level staff and are led by junior researchers, who sometimes only hold a Masters degree or have just obtained a doctorate.

The role of social science research networks

In the face of the multiple problems created for the social sciences by the brain drain in the higher education system, the role of social science networks became critical. This was especially true of those operating on a pan-African scale. The most prominent of these networks are CODESRIA in Dakar, the African Association of Universities (AAU) in Accra, the Organization for Social Science Research in Eastern and Southern Africa (OSSREA) in Addis Ababa, and, to a lesser degree, the Kampala-based Centre for Basic Research (CBR), and the Africa–Arab Research Centre in Cairo. The African Association of Political Science (AAPS) in Harare and Pretoria and the Southern Africa Political Economy Series (SAPES) Trust, which were active through the 1980s into the 1990s before they experienced a decline, must be added to these. Most of these networks were established to serve as sites and fora for the production and dissemination of advanced research knowledge, drawing on the best traditions of scholarship available on the African continent.

The regional social science networks also felt the effects of the discipline crises and the dearth of experienced scholars as the brain drain took its toll. The vitality of the regional networks and the kinds of activities they felt they could perform reflected the disciplines' state of health and the quality and experience of the researchers at the national and campus levels. In the 1980s, with senior and experienced staff leaving the higher education system in increasing numbers and the quality of instruction and training declining, it became clear that these regional networks could not presume that those who participated in their programmes were sufficiently drilled in the basic rules of scholarship to contribute effectively to their missions. This necessitated a revamping of the

programmes and activities of these networks to take cognizance of the changed context of research and training in African higher education.

The reform of these regional social science networks was designed to achieve a multiplicity of objectives. These centred on the upgrading of the skills of a new and inexperienced generation of scholars graduating from African universities and taking up positions, and were intended to keep the system running against a variety of odds. Embracing this new generation called for new approaches to research networking and knowledge production which took full cognizance of the conditions under which they had been trained and the circumstances in which they tried to work. It was a redefinition of strategy that focused on training in research skills, the creation of networking opportunities, the building of longitudinal research cultures, and the facilitation of interaction within and across various boundaries, whether national, disciplinary, gender, generational or linguistic. These were roles that the social science research networks assumed on an increasing scale from the mid-1980s onwards.

Key roles in capacity development and enhancement which the regional social science research networks have promoted since the mid-1980s have included:

- supporting the mobility of African scholars within and outside their countries and campuses in a period of crisis
- the promotion of multidisciplinary networking among African scholars
- the provision of refresher training, particularly in quantitative, qualitative and comparative research methods and scholarly writing and publishing skills
- the production of refereed journals that offer credible outlets for the publication of research findings
- the financing of senior scholars to produce textbooks that could be used in teaching across the continent
- the organization of a range of mentorship programmes targeted at younger scholars with an interest in remaining in the university system
- the facilitation of scholar exchange programmes and individual fellowships whose recipients could spend dedicated time undertaking research projects or as understudies to an outstanding scholar
- the organization of summer schools on social research themes that cover a range of conceptual and empirical concerns
- the funding of field research and thesis writing for advanced postgraduates in African universities
- the mobilization of diaspora African social scientists in local and regional initiatives designed to mentor and support junior scholars, rebuild library collections, teach core courses in visitors' programmes, and network senior scholars internationally.

These regional social science networks are critical for the generation of African researchers born and nurtured in the years of economic crisis and decay in the higher education system. And yet, the networks also understand that their role can only be a supportive one, complementing what must remain the duty of the quintessential university: offering high-quality instruction in a stimulating environment that enables students and staff to build and renew and enhance their capacities. This means that the struggle for the restoration of the African universities must continue. They are the essential element in long-term capacity development. It is in the strength and vitality of the universities that the social science networks will ultimately find the energy to make a decisive and targeted difference.

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Chapter 4
Uneven internationalization

Books displayed at Frankfurt bookfair
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Uneven internationalization

Chapter presentation

Although social sciences were first institutionalized as academic disciplines in Europe and North America, they are no longer only a Northern project. They have become increasingly global and, some say, more diverse. Social scientists are also more numerous and mobile than in the past. They share their knowledge and research more readily, more rapidly and more frequently through new communication channels such as the web and the internet, and collaborate more with foreign colleagues. Many social scientists assume that their disciplines have become increasingly international in recent decades and that this trend will develop further in future. It is hoped that this internationalization process will reduce the knowledge divides in social sciences between different regions of the world without destroying diversity. This chapter's goal is to evaluate whether these assumptions are correct by mapping global production and international collaboration in the social sciences.

There are many ways of assessing the current level of social sciences' internationalization. One is to determine where social science journals and papers are produced and whether this production is equally spread across the world. Another is to measure the share of papers co-authored by social scientists from different regions and countries, and a third is to measure whether citations in social science papers are more international today than they used to be. The papers in this chapter use all these indicators, and others, to draw maps of the sites of social science production and the flows of international scientific collaborations and exchanges through citations. They rely on various databases of social science journals, publications and articles (Thomson's Social Sciences Citation Index [SSCI], Ulrich, Elsevier's Scopus, *International Bibliography of the Social Sciences* [IBSS]), although the authors are well aware of their limitations. Journals from developing countries are still poorly represented in international databases. Social science publications in the developing world are often in keeping with local interests and remain invisible with the existing tools (Russell and Ainsworth). This means that no exhaustive view of international social sciences is possible. But the papers in this chapter agree on the main trends in the production and exchange of social science.

This chapter starts off by showing that the perception that there has been an internationalization of the social sciences in the past two decades is no illusion. The fall of the Soviet Union, the European Union's research policy, and other changes in the political context have doubtless played an important role in this slow internationalization process. All regions show a decline in the share of self-citations. Asia, Africa and Latin America are becoming slightly more international in terms of the citations used in social science articles (Gingras and Mosbah-Natanson). Their scholars also participate in international collaborative articles more often.

The USA is still the primary country for social science collaborations with other regions of the world, followed by the UK, Canada and Australia (Frenken, Hoekman and Hardeman). Yet North America's share of international collaborative social science research has declined slightly in the past decade, while that of Western Europe has increased. Nevertheless, central regions for the production of the social sciences are also the ones where collaborations with other regions of the world are the least likely to take place. The more peripheral a region or country, the higher its share of international collaboration in its total number of publications.

The internationalization of social science research in developing countries mainly takes the form of a growing dependence on citations of papers produced in Europe and North America, and can be measured by the geographical origins of the references in social science journals (Gingras and Mosbah-Natanson). Internationalization thus tends to reinforce the centrality of the West over the rest of the world. Another sign of this dependence is linguistic (Ammon). More than 80 per cent of the academic and refereed journals in the social sciences are edited in English. Also, more than 75 per cent of the publications in the *International Bibliography of the Social Sciences* are in English.

The hegemony of the North in the social science production is not only obvious from a linguistic standpoint. Four countries – the USA, the UK, the Netherlands and Germany – produce two-thirds of the social science journals registered in the most encompassing of the social science journals' databases. North America alone produced in the last ten years more than half of the social science articles registered in the Thomson SSCI database. Europe is the second producer, and published almost 40 per cent of the world's social science articles in the past decade.

Nevertheless, the contribution of other regions is growing. Oceania, Latin America and Africa each contribute less than 5 per cent to the world production of articles. But the Asian share of world social science published papers has increased, particularly in the past decade. It represents almost 9 per cent of the world production. Chinese and Japanese are respectively the fifth and sixth languages used in social science journals. China's growth is in good part due to the production of researchers with Chinese surnames outside of mainland China, and visible especially in some subfields such as management science (Jonkers). The Russian Federation is the principal country whose social science output is failing to increase.

Social science production and collaboration retain a very strong core–periphery pattern and have a highly asymmetrical structure of exchange. But there are signs of gradual change (Frenken et al.). What will locally produced knowledge become in the light of this uneven process of internationalization? Answering this question will require careful study of the gradual changes in the social sciences' world structure, and there need to be more regional and discipline-specific studies (Russell and Ainsworth).

The globalization of research collaboration

Koen Frenken, Jarno Hoekman and Sjoerd Hardeman

Despite the globalization of research in general, and of research collaboration in particular, peripheral regions have not become better integrated into the world social science system over the past two decades. This means that the Western dominance of social science remains a pertinent issue. Social science dominated by just a few regions runs the risk of diminishing intellectual novelty and excluding less favoured researchers from agenda-setting discourses on 'issues of global relevance'.

Introduction

Scientific research involves worldwide communication, collaboration and competition. With the advent of the internet, English as the dominant academic language, and cheap air travel, these processes are becoming ever more global. Globalization provides once-peripheral research communities with opportunities to make contact with the communities that have dominated social science knowledge production. But despite pervasive trends towards globalization, high-income countries still dominate social science knowledge production (Gingras, 2002). This pattern is similar to the geography of natural science knowledge production (May, 1997; King, 2004; Frenken, Hardeman and Hoekman, 2009).

The benefits associated with the internationalization of research collaboration are said to be considerable (Katz and Martin, 1997). They stem from the sharing of knowledge, expertise and research infrastructures; the production of scientific knowledge with more diverse intellectual inputs; and the opportunity to solve issues of global relevance such as inequality, epidemic diseases, and global warming.

We study the globalization of the social science system by analysing research collaboration between nine global geographical regions over the past two decades. We use publications listed in the Web of Science (WoS) database with multiple addresses and track the changes that occur over time in these regions' shares in the collaborative production of mainstream social science research.

Data

The data for this study are extracted from research articles published in social science journals listed in the Social Science Citation Index (SSCI) and the Arts and

Humanities Citation Index (A&HCI) of WoS (Thomson Corporation, 2009). We have not included other forms of publication such as letters, notes and reviews. WoS indexes approximately 9,000 peer-reviewed journals worldwide and is considered to be among the most comprehensive article databases across countries and disciplines. Since a journal is only included in the WoS database after a quality assessment by WoS's publisher, the articles satisfy a certain minimum level of scientific quality.

Our database is constructed along three dimensions: disciplines, regions and time periods. WoS classifies journals into specific disciplines based on citation links between the citing and cited articles in scientific journals. We extracted all the publications that WoS listed under anthropology, area studies, economics, environmental studies, geography, history, international relations, political sciences and sociology (see Annex 1). Following Wallerstein et al. (1996, p. 14), our list thus includes the core social science disciplines (anthropology, economics, history, political science, sociology) as well as another four major social science disciplines.

Since we are interested in international research collaboration, we used the affiliation addresses given in the publications to determine which countries collaborated in the research project that led to a joint publication. All institutional addresses in research articles are uniquely indexed, and the country names are assigned to one of nine regions: Arab States, North America, Western Europe, Southern, Central and Eastern Europe and CIS, East Asia and the Pacific, South Asia, sub-Saharan Africa, Latin America and the Caribbean, and Oceania (see Annex 2). Data were collected for the period 1989 to 2008 and aggregated to four time periods to ensure a reasonable number of collaborations per discipline and time period. The time periods are 1989–1993, 1994–1998, 1999–2003 and 2004–2008.

We defined a case of research collaboration as any paper with a pair of institutional addresses from more than one of these geographical regions. We aggregated all of these inter-regional collaborations into a region-by-region matrix, counting the number of research collaborations between any two regions in a particular discipline and particular time period. This procedure means that a single article may be linked to more than one unique regional pair. For example, a publication involving an Egyptian, Indian and US organization will be counted as collaboration between Arab States and South Asia, between Arab States and North America, and between South Asia and North America. However, a publication with multiple addresses does not necessarily involve multiple authors. Individual authors may have multiple affiliations and may create collaborative links between countries.

Although it is well known that scientific research results are mostly made available to the scientific community by publishing them in WoS journals, the propensity to do so varies between regions. Only certain countries have long social science traditions and well-established norms for communicating findings in this way. Furthermore, WoS is known to be biased towards English-language journals. WoS mainly lists findings in journal articles (thus excluding scientific reports, working papers and books) that have been published in journals edited and published in a select group of mainly Anglo-Saxon countries, and which have been written in one of a few favoured languages, mainly English and, to a lesser extent Spanish, German and French.

Table 4.1 > Number of co-publications and ranks of regions per discipline, 2004–2008

Region	Total	Anthro-pology	Area studies	Economics	Environ-mental studies	Geo-graphy	History	Inter-national relations	Political science	Sociology
North America	11,359 (1)	1,567 (1)	275 (1)	5,797 (1)	1,260 (1)	544 (2)	50 (1)	459 (1)	781 (1)	626 (1)
Western Europe	10,168 (2)	1,372 (2)	202 (2)	5,121 (2)	1,242 (2)	606 (1)	49 (2)	389 (2)	678 (2)	509 (2)
East Asia and the Pacific	3,206 (3)	315 (4)	117 (3)	1,665 (3)	491 (3)	187 (3)	2 (7)	155 (3)	112 (5)	162 (3)
Southern, Central and Eastern Europe and CIS	2,337 (4)	372 (3)	74 (4)	1,126 (4)	173 (7)	102 (5)	7 (5)	101 (4)	226 (3)	156 (5)
Oceania	2,270 (5)	220 (7)	34 (7)	1,093 (5)	335 (4)	187 (3)	14 (3)	96 (5)	132 (4)	159 (4)
Latin America and the Caribbean	1,348 (6)	295 (6)	45 (6)	498 (6)	242 (5)	80 (6)	8 (4)	42 (6)	68 (6)	70 (6)
sub-Saharan Africa	1,051 (7)	313 (5)	57 (5)	302 (7)	194 (6)	68 (7)	5 (6)	25 (7)	24 (7)	63 (7)
South Asia	570 (8)	88 (8)	14 (9)	229 (8)	142 (8)	30 (8)	1 (8)	14 (9)	23 (8)	29 (8)
Arab States	245 (9)	52 (9)	18 (8)	85 (9)	43 (9)	4 (9)	0 (9)	15 (8)	12 (9)	16 (9)

This means that as a bibliometric tool, WoS is only suitable for evaluating each region's contribution to mainstream social science, and not for drawing conclusions about the total world production of social scientific research. Peripheral countries' scientific knowledge production will be more applied and less oriented towards the global publication system represented by WoS (Sancho, 1992). This under-representation is caused by the lack of financial and intellectual support, language barriers, and fewer career incentives to publish, among other factors. This under-representation limits the value of WoS-based studies for informing statements about 'Western-dominated' mainstream science. Nevertheless, what is considered mainstream science also changes over time. The number of journals with a particular (regional) focus either decreases or increases over time. In our analysis, this dynamic is simply another representation of what is considered mainstream science.

Results

Table 4.1 shows the number of co-publications each region was involved in during the period 2004–2008, per discipline and as a whole. Inter-regional research collaboration in general is dominated by North America and Western Europe, while there is little co-publication by the Arab States, South Asia, and sub-Saharan Africa. These results suggest a strong core–periphery structure in collaborative social science research.

In some disciplines, the regional rankings deviate from this general picture. Sub-Saharan Africa ranks relatively high in terms of the total number of co-publications in area studies and in anthropology. The Southern, Central and Eastern Europe and CIS region ranks relatively low (7) in environmental studies compared with its overall ranking (4). East Asia and the Pacific ranks relatively low

Figure 4.1 — Top ten of the strongest inter-regional links in collaborative world social science, 2003–2008

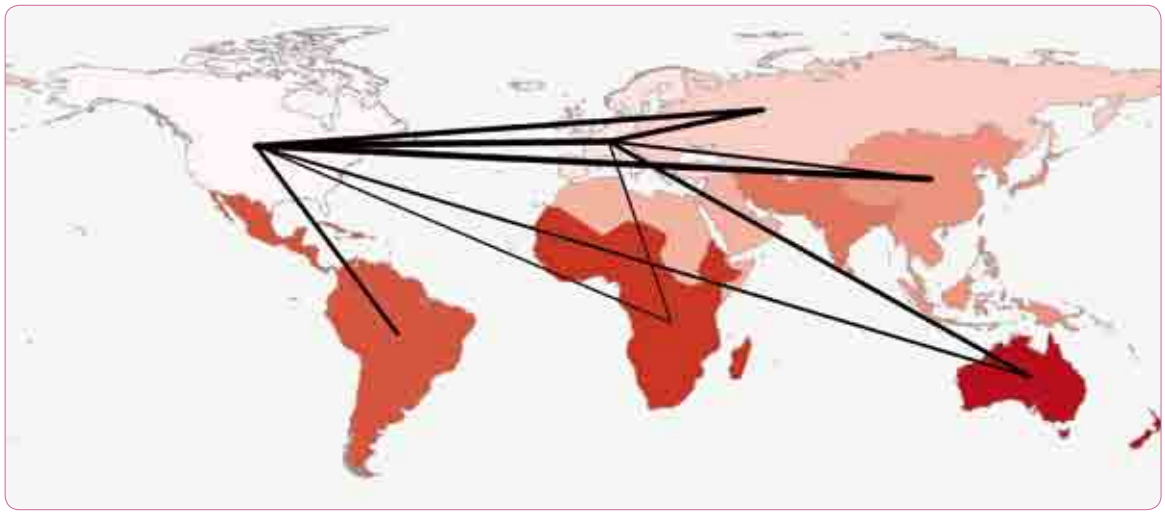


Figure 4.2 — Bottom ten of the weakest inter-regional links in collaborative world social science, 2003–2008

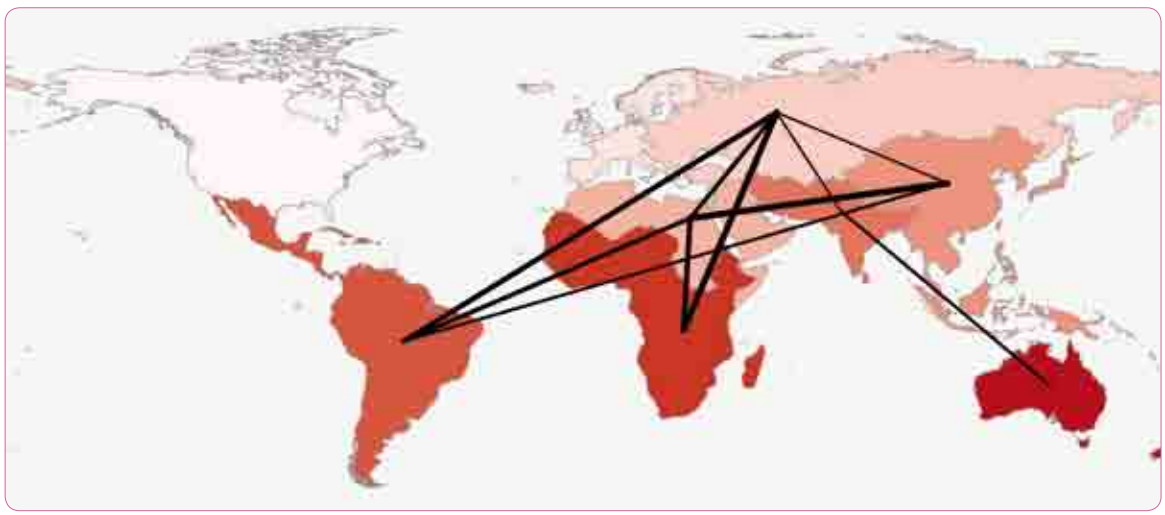


Figure 4.3 — Share of regions in total collaborative world social science, 1989–2008

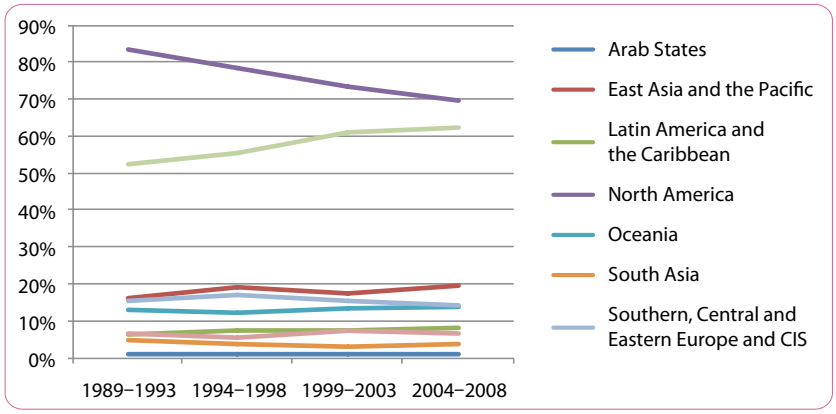
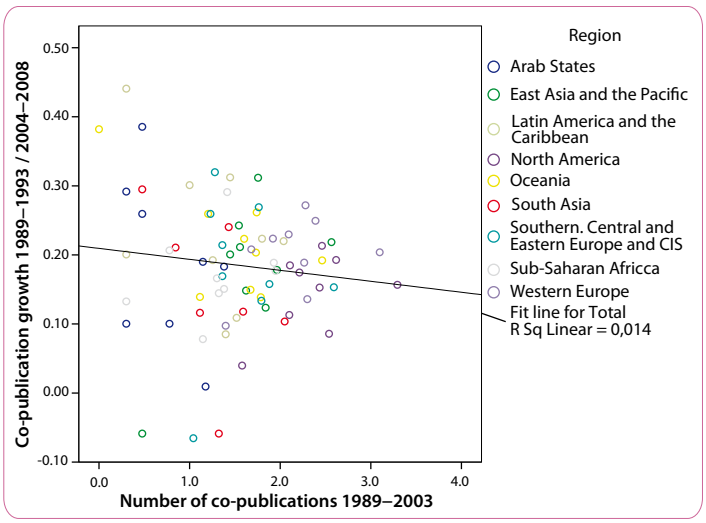


Figure 4.4 — Convergence across regions in the number of co-publications over time



in history (7) in relation to its overall ranking (3). There are tentative explanations for these marked deviations. Sub-Saharan Africa is an important study object; there is a lack of political interest in environmental matters in Eastern Europe; and the language barrier is significant in East Asia and the Pacific. But further research is needed to understand these patterns.

Obviously the number of co-publications between any two regions is significantly affected by differences in their total number of publications. We therefore measure the strength of inter-regional collaboration links by using the Salton index[1] to control for regions with a high total number of co-publications automatically having stronger links with other regions. Figure 4.1 shows the ten strongest links according to the Salton index. The figure shows that even after controlling for the total number of co-publications, the same core–periphery structure appears as is found in Table 4.1, with North America and Western Europe featuring in the ten strongest links. Figure 4.2, which shows the ten weakest links, reinforces this conclusion. The ten weakest links never feature North America or Western Europe.

The changing spatial structure of collaborative world social science research

Although the current state of collaborative social science research has a clear core–periphery structure, a dynamic analysis is needed to understand whether this structure is weakening or strengthening as a result of globalization. Figure 4.3 shows that North America's share of the total number of collaborations has decreased considerably. However, North America's decline cannot be contributed to the peripheral regions' share increasing. Instead, the

1. The Salton index (Salton and McGill, 1983) is constructed as follows: $I_{ij} = \frac{Copub_{ij}}{\sqrt{Copub_i * Copub_j}}$ where $0 \leq I_{ij} \leq 1$, $Copub_{ij}$ is the total number of co-publications of region i with region j, $Copub_i$ is the total number of co-publications for which region i is involved and $Copub_j$ is the total number of co-publications for which region j is involved.

decrease in North America's share has gone hand in hand with an increase in Western Europe's share.

Table A4.6 in Annex 3 shows the evolution of the Salton index for each pair of regions. Some major shifts have clearly taken place. The most important changes were the marked increase in collaboration between Western Europe and Southern, Central, Eastern Europe and CIS, particularly after 1993. In addition, there was a significant rise in collaboration between Western Europe and East Asia and the Pacific, particularly after 1998. These two trends probably reflect the effects of political change (the end of communism, and China's reform respectively), which greatly facilitated interaction between researchers.

Another way to analyse the evolution of collaboration is to plot the growth of inter-regional research collaboration in each of the disciplines (on the Y axis) against the number of inter-regional research collaborations in the first period, 1989–1993 (on the X axis), as in Figure 4.4. This shows clearly that most regions experienced a rapid growth in their number of co-publications. Only a few regions experienced negative growth. Furthermore, Figure 4.4 shows a negative relationship between the growth in inter-regional research collaborations and the number of inter-regional research collaborations in the first period, 1989–1993. This means that regions with a lower number of collaborations in the first period increased their collaborations faster than regions with a higher number to begin with, indicating a process of convergence. This process was particularly rapid in environmental studies, which are not shown here. But in general, we observe only a weak relationship between growth and initial state, which is not statistically significant. Thus we can conclude that the distribution of the number of co-publications over regions has remained fairly stable over the past two decades.

Conclusion

Research collaboration in the social sciences is dominated by North America and Western Europe. Although the role of Western Europe has become somewhat more prominent at the expense of North America, the core–periphery structure for Western countries and the rest of the world has endured for the past two decades. Collaboration, as represented by joint publications and as indexed in WoS, continues to be dominated by Western social scientists.

Despite the globalization of research in general and research collaboration in particular, peripheral regions have not become better integrated into the world social science system over the past two decades. This means that the Western dominance of social science remains a pertinent issue. As argued by Yeung (2001), among others, social science dominated by just a few regions runs the risk of diminishing intellectual novelty and excluding less favoured researchers from agenda-setting discourses on 'issues of global relevance'.

Further quantitative analyses of the global science system, making use of WoS as well as other databases (for example, Google, Scopus), would support a better understanding of the core–periphery structure's persistence. A number of spatial scientometrics methodologies are now available to study the spatial structure and dynamics of the global science system in detail. These include the determinants of research collaboration, citations and mobility (Frenken et al., 2009). Analyses can include the classical determinants of geographical distance and national borders, but also language, quality and social networking effects. Consequently, scientometricians can make an important contribution to our critical understanding of the geography of social science knowledge production.

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Where are social sciences produced?

Yves Gingras and Sébastien Mosbah-Natanson

Beyond a general growth in the number of papers and journals in the social sciences around the world, the globalization and internationalization of research have essentially favoured Europe and North America, the regions which were already dominant. Furthermore, the autonomy of the other regions has diminished and their dependence on central actors has increased over the past twenty years. Also, Europe has increased its centrality and is now comparable to North America.

During the past decade, internationalization and globalization have emerged as a central focus for the social sciences. The effects of these new, or at least accelerated, trends on cultures, economies and other aspects of social life since the 1980s have been widely studied by social scientists from many disciplines, particularly economics and sociology. But we can also be reflexive and address the question to the social sciences themselves: are they becoming more international or even global?

The objects of the natural sciences (particles, atoms, cells and galaxies) are universal. So these subjects lend themselves to international collaboration, which has grown rapidly in these disciplines. However, the social sciences' usual objects are more locally embedded, which has made internationalization less obvious and rapid (Gingras, 2002; Gingras and Heilbron, 2009). It is thus worth looking in more detail at the geographical distribution of social science journals, at the evolution of production by region of social science papers over the period from 1990, and, finally, at the flux of inter-citations between regions.[1] These indicators can shed light on changes in the relations between regions. Does increased internationalization favour the emergence of a delocalized discourse, using all contributions from different countries equally? Or does it accentuate peripheral countries' dependency on the already dominant scientific regions of Europe and North America?

In order to measure such changes, we could analyse the changing topics that social scientists study and ascertain whether they are becoming less local and more internationally distributed. We would certainly find an increase in the use of key words and terms such as 'international', 'transnational' and 'comparative studies'. But behind the verbal unification of topics, are there more exchanges between countries, or simply different local uses of the same expressions or buzzwords? Are contributions from peripheral countries now more visible in Europe and North America than in the past?

Methodology

Our analysis of global trends in knowledge production in the social sciences is based on two databases. The first is the SSCI of the WoS, which covers articles[2] on social sciences disciplines published in about 1,200 journals and includes all authors' addresses as well as each paper's list of references. The second is the Ulrich database, which identifies existing journals in all fields as well as their country of publication, the languages used in the journal, the country in which the editor is domiciled, and among other information, whether the articles in the journal are peer-reviewed or not.[3]

Given the limitations of these databases, this study cannot pretend to provide an exhaustive view of the world distribution of social sciences.[4] Nonetheless these sources, used with caution, can provide a good understanding of change and evolution over time on a scale that cannot be observed without their use.

In order to analyse the relations between social scientists from different countries globally, we divided the world

1. We focus on social science journals and articles. For an analysis of the world production of social science monographs, see Kishida and Matsui (1997). For the case of Europe, see Sapiro (2008).
2. We take 'article' to mean three types of papers: articles, notes and reviews.
3. We used the 2004 Ulrich CD-Rom.
4. For more details on the limits of these databases, see Archambault et al. (2006) and their contribution to the present book.

into seven regions: Europe,[5] North America (the USA and Canada), Latin America (including Mexico and the Caribbean countries), Africa, Asia (including the Middle Eastern countries), Oceania (Australia, New Zealand and the surrounding islands) and the Commonwealth of Independent States (CIS). Finally, since the definition of social sciences is far from universal, we adopt the one used by the National Science Foundation in its reports on Science and Engineering indicators.[6]

The world distribution of social science journals

Social science journals can serve as the point of entry for an analysis of the world distribution of social science knowledge production. The Ulrich database gathers far more scientific journals than the Thomson WoS: we identified a total of 6,640 academic journals, a number that drops to 3,046 if we consider only peer-reviewed journals. We also compared the results with SSCI (which covers 1,162 journals) and focused our analysis on two variables: the geographical origins of the journals (by region), and the language used in each journal.

As Table 4.2 shows, the picture varies according to the database used, but remains coherent on a global level: Europe and North America far outweigh the rest of the world in academic publications. Using Ulrich or the SSCI shows that Europe accounts for about 45 per cent of world journal production. North America is behind with 37 per cent of refereed journals in the Ulrich database but equal at 46 per cent according to the SSCI. All the other regions are well behind, with less than 10 per cent of refereed journals or publications each (for social science journals from central and peripheral countries, see Narvaez-Berthelemot and Russell, 2001). Significantly, journals from these regions are more visible in the Ulrich database than in the SSCI, which is more selective in its choice and more focused on English-language journals from the UK and North America. In terms of papers, however, Thomson data shows that Europe produces only 38 per cent of papers, while North America accounts for 52 per cent of papers in SSCI.

Table 4.2 > Social sciences journals and articles by region and database

Region	% All Ulrich academic journals in 2004 (N = 6,640)	% Ulrich refereed journals in 2004 (N = 3,046)	% Thomson SSCI journals 1980–2007 (N = 1,162)	% Thomson SSCI articles 1998–2007 (N = 226,940)
Europe	47.8	43.8	46.1	38.0
North America	29.4	37.0	46.5	52.2
Asia	11.2	8.6	3.7	8.9
Latin America	5.2	4.7	1.3	1.7
Oceania	3.9	4.2	1.9	4.7
Africa	2.2	1.8	0.4	1.6
CIS	0.6	0.2	0.1	1.2

These results remind us that data from Thomson WoS tends to underestimate the presence of non-central social sciences journals. That said, we will see that in terms of citations, the central actors in the field also tend to concentrate their citations on the central journals and countries, and themselves neglect contributions from outside Europe and North America.

If we examine the specific countries where refereed social science journals are edited, we observe that among the top twenty, nine are European,[7] four Asian (India, Japan, China and Singapore),[8] two Latin American (Brazil and Mexico), two Oceanian (Australia and New Zealand), two North American (USA and Canada) and one from Africa (South Africa). By publishing more than 1,000 refereed social sciences journals, the USA is the first country (with a quarter of the social science journals), followed by the UK, the Netherlands and Germany. Together these four countries publish two-thirds of all social science journals.[9]

These results confirm the centrality of two major producers of social sciences, Europe and North America. These two regions account for about three-quarters of the world's

5. Europe is defined as the 27 members of the European Union, plus Switzerland, Norway, Iceland, Albania and the ex-Yugoslavian countries.
6. When we use the Thomson database, only the following disciplines are included in our definition of 'social sciences': area studies, anthropology and archaeology, criminology, demography, economics, science studies, geography, planning and urban studies, international relations, political science and public administration, miscellaneous social sciences, general social sciences and sociology. Since the Ulrich database is based on a different classification, we consider the following sections: social sciences, anthropology, archaeology, sociology, political science, geography, criminology and business and economics (the former section does not distinguish between economics and business, so there is an over-evaluation of this section as the SSCI separates economics and business).
7. These countries are: the UK, Germany, the Netherlands, France, Poland, Italy, Austria, Switzerland and Belgium.
8. Although China is only ninth in terms of academic and refereed journals (and the third Asian country), it becomes fifth in the world and top in Asia if we extend our corpus and look at academic journals in general.
9. The position of the Netherlands can largely be explained by the large number of international journals edited in the country. These journals contain contributions from many countries, not only or even mainly from the Netherlands. As we shall see, this can be corrected by examining the papers' country of origin.

social science journals. If we compare these results with those obtained using the SSCI data, the concentration is even stronger; the two regions produced more than 90 per cent of the social science journals from 1998 to 2007. The difference between these results can largely be explained by the SSCI only covering 'core' journals on the social sciences disciplines.

The dominant languages of the social sciences

The domination of European and North American social sciences has an obvious effect on the languages used for the diffusion of research results in these fields. Using the Ulrich and SSCI data, we assessed the relative weight of each language by considering its presence in social science journals.[10]

Table 4.3 shows that the first five languages are Western ones. English is by far the most used language in social science journals: 85.3 per cent of the refereed journals covered in Ulrich are edited totally or partially in English. French, German, Spanish and Portuguese follow. Chinese is the most-used non-European language, accounting for 1.5 per cent of the academic social science journals in Ulrich. This result is an indication of China's new role in the social sciences (Ping Zhou, Thijs and Glänzel, 2009). The second non-European language is Japanese. It is worth noting that if we consider the larger set of academic journals more generally by including non-refereed journals, the proportion of English-language journals falls to 69.6 per cent. This indicates the stronger concentration of English in scientific communities as opposed to the larger intellectual communities, which are naturally more attached to their local languages. If we use the SSCI to consider the languages in which the articles are written (and not those of the journals), English articles account for around 94 per cent (in the period 1998–2007) of the total. This larger proportion illustrates the Thomson WoS database's English-speaking bias. Nonetheless, it does not differ much from Ulrich, making strong domination of English in the social sciences field a fait accompli.

Table 4.3 > The ten prevalent languages in social science journals

Language	% Ulrich refereed journals in 2004 (N = 3,046)	% Thomson SSCI articles 1998–2007 (N = 226,984)
English	85.3	94.45
French	5.9	1.25
German	5.4	2.14
Spanish	4.0	0.40
Portuguese	1.7	0.08
Chinese	1.5	0.00
Dutch	1.5	0.01
Japanese	1.0	0.06
Polish	0.9	0.00
Italian	0.6	0.01

10. If journals are plurilingual, they are counted as a separate unit in each language.

Global trends in the production of scientific papers

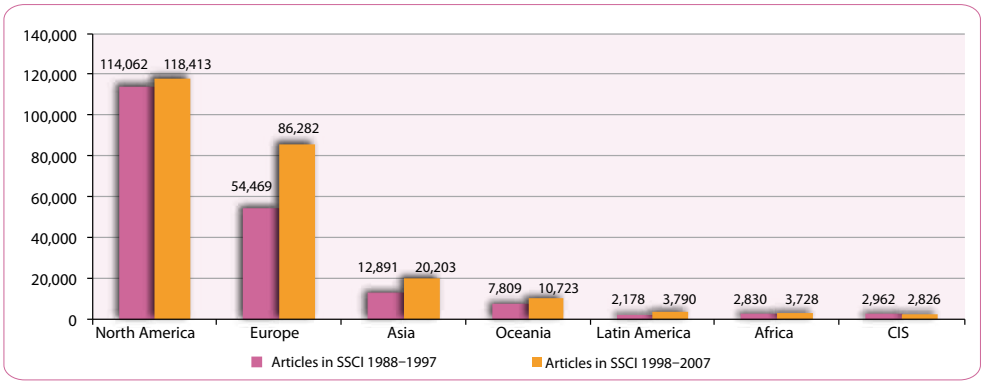
We can take a first glance at the global evolution of the social sciences in recent decades by examining the number of research articles written by authors from each region during the two decades 1988–1997 and 1998–2007. SSCI data[11] shows a substantial overall rise of about 21 per cent in the numbers of social science articles between the two periods: from 187,109 published between 1988 and 1997, to 226,940 published between 1998 and 2007.

As shown in Figure 4.5, the growth varies greatly from region to region, with the largest in Latin America (an increase of 74 per cent), Europe (increasing by 58.4 per cent) and Asia (a rise of 56.7 per cent). For Africa and Oceania the growth is only about 30 per cent, while the CIS is the only group of countries facing a decline in its production of social science papers (-4.6 per cent). This reflects the disorganization that followed the fall of the USSR (Wilson and Markusova, 2004). Part of the overall growth is also the result of the SSCI database's changing content: over the years it has covered more European journals. The relative stability of North American growth (of only 3.8 per cent) suggests that its system has attained a plateau, whereas a region like Asia is still building its social science research system.

Nonetheless, North America is the largest producer of papers in the social sciences, with more than half of the total number of articles, and is the only region publishing an average of more than 10,000 articles per year. With other countries' growing contributions, the North American share of the total is bound to diminish over time: from 61 per cent of the total of social science articles over the period 1988–1997, this percentage drops to 52.2 per cent over the next ten-year period (1998–2007). Europe is the second most important actor in social sciences and its share grew substantially, from 29.1 per cent during 1988–1997 to 38 per cent during 1998–2007.

11. We only considered articles with at least one address, and attributed the paper to the country mentioned in that address. In the case of multi-authored papers, we attributed one paper to each country mentioned in the addresses. Consequently, the totals for countries can add up to more than 100 per cent.

Figure 4.5 — Production in the social sciences by region



Asian countries hold the third place in the hierarchy, producing 8.9 per cent of the social science articles during 1998–2007, or 20,203 articles. Asia is followed by Oceania, which produced almost 5 per cent of the articles in that decade. The other three regions, Latin America, Africa and CIS, produced less than 2 per cent of the social science articles, and less than 4,000 articles per decade.

In summary, Europe and North America maintain their largely dominant position, although North America has seen its relative share decline over time. The other regions clearly play a peripheral role, even though their share of world production has increased over the past twenty years (for a more detailed account by discipline and by country, see Glänzel, 1996).

Citations in social sciences: autonomy or dependence?

One of the main questions for contemporary social sciences is the peripheral regions' degree of autonomy from or dependence on the two main social sciences producers, Europe and North America. While the centrality of these two regions is confirmed by international collaborations analysis (see the contribution by Frenken et al. in this Report), we can also obtain a complementary measure by looking at the origins of citations in the articles produced by social scientists from the different regions. Using the SSCI database, we examine the geographic origins of references to different countries' social science journals during two periods of three years, 1993–1995 and 2003–2005, in each region, based on the 200 most-cited journals.[12]

As might be expected, Table 4.4 shows that in respect of all regions and in the two relevant periods, the two most-cited regions are Europe and North America. Citations

12. Limiting the analysis to the 200 most-cited journals probably underestimates the total proportion of citations of peripheral journals, as these are probably concentrated in the tail of the Lotka-type distribution in which the majority of the citations are attributed to a small number of dominant journals. Using, say, the first 500 journals would increase the capture rate of total citations. But it would necessitate a great deal of work to identify marginal journals and would not significantly affect Europe and North America's central place.

Table 4.4 > Origins of citations by region for the 200 most-cited journals

Citing regions	Africa		Latin America		Asia		CIS		Europe		Oceania		North America	
Cited regions	% 1993–1995	% 2003–2005	% 1993–1995	% 2003–2005	% 1993–1995	% 2003–2005	% 1993–1995	% 2003–2005	% 1993–1995	% 2003–2005	% 1993–1995	% 2003–2005	% 1993–1995	% 2003–2005
Africa	22	11.7	0	0.4	0	0.2	0.2	0	0	0	0	0	0	0
Asia	0.4	0.8	0.5	0.3	6.8	1.6	1.2	1	0.3	0.2	0	0.2	0	0
CIS	0	0	0	0	0	0	36.7	15.3	0	0	0	0	0	0
Europe	45.4	53.4	32.1	33.9	31.2	41.8	30.9	31.9	51.1	50.3	35.9	42.7	17.6	20.4
International	5.2	3.1	3.7	2.3	3.6	2.3	0.3	0.2	1.7	1.3	2.4	1.7	1.6	1.4
Latin America	0	0	11.7	6.9	0.2	0	0	0	0	0	0	0	0	0.2
Oceania	0.3	0.2	0.4	0	0	0	0	0	0.5	0.3	12.9	7.2	0	0
North America	26.7	30.9	51.6	56.2	58.2	54.1	30.8	51.5	46.3	47.9	48.8	48.1	80.8	78.1
Capture rate	48.3	50.7	47.8	43.9	45.9	45.5	55.1	48.1	41.1	41.9	40.1	39.1	45.8	45.5

Notes:
1. This table should be read as follows: for example (top left), restricted to the 200 most-cited journals in African social sciences articles, 22 per cent of the references in the period 1993–1995 come from African social sciences journals.
2. The 'capture rate' measures the percentage of the total number of references in the 200 most-cited journals.

of European and North American journals vary between 61.7 per cent (CIS, 1993–1995) and 98.5 per cent (North America, 2003–2005) of the 200 most-cited journals' overall citations. We can distinguish European-dependent countries and North-American-dependent countries in terms of citations. Hence, Africa is largely a European-dependent region, with more than half of its references being to European journals in 2003–2005. By contrast, Latin America and Asia are North American-dependent regions, with more than half of their references being to North American journals in the two periods. Oceania is an intermediary case while the CIS, having been comparatively autonomous in 1993–1995, became more dependent on North America ten years later. North America is largely autonomous in terms of citations (around 80 per cent are 'self-citations'; that is, citations of papers originating from the USA or Canada), while European citations are almost equally divided, with intra-European citations having a slight advantage above inter-citations.

Following this first observation, the question is whether important changes occurred between 1993–1995 and 2003–2005. A first noticeable trend in all the regions (albeit at different levels) is the decline of self-citations, by which we mean citations of papers from an author's own region. The rate of self-citation was halved in peripheral regions like Africa, Latin America, Oceania and the CIS. In the period 1993–1995, 22 per cent of the references in African papers were to African social science journals. Ten years later, this proportion had fallen to only 11.7 per cent. The decline is even stronger in Asia.[13] For the two major social science producers, Europe and North America, a slight decline can also be observed, indicating better recognition of foreign contributions. We can also observe an increase in the proportion of citations of European and North American journals in most regions. This rise can be relatively small and insignificant (for example, 1 per cent more European citations in the case of the CIS between the two periods) or much bigger (10.6 per cent more European citations from Latin America).

Conclusion

From all these data on publication and citation practices, we can conclude that beyond a general growth in the number of papers and journals in the social sciences around the world, the globalization and internationalization of research have essentially favoured Europe and North America, the regions that were already dominant. Furthermore, the autonomy of the other regions has diminished and their dependence on central actors, as measured by citations, has increased over the past twenty years. Finally, Europe has increased its centrality and is now comparable to North America.

Although the tendency to interpret any rise in internationalization as a sign of openness is a strong one, we should not ignore the fact that there is tension between autonomy and dependence. It is not impossible that the increase in exchanges (through collaboration or citation practices) with central countries could lead to increased dependence instead of greater autonomy, as the inter-citation analysis has shown. At the same time, we should not underestimate the possibility that by having access to central journals and collaborators, researchers from peripheral countries can improve the visibility of their work in North America and Europe. Finally, given that the objects of the social sciences are more local than those of the natural sciences, it is clear that these local realities are better studied by local social scientists using local resources, even if their visibility on the international scene remains low. We could even predict that too much internationalization could induce a tendency to study more 'central' problems at the expense of socially important local ones.

13. This stronger decline can be partially explained by our analysis being limited to the 200 most-cited journals. If a country cites more North American or European journals, the local journals may thus fall under the threshold of 200 and they will not be captured. Therefore this approach underestimates the total proportion of local citations but reveals the increase of central countries' attraction.

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The hegemony of English

Ulrich Ammon

English is an asymmetric global language whose benefits are unequally distributed. Native speakers are the gatekeepers to funding and publishing. There is also an anglophone-centred flow of information and an anglophone perception of scientific achievement. The anglophones' linguistic advantage contributes to the enhancement of their countries' competitive advantage in science, and in related businesses such as publishing, as well as to the attractiveness of their universities.

English is the global language of social science, and is used extensively – both passively and actively – by non-anglophone academics (Ammon, 2001; Carli and Calaresu, 2003). The preference for English is less pronounced in the social than in the natural sciences, but more so than in the humanities (Ammon, 1998, pp. 137–79).

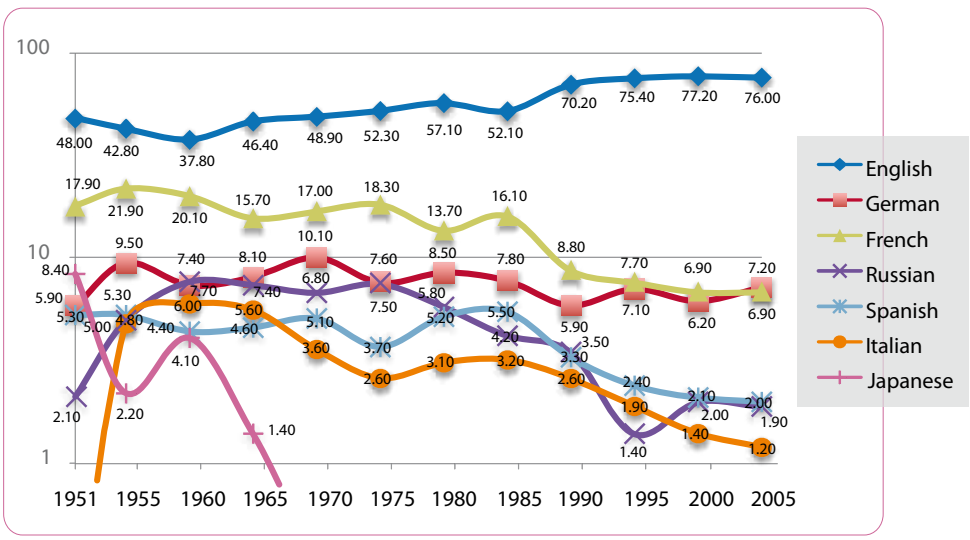
Gingras and Mosbah-Natanson in this Report illustrate the dominance of English using the Ulrich and WoS databases. Figure 4.6 offers another overview of the proportions of major languages in social science publications, even if this figure (based on the *International Bibliography of the Social Sciences* [IBSS] and the library collection of the London School of Economics) is somewhat biased.

There are noticeable differences both between and within disciplines. Certain disciplines such as economics are more likely to be anglophone than others such as law. Likewise, international law is more likely to be anglophone than national law. Representative data on this is missing, however.

Causes of the hegemony of English

Despite the English language's privileged position, built notably through colonialism and economic power, English, French and German were of broadly similar importance for the social sciences in the early twentieth century. The First World War, the Second World War and the fall of the Soviet bloc all helped to accelerate the expansion of English. The USA became a global centre for science. Its language supremacy was enhanced by a combination of factors. These included superior resources for research and for the development of bibliographical databases and citation indices; the abolition of foreign language requirements in US universities (forcing others to use English); and halo effects such as the extension of academic prestige to the English language (Ammon, 1998, pp. 179–204).

Figure 4.6 — Percentage shares of major languages in social science publications worldwide (rank order following 2005; all other languages < 1 per cent)



Consequences of the language hegemony

To call English the lingua franca of science masks existing language divides. English is not a lingua franca in the sense of being a non-native language for all its users – as, for instance, was medieval Latin. It is an asymmetric global language whose benefits are unequally distributed. The fact that virtually everyone uses English for global interactions contributes to the spread of innovation and boosts the advancement of science. But non-native speakers of English have to devote greater efforts than native speakers to the language because they are obliged to learn it, and therefore contribute more heavily to the creation of the public good of a common language (Van Parijs, 2008). They also continue to be weighed down by poorer skills, which often exclude them from conferences and publication opportunities (Ammon, 1990). Native speakers are the gatekeepers to funding and publishing (Burrough-Boenisch, 2006; Flowerdew, 2008). There is also an anglophone-centred flow of information and an anglophone perception of scientific achievement (Durand, 2001). While both anglophones and non-anglophones read and publish in English, the latter also publish in their own native languages. The anglophones' linguistic advantage contributes to the enhancement of their countries' competitive advantage in science, and in related businesses such as publishing, as well as to the attractiveness of their universities.

Difficulties in communication can arise from any non-anglophone setting, especially from different text conventions whose transference can appear awkward (Clyne, 1987). One source of confusion is terminology, since English can be more – but also less – refined than other languages. The English term *social class,* for instance, can either relate to the German *soziale Klasse* (antagonistic and in the Marxist tradition) or *Sozialschicht* (non-antagonistic). The notion of *identity* has three possible translations in Japanese: 主体性 *shutaisei*, 独自性 *dokujisei* or 自己認識 *jiko-ninshiki*, each word having a slightly different meaning.

This goes to suggest that a single global language not only contributes to the advancement of science through wider communication, but also hampers its progress by disregarding the cognitive potential of other languages. This concern, based on the Humboldt and Sapir–Whorf hypothesis, seems applicable to the social sciences, since cultural differences are intrinsically present within the semantic structure of a given language. It also implies that multilingualism gives non-anglophones a cognitive advantage, although this needs corroboration and certainly does not fully make up for their difficulties in communicating.

Is greater 'linguistic equity' possible?

Attempts to promote linguistic equity should also heed efficiency in scientific communication. While all non-native speakers of English are affected by its dominance, it impacts two groups disproportionately:

- Those whose language has recently lost in international prominence (for instance, French or German) or who have recently become involved in global communication (for instance, Russians).
- Those whose language is at a considerable structural distance from English and who find English especially difficult to learn well (for example, Chinese, Japanese). While the problems of the first group will decline, those of the latter will persist.

Solutions and guidance on these issues could be encouraged by awareness-raising campaigns (like La Madeleine, 2007; Ammon and Carli, 2008). Scientific organizations could establish special committees to deal with the problems raised by the dominance of English and to develop proposals for improvements. There is a need for greater university training on writing scientific papers in English (Swales and Feak, 2000) and for greater editorial support for publishing (Burrough-Boenisch, 2006; Flowerdew, 2008), ideally with professional as well as linguistic help (Benfield and Feak 2006, p. 1). This could be financially supported by leading publishers. The same applies to oral presentations at conferences. In the long run, automatic translation and interpretation may bridge the language divide, or English-language skills may become so ubiquitous that anglophones will lose their advantage, although this would produce more obstacles for other languages. Non-native-speakers, the vast majority of the total, may even gain normative control over the global language, thereby leading, at least in the case of scientific communication, to the predominance of non-native strains of English (Ammon, 2003, p. 33; 2006).

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Social science research in the Latin American and the Caribbean regions in comparison with China and India

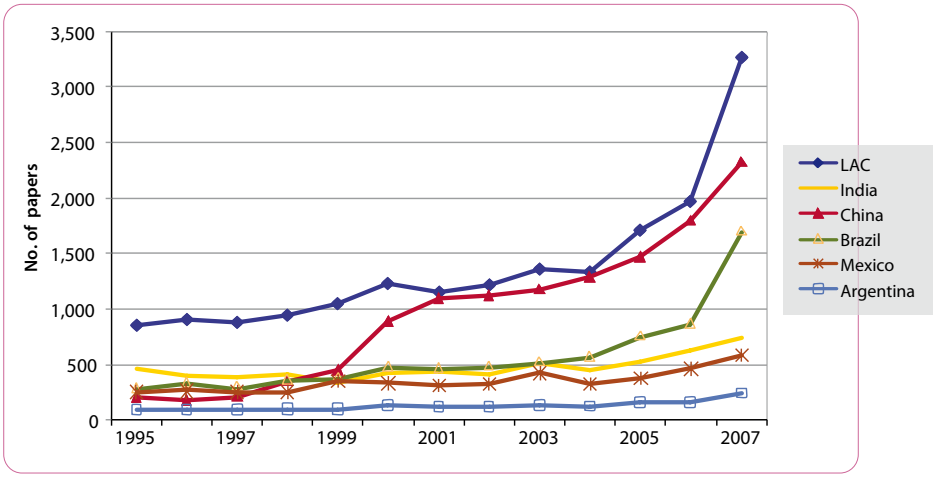
Jane M. Russell and Shirley Ainsworth

In this contribution, we focus on the overall production, international collaboration patterns, and the main subject areas and thrusts of research in the Latin American and Caribbean countries (LAC). We specifically emphasize Brazil, Mexico and Argentina, the major players in LAC science, comparing their performance with that of India and China, the other emerging economies.

In developing countries, social science research is considered to be primarily of local relevance and to impact only its immediate surroundings, making publication in national books and journals the main communication outlets. Nonetheless, a growing presence in the highly visible mainstream journals published predominantly in English indicates an increasing awareness that much of this research also has implications for the global scientific community. In this short contribution, we focus on the overall production, international collaboration patterns, and the main subject areas and thrusts of research in the Latin American and Caribbean countries (LAC). We specifically emphasize Brazil, Mexico and Argentina, the major players in LAC science, comparing their performance with that of India and China, the other emerging economies.

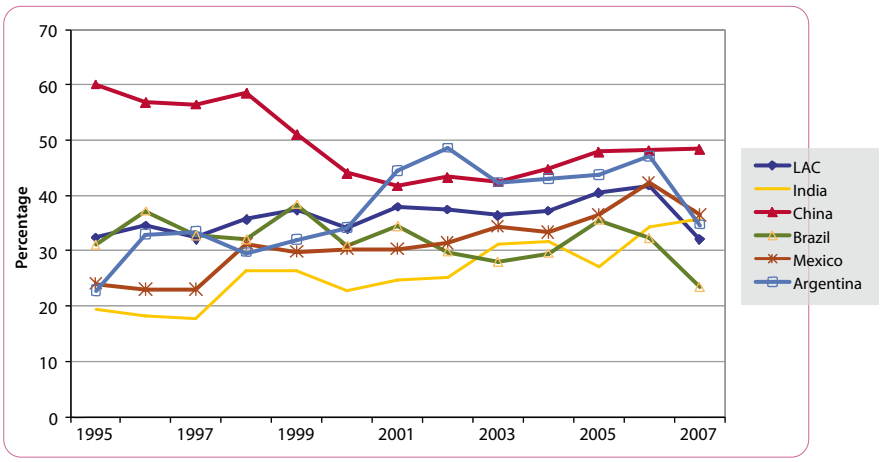
The SSCI, which brings together the world's most-cited social science journals and which covers 50 disciplines, reported a fourfold increase from 852 in 1995 to 3,269 in 2007 in research papers (articles, conference papers, reviews, letters and notes) from the LAC region. Brazil showed an increase from 274 items in 1995 to 1,690 in 2007, Mexico from 248 to 581, and Argentina from 92 to 239. When we compare these three countries with India and China, and with LAC as a whole, all six show significant increases (Figure 4.7). China shows the most marked growth over the period, moving from being fourth of the five individual countries in 1995 to a predominant first position in 2007. India shows the smallest increase and drops from the first position of the individual countries in 1995 to third, behind China and Brazil, at the end of the period. In 2008, Brazil was the fifth most populous country in the world; nevertheless, with approximately 195 million inhabitants, it was considerably smaller than China and India with their 1,325 million and 1,149 million inhabitants respectively. The populations of Mexico and Argentina were 108 million and 40 million respectively in 2008 (Population Reference Bureau, 2008). These figures suggest that these

Figure 4.7 — Total annual production of research papers in Latin America, China and India, 1995–2007



Note: LAC = total Latin America and the Caribbean

Figure 4.8 — Annual percentages of research papers produced through international collaboration in Latin America, China and India, 1995–2007



Note: LAC = total Latin America and the Caribbean

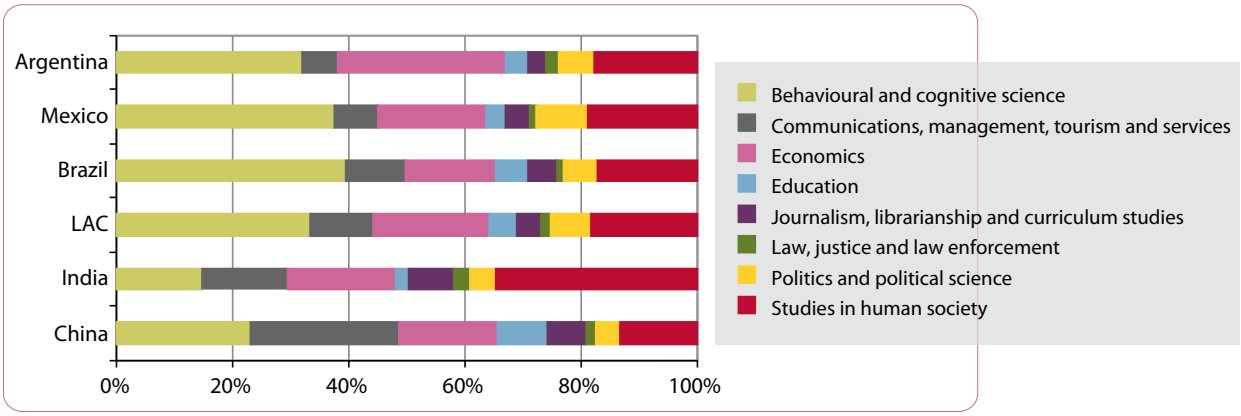
three LAC countries have a notable presence in the SSCI in terms of their population when compared to the two populous Asian countries.

Another parameter with which to measure a scientific system's degree of internationalization is the percentage of papers co-authored with scientists from other countries. With 46.9 per cent, China showed the greatest overall percentage of internationally co-authored papers in the thirteen-year period from 1995 to 2007. The LAC countries had 36.2 per cent overall; individually, Brazil had 30.4 per cent, Mexico 32.4 per cent, and Argentina 38.3 per cent. India had 27.2 per cent (Figure 4.8). Mexico, Argentina and India showed an increasing percentage of internationally collaborative papers, with Brazil and China showing lower percentages at the end of the period than at the beginning. LAC showed a small but steady rise before 2007, when its percentage dropped to the 1995 level.

Scientifically speaking, small countries tend to have a high percentage of internationally collaborative papers. In small Latin American countries such as Bolivia, Ecuador, Guatemala, Nicaragua and Panama, between 74 per cent and 86 per cent of publications are co-authorships with at least one other country. Conversely, only around 30 to 38 per cent of papers published in scientifically more developed countries such as Brazil, Mexico and Argentina are co-authored (Sancho et al., 2006).

In the mid-1990s, international co-publications accounted for about 60 per cent of China's total publication output in the SSCI. At the beginning of the twenty-first century, this had dropped to between 40 and 50 per cent. But in 1995, the total number of Chinese papers was small (at 198) compared with its 2007 total of 2,324. This suggests that China increased both its overall international visibility and its number of internationally co-authored papers. The

Figure 4.9 — Distribution of research papers in respect of the main social science disciplines in Latin America, China and India, 1995–2007



Note: Disciplines based on the RFCD classification scheme (Butler, Henadeera and Biglia, 2006).
Papers can be assigned to more than one subject category.
LAC = total Latin America and the Caribbean.

discipline the SSCI most frequently assigns to papers from LAC is medical and health sciences (38 per cent), including 41 per cent of papers from Mexico and 44 per cent from Brazil assigned to this discipline. This is also true for Argentina, India and China but to a far lesser extent (23 per cent, 23 per cent and 18 per cent, respectively).

When we group the disciplines into science and social science and the humanities, only China, India and Argentina have more papers assigned to the latter categories. The three citation indexes include both duplicate records and indeed duplicate journals, and these have humanities and science subject categories assigned to them, as well as their own social science subject categories. From Figure 4.9, it is apparent that behavioural and cognitive sciences is the main LAC social science discipline, while for India it is studies in human society (including sociology and anthropology). Economics is an important field for Argentina, while commerce, management, tourism and services are priority disciplines for China. Surprisingly, very few papers from all of these countries are within the education field.

Of all the subject categories, public, environmental and occupational health are the topic on which most LAC research focuses, followed by psychiatry (with the

Table 4.5 > Most prolific subject categories in Latin America, China and India, 1995–2007

Brazil		Mexico	
Public, environmental and occupational health	2,078	Public, environmental and occupational health	1,098
Psychiatry	1,037	Psychiatry	712
Neurosciences	444	Economics	401
Economics	432	Psychology, multidisciplinary	387
Behavioural sciences	345	Behavioural sciences	153
Nursing	327	Political science	151
Social sciences, interdisciplinary	292	Neurosciences	141
Psychology, multidisciplinary	288	Anthropology	134
Environmental studies	242	Environmental studies	128
Psychology	232	Psychology, biological	127
Psychology, biological	199	Psychology	125
Argentina		**LAC**	
Economics	342	Public, environmental and occupational health	3,852
Neurosciences	130	Psychiatry	2,120
Anthropology	127	Economics	1,764
Public, environmental and occupational health	123	Psychology, multidisciplinary	1,019
Psychology, multidisciplinary	121	Neurosciences	805
Psychiatry	116	Anthropology	689
Behavioural sciences	104	Behavioural sciences	643
Psychology	98	Environmental studies	631
Clinical neurology	73	Psychology	536
Political science	52	Social sciences, interdisciplinary	529
Urban studies	48	Management	473
India		**China**	
Psychiatry	699	Economics	1,512
Economics	685	Management	1,192
Anthropology	517	Business	717
Public, environmental and occupational health	396	Psychiatry	712
Management	383	Public, environmental and occupational health	687
Social work	335	Operations research and management science	669
Environmental studies	318	Education and educational research	602
Planning and development	293	Environmental studies	562
Information science and library science	282	Information science and library science	464
Operations research and management science	266	Psychology, multidisciplinary	438
Environmental sciences	199	Business, finance	435

exception of Argentina). Psychiatry is also important for China and India (Table 4.5).

Economics is a relevant field for LAC (particularly Argentina), and also for China and India. Management and business-related fields are particularly important for China as well as India.

It should be kept in mind that an analysis of international databases, and particularly of multidisciplinary citation indexes, does not provide an indication of the investigated countries' total production, but only of that published in globally visible scholarly journals. Production data depend on the particular journal set covered by the database during any specific period (Collazo-Reyes et al., 2008). This is an important consideration for developing countries, whose journals are poorly represented in international databases. A previous study by Narvaez-Berthelemot and Russell (2001) demonstrated the particularly poor representation of Chinese and Indian social science journals in the SSCI when compared with those in the Dare/UNESCO database.[1] In spite of these limitations, the SSCI is an important source. It covers research that is highly visible to the international scientific community and which is therefore readily available for comment, feedback and utilization. Furthermore, in the past two years the SSCI has greatly increased the number of journals it covers from non-English-speaking countries. In the present study, we found that 35.4 per cent, 39.4 per cent and 12.8 per cent of all research papers from Brazil, Mexico and Argentina respectively appeared in national journals indexed by the SSCI. The vast majority of these papers were published in Spanish or Portuguese. The corresponding numbers were 18.6 per cent for India, a reduction from 31.8 per cent in 1995, and 1 per cent for China, almost all of which were in English.

While all these countries, and the LAC region as a whole, increased their overall production in the thirteen-year span that we studied, China and Brazil made the biggest gains by far. These two countries were also the only ones to show a smaller percentage of international collaboration at the end of the period than at the beginning, perhaps suggesting growing independence for their research efforts. Indian publication patterns are more in keeping than China's with the less productive LAC countries of Mexico and Argentina. Nevertheless, India and China are more similar to one another than to the LAC nations in their publishing patterns.

1. The Dare/UNESCO database is a legacy directory of institutions and journals published worldwide in the social sciences. It was last updated in June 2004, but is still available: http://databases.unesco.org/dare/form.shtml

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Scientific mobility and the internationalization of social science research: the case of mainland China

Koen Jonkers

This paper discusses the internationalization of the Chinese social science research system, with a specific focus on the impact of scientific mobility on this process. The greater international visibility of Chinese social science researchers, and the consistently increasing share of international co-publications in China's social science output, which is itself growing fast, are indicators of the increasing internationalization of Chinese social science.

This paper briefly discusses the increasing internationalization of the Chinese social science research system, with a specific focus on the impact of scientific mobility on this process. In this paper, 'internationalization' refers to the processes of increasing international visibility and openness to the international scientific community through international collaboration and other ties. The paper is primarily based on simple bibliometric indicators of international visibility, complemented by a discussion of other changes in the Chinese research system related to its internationalization.

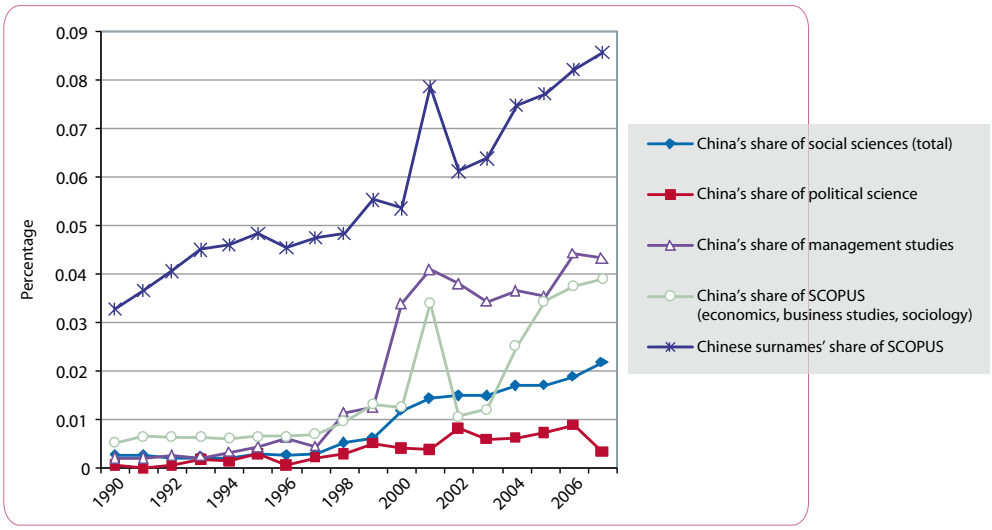
Several studies have addressed the Chinese research system's increasing presence in the global science system. Figure 4.10 shows the increasing share of Chinese social science publications[1] in the bibliometric databases of Thomson Reuters SSCI and Elsevier's Scopus. As discussed at length in other sections of this Report, there are limits to the use of bibliometrics, especially as a source of productivity and quality indicators in the social sciences (Archambault and Larivière, in this Report). This is especially important when considering China, which has a vibrant domestic-language scientific press (Su, Han and Han, 2001). However, the simple output data derived from these databases can be used as an (imperfect) indicator of the international visibility of the Chinese research system.

As Figure 4.10 shows, China's world share of social science papers is higher in the Scopus database[2] than it is in the SSCI database. There are considerable differences in China's international visibility in the various social science fields. For example, management science reached almost 4 per cent of the total global share of 'international visibility' in 2007, whereas political science lagged behind the social science average, with a share of 0.3 per cent in 2007. Management science's special position can be explained in part by the fact that in contrast to most Chinese social science research (Wei Lili, in this Report), it receives funding from the Natural Science Foundation of China.[3]

An important element in the internationalization of the Chinese research system is the inward and outward flow of students and researchers (Jonkers, 2010a). According to China's Ministry of Education, 47.5 per cent of overseas Chinese students were pursuing social science majors in 2006 (Xinhua News Agency, 2007). There are no exact statistics on the size of overseas Chinese social scientific communities around the world. The final line of Figure 4.10 shows an indirect indicator of their visibility, which is based on publications by researchers with a Chinese heritage surname (Webster, 2004; Jonkers, 2010b). The figure thus shows that in addition to their mainland peers, the overseas Chinese social science community is involved in publishing an increasing share of the global social science output. Researchers with Chinese heritage surnames published well over 8 per cent of the total Scopus social science output in 2007, of which less than half originated from mainland China. Furthermore, the Chinese Government is actively promoting the return of its students from abroad (MOE, 2004). These returned social scientists are helping to increase the Chinese social science research system's international visibility. They are also said to play important roles in the financial and insurance sector, as well as in think-tanks (see among others, Li, 2006).

1. Publications refer to these document types: articles, letters, notes and reviews.
2. No good explanation was found for the sudden peak in China's share of SCOPUS papers in 2001.
3. As a reviewer indicated, the NSFC also sponsors social science projects in areas which would in some countries fall under other social science disciplines. It has a special division for management science, but not for other social science fields.

Figure 4.10 — China's increasing share of international social science publications, 1990–2006



Note: China's share of global SSCI publications is measured relative to the production of the 47 countries with the highest GDP. This may have led to some overestimation of its share of the world SSCI publications. See Ping Zhou, Thijs and Glänzel (2009) for a recent bibliometric study which found lower percentages.

The share of international co-publications in China's total SSCI output is relatively high and remained fairly stable over the period 1994–2007. In 2007, international co-publications with North America and the EU-15 accounted for around 39 per cent of China's SSCI publications. The share of international co-publications in the total Scopus output is consistently lower, and fluctuates between 5 per cent and 20 per cent for the period 1990–2007. In recent years, Western European research funding agencies have witnessed stronger interest from their Chinese counterparts in joint funding for social science projects. This has led to a greater number of joint projects in this field.[4]

Another interesting aspect of the internationalization of the Chinese research system is the establishment of joint laboratories, centres and institutes by foreign research organizations on Chinese soil (Jonkers, 2010). An example is the Joint Institute of Michigan University (USA) and Beijing University. Again, however, the social sciences are under-represented by comparison with the natural sciences in this trend. Other examples of the internationalization of the Chinese social sciences include the hiring of part-time and full-time foreign professors for Tsinghua University's School of Economics and Management, for example, and a number of twinning agreements with European universities.

The bulk of Chinese social science research is performed by Chinese researchers at universities and at institutes of social science academies. Both of the examples in the previous paragraph – the increasing international visibility of the Chinese social science research system, and the consistently high share of international co-publications in China's growing social science output – are indicators of the increasing internationalization of the Chinese social science research system.

4. COREACH secretariat personal communication. (For information on COREACH, see: http://www.co-reach.org. Accessed November 2009.)

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Women at work, India
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Chapter 5
Homogenizing or pluralizing social sciences?

Periods from Haitian history, National Office of Ethnology, Port-au-Prince, Haiti
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5 Homogenizing or pluralizing social sciences?

Chapter presentation

The previous chapters have demonstrated the growing internationalization of the production of social science knowledge. What are the consequences of the ever-increasing circulation of people and ideas for knowledge production: not only for what is produced but also for how it is produced?

The first hypothesis is that internationalization leads to homogenization, through the progressive harmonization of knowledge production norms. However, this can only happen in the context of the dominance of Western research systems, as was shown in Chapter 4. The West, with the USA in the lead, is the main contributor to world social science production and publishing. This leading position gives the West a major role in defining which research outcomes deserve to be published. Which issues are of interest? Which research methodology produces robust knowledge? Which theoretical concepts should be referred to? The global North quantitative domination of social science production could cause the global South to respond by internalizing Western knowledge production norms in order to be visible on the international scientific scene. This is particularly true in the present competitive context, in which ranking enjoys so much attention. Ranking requires common evaluation criteria and comparison tools, which we know are mainly formulated in the West (Chapter 7).

But research internationalization also facilitates the advent of divergent voices on the international scientific scene, and stimulates a fruitful and productive meeting between heterogeneous ideas and methods. The emergence and affirmation of research from regions outside the European cradle of social sciences may challenge and question the Western standards for social science which have dominated the scene to date. This may contribute to a reconsideration and renewal of the research interests, methodologies and theoretical concepts of the global social sciences.

But, this is the second hypothesis, does research internationalization reinforce the historical Western hegemony inherited from social sciences' European origins (see Wagner in this volume), or does it open them to a renewed and higher plurality?

This chapter aims to refine these hypotheses and explore the interrelations between contradictory trends. It draws on both theoretical contributions and national case studies. The first section deals with theoretical contributions on the multiple faces of Western scientific hegemony, its effects, and counter-hegemonic currents. These contributions all challenge the central idea of the universality of science. The second section goes into greater detail in expressing this tension between universal and local knowledge by offering empirical studies of the research interests and approaches in three countries.

5.1 Hegemonies and counter-hegemonies

Introduction

In her contribution, Wiebke Keim uses sociology as an example that illuminates Western hegemony in social sciences. For her, the European origin of academic disciplines within specialized institutions, and their later extension into the rest of the world, has led to the marginalization of the global South's social experiences and social-scientific production. The global South's sociology, in particular, still suffers from its intellectual dependency on Western production and from an unequal division of labour. Researchers from the global South are often more devoted to empirical studies and data collection, whereas the theoretical implications of these works are discussed in studies by researchers in North-Western countries. But this exclusion process goes hand in hand with an inclusion process. Indeed, Western science has the ambition to be universal. General social theory is regarded as universally valid, and social realities from all over the world are analysed with its tools, which are essentially produced in the North. Consequently it is argued that Western social science produces a 'distorted form of universality'.

Several counter-hegemonic currents have emerged since the 1960s. They aim both to challenge North Atlantic domination and to offer social sciences that are socially relevant for realities which mainstream research has not fully taken into account. These currents seem to be enjoying a revival in the present context of internationalization. Keim notes that there is absolutely no paradox in this, as the increase in international communication networks is likely to intensify the tensions between local and general sociologies, and to stimulate specific claims for the recognition of local social realities and forms of knowledge.

For Syed Farid Alatas, mainstream social science research is often irrelevant for the South. Many research projects following methodologies, theories or empirical approaches pervaded by the norms and discourses of mainstream research have proved either inadequate or inapplicable to the diversity of local contexts. The author lists a series of research projects in Asia which are presented as alternative in that they suggest a different methodological or topical approach (see other examples of the changes introduced by the integration of indigenous standpoints in New Zealand by Peace in Chapter 2). From these, he proposes a typology of alternatives in social sciences, and calls for the improvement of the relevance of research projects that go further in their degree of alternativeness in order to improve the relevance of global social sciences.

The universality and the value-neutral objectivity of science have also been deeply questioned within Western countries, particularly by feminist studies, which were the first to maintain that knowledge production was dominated by a male and white supremacy. This movement has led to the notion of 'standpoint research', which stresses that all knowledge is situated knowledge, and that the best way of increasing the robustness of knowledge is to multiply the diversity of the experiences of those producing scientific knowledge (Harding). This opens onto the diversification of the researchers' origins and to participatory methodologies.

These contributions as a whole suggest that different currents, originating in both the South and the North, converge on common concerns regarding the expression of cultural and social diversity in social science knowledge production. As with the relative feminization of the academic world, 'peripheral' researchers' gradual accession to 'central' fora may provoke improved consideration of the plurality of local social experiences and theoretical production.

The internationalization of social sciences: distortions, dominations and prospects

Wiebke Keim

The present double movement, in which the scholarly community becomes more internationalized while specific local claims also gain in status, is not as paradoxical as it might appear. On the contrary, it seems that this recent development has its foundations in the very history of the social sciences, in the realities of its worldwide spread, and in the forms of its international constitution. Tensions between local and general sociologies could be regarded as a direct consequence of growing international communication.

There is no doubt that scholars' scope for international communication, including the global interconnectedness of social scientists, has increased considerably in recent decades. This interconnectedness, combined with social-scientific interest in globalization, has led to the current debates on the internationalization of the social sciences. Optimistic voices, for example within the International Sociological Association, talk confidently about the internationalization of their discipline, currently a favourite topic at world congresses. However, these developments have also led to fierce contest and to resistance to the idea of a single, unified and 'truly global' sociology. Arguments against the vision of a globalized discipline have in turn provoked fears of the fragmentation of the discipline into localized, nationalized or indigenized sociologies.

This implies that the connection between the commonly accepted and shared idea of the discipline – in this case sociology – and its local realization is becoming increasingly problematic (Berthelot, 1998). I argue that it is not paradoxical that the call for more local sociologies, often emerging from the global South, appears at exactly the time of ever-increasing globalization. We need to take the dissident voices' backgrounds into account in order to understand that they come as no surprise. They are specific challenges to a North Atlantic domination that has to be resisted in order to develop an independent scholarly tradition, one that speaks from the context of origin.

Although social thinking has been present in all societies at all times, the social sciences as academic disciplines within specialized institutions are of European origin. In many cases, they expanded into other continents through colonialism and imperialism. This transfer of knowledge and its associated scholarly practices has led to problems of academic underdevelopment, intellectual dependency, unequal international division of labour, and the international marginalization of the social experience and social scientific production of the global South (see other contributions to this volume for empirical evidence). It is this North Atlantic domination that is the target of the challenges to a globalized sociology.

Besides political challenges and resistance to North Atlantic domination, there is a fundamental epistemological problem. General social theory in itself pretends to produce universal statements, concepts and theories. But this does not happen unless these statements have been adequately tested against empirical realities outside Europe and North America. This has hardly ever been done. The North Atlantic domination therefore leads to a strongly distorted form of universality. It is distorted because to date, this claim of universality relies on both 'radical exclusion' and 'radical inclusion'. These supposedly general theories do not take into account the experience of the majority of humanity, those living in the global South. Nor do they recognize the social theories produced in the South. I call this 'radical exclusion'. In turn, 'radical inclusion' means that despite these radical exclusions, general social theory is regarded as universally valid. The social realities in the southern hemisphere are thus subsumed, without further thought, under the claims produced in the North. This tendency, which has largely not been reflected on, blurs the distinction between the universal and the particular, and the North Atlantic particular is thought to have universal validity. This is a fundamental epistemological problem for social science: that is, for disciplines aiming at the formulation of generally valid claims about society.

In recent years, several attacks have been launched against the North Atlantic domination of the social sciences. These have included critiques of Eurocentrism (Amin, 1988), the

deconstruction of Orientalism (Said, 1978), attacks on anthropology and area studies (Mafeje, 1997), and critiques of the coloniality of knowledge and epistemic hegemony (Lander, 2003). At the same time, the constructive approach of the indigenization project attempts to develop sociological concepts from knowledge contained in oral poetry (see the debate involving Akiwowo, Makinde and Lawuyi/Taiwo in Albrow and King, 1990; Adésínà, 2002).

There are also the detailed analyses of Alatas (2006), who has been working on Eurocentrism within Asian social science and proposes alternatives for research and teaching. In addition, Alatas has conceptualized how far imported approaches may be irrelevant to the analysis of local societies, and proposes a set of criteria to render Southern sociologies more relevant to their own contexts. Connell (2007) considers three current, general sociological theorists, and points out in greater detail how far their approaches show the tendencies of inclusion and exclusion outlined above. Lander (2003) takes a more historical and philosophical perspective on the coloniality of knowledge in Latin America. Keim (2008) analyses North Atlantic domination's empirical factors and effects as well as the emergence of counter-hegemonic currents in Africa and Latin America. (See also S.F. Alatas in the next section.)

I understand 'counter-hegemonic currents' more as implicit challenges to the North Atlantic domination. They include socially relevant social science research and teaching, which has the potential to develop into theoretically relevant fields of knowledge production over time in the countries of the global South. A historical example is the emancipation of an entire continental community, Latin America, from the international mainstream through dependency theory, introducing a paradigm shift away from the then dominant, rather Eurocentric, modernization theory. Another example is the development of South African labour studies into an autonomous scholarly community, which has recently produced publications relevant to the field of labour studies, as well as to general sociological theory-building (Sitas, 2004).

It appears that the present double movement, in which the scholarly community becomes more internationalized while specific local claims also gain in status, is not as paradoxical as it might appear. On the contrary, it seems that this recent development has its foundations in the very history of the discipline, in the realities of its worldwide spread, and in the forms of its international constitution. Tensions between local and general sociologies could be regarded as a direct consequence of growing international communication. Increased international exchange and the gradual accession of 'peripheral' sociologists to 'central' fora confront scholars, who have to date regarded themselves as practising universally valid theory, with the problem of North Atlantic domination. However, the expected internationalization of the disciplines cannot be achieved on a more equal footing between North and South as long as this problem is not recognized and adequately discussed. Taking the social experience and theoretical production emerging from the global South seriously will enrich the disciplines and enable scholars to reflect upon the possibilities of generalizing their claims beyond the local context to a broader empirical basis. This remains the major task for the current and future generations of social scientists. And so, onwards towards a truly global sociology?ب

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The call for alternative discourses in Asian social sciences

Syed Farid Alatas

The call for alternative discourses in Asian social sciences suggests that the social sciences take place in a social and historical context, and must be relevant in this context. One way to achieve relevance is to develop original concepts and theories on the bases of the philosophical traditions and popular discourses of these societies. Any claim to universality must respect the extent of the differences between Asian and non-Asian societies, and admit that in some instances distinct theoretical backgrounds are required.

Groups of scholars and activists from various disciplines in the developing world have been influential in raising the issue of the state of the social sciences in their countries. However varied they are – we cannot speak of a unified intellectual movement – their calls for endogenous intellectual creativity (S.H. Alatas, 1981), an autonomous social science tradition (Alatas, 2003), decolonization, globalization, sacralization, nationalization, or for the indigenization of social sciences share similar concerns. These include Orientalism, Eurocentrism, the irrelevance of mainstream discourses, and the construction of alternative traditions. In today's social sciences, Orientalism and Eurocentrism no longer involve blatantly racist or prejudicial statements, based on simplistic dichotomies between Orient and Occident, progressive and backward, or civilized and barbaric. Instead they take the form of a marginalization of non-Western thinkers and concepts, and the desire for analytical constructions resulting from the imposition of European concepts and theories (Alatas, 2006: ch. 6).

Defining alternative discourses

'Alternative' discourses set themselves in contrast to, or even oppose, what they consider to be mainstream, Euro-American 'universal' discourses. The aims and objectives of alternative discourses are not merely negative. They do not simply break with metropolitan, neocolonialist influences and hegemony. The defenders of alternative discourses do not reject Western knowledge in toto. More positively, they are genuine non-Western systems of thoughts, theories and ideas, based on non-Western cultures and practices. They can be defined as discourses which are informed by indigenous historical experiences, philosophies and cultural practices which can be used as sources for alternative theories and concepts in social sciences. Alternative discourses are relevant to their surroundings, creative, non-imitative and original, non-essentialist, counter-Eurocentric, and autonomous from the state and other national or transnational groupings.

While there may be general agreement on the need for alternative discourses among social scientists in Asian countries, actual proposals remain scarce. Let us for this reason consider some models of alternative theories and concepts in social sciences which have been developed in the Asian context.

Five forms of alternatives

Alternative discourses are attempts at correcting what is perceived as the irrelevance of mainstream, Euro-American theories and models for the analysis of non-Western societies. Irrelevance can be of different types, including unoriginality, redundancy, disaccord, inapplicability, mystification, mediocrity and alienation. These types of irrelevance impinge on all facets of social science knowledge, including its meta-analyses, methodologies, theories, and empirical and applied studies. Alternative discourses can be developed for each of them. The following examples of alternative discourses in Asian social sciences focus on the methodological and theoretical dimensions. The degree to which alternative discourses contest the validity of Euro-American social sciences for the study of non-Western societies varies. It ranges from cautious and creative use of Western theories – for instance Karl Wittfogel's work *Oriental Despotism* (1957) in which he creatively builds on Marx's Asiatic mode of production – to the shaping of local theories induced from local contexts.

Development of local theories adapted to the study of one region

To explain the prevalence of selfishness among peasants in pre-revolutionary China, Fe Hsiao-t'ung developed the notion of the 'gradated network' (Lee, 1992, p. 84). This

concept is a response to the irrelevance of the dichotomy between tradition and modernity which forms the basis of Western social theories for the study of China. Using this 'local' concept adapted to the study of a local reality, Fe Hsiao-t'ung argues that the individual enterprises found in millions of villages are China's industrial bases, and that industrial development in China should keep its rural anchorage instead of leading to concentration in urban centres (Gan, 1994).

Mixing of local and Western theories adapted to the study of one region

In a previous work on Ibn Khaldun (Alatas,1993), I proposed to enlighten aspects of Iranian history by mixing a Western theory of production with Ibn Khaldun's theory of state formation. Safavid Iran's economic system was described with reference to the Marxist notion of the tributary mode of production, but the rise and the dynamics of evolution of the Safavid world empire were depicted in the framework of Ibn Khaldun's theory of state formation.

Mix of non-Western and Western theories adapted to the study of different regions

Local theories can also become the foundations of broader, non-Western theories. Ibn Khaldun offers again a good case in point. His theory of the dynamics of state formation and decline does not apply only to Arab, North African and West Asian societies, but can become a theory of historical timeframes which is useful for the study of these regions but which can also be applied to China and Central Asia (Turchin, 2003: ch. 7; Turchin and Hall, 2003). The core of Ibn Khaldun's cycles is a secular wave 'that tends to affect societies with elites drawn from adjacent nomadic groups' and which operates on a timescale of about four generations, or a century (Turchin and Hall, 2003, p. 53).

Development of non-Western theories adapted to the study of different regions

In some other cases, concepts developed for the study of one non-Western society are used for the study of another. In response to the stereotypical opposition between Indian and Chinese religions, Indian sociologist Benoy Kumar Sarkar had highlighted the commonalities between Asiatic religions. In his *Chinese Religion through Hindu Eyes* (Sarkar, 1916/1988, p. 304), Sarkar looked at the history of Asiatic sociology and compared Sino-Japanese Buddhism and modern Hinduism. He argued that Buddhism in China and Japan had its origin in Tantric and Pauranic Hinduism. The Hindu or nationalist bias is hard to avoid in this example, but more important for our purpose is the attempt at developing non-Western theories to study local realities.

Development of a universal theory on the basis of the study of one region

This is the most radical form of alternative discourse. It concerns the universalization of theories developed for the study of a local reality. Such locally generated universal theories, intended for the study of local or broader realities, can be mixed with non-Western and Western theories. Here again Ibn Khaldun's theories are good cases in point, although from an East Asian perspective, they may be regarded as combinations of non-Western and Western theories. Another example of locally generated universalizable theory is the nineteenth-century Filipino thinker José Rizal's theory of indolence (Rizal, 1963; Alatas, 2009). Rizal's theorization of social and political developments is original and different from any comparable attempts in the West.

Conclusion

The call for alternative discourses in Asian social sciences does not imply any cultural homogeneity in Asia, or that there is anything like an Asian branch of social sciences. It does suggest, however, that the social sciences, like any form of knowledge, take place in a social and historical context, and must be relevant in this context. In Asia, social sciences must be relevant for the study of Asian societies (Lee, 1992). One way to achieve relevance is to develop original concepts and theories on the bases of the philosophical traditions and popular discourses of these societies. To achieve such relevance is but one aspect of broader efforts to free social sciences from cultural dependency and ethnocentrism, and to achieve genuine universalism. The goal is not to substitute Eurocentrism with another ethnocentrism. But any claim to universality must respect the extent of the differences between Asian and non-Asian societies, and admit that in some instances distinct theoretical backgrounds are required.

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Standpoint methodologies and epistemologies: a logic of scientific inquiry for people

Sandra Harding

Standpoint epistemologies, methodologies and philosophies of science emerged in feminist social sciences, biology, and philosophy in the 1970s and 1980s, but remain controversial for many researchers since they challenge the adequacy of conventional Enlightenment ideals of science. This paper focuses on central standpoint themes and provides examples of such research, taking up criticisms en route.

Standpoint epistemologies, methodologies and philosophies of science emerged in feminist social sciences, biology and philosophy in the 1970s and 1980s. They were not the only such efforts. Others squeezed feminist needs into familiar empiricist and ethnographic methodologies and epistemologies. But these were more innovative; they require effort to resist the tendency to incorporate them into empiricist or ethnographic frameworks. They have since spread widely throughout the social sciences and into such natural science fields as health, medical, environmental and technological research. Moreover, their 'logic of research' has appeared independently in just about every liberatory social movement of at least the past half-century. In this sense they are 'for people' rather than for the interests of dominant institutions and groups.

This logic originated in Marxian claims about the epistemic value of the standpoint of the proletariat. However, feminisms and other social justice movements have radically transformed the Marxian account to make these research strategies and explanations relevant to contemporary political and intellectual contexts. Standpoint research remains controversial to many researchers since it challenges the adequacy of conventional Enlightenment ideals of science: value-neutral objectivity, instrumental rationality, and a narrowly conceived 'good method'. Yet at the same time it reshapes such ideals to serve the empirical, theoretical and political needs of social justice movements. It also redirects the gaze of ethnographic accounts back onto the dominant institutions and groups in society. In these innovations, standpoint projects have opened up space for productive new debates about the actual and desirable relations of experience to the production of knowledge (see Jameson, in Harding, 2004). This paper focuses on central standpoint themes and provides examples of such research, taking up criticisms en route.

All human knowledge is 'situated knowledge' (Haraway, in Harding, 2004). How we interact with people and the world around us both enables and limits our knowledge of nature and social relations. In hierarchically organized societies, the daily activities and experiences of oppressed groups, which are usually ignored and disregarded by dominant groups, enable insights about how both the natural order and society function. Such insights are not available – or at least are not easily available – from the perspective of dominant group activity. Thus people who do the 'domestic labour' of the world – in their homes, other people's houses, restaurants, offices and hospitals – have distinctive experiences. These experiences help them to understand the material world, human bodies and social relations in ways that are unavailable to most of the university professors (mainly men) who produce epistemology, social theory and the conceptual frameworks of research disciplines. What appears to them as strictly physical labour is perceived as a natural activity for the less talented. Thus, conventional epistemologies tend to naturalize social power. Women intellectuals and especially women of colour tend to have a 'bifurcated consciousness', acting as 'outsiders within', since their daily lives occur on both sides of the divides that separate the 'ruling' and the 'ruled'. (See essays by Collins, Smith and others, in Harding, 2004.)

Does this mean that only those who are exploited in such ways and have such experiences can understand what standpoint epistemologies and methodologies reveal? Of course not. The people who come from such exploited groups speak, protest, write and now serve on advisory panels, tenure committees and editorial boards. To be sure, they will tend to understand subtleties of discrimination which are not at first visible to people from dominant groups. But those from privileged groups can also learn

to see those features of society. To be sure, such a brief formulation fails to acknowledge both the plurality of forms of domination (gender, class, race) and the diverse forms of upward mobility. Yet the point here is that people with privileged lives, and who often make policies that direct everyone's lives, frequently misperceive the facts about their own and less privileged lives. But they can, with effort, learn to see the world more accurately.

The conceptual frameworks of research disciplines, like those of dominant social institutions more generally, have been organized in ways that satisfy the groups that support and fund them. They therefore tend to serve the interests and desires of those groups (Hartsock and Smith, in Harding, 2004). In order to get a critical perspective on such conceptual frameworks, research must begin from the 'outside'. (Of course we cannot entirely escape the dominant frameworks, but just a little 'outside' will help.) Standpoint projects do this by starting research from the daily lives of social groups that are not well served by dominant institutions. Cheryl Doss, for instance, looks at the problems for women caused by the introduction of 'improved' agricultural technologies in Africa. Stephanie Seguino analyses the problems with the way the World Bank conceptualizes the bargaining power of women in labour disputes (both in Kuiper and Barker, 2006). The very concept of 'Third World' development and how women were being harmed by it has been increasingly challenged by feminist critics over the past two decades (see Tinker, Young, Braidotti et al., all in Visvanathan et al., 1997). It is important to note that the aim of such studies is not to undertake an ethnography of women's lives but rather to examine critically the dominant institutions and their policies, cultures and practices that affect women's lives (for more examples of such work, see Kuiper and Barker, 2006; Visvanathan et al., 1997).

A standpoint is not an easily accessible 'perspective'. It is rather, as Nancy Hartsock has pointed out, an achievement that requires both science and politics (in Harding, 2004): science in order to see beneath the hegemonic ideologies within which everyone must live; and politics because to engage in such science requires material resources and access to dominant institutions to observe how they function. Moreover, a standpoint is a collective achievement, not an individual attribute. It requires critical discussion among the people whose positions it represents. Thus standpoints are politically engaged epistemic and methodological research strategies. They intend to produce the kinds of knowledge that oppressed people need and want in order to flourish, or even just to live another day. After all, our dominant knowledge systems are now solidly positioned within the perceived needs of nationalists and state administrators, military leaders and corporate profiteers. Politics is already present in the research agendas induced by such a configuration. Feminists or other social justice researchers try to create intellectual and political spaces where knowledge can be produced for their constituents.

A good example of the transformation of a regulative ideal for research is the notion of 'strong objectivity'. Some social interests or values are shared by an entire research community. Both male and white supremacy and heteronormativity have been accepted for much of the history of Western social science. Traditional ways of 'operationalizing' the value-neutral objectivity of research have lacked the resources to detect how such commitments were implicitly embedded in disciplinary theories, methodologies and institutional cultures. It was with the emergence of social movements representing those who were disadvantaged by such disciplinary features that everyone else (not just the disadvantaged) became able to see the ways in which discriminatory social values had profoundly fashioned social research. The work of feminist, labour and postcolonial movements informs Lourdes Benaria's criticisms of how international agencies fail to perceive women's work accurately (Visvanathan et al., 1997). Feminist and other global activist groups' activities on reproductive issues contribute to shaping Betsy Hartmann's criticisms of the US Agency for International Development (USAID)'s sexist and racist assumptions, and their effects on the agency's population control policies (Visvanathan et al., 1997).

In addition to the misunderstandings and criticisms addressed above, feminist standpoint theory has been accused of essentializing the concept of 'women'. To be sure, some feminist writers have inappropriately generalized from their own situation. Yet the logic of standpoint theory should work against such tendencies, directing every inquiry to start off in the actual lives of a particular group of women or other people as they understand their lives (see examples cited above). Standpoint theory has been charged with Eurocentrism, in that it focuses on problems such as positivism that are not of major importance to women in other cultural settings. Moreover, the re-evaluation of women's experiences does not have the political edge in societies such as India that supposedly already value women's traditional experience, yet in practice still discriminate deeply against women (see Narayan, in Harding, 2004). Such criticisms draw attention to the constant need to articulate research projects on the basis of concrete local experience.

The standpoint logics of research should be controversial. They produce and attempt to rectify some of the most troubling challenges to today's widely noted 'epistemological crisis of the West', which also appears to be a global epistemological crisis of masculinity.ب

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5.2 Tensions between global and local knowledge in practice

Introduction

The following contributions elaborate the tension between global and local knowledge through the study of research topics in a range of countries outside Europe and North America: the three Maghreb countries, Japan and China. The authors' approaches differ: Deng Zhenglai adopts a qualitative approach, whereas Brisson and Tachikawa as well as Waast and colleagues rely on statistics of keywords in bibliographical databases. But even then, the authors of these papers do not examine the international databases usually used in bibliometrics. Instead they study the Japanese national database and the catalogue of a research library in Morocco. Through their methodological choice, they point out that research internationalization and its measuring devices tend to make regional productions invisible if they are empirical research projects with a low level of generalization, or if they have been published in a language other than English or French.

All the papers in this section insist that research developed in response to global agendas can coexist with research encouraged by local contexts and needs. Japan, the most rapidly ageing society in the world, had to tackle the issue of ageing from the 1990s onwards, long before other countries (Brisson and Tachikawa). Conversely, the shift from women's studies to gender studies in Japan is probably more related to epistemological changes in US and European universities, and to contacts and collaborations with them, than to changes in Japanese society or particular trends in local research.The propensity to tackle either 'external' or 'internal' topics – that is, topics on the mainstream agenda or of local concern – varies according to the discipline in question. The choice of topics also goes hand in hand with the publication language: external topics are more likely to be published in a language used broadly in academia (Waast et al.).

The pitfall of the first type of research is its irrelevance to local specificities, including the application of a non-relevant framework of analysis, a distorted understanding of the local situation and the omission of important local issues. The pitfalls of the second are a tendency to hyper-empiricism, a lack of comparative studies, and being thematically self-centred and with little scope for generalization. The challenge now is to construct interpretative frameworks and outcomes 'that are both scientific, therefore universal, and relevant, that is, suitable for the study of the [local] context and the world from the [local] standpoints' (see Sall in Chapter 1). This requires a balance between in-depth research drawn from local contexts and dialogue with global social sciences.

Deng Zhenglai, who analyses the various steps of social science development in China since 1978, calls for a progressive self-organization of the Chinese social sciences in the present period. He takes this to mean both an increased intellectual independence and a move towards the world; a duality that will allow for an 'authentic contribution to the intellectual debates and academic exchanges with social scientists from around the world'. His ambition meets up with regional associations' call for greater autonomy and influence for the research produced in their region (see Sall in this volume for Africa; Cimadamore in this volume for

Latin America and the Caribbean). This strengthening of national and regional social sciences is not only an aspiration but also a reality in a number of countries including China, India and Brazil. It contributes to the development of the global social sciences, gradually reshaping them into a multipolar scientific world.

What do social sciences in North African countries focus on?

Roland Waast, Rigas Arvanitis, Claire Richard-Waast and Pier L. Rossi
in collaboration with the King Abdulaziz Foundation Library

What are the main objects of social science research in the Maghreb? In the Maghreb there is prolific scientific activity, and the factors affecting the choice of research topics spur specific controversies. As a contribution to these debates we present the main results of a comprehensive study of publications in the human and social sciences in Algeria, Morocco and Tunisia.

This article presents the main results of a comprehensive study of publications in the human and social sciences in Algeria, Morocco and Tunisia.

A study based on a library's multidisciplinary catalogue

This study was based on the analysis of a large library catalogue. Following an important selection, coding and 'cleaning' effort, our research provides data covering approximately 100,000 academic publications over twenty-five years (1980–2004).

Unlike similar studies, we chose to examine a large library catalogue rather than international databases such as IBSS, SSCI or Francis. This choice was due to a series of considerations, some technical and some to do with social science publication practices. There is a tendency within the social sciences to publish more books than journal articles, unlike in the natural and exact sciences. In the Maghreb we also found a large number of academic publications that were unregistered in the international or even the national reference systems. Moreover, journals that are present in the large bibliographical databases have strong biases against non-English languages and particularly Arabic, which in our case represents two-thirds of the output.

Three criteria guided our choice of libraries:

- an exhaustive publications register, meaning a library that has an active document-seeking strategy and adequate management tools and know-how
- a relevant index with a bibliographical note established for all the collected documents
- a computerized file that could be used for data-mining purposes.

There was only one library in the Arab countries (including the Gulf countries) that met these criteria, the King Abdulaziz Foundation library in Casablanca, Morocco. Since 1980, this library has been committed to gathering all publications originating from the Maghreb or dealing with it in the human and social sciences, whether published within or outside the Maghreb, and whether written by regional or foreign authors. It brings together the different publications through international but also local markets and publishers, and has an active policy of seeking information instead of waiting for publishers to deposit books and articles. All publications (articles, books and book chapters) are indexed through a thesaurus. Authors are described in a note that includes their citizenship and standardized name in Arabic and Latin letters, probably a unique feature worldwide. This extensive computerized database comprises topics, keywords and authors' names, which are in one-to-one mapping with numbers so that the

Figure 5.1 — Growth in number of Maghrebi social science publications compared with that of faculty members, 1980–2004

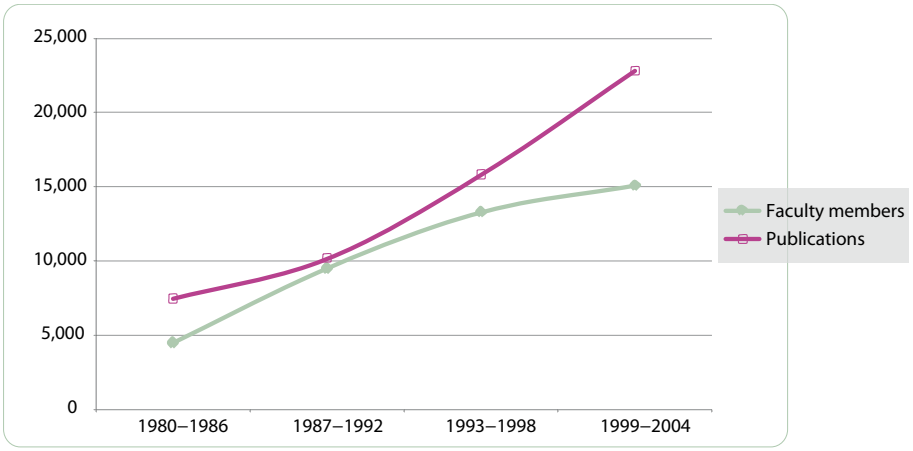


Table 5.1 > Evolution of the production in social sciences in Maghreb countries (percentage of total for the main disciplines)

Years	History	Literature and language studies	Law	Sociology	Economics	Political sciences	Islamic studies
1980	19	18	10	15	15	9	9
2004	12	25	17	14	8	14	7

information can immediately be translated into Arabic or a European language. The complete work of a given author (or on a specific subject) is therefore accessible regardless of its original language and without duplication.

We undertook the statistical analysis of this data file after having selected what we have labelled academic publications: that is, excluding mainly poetry and fiction, but including all other fields of interest such as recognized academic disciplinary work (economics, sociology, law, anthropology, psychology, literature studies, religious sciences and the like). We limited our study to the three most productive Maghreb countries (Algeria, Morocco and Tunisia).

Growing production, changes in disciplines

A breakdown of the texts according to their date of publication indicates a rapid increase over the twenty years from 1985 to 2005, from 2,000 in 1985 to over 6,000 new documents per year in 2005. Output has grown in close relation to the number of university faculty members but at an accelerated pace, so that there has been an overall growth in productivity (see Figure 5.1). The average yearly output by author is similar in the three countries and is approximately one article every three years, steadily growing in recent years.

This production is divided into three roughly equal categories: books, chapters in books, and articles. About one-third of the references (34,000) dealing with the Maghreb are written by authors who do not originate from the region, and the rest are by Maghrebi authors. There was only a slight rise in the proportion of Arabic-language publications, from 50 per cent in 1980 to 60 per cent in 2004. The second most important language in 2004 was French (33 per cent).

Table 5.1 shows the distribution of this material according to the main disciplines in the corpus and its evolution over time. Over the 25 years from 1980, law and literature have been gaining ground, while history and economics have declined. These changes do not mirror global trends, nor do they indicate a change in student or academic staff numbers. The underlying explanation seems to be linked to a shift in readership interests.

A changing set of publication themes

Disciplines as they are assigned by librarians are not the only way of classifying output. A more dynamic method would be to reflect the semantic proximity of various keywords that are assigned to the documents. We therefore created coherent packages of documents[1] and called these clusters of documents 'scientific themes' (Figure 5.2). As

1. Through a statistical procedure known as K-means non-hierarchical classification of associated keywords. Claire Richard-Waast carried out this analysis.

Figure 5.2 — Main themes in Maghrebi social sciences, 1985–2004

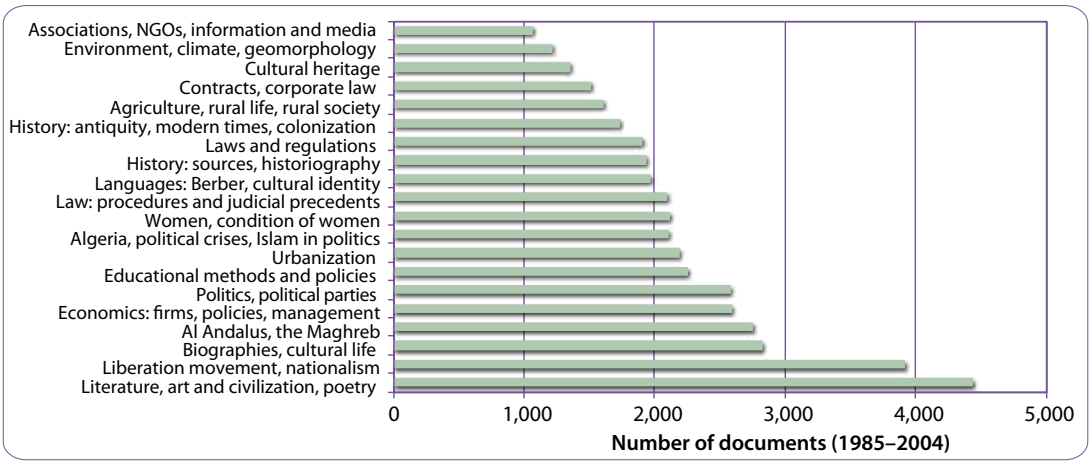
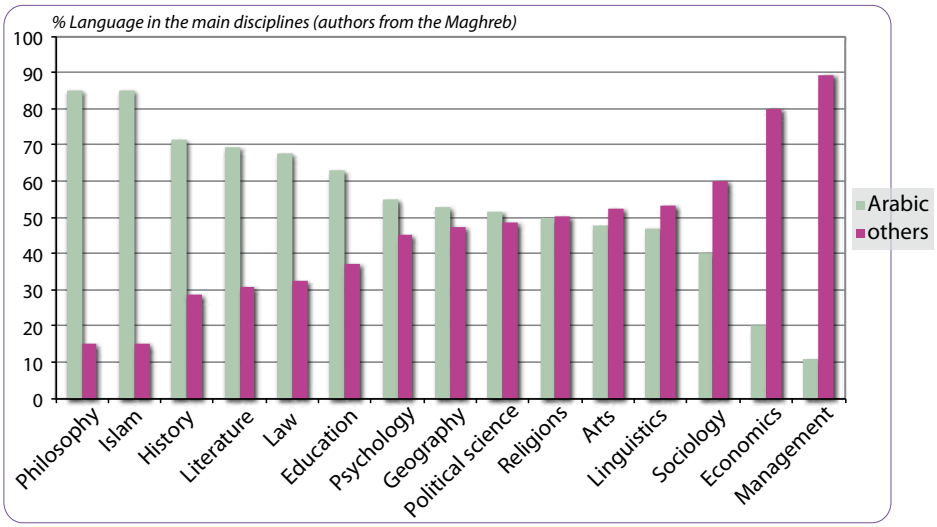


Figure 5.3 — Disciplines and language for authors originating from the Maghreb, 1985–2004



can be seen, civilization, historical and cultural themes are dominant. They are closely followed by themes relating to policy and politics.[2]

Over time, several empirical fields have appeared successively: agriculture and rural studies in the early 1980s; urban studies (at their peak by 1985–1990); and gender studies during the 1990–1995 period (Table A5.2 in Annex 3). Since 2000, new themes have been emerging, such as cultural heritage, identity, law, political life and civilization, including arts, literature and language studies.

Publication language and thematic interests go hand in hand

European languages (English and French mainly) tend to dominate the current global research agenda, for example publications on women, the environment, and globalization and its economic consequences, as well as the research areas that are of particular concern for decision-makers (such as urbanization, natural risks, economics, policy, enterprise and management). By contrast, material connected to law, cultural life, education and local history is generally written in Arabic (Figure 5.3, see also Figure A5.4 in Annex 3). The choice of language also tends to be linked to epistemological issues: disciplines that try to find scientific laws must compare their findings with others and thus use a global language, whereas locally guided disciplines tend to favour local languages (Figure 5.3).

A number of concerns are common to all three countries (for example, literary studies, democracy, law, economic themes, studies on women and environmental concerns). But the intensity of concern and the approach to the topic may differ between the three. Islam, cultural identity and liberation movements, for instance, have been strong areas

2. For the purpose of the presentation, themes are grouped into larger ensembles. For details refer to our publication available at www.estime.ird.fr

of interest in Morocco, less so in Tunisia; but rural studies or ancient and early modern history have attracted greater interest in Tunisia than in Morocco. Finally we should stress that North African authors (we have a database permitting us to identify them) do not always share the same themes as European authors. The former seem more interested in education, law, political studies of local life, agriculture and rural studies, ancient and modern history, women's studies, urbanization, language and cultural activities, whereas the latter are more interested in pre-independence history (Al Andalus and later periods), arts and political Islam. Some themes overlap for both Maghrebi and non-Maghrebi authors; for example, economic policy and enterprise, literary studies and the socio-political analysis of liberation movements.

A subtle dynamic of themes and words

While we cannot go into much detail here, we argue that even within a single thematic cluster, 'migrations' occur. These migrations can be analysed by the changing set of keywords that are associated in a cluster. Some of these changes take the abrupt form of ruptures rather than continuous evolution. More often, a theme and its keywords are stable over a long period of time, around thirty years. Migrations are usually more subtle and difficult to observe at the disciplinary level or even at a broad level of general interest than within a single theme. For example, in sociology we can track how women's studies emerged from studies on the family and then were separated from them; or how 'cultural identity' became a major theme, into which several other themes are now merging: Islam, emigration, education, Berber studies, linguistics, modernity and Arabization.

A local agenda and a definite empirical stance

On the whole, research in the social sciences tends to focus on issues of national interest; moreover, most research is mainly empirical investigation in the sense of involving the field gathering of data. Some of the themes we find on the global agenda are of course represented (for instance, women, migration and poverty). Additionally, there is a high level of cooperation with European countries, in particular France and to a lesser extent Spain. But as we have mentioned, interests are different on the North and South shores of the Mediterranean: rural sociology, for instance, has held a dominant position in Morocco, in sharp contrast to European research, and its own praxis in this field. Industrial and labour sociology in Algeria during the 1980s is another relevant example. In no way have we witnessed a tendency to adopt the global agenda en bloc. We also witness a clear tendency for hyper-empiricism, a lack of comparative studies, a number of self-centred themes and very little generalization or theorization.

We found a skewed distribution of authorship: a small number of authors, usually well known and rather older, are responsible for the vast majority of the research output, leaving little room for younger scholars. Finally, brain drain constitutes the greatest threat, sometimes at a dramatic level, as has been seen in Algeria for well-known political reasons. The main threat has been not so much a massive brain drain as the departure of a small number of well-known academics. All these tendencies probably reflect the lack of government policies in favour of the social sciences and some lack of interest of broad sectors of society in the social sciences and their virtues.

Roland Waast, Rigas Arvanitis, Claire Richard-Waast and Pier Luigi Rossi in collaboration with the King Abdulaziz Foundation Library

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Claire Richard-Waast is a statistician. She has held managerial responsibilities in R&D at IBM and now works at Electricité de France.

This study was completed thanks to the support and collaboration of the King Abdulaziz Foundation Library in Casablanca, Morocco. The Foundation Library holds more than 600,000 documents, all of them catalogued in a computerized index system. One of its missions is to gather all human and social science publications originating from and dealing with the Maghreb.

Current topics of social science research in Japan

Thomas Brisson and Koichi Tachikawa

Japanese social science production reflects both Japan's long social science tradition and current social, economic and political change. The high number of Japanese social science publications shows the vitality of Japanese social sciences, but may also hide deep changes and theoretical shifts in disciplines such as economics, political science, history and sociology.

Recent trends in Japanese social science production need to be understood in terms of Japan's long and continuous history of study of the social sciences and of current social, economic and political change. The number of Japanese social science publications has remained high, with 16,652 books and articles published in 2006. This is far more than in other disciplines such as technology, the natural sciences, literature and philosophy.[1] These figures clearly indicate the vitality of Japanese social sciences, but may also hide deep changes and theoretical shifts in disciplines such as economics, political science, history and sociology. These changes and shifts are the focus of this paper.

The field of economics may be the most representative example of these recent changes. The debate on Japanese capitalism was launched after the introduction of European theories at the beginning of the twentieth century, giving it a long and important tradition of critical analysis. Nevertheless, Japanese economics has tended to be increasingly and exclusively concerned with modelling data at the expense of a focus on more critical, classical economic history. This shift is reflected in the shrinking number of academic positions with a focus on these latter issues. Despite the absence of specific data, we can obtain an idea of the importance of this shift by recalling Marxism's huge impact in Japan, and the impact of other more or less critical trends up to the 1970s. The privatization of universities, which reinforced their dependency on the economic powers, US universities' growing role in the formation of Japanese economics, and the pressure to publish in English, may account for these changes, albeit only partially.

1. In view of space restrictions, references, figures and methodological discussion are given in the online version of this paper.

Generational changes have also played a crucial role in the evolution of research topics. The case of Japanese political sciences illustrates this tendency. Even though political sciences have a long tradition spanning the whole of the twentieth century, they have recently witnessed the effects of what Masaki Taniguchi describes as a 'generation gap'. The divide, he argues, is between scholars who experienced the country's defeat in 1945 or the political movements of the 1960s on the one hand, and the younger generations who grew up in the post-economic growth era on the other. The former generation tends to focus on specific subjects such as the history of European political thought, the history of Japanese politics, political philosophy and ethics, and the history of Japanese political thought; the latter generation focuses on topics such as political process, local government and administration, and electoral studies and voting behaviour. There is a clear shift from theoretically oriented political sciences to more empirical ones. Various factors may explain these generational differences. The first is the theoretical changes that occurred at the end of the 1980s, intended to promote a vision of political sciences freed from the imposing heritage of European – especially German – theories. This trend was reinforced by the growth in academic positions in political sciences at the time, which allowed young scholars to develop new approaches. Further, this empirical focus is due to the growing internationalization of the discipline. Since Japanese political scientists are now involved in regional and international comparative programmes, more attention has to be paid to factual data and empirical research topics. Similar conclusions on the need to find alternatives to the European scientific legacy can be drawn from the analysis of a field which is partially autonomous from the social sciences but which is nevertheless closely linked to them, namely history.

Entrance to a Shinto shrine, Japan
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The introduction of European epistemologies at the turn of the twentieth century left an indelible mark on Japanese historiography, which had previously developed autonomously. This influence is manifest in terms of research topics (with many Japanese scholars specializing in European history) as well as methodical devices (for example, the Ecole des Annales, the most influential). However, the European frame has been largely reworked, sometimes in paradoxical ways. One striking example is in the development of the so-called *Nihonjinron*, a literature with strong historical (as well as ethnological) ties to the question of Japanese cultural and national identities. The latter issue is extremely sensitive in Japan, prompting debates between historians and leading to scientific (and partially political) divisions. The internationalization of the discipline and international exchanges have received much attention here too. With a growing number of Japanese historians trained at US universities, the traditional European–Japanese connections have weakened, prompting a change in research topics and methodologies. Nevertheless, European connections have remained significant enough to maintain strong scientific exchanges with Japanese historians. The result of these various processes leads us to describe the Japanese historical field as being structured by a set of oppositions between Japan-centred and internationally oriented scholars. But each of these groups is heterogeneous in terms of its methods and influences.

Japanese sociology, to which a longer analysis is devoted in the online version of this paper, exemplifies another pattern of change regarding research topics and current trends in social science. The most recent changes can be summarized roughly as the consequences of two distinct processes. The first is that in the past few years, several subjects have gained sociological recognition because they have tackled issues considered to be important for Japan as a whole. Ageing, a highly sensitive issue in Japan, is a striking example. Almost absent from the sociological surveys of the 1980s, it is currently one of the most discussed problems. Other topics such as 'youth' and 'gender' have followed a similar pattern in that they have lately received a great deal of political and social attention. A second process is more specifically linked to sociology's international dimension, because Japan is a global country and because its sociology is historically related to European theories. New research topics have therefore been tackled (see the online version of this paper), but the European founding fathers of the discipline have remained important. The international dimension of Japanese sociology thus appears to be a product of specific transformations and of its own historical development.

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Westernization of the Chinese social sciences: the case of legal science (1978–2008)

Deng Zhenglai

This paper examines the Westernization of Chinese social sciences on the basis of an overview of its historical development over the thirty years to 2010, with particular reference to legal science in China. It argues that Chinese social sciences must establish academic standards based on China's local knowledge to achieve a knowledge transition towards the world, contrary to the tendency of unreflective Westernization.

This paper aims to explain the tendency towards the Westernization of Chinese social sciences on the basis of an overview of its historical development over the thirty years to 2010, with particular reference to legal science in China. The reform policy of the late 1970s opened China up again to the outside world, which transformed not only the economy and politics of China, but also its intellectual terrain. With an unstoppable zeal to catch up with the West, China embarked upon a journey to absorb from the developed nations not only technology and capital, but also ideas and theories. It will be argued that Chinese social sciences must establish academic standards 'based on China's local knowledge' and thus achieve a knowledge transition 'toward the world', contrary to this tendency of unreflective Westernization.

China's reform and opening in 1978 ushered in a new era for Chinese social sciences, whose development over the thirty years since 1978 can be divided into three stages. The first is the introduction to China of the latest Western social science theories, research methods and disciplinary and academic systems, which has continued and will continue in the future. The second is the assimilation of the theoretical framework of Western social science from the 1990s onwards, using Western social science knowledge and methods to explain Chinese issues, particularly in the areas of economics. Finally comes the stage of 'integration into the world', with the adoption of international academic norms, methodologies, and disciplinary and academic systems, particularly through the academic standardization movement from the mid- to late 1990s.

The consequence of these three stages of development was the establishment of comprehensive disciplinary systems based on Western theoretical frameworks and academic standards for social science (Deng, 2008; Liu Dachun, 2008). But we have come to realize that Chinese social sciences, even after this thirty-year development, are still inadequate to the tasks of our times. The Westernization of the social sciences has resulted in some serious consequences. Chinese scholars have accepted Western concepts and theoretical frameworks without critical scrutiny and creative thinking, and have adopted them as academic standards in the assessment of Chinese social sciences and Chinese development. They have largely modelled their study of Chinese issues upon Western concepts and theoretical frameworks while neglecting in-depth research and theoretical innovation (Deng, 2007; Wang Hui, 2008).

Let us use China's legal science as a case to illustrate this problem. As is well known, the mainstream Chinese conception of human rights puts emphasis on the 'right of existence', or the right to maintain and develop human existence. What supports this conception is what could be called 'the justice of a generation': that is to say, the legitimacy of our generation's life is based on whether or not we can exist and develop in the world. But in the area of environmental protection, Chinese scholars have adopted the Western concept of environmental rights, behind which is what could be called 'the justice of generations'. According to this concept of rights, the legitimacy of one generation's life should be judged by the common quality of human life for the present and further generations.

Chinese scholars have, however, neglected the fact that the Western approach bases its legitimacy on the natural, chronological sequence of life events, while the Chinese process and its legitimacy are synchronic. That is, the Chinese people face the problems of existence, development and environment simultaneously. There therefore exists a tension or conflict between these two

conceptions of rights. This means that we have to make a choice in political philosophy or legal philosophy between these two contradictory conceptions of right or justice. If we do not address this conflict, an overwhelming majority of the Chinese population, the poor peasants in China, would not be able to tackle the dilemma of existence and environment simultaneously and reasonably (Deng Zhenglai, 2006).

Another example is the Consumer Rights Protection Act. Through an examination of essays on consumer protection published in legal science core journals (CSSCI) from 1994 to 2004, we find that only thirty-five essays were about consumer rights protection. These essays uncritically applied Western concepts and theories to the analysis of Chinese problems. They portrayed a Chinese society which is as homogeneous as the industrialized West, and overlooked the dual urban and rural structure of China as well as its disparity between rich and poor. This meant disregarding the differences between developed urban areas and underdeveloped rural areas in China with regard to the protection of consumer rights. In this dual structure, it can reasonably be expected that a highly urbanized Consumer Rights Protection Act that mainly targets the relatively well-off and developed part of China may be ineffective when applied to the underdeveloped rural areas. This means that the Consumer Rights Protection Act, which was modelled on its US and German counterparts, is faced with a fundamental dilemma of the duality of Chinese social structure (Deng, 2008, ch. 3).

I therefore suggest that Westernization has not only subjugated Chinese social sciences to Western cultural hegemony, but has also served to reduce the academic autonomy of Chinese social sciences. As is shown in my work, *Where is China's Legal Science Headed* (Deng, 2006), China's legal science development, despite great achievements over the past thirty years, is subjugated to the Western modernization paradigm which not only provides Chinese writers with an ideal picture of a social order and system based on Western experience, but also prevents them from recognizing the distortions in the picture they present of China itself. In this Westernized ideal picture, China is presented as an 'Oriental' special case of the universal experience of Western modernization.

To establish the academic autonomy of Chinese social sciences, we must move towards the world and achieve a 'knowledge transition'. This means that we must move to a new stage beyond the previous stages of introduction, assimilation and integration into the world. Moving towards the world involves more than integration into the world. It suggests authentic participation in intellectual discourse, and academic exchange with social scientists from elsewhere (Deng, 2007; Yu Jianxing and Jiang Hua, 2006).

In my view, this new historical stage is not simply a natural continuation of the previous three stages, but instead demands a higher level of engagement from Chinese social scientists. They must establish academic standards which make it possible to conduct in-depth research on general theoretical questions and Chinese issues in particular, and so engage actively in substantive discourse with Western social scientists on our own terms. This will lead to an enrichment of Chinese social sciences, but will also impact on the intellectual development of the world's social sciences in the light of Chinese knowledge and experience (Deng, 2008; Huang, 2005; Yu Wujin, 2007). The example above about different concepts of right or justice illustrates this point. Incorporating the multilayered social structure of developing countries, including China, into social sciences research is another promising means for us to understand modernity, modernization and development better (Cao Jingqing, 2000). To take another example, the Chinese traditional philosophy of peaceful coexistence, not only between humankind and nature, but also between ethnicities, ideologies and ways of life, can offer resources for us to rethink some of the global issues facing humanity nowadays. It is in this way that traditional resources from other countries, places and nations will lead us to a better vision of the future world and its order, in which social sciences based on local knowledge with an international outlook will play an indispensable part.

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Chapter 6
Disciplinary territories

Organizing knowledge. Association of women teachers, Mali
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Disciplinary territories

Chapter presentation

It is usually said that it was in nineteenth-century Europe that social science emerged as a specialized activity distinct from religion and politics, and developed into the disciplines we recognize today. These disciplines, in the social as in the natural sciences, can be regarded as social structures for teaching and research, represented by professional associations and departments within universities. But they also represent cognitive frameworks determining legitimate sets of problems for scientific research and the methods, concepts and traditions used to solve them. Disciplines are thus a constraint for professors, scientists and students as well as being a guide for learning and research. They have been separated from one another and have more or less rigid borders and gatekeepers. Disciplines are to the scientific sphere what nation-states are to the global political sphere.

This means that knowledge divides in the social sciences are not only divides between national traditions and research systems, they also take the form of divisions between and within disciplines, and this leads to the formation of specialisms and subdisciplines. And there are divisions between the social sciences and other forms of disciplinary knowledge such as the natural sciences and the humanities.

For some observers, recent trends show that social science will soon enter a post-disciplinary age. Depending on the authors, this change may be a trigger for a new integration of the social sciences and the hard sciences, or may mean that knowledge will be oriented increasingly towards local, context-dependent problem-solving, integrated into 'epistemic communities' with actors originating from different social activities outside science. This report does not take sides in this debate. This chapter deals solely with some of the contemporary social science issues raised by current disciplinary divides.

Mapping the disciplines and describing the current ecology of social scientific knowledge is not sufficient to deal with these issues. Disciplines are not naturally differentiated once and for all: new ones may appear while others disappear. In order to understand disciplinary divides, the dynamics of the disciplines must be taken into account. The power and exchange relations between disciplines are as complex as the international circulation of science described in the previous chapters (see especially Chapter 4). Disciplinary divides may well be sites of conflict, but they have also offered opportunities for connection. Are these complex and contradictory processes moving us towards a more unified or a more differentiated social science? What are the opportunities and the risks of the unification or the fragmentation of social science? These are the questions that disciplinary divides and their history are now raising (Section 6.1).

Wherever divides exist between disciplines, bridges are built to cross at least some of them. These research-crossing disciplines and specialties occur not only within the social sciences, but also between them and other sciences and forms of knowledge. They are currently driven by external forces, as new policy agendas, both local and global, enhance new research agendas. What are the intellectual or institutional strengths and limits of this trend for going beyond disciplinary divides and pushing the boundaries of social science? Is the social science perimeter about to change? Do interdisciplinary, cross-disciplinary, multidisciplinary and transdisciplinary networks impose themselves on top of existing disciplines, or between or below them? Will disciplines last as the dominant way of organizing social-scientific knowledge? These questions remain open, but they need to be dealt with. Contributors to this Report find their clues in the history of specific disciplines and from current practices in social science. Within this general picture, contemporary climate change research and psychology are dealt with more extensively. Both are close to experimental research and are situated at the crossroads of the social and natural sciences. Other choices could have been made, and the questions raised here will need to be pursued in the future (Section 6.2).

Mapping the disciplinary territories requires attention to local contexts. Regional variations are very important, and the same discipline is considered and practised differently in various locations. Two authors accepted the challenge of capturing the trends of social sciences in their regions, North America and India, to help us better understand the dynamics of disciplines (Section 6.3).

The history of science shows that radical innovations and new disciplines often stem from connections between previously existing disciplines. As long as they are laboured on and worked through, disciplinary divides might be fruitful under certain conditions. In this chapter we examine recent social science trends which challenge existing disciplines and displace their boundaries to illustrate this point. Some of these trends are disciplinary, while others

are interdisciplinary or transdisciplinary. All of them challenge current disciplinary divides.

All these innovations are simultaneously intellectual, technical and institutional. Using recent encyclopaedias of the social sciences, eight new trends have been selected to reflect the variety of social science innovation and to give a taste of a few ongoing debates among social scientists. Some of these trends are more or less recent: their newness itself depends on the position and situation of the researchers in the international and disciplinary distribution of knowledge. But our selection does not pretend to be exhaustive. Other fields of inquiry have been developing quickly in the past two decades. Among the more prominent are gender, health, security, migration and urban studies. Yet the trends we have picked play an important role in today's social sciences and bring together specialists from various social science disciplines. The use of objective tools to assess innovation in social science is a research task that should be developed in the future.

6.1 Disciplines and their divides

Introduction

We live in an age in which disciplines are important institutions of knowledge production in the social sciences. But can we account for the evolution in the number and the size of the social science disciplines? What are the mechanisms that explain how disciplines behave and change? Can we predict how disciplines will develop in future, and whether they will remain the main social organizations for social scientists' teaching and research? All these questions usually bring a variety of answers. This section only deals with a few of them. Its main goal is to better understand the present and future of the divides between and within the social sciences.

The first group of papers focuses on the dynamics of these divides. Two general approaches are contrasted, historical and formal.

The history of the social sciences over the past 200 years tends to show that the disciplines are becoming destructured more or less rapidly. This evolution supposedly goes hand in hand with 'plural regionalization' and a decline in the neutrality and universality of social-scientific knowledge. In this scenario, the age of disciplines may not yet have reached its end, but other ways of organizing knowledge are set to emerge on a local level, and sometimes a regional and supranational level. New forms of cooperation between scientists from various disciplines and other types of social actors might be produced in these new settings (Wagner).

But the formal approach to the internal logic of knowledge changes does not necessarily lead to the same diagnosis of the evolution of the social science disciplines. Some of these theories of science have even argued that divides and splits are natural and necessary mechanisms in the evolution of any form of knowledge. According to these analytical frameworks, there will always be disciplinary and subdisciplinary divides in the social sciences even if there are changes in their location and their rigidity. Such divides are essential for the renewal of knowledge and for the creativity of scientists.

The second group of papers provides some examples of contemporary relations between social science disciplines. In principle each discipline's status is the same, and we could maintain that social science disciplines are intellectually equal. But in reality, disciplines do not have the same weight in the overall visible production of knowledge (Jonkers). Some observers of science have claimed that their relations can more often be analysed as relations of power and competition than as relations of cooperation and exchange. In past decades, the relationship between sociology and economics has been an interesting case of the complex interactions that occur at the divides between the social sciences. Sociology, like many social sciences, is more embedded in national contexts than is economics. Today it is also more oriented towards universities and academic circles and is less related to public policy-making than economics, and provides a less legitimate discourse in most political and international institutions than economics does. Nevertheless, and despite their important differences and their often conflicting interests, sociology and economics have slowly multiplied their intellectual and methodological relationships in recent years (Lebaron). The socially accepted hierarchies between the social science disciplines are not perpetual, and nor is the rigidity of their borders and divides. Nonetheless, interdisciplinarity does

not take place with scientists from various disciplines on an equal footing.

Despite the increasing specialization of social-scientific knowledge, the perspective of an integrated social science is a recurrent one which has raised numerous epistemological debates. The arguments for integration often hide the imperialism of some disciplines, whether of their paradigms or their methods. Here one of the most acute observers of the evolution of the social sciences, Jon Elster, gives his view on the current state of the debate on the potential unification of the social sciences. He also develops an original take on the question of whether there is progress and cumulativeness in social-scientific knowledge. His answer may not be as optimistic as that of most others in the heyday of the development of social sciences as disciplines, but it is certainly not pessimistic either.

Rethinking the history of the social sciences and humanities[1]

Peter Wagner

The importance of history is widely recognized in many fields of social science knowledge production. As other histories, history of social science cannot be conceived either in terms of steady progress, or as a period of decline from a Golden Age. An alternative view needs to pay more attention to a detailed reconstruction of the history of scholarship in the social sciences and humanities. This paper also suggests concepts for interpreting the recent past of these disciplines.

The social sciences and humanities are disciplines in which the present cannot simply be regarded as superseding and erasing the past. The importance of an interest in history is widely recognized in these fields of knowledge production. Nevertheless, it has been notoriously difficult to escape the dichotomy of two standard ways of conceiving this history.

An evolutionary perspective on the steady, but perhaps slow, progress of knowledge undoubtedly remains widespread, despite recent strong and compelling criticism of such a view in the sociology of scientific knowledge and in the historiography of the humanities. Drawing playfully on Isaac Newton, Robert Merton (1993) emphasized that sociologists in the present always stand on the shoulders of the giants of the past. He meant to acknowledge a debt, but also to suggest that we contemporaries see farther than our predecessors. Since it is difficult to believe that what we do today could be less insightful or nuanced than the knowledge we possessed previously, we are inclined to believe that we do see farther. So we conceive those giants of the past as being both large and immobile, like the sculptures of US presidents on Mount Rushmore. However, it is more appropriate to assume that those giants are capable of sudden movements, and that many a dwarf has already fallen, and will still fall, from their shoulders.

The alternative view regards the recent history of the social sciences and humanities as a period of decline from an earlier Golden Age. This age was supposedly one in which scholarly autonomy prevailed and research agendas were determined by nothing but the insights of the leading scholars in each field. Conversely today, numerous 'outside' interests intervene in those agendas, and deteriorating working conditions disturb the calm pursuit of the truth. Most recently, the first chapter of the Metris Report on *Emerging Trends in Socio-Economic Sciences and Humanities in Europe* (European Commission, 2009) paints just such a picture. But while the Report justifiably describes certain ongoing trends in institutional

1. This article is an abbreviated version of a presentation given at the conference 'Social sciences and humanities: emerging trends and future prospects. Europe in global context', SCAS, Uppsala, 24–25 April 2009; for more information see http://www.globalsocialscience.org

arrangements, funding modes, evaluative practices and research careers, it fails to show when exactly the era of 'autonomy of the scientific field' existed, in contrast to which this picture of the present is painted.

Here, we want to suggest that both of these perspectives are untenable. Furthermore, an alternative view needs to pay more attention to the details when the history of scholarship in the social sciences and humanities is reconstructed. The remainder of the paper briefly proposes some concepts for such a detailed investigation, and then applies them in the form of hypotheses for interpreting the recent past.

The first group of these concepts encompasses the disciplines, institutions, associations, journals, funding mechanisms and forms of evaluation that guide research orientation and have a grip on scholarship. They both enable and constrain research activity. They give research practices structure, so we could apply the term 'structuredness' to the shape and size of the influence of these phenomena on practice.

Next, such structures have dimensions in space, so we use the term 'spatiality' for the global distribution of knowledge forms and the relations between them.

Finally, scientific knowledge production has often been defined by the distance between the knowledge seeker and the object of knowledge. This is a distance that, in the 'spectator theory of knowledge' (criticized by John Dewey among others), was seen as the very precondition for truth. On closer inspection, however, knowledge production in the social sciences and humanities was often marked by a struggle for the appropriate relation between 'distance and involvement' (Elias, 2007).

We shall briefly try to put these concepts to use by considering recent transformations in the conditions of knowledge production.

Over the thirty years since 1980, we have witnessed a move from a highly structured mode of knowledge production, centred on nation-states and associated national fields of scholarly work, towards rapid and sometimes radical destructuring. The social sciences and humanities provided the intellectual underpinning for the earlier structures; this is why they are centrally at stake in the current destructuring.

The modern polity is built on broad ideas of individual freedom and popular sovereignty, or on individual and collective self-determination, to use less historical terms. But once this double commitment reigned in the realm of political thought – roughly from the late eighteenth century onwards – it was increasingly regarded as risky. It appeared to provide a rather empty shell that could not sustain a polity alone. The idea of collective self-determination introduced dangerous arbitrariness, as it gave no indication of the membership of the self-determining collectivity. On the other hand, the notion of individual freedom appeared to reduce the social bonds that prevailed in the 'old regime' or in 'traditional society', depending on the viewpoint. The humanities addressed the first problem by investigating culture, language and interpretation, suggesting that an answer to the 'national question' arose from such interrogations. The social sciences addressed the second problem by observing and conceptualizing new forms of social bonds related to interest, status and class, suggesting that an answer to the 'social question' arose from the antagonisms or solidarities that such bonds created throughout society.

In Europe, at least, these two responses strongly shaped polity formation for better or worse. The European nation-state was the institutional solidification of these answers, and the national university systems were the structures in which the underlying knowledge forms could develop.

Much of the spatial history of the social sciences and humanities can be captured by dividing it into three epochs: one of their European origins; one of a first globalization with the emergence of US hegemony, particularly for the social sciences but less so for the humanities; and a third epoch of more truly plural regionalization which is currently at its beginning.

Each of these assertions can be and has been contested. But if they are phrased without conceptual excess, there can be little doubt about their adequacy. The claim for the European origins of these disciplines is sometimes seen as evidence of a narrow Eurocentric view. Indeed, nobody can deny the existence of systematic social knowledge before and in parallel with the rise of the European social sciences and humanities. But as a combined result of colonization and the radical way in which problems of human social life were expressed in European social thought, many conceptual claims of European origin have become inescapable worldwide (Chakrabarty, 2000).

In turn, the claim of subsequent US hegemony is sometimes regarded as the nostalgic and ideological view of Europeans who cannot accept their loss of centrality. Again, however, a combination of politico-economic power and intellectual perspective has been at work since the middle of the

twentieth century. The hegemony of this combination is difficult to overlook, and its emergence clearly took place in the USA. In their various guises, individualism, rationalism and quantitative methodology have found very fertile ground in North America and have spread from there, precisely because the destructuring of knowledge contexts elsewhere seems to make every alternative less viable (Wagner, 2008, ch. 11).

Finally, we may doubt the existence of true pluralization in the face of the persistent and crushing dominance of US universities in all global rankings and of US-based scholars in global evaluation indicators such as citation indexes. Pointing to biases in these measurements is valid and necessary, but the imbalance would not disappear entirely even were other measures to hand. US universities are the basis on which scholars all over the world work, but they often do work that cannot be regarded as falling under US hegemony. More recently, there have been steps towards actively rebuilding 'research areas', to use the current European term. The aim is not merely to 'catch up' with the USA, but also to sustain innovative intellectual work on European terms. These two observations may not seem to suffice for contesting US hegemony. After all, the global attractiveness of leading US universities is nothing but a sign of hegemony, while the building of other regional research settings is, at best, in its beginnings and has as yet borne little fruit. Nevertheless, we dare say that some erosion of US intellectual and institutional hegemony is visible. Whether this process will continue is more difficult to predict. It will ultimately depend on the capacity of scholars all over the world, including in the USA, to pluralize their intellectual endeavour beyond the approaches mentioned above. Furthermore, research policy-makers will have to design viable tools for building research areas that provide effective communication structures without setting boundaries for those on the outside. The creation of the European Research Council may be the foremost example of the design of such a tool.

The social sciences and humanities have always been diverse in their views on the required distance from their 'objects'. This has led to highly abstract reasoning and claims to universal knowledge, or alternatively, to claims of the need for hermeneutic involvement, leading in turn to more contextual and particularistic knowledge. Positions here are partially characteristic of disciplines, but there is often diversity within them. Economics has often been the most 'distance-minded' of the social sciences, but has also experienced the most clear-cut emergence and persistence of explicit heterodoxy. In turn, the humanities are often seen as the most context-bound and 'interpretation-minded'. However, they too have experienced their own universalizing movements. There have been times when the claim that only distant knowledge is good and certain knowledge has appeared convincing. But these periods have mostly been short and counter-claims have been quick to re-emerge in various guises (Santos, 2007). By now, the persistence of this issue seems to be widely acknowledged. The problem, though, is that 'science' seems to be easier to define by distance-taking than by anything else, and alternative formulations are either too problematic or too subtle to become widely influential.

If the general contours of the above ultra-brief history of the social sciences and humanities are acceptable, then some conclusions for research policy follow. First, it should not merely accept the recent destructuring and assume that novel structures will just emerge as the aggregate of numerous individual decisions, or through the imposition of some ill-conceived 'best practice' or measure of 'excellence'. Rather, research policy should involve conscious efforts to restructure the research landscape in these fields of knowledge production. Given destructuring, the role of the nation-state as both the funder and 'problem provider' of the humanities and social sciences has declined. But the key problems of human social life have not disappeared. They have been transformed, and need to be reconceptualized and researched in their transformed state. Restructuring along regional lines, supported by a plurality of national, local and private funding agencies, seems to be the most promising bet for the near future. The regional perspective offers opportunities to operate effectively in the competitive global knowledge community, and to keep open the innovation-rich dialogue on the adequacy of more distant or more involved forms of social and human knowledge.

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The share of major social science disciplines in bibliometric databases

Koen Jonkers

Analysts and commentators make general statements about the decline in disciplines like sociology or anthropology and the growth in economics and psychology, but these assessments tend not to rely on international quantitative data. This paper discusses the weight of the disciplinary fields in the Thomson Reuters Social Sciences Citation Index (SSCI), measured in terms of publications, and stresses some of the limitations inherent to this sort of analysis.

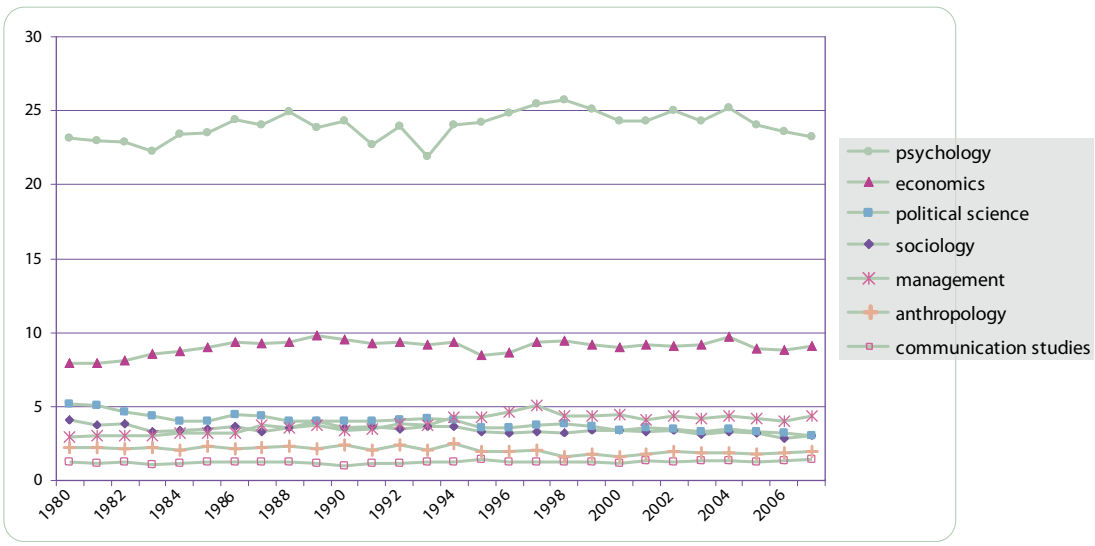
The limited availability of statistical data on social science researchers, and the different definitions of social science disciplines used in different countries (Kahn, in Annex 1 to this Report), make it difficult to embark on an international study of the relative distribution of material and human resources in specific social science fields. But it is interesting to have some idea of the relative production of the different social science disciplines and how it has changed over time.

Such a study would face all the limitations inherent in the analysis of social science bibliographical databases such as Thomson Reuters Social Sciences Citation Index (SSCI). These include restricted coverage, geographical and linguistic bias, the variation in publication practices between fields, and their omission of material published in books (Archambault, in this Report). Consequently, this paper only discusses the weight of the disciplinary fields in the SSCI database, rather than the weight of the fields in the global science system or within specific research systems. The weight of the different fields is measured in terms of publications rather than in terms of the number of social scientists. The fact that some fields have a large number of practitioners who apply their knowledge in government or elsewhere and do not actively publish journal articles is not addressed in this analysis either.

Between 1980 and 2007, the annual number of articles contained in the SSCI grew from around 55,000 to almost 93,000.[1] This growth indicates that the database is dynamic – new journals have been added over time, while others have been removed (Thomson Reuters, 2009). The weight of each field is measured by dividing the total number of

1. Throughout this paper, the publications of the forty-seven countries with highest gross domestic products are considered as a proxy for the world total. This is because of the technical limitations of the SSCI's online version.

Figure 6.1 — Weight of the disciplines in SSCI output



Source: Thomson Reuters Social Science Citation Index online version (accessed 22 September 2009).

publications (articles, notes, letters and reviews) in each field by the total number of such publications included in the SSCI per year. The share of each field is measured relative to the total SSCI database. The shares should not be added to each other as the SSCI may assign a journal to more than one subject category.

The definition of disciplinary subject categories used here follows that of the Thomson Scientific Journal Citation Reports (JCR), meaning that the subject categories are journal-based. The definitions of these fields can be contested, but since they are the standard used in most bibliometric studies, this paper follows them. The fields studied include sociology, political science, anthropology, economics, management studies, communication studies and psychology as a whole. Psychology is a very large and diverse field consisting of eleven JCR subject categories ranging from clinical, developmental, educational, biological, multidisciplinary and mathematical psychology to psychoanalysis. Other fields could have been included in the analysis. The decision was taken to focus on these seven as they represent some of the major social science fields as well as some fields that are thought to have grown considerably in importance in recent decades.

As Figure 6.1 shows, the combined psychology fields and economics form the largest share of the output captured in the SSCI. Over the period 1990 to 2007, the relative share of some fields, such as economics and management science, increased while that of other fields such as political science decreased. Overall, however, the relative share of these seven major social science fields in the SSCI has remained relatively stable during that period, while the number of journals included in the database increased substantially.

Other data sources would be needed to make more accurate and complete assessments of the relative research efforts in the various social science disciplines. In the absence of such data, this paper provides a first, limited indicator of such developments by showing the relative distribution of publications contained in the SSCI database by social science field and their evolution over time.

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Law and social science

The current integration of law and social science involves the renewal of a long-standing idea. Affinities between law and social theory are old – some even consider law to be the 'oldest social science' – and so are attempts at integrating them. The idea of a connection between law and a science of society can be found in the works of Montesquieu and Bentham. In the context of the social movements of the 1960s, research programmes in law and social science were developed in US and UK universities. Their prestige faded in the 1980s, but they have found new popularity in recent years. Today, the integration of law and social science is more internationally widespread, and is attempted by social scientists from many disciplines. History of law and comparative law are more open to other social sciences such as anthropology and sociology. Legal activity is studied by political theorists and by political scientists working on policy-making, state formation or social movements. Legal professions and the process of law-making are more often studied by sociologists. Scholars from the humanities are interested in the relationships between law and literature, or law and drama, at various moments of history. Law and economics is another distinct approach for legal studies: it includes the use of economics to explain the effects of laws, to assess which legal rules are efficient, and to predict which ones should be promulgated. Psychologists contribute to the practice of legal judgment. Courts and dispute resolution are other topics in which disciplinary crossings between law and social science are common. Recent scholarship focuses on articulating a plurality of legal orders rooted in the community, the region and the state, and on the complexity produced by globalization or postcoloniality.

This new cycle of integration between law and social science has been important in the USA under the label 'Law and society,' and has now spread to Europe, Latin America, India and Japan. Since the 1990s, institutions such as the World Bank have been interested in the relations between law and development. This approach analyses law as an instrument to promote economic development, democracy and human rights. All these trends tend to push law to the centre of policy-making and social science.

Communication studies

Communication studies is a relatively new field of research. It has some of the traits of a cross-disciplinary and interdisciplinary field, yet it has recently acquired many of the institutional and professional trappings of an academic discipline, including increasing offers of college courses resulting in a higher number of hired scholars, departments at universities, and new professional associations and conferences. 'Communication' is now identified as a separate category in social science bibliographical databases such as Thomson Reuters SSCI, and the number of papers published under this category shows an upward trend. Even this may not reflect the even greater number of textbooks published annually in this field.

Despite this rapid change, communication studies remains radically heterogeneous as an intellectual field (Craig, 2003). Defined as the 'study of the verbal and non-verbal exchange of ideas and information', it covers a broad range of topics such as 'communication theory, practice and policy, media studies (journalism, broadcasting, advertising and so on), mass communication, public opinion, speech, business and technical writing as well as public relations'; this is the definition of the Institute for Scientific Information (ISI) subject category 'Communication'. From these topics, Rogers (1999) distinguishes two major and coexisting research interests: mass communication (mainly investigated by political scientists) and interpersonal communication (investigated by sociopsychologists).

Communication studies is not only diverse in research interests. Craig (1999) maintains that it has multidisciplinary roots, as this field has historically been created by scholars from a wide variety of disciplines such as political science, sociology, psychology and mathematics. He distinguishes different traditions in current research, each of them reflecting a different accepted meaning of communication. They include rhetoric (the study of the practical art of discourse), semiotics (the study of intersubjective mediation by signs), phenomenology, cybernetics (the study of the circulation of information in communication systems), the sociopsychological tradition (the study of the psychological aspects of communication), the sociocultural tradition (the study of the transmission of sociocultural patterns) and the critical tradition (the study of the principles of communicative rationality).

Some scholars paradoxically note the lack of communication between these different schools of thought (Craig, 1999), and call for a productive dialogue to enhance the scientific consistency and fruitfulness of the discipline. This lack of communication can be verified empirically in terms of the lack of cross-citation between the set of journals identified as dealing with communication (Leydesdorff and Probst, 2009). The rapid institutionalization of communication owes much to the economic importance of communication skills and occupations, but the scientific construction of the discipline is still in progress.

Economics and sociology in the context of globalization

Frédéric Lebaron

Heightened interest in the cultural, institutional and historical dimensions of globalization could mean that asymmetries between economics and sociology could gradually disappear, giving rise to more balanced exchanges. In recent years, scientific developments within each disciplinary field indicate an increase in the number of intellectual links between them.

Two institutional contexts

The relations between economics and sociology are far from equal and symmetrical, especially in the present era of globalization. The primary difference is cultural and is related to the norms of evaluation.

Economics is characterized by its generalized use of English in scientific communication. Sociology, on the other hand, is largely embedded in national contexts and a significant part of its scientific production is published in national languages. The importance of English is evident in the various professional sectors that are linked to economics, such as banking and finance. Sociology has close affinities with sectors that are established in historically specific national institutions, such as those relating to social policy, education and health.

Economics is often described as an avant-garde discipline, especially in its scientific evaluation and management. It has contributed to the creation of standards for the classification of scientific content and of journals, based on 'scientometrics'. The 'productivity' of researchers, laboratories and institutions is evaluated quantitatively. A system of scientific awards has been set up, of which the Prize in Economic Sciences in Memory of Alfred Nobel is the most prestigious. These awards help to uphold internal hierarchies within the research field. The adoption of a normative system by most countries has contributed to homogenizing the discipline (Coats, 1997).

Sociology, on the other hand, still tends to be shaped by national and cultural forces (Berthelot, 2000). Nonetheless, Anglo-American sociology in particular has taken on a number of criteria and norms that can be found in economics and in the natural sciences, and similar forms of evaluation also influence the humanities. This became clear in France during the debates on journal classification in 2009. The adoption of these norms in the humanities and the social sciences was interpreted as the transposition of criteria that already exist in economics.

Two social 'subsystems'

A second aspect of the current relationship between economics and sociology relates to their contrasting configurations as social 'subsystems' – or fields, as Bourdieu (1988) would call them. Both economics and sociology are considered to be scientific disciplines. However, they diverge in their approaches to and relations with social and institutional structures, including their relations to non-academic sectors, their insertion in institutional social networks, and their contribution to public policy debates and practices.

Market mechanisms play a stronger role in economics than for the social sciences, especially after the implementation of institutional reforms which have created new evaluation processes affecting the careers and incomes of individuals. This is particularly visible in France with the 'Toulouse School of Economics' and the 'Paris School of Economics', two higher education and research institutions which are experimenting with new incentives and income models, each based on economic theory.

The key social differences between economics and sociology are related to the fact that they imply participation in extremely different networks of social actors, and in different sectors of public action. For a long time, economics has had privileged contacts with public policy actors and institutions (Coats, 1997). This is particularly visible at the national level in statistical institutes, finance ministries and central banks. The high concentration of economists within international and regional

organizations[1] has reinforced this presence at the national level. Additionally, many participants in local government have a background in economics. In other words, the non-academic facet of economics tends to overshadow the academic one.

Economics contributes directly to the existence of 'epistemic communities', professional or social groups that share a set of beliefs and cultural aspirations. Their members favour economic reform in various spaces, from central banks and international organizations to national or more localized circles. These often involve associations and lobbies devoted to 'structural reform', meaning liberalization and the implementation of market mechanisms. By contrast, sociology is still mainly an academic discipline, related to specific national cultural, intellectual or political contexts. Sociology is also often associated, especially in Western Europe and the Nordic countries, with the support and promotion of specific social institutions, leading to the creation of new opportunities for sociology students. Social workers, for instance, often have backgrounds in sociology.

Changing intellectual relationships

Emerging subfields such as economic sociology, socio-economics and international political economy have contributed to the formation of a large scientific space at the crossroads of these two disciplines. '(Neo-) institutionalism' can refer to the extension of economics into the relationships between markets and organizations. For many neo-institutionalists, economic rationality remains a central assumption. However, it does not necessarily imply a complete denial of the constraining institutional conditions of economic action, already emphasized by sociologists including Emile Durkheim (Campbell and Pedersen, 2001). These exchanges can also, especially in political science, refer to a 'political economy' which places the emphasis on power relations and the institutional condition of economic activity, and in particular, on present-day capitalism's shifting patterns.

The recent development of 'economic sociology', grounded on broad social and intellectual dynamics within the field of sociology, is also related to the re-emergence of questions that have been imported from economics and are studied from an empirical sociological viewpoint (Swedberg, 2003). The pursuit of sound empirical foundations to explain economic behaviour has also led to the re-evaluation of classical and recent sociological analyses on the subject. Experimental economics research tends to show that restrictive hypotheses on rationality should provide greater space for more integrative approaches.

The interdisciplinary success of the notion of 'social capital' has revived debate in such domains as growth theory, institutional change and international comparisons. Its importance in international organizations such as the World Bank and the OECD has helped to legitimize cross-fertilization between different disciplinary traditions, especially in sociology, economics and political science (Svendsen and Svendsen, 2009).

The use of common statistical methodologies has also partially loosened the boundaries between economics and sociology. A newfound interest in such statistical traditions as data analysis (especially correspondence analysis) has contributed to the development of joint methodological and empirical issues that integrate the multifaceted character of social and economic life. This trend also challenges the domination of abstract statistical modelling in favour of a more empirically based, descriptive and inductive approach (Le Roux and Rouanet, 2004).

Will these changing intellectual relations produce institutional or political outcomes? One important issue could have to do with the current discussions on the measurement of well-being and the quest for better indicators that do not solely rely on dominant economic indicators such as gross domestic product (GDP) (Gadrey and Jany-Catrice, 2007). While it is dominated by economists, the 'Stiglitz Commission' appointed by the French Government highlights the need for plural as well as multidisciplinary approaches to socio-economic well-being. We can hope that the new intellectual conditions described above will lead to the renewal of various public policy issues.

1. International Monetary Fund, World Bank, Organisation for Economic Co-operation and Development, World Trade Organization, European Commission, European Central Bank and so on.

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One social science or many?

Jon Elster

I want to start by saying that the social sciences are cumulative, in the sense of acquiring more and more mechanisms. Each new mechanism is added to the toolbox or repertoire of the social scientist. This progress is irreversible, since mechanisms identified by Aristotle, Montaigne and Tocqueville are still with us today. I can now begin to answer the question in the title. My answer is that there is only one social science, but that it is not unified.

When I accepted the invitation to give the talk on which this paper is based, in the autumn of 2007, I did not expect that the social sciences, notably economics, were about to be forced into a deep self-examination triggered by a world financial crisis. It seems as if the Hollywood slogan about the prospects of a newly released movie, 'Nobody knows anything', was suddenly applied to basic issues of economics and finance. The status of macroeconomics as a science now seems less compelling than before, to put it mildly. As for microeconomics, its status as a science has become increasingly fragile over the thirty years or so since 1980. The other social sciences, notably sociology, had less to lose, as their reputation was not that high in the first place.

In my understanding, the goal of social science is to uncover proximate causes of behaviour. According to this definition, the historical sciences are part of the social sciences, since they also are concerned with the causes of behaviour. Although we might try to draw a distinction between historians as consumers of mechanisms and social scientists as producers of mechanisms, this attempt would be quite misleading. Tocqueville's study of the *ancien régime* and Paul Veyne's study of civic giving – evergetism – in classical antiquity both contain more fertile mechanisms than almost any work in social science I can think of (Elster, 1979, 1993). Conversely, most economists, sociologists and political scientists are tool-users rather than tool-makers.

By proximate causes, I mean mental phenomena such as beliefs, desires, perceptions and emotions. As this shows, I am firmly committed to the principle of methodological individualism. All social phenomena should be and in principle can be explained by independent variables at the level of the individual. In practice, individual-level explanations may be intractable and may require data that do not exist. My point is that the use of aggregates as the unit of analysis is always a second-best option, and that there is never any reason to choose it for its own sake.

Before I try to answer the question in my title, I need to explain the 'science' part of 'social science'. The aim of science is to offer verified – or not yet falsified – explanations of observed phenomena. This is why some alleged social sciences do not count as science. Large chunks of anthropology, for instance, are closer to literary interpretation than to causal analysis. In addition, functional explanations of social phenomena in terms of their consequences rather than their causes do not count as science. An example is the explanation of vendettas as a 'device' for keeping a population within sustainable limits. Maybe vendettas do have that effect, but this cannot be cited as an explanation for them unless we also demonstrate the existence of some kind of homeostatic feedback loop. To my knowledge, nobody has even tried to do that. In a broad perspective, the work of Foucault and Bourdieu has been especially important in licensing claims of this sort (Elster, 1983). As I know from my own exposure to current French social science, their influence is persistent.

I also stipulate that science is cumulative, a claim that can be taken in one of three senses. First, scientists explain more and more facts over time. Better telescopes permit the exploration of deeper parts of space. Second, new scientific theories build on previous ones, generalize their results and, when necessary, explain their failures. The relations between Newton and Einstein, or between Condorcet and Kenneth Arrow, illustrate this idea. In this sense, cumulativity also implies irreversibility. There are no neo-Newtonians in physics, in the way there are neo-Marxists, post-Keynesians or neo-Austrians in economics. These are marginal sects. Yet the current revival of

Keynes in mainstream economics shows that even here, in the allegedly most scientific part of the social sciences, cumulativity and irreversibility are lacking.

I do not believe there is cumulative theory-building in the social sciences, since I do not think there are any successful theories in the social sciences. By a theory, I mean a set of interconnected universal propositions from which, given the initial conditions, unique predictions can be derived. Although the social sciences do contain would-be theories in this sense, none of them are successful in the sense of their predictions being routinely verified to a reasonable degree of precision. The main candidate for a social science theory is rational choice theory, including game theory. In contemporary social science, it is the dominant paradigm in economics and to a lesser degree in political science. I shall have more to say about rational choice theory later. For now, let me only note that the field of sociology, which has a proud tradition of theory-building, seems to have lost its self-confidence. Unlike rational choice theory, network theory and agent-based modelling do not pretend to yield strong predictions across large varieties of behaviour.

Let me now state the third sense in which the social sciences can be cumulative. This relies on the idea that the basic units of social science are mechanisms rather than theories. By mechanisms, I mean frequently occurring and easily recognizable causal patterns that are triggered under generally unknown conditions or with indeterminate consequences. Since this bare statement may be close to unintelligible, let me offer two examples inspired by Tocqueville's writings.

If a king offers tax exemptions to the nobility but not to the bourgeoisie, the latter might react with either envy towards their rivals or anger towards the king. Even if we cannot predict which of these two reactions will occur, whichever of them does occur can be explained by the king's behaviour.

If a king enacts repressive measures, his action can make his subjects less likely to rebel, because the measures heighten their fear, but also more likely to rebel, because the measures increase their hatred. Generally, the net effect is unpredictable, but if in a given case we observe that repression causes rebellion, we can conclude that the second effect dominated the first.

I can now begin to answer the question in the title. In his massive treatise *Foundations of Social Theory* (1990), James Coleman argued that rational choice theory could be a unified and unifying theory of all of social science. Yet in many well-documented cases, agents fail to live up to the prescriptions and predictions of rational choice theory. They behave irrationally. In a general way, this is not exactly news. The Allais paradox and the Ellsberg paradox, stated in 1953 and 1961 respectively, showed that most people violate a standard version of rational choice theory. For a long time, these and other anomalies, such as the gambler's fallacy, were not taken very seriously, as nobody could propose an alternative theory to account for them. Since you cannot beat something with nothing, and since rational choice theory definitely was something, with many achievements to its credit, it remained in place as the dominant paradigm. Although irrational behaviour was recognized, it was only viewed as a residual category. There was no positive account of irrational behaviour. At the same time, rational choice theory had – and still has – undisputed success in many policy areas. The assumption that economic agents respond to incentives has been shown to be valid in numerous instances.

This situation changed in the mid-1970s. In 1974, Daniel Kahneman and Amos Tversky published the first of their major papers on decision-making under uncertainty, in which they introduced the heuristics of availability and representativeness that I mentioned earlier. In 1975, George Ainslie resurrected the theory of hyperbolic time discounting proposed by R. H. Strotz in 1955, and showed that it could account for many puzzling inconsistencies in behaviour. A later landmark was the 1979 paper by Kahneman and Tversky on prospect theory, one of the most influential papers in the history of economics and the one for which Kahneman, after the death of Tversky, received the Alfred Nobel Memorial Prize in Economics.

In the years that followed, the research programme of behavioural economics has unearthed a vast number of positive mechanisms that generate irrational behaviour. Although it would be impossible to attempt a complete statement of these irrationality-generating mechanisms, I shall try to produce a representative shortlist. If we go by the literature, the two most important ones are probably loss aversion, an aspect of prospect theory, and hyperbolic discounting. In my view emotions are at least equally important, although for reasons I shall explain, they have proved less tractable for experimental purposes. Among other mechanisms, the following may be cited:[1]

1. Since there is no full-scale comprehensive treatment of behaviour economics, the reader is referred to the following edited volumes: Kahneman, Slovic and Tversky, 1982; Loewenstein and Elster, 1992; Kahneman and Tversky, 2000; Connolly, Arkes and Hammond, 2000; Gilovich, Griffin and Kahneman, 2002; Camerer, Loewenstein and Rabin, 2004.

- the sunk-cost fallacy and the planning fallacy (especially deadly when used in conjunction)
- the tendency of unusual events to trigger stronger emotional reactions (an implication of 'norm theory')
- the cold–hot and hot–cold empathy gaps
- trade-off aversion and ambiguity aversion
- anchoring in the elicitation of beliefs and preferences
- the representativeness and availability heuristics
- the conjunction and disjunction fallacies
- the certainty effect and the pseudo-certainty effect
- choice bracketing, framing, and mental accounting
- cases when 'less is more' and 'more is less'
- sensitiveness to changes from a reference point rather than to absolute levels
- status quo bias and the salience of default options
- meliorizing rather than maximizing
- motivated reasoning and self-serving biases in judgment
- flaws of expert judgments and of expert predictions
- self-signalling and magical thinking
- non-consequentialism and reason-based choice
- overconfidence and the illusion of control
- spurious pattern-finding.

I present this list mainly to underline the fact that unlike rational choice economics, behavioural economics is not based on a unified theory. Rather, it consists of a bunch of theories or mechanisms that are not mutually deductively linked. Nevertheless, there is only one social science, because all practitioners can use the same toolbox. There is no reason why an economist should refrain from using a mechanism developed by a historian of classical antiquity.

From this perspective, human behaviour seems to be guided by a number of unrelated quirks rather than by the consistent maximization of utility. In fact, there are so many quirks that we might suspect there would be a quirk to fit any observed behaviour. Many mainstream economists seem to shy away from behavioural economics because they think it invites ad hoc and ex post explanations.

Another problem is the plethora of motivations invoked by writers within behavioural economics. As we all know, *homo economicus* is supposed not only to be rational, but also to be consistently self-interested. This second feature of his make-up is less central than the first. Gary Becker, a staunch defender of the rationality assumption, has done much to further the study of altruism in economics. Yet many economists assume self-interested motivations for theoretical simplicity and parsimony. Paraphrasing Tolstoy, every selfish person is alike, but all unselfish persons are unselfish in their own way. Behavioural economists have come up with an amazing range of unselfish motivations, including altruism, envy, resentment, inequality aversion, fairness and many others. Once again, there is a suspicion that for any observed behaviour, we can find an unselfish motivation that would fit. And once again, the risk of ad hoc and ex post explanations seems very real.

However, I want to distinguish sharply between ex post and ad hoc. Of course ad hoc explanations should be avoided. A genuine explanation has to do more than merely provide a hypothesis from which the phenomenon to be explained can be deduced. Given any social event or fact, any social scientist worth their salt should be able to come up with half a dozen possible accounts that could explain it. But additional steps are needed to argue that one of them in fact does explain it. Plausible rival accounts have to be set up and then shot down, and the favoured account's additional, testable implications have to be derived and verified. If these are novel facts not previously observed, they lend even more strength to the explanation.

In contrast, there is nothing wrong with ex post explanations provided they follow the procedure I just stated. Let me take a trivial but typical puzzle based on my own experience: why are there so many more standing ovations on Broadway today than twenty years ago? The playwright Arthur Miller proposed this explanation: 'I guess the audience just feels that having paid $75 to sit down, it's their time to stand up. I don't mean to be a cynic but it probably all changed when the price went up.' When people have to pay $75 or more for a seat, many cannot admit to themselves that the show was poor or mediocre, and that they have wasted their money. To confirm to themselves that they had a good time, they applaud wildly. So far, this is no more than a 'just so' story, one possible account among many. It would gain in strength if it could be shown that there are fewer standing ovations when large numbers of tickets to a show are sold to firms and then given to their employees. This would count as a novel fact. Even if these tickets are expensive, the spectators have not paid for them out of their own pocket, and hence do not need to tell themselves that they are getting their money's worth.

In my vision of the social sciences, both microeconomics, updated as behavioural economics, and social psychology have a privileged role. They illuminate the individual choices and actions that are the building blocks of more complicated phenomena. Nevertheless, they face the challenge of how we link behaviour observed in the laboratory to spontaneous behaviour outside it. Many critics deny that findings from an artificial experimental setting can be generalized to other contexts. To address that issue, psychologists and behavioural economists

should go outside the laboratory. The great psychologist Leon Festinger can serve as an example. In the process of arriving at the theory of cognitive dissonance, he was influenced by a puzzling finding by an Indian psychologist, Prasad, who reported that the vast majority of the rumours following the great Indian earthquake of 1934 predicted even worse disasters to come. Here is the puzzle and Festinger's solution.

Certainly the belief that horrible disasters are about to occur is not a very pleasant belief, and we may ask why rumours that were 'anxiety-provoking' arose and were so widely accepted. Finally a possible answer to this question occurred to us – an answer that held promise of having rather general application. Perhaps these rumours predicting even worse disasters to come were not 'anxiety-provoking' at all but were rather 'anxiety-justifying' (Festinger, 1957, p. vi).

Although the theory of cognitive dissonance arose in response to a real-world puzzle, Festinger went on to derive and test additional implications in the laboratory. At the same time, he carried out fieldwork to confirm and develop the theory. He infiltrated a group of people who believed the world was about to end on a specific date and who had taken decisive action based on that belief, in order to observe what they would do when the prophecy failed. If you do not know what they did, I shall not tell you. The book he wrote about it, *When Prophecy Fails*, is a wonderful read, and I recommend that you find out for yourself (Festinger, 1956). I mention the study here only because of the exemplary methodology it embodies, combining theory, experiments and fieldwork.

Amos Tversky once told me about a meeting he had attended with the foremost psychological scholars in the USA, including Festinger. At one point they were all asked to identify what they saw as the most important current problem in psychology. Festinger's answer was 'excessive ambitions'. The social sciences more generally have also been suffering from excessive ambitions. The aspiration of rational choice theory to become the master theory of human behaviour offers one example. Another is provided by the strong claims often made for statistical models. As was emphasized by the late David Freedman, data analysis often aspires to do more than it can deliver. In one of his comments on the use of regression models in the social sciences, he asserted that in his view the truth of the matter was somewhere between the following: 'regression sometimes works in the hands of skilful practitioners, but it isn't suitable for routine use' and 'regression might work, but it hasn't yet' (Freedman, 1991).

If social sciences have to lower their aim, what should they do? Two proposals are implicit in my argument: we should keep accumulating mechanisms, and use them to carry out fine-grained case studies. Needless to say, simplicity and robustness are not enough: good ideas are also needed. To this end, I recommend that all social scientists spend a large part of their time immersing themselves in the classic writings of history, which can provide them with both the 'telling detail' and the 'provocative anomaly'. Thomas Schelling once told me that before writing *The Strategy of Conflict*, he read widely and randomly on military history. This is not the preparation that current social science departments give their students. Within economics, economic history is almost at the bottom of the prestige hierarchy, just a notch above the history of economic thought. Within political science, students do read the history of political thought, but virtually no political history. In sociology, they may read Marx, Weber and Durkheim, but to the best of my knowledge, little social history. Perhaps the best way of creating a unitary social science with a common language would be for all social scientists to have a grounding in history.

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Global history

Universal, world, and more recently global and 'new' global histories are new fields of study. They share a common object: to narrate past events using a perspective that transcends national and regional boundaries. On closer scrutiny, each has its own distinctive attributes. With the growth of global exchanges, global history and 'new' global history represent more recent attempts at narrating the world's past. 'New' global history has a specific focus on present-day globalization. A key feature of global history – as opposed to universal and world history – is its aspiration to break away from a Eurocentric approach. For advocates of global history, Western-produced metanarratives lure us away from the true explanations of the changes taking place. The solution to this problem consists of breaking away from previous approaches, which are based on paradigms that divide the world into the West and the rest, core and periphery, and into national histories.

While there is agreement on global history's main subject of study – globalization – and on the need to integrate non-Western approaches, there are divergences in terms of the meanings that are to be attached to the 'globalization' concept and the historical moment in which it came about. Globalization is associated with a variety of innovations and developments in a broad set of fields: communication, trade (with the emergence of multinational corporations), the globalizing political system, the globalization of culture and the spread of human rights as a global standard of behaviour. As a result of this, certain academics point to the emergence of a 'global consciousness'. While global exchanges have existed for a long time, contemporary globalization has expanded our consciousness of space and time, producing new approaches to globality. In other words globalization allows humans to analyse the world from a new global perspective.

This approach accentuates the break with past historical approaches, producing demands for a new history of globality. This history acknowledges the multiplicity of the world's pasts and the fact that all these pasts are simultaneously present, colliding, interacting and intermixing (Geyer and Bright, 1995). Acknowledging the multiplicity and nonlinearity of local histories, global history seeks to understand the collage of present histories. The question becomes one of knowing when and how the world's history became autonomous from the many histories of the world's pasts and set itself on a separate course. A core source of debate among global historians relates to whether accelerated integration (the universalizing tendency) and proliferating difference (the particularizing tendency) took place simultaneously or not.

Spatial analysis

Space has returned in recent years to centre stage in a number of research programmes and disciplines. Some scholars now speak of a 'spatial turn' in the humanities and social science, because of the increasing use of spatial metaphors and because space and location are more often used as variables that help explain the structuring of people and societies. There is an increasing interest in several disciplines in the incorporation of spatial effects, as in spatial economics and spatial ecology. In psychology, orientation and space construction has been an active field of research since Piaget's studies. Area studies, developed during the Cold War, have found a second life in the past decade thanks to the new global geopolitical situation after the fall of the former European communist regimes. Political science is also reflecting upon global governance and the new spatial organization of sovereignty. Many disciplines now acknowledge that the structures and behaviours of individuals, societies and cultures change from place to place. In other words space and location are now accepted variables of social science analyses.

Obviously space has always been a central concern for at least one of the social sciences, geography. Yet the regional focus which was dominant in that discipline has been declining for many decades now, despite its partial renewal since 1990. Cultural geography or social theories of space have developed, as did more formal and quantitative analyses in 'spatial science'. In this latter area of research, the diffusion of geographical information systems has transformed the use of data and the tools of representation. The treatment of geographic information through information technology will continue to grow in the future. Thus geography is constructing new objects of inquiry and new methodologies in the search for spatial orders stemming from behaviours or from the environment. Different techniques of spatial inquiry, mapping and the building of networks will become widespread in disciplines and fields of inquiry that attempt to analyse individual and social phenomena.

6.2 Crossing disciplinary borders

Introduction

Even though academic disciplines have been effective in organizing knowledge production on a large scale, every generation of researchers contains at least some who wish to overcome what they believe to be the potentially harmful consequences of the divides between and within disciplines. When scientists from various disciplines gather to deal with a problem, the talk is of multidisciplinarity and interdisciplinarity. When scientists coming from various disciplines gather to deal with a problem and take into account each other's constraints, the talk is of transdisciplinarity. Contrarily to interdisciplinarity, trandisciplinarity is said to be more integrative and seeks to go beyond disciplinary knowledge.

Interdisciplinary, multidisciplinary and transdisciplinary tendencies have existed ever since disciplines themselves emerged. They have sometimes been the origin of new disciplines, including some that did not crystallize and which finally disappeared. This dynamic of cross-fertilization between disciplines does not only exist between the social sciences, it is also an element of the interactions between social sciences and other fields of knowledge, especially the humanities and the natural sciences.

Academic knowledge has also been structured by epistemic cultures encompassing many disciplines. Physical or natural sciences on the one side, and arts and humanities on the other, can be considered the two oldest of these cultures. Social science is the third and youngest one. This section deals with some of the most recent questions raised by the existence of intellectual and institutional divides between these three cultures, and the crossing of the disciplines that they call for.

For various reasons, the divides between social sciences and other forms of knowledge are currently being challenged, or should be. Transdisciplinarity or multidisciplinarity is sought for in order to deal with complex phenomena. The reasons can be social and political, for example when social movements and policy issues such as climate change or poverty exert pressure on knowledge producers to change their habits and institutional settings and to deal with topics of general interest. Globalization also offers new opportunities for collaboration between scholars and professionals from various disciplines and epistemic cultures. New scientific fields of studies (including cognitive science, new evolutionary theory, bioethics, environmental studies, law and literature) involve people who are crossing the boundaries of epistemic cultures (Wittrock).

Crossing disciplines remains a difficult task. Roberta Balstad draws from her experience as the former director of the Division of Social and Economic Science at the US National Science Foundation in order to list the obstacles that have to be overcome for multidisciplinarity to develop within climate change research (see also Piot, in Chapter 9). Balstad's opinion is that new global challenges will require more funding for the social sciences, but will also call for changes in the habits of social scientists. Interdisciplinary research should become more institutionalized, interdisciplinary researchers should be hired, and interdisciplinary departments should be created. Yet disciplines and epistemic cultures should also remain strong in this process. How can interdisciplinary training be enhanced while the disciplines are strengthened? This may be tomorrow's practical question for social science research.

Among the social sciences, psychology is a discipline that has been stimulated by its position as part of the social and biological sciences. Owing to its internal diversity and large size, it provides many examples of interdisciplinarity, and of contacts with and collaborations between various forms of knowledge. Psychology's recent creativity and its permanent position as a site of disciplinary crossings can be observed in social change research (Silbereisen, Ritchie and Overmier). This case provides interesting clues about the articulation between experimental research and other ways of practising social science. Applications of such new interdisciplinary research can be imagined when investigating immunization behaviours as well as the complex processes of decision-making. Others are currently interested in the sources of sustainable behaviours (Corral-Verdugo). Human well-being is another fast-growing concern for social scientists ready to work with researchers from other disciplines.

Shifting involvements: rethinking the social, the human and the natural

Björn Wittrock

The social sciences are more urgently needed than ever before. Their potential societal relevance is higher, and they are more crucial to humankind's possibilities of coming to terms with its global interconnectedness in economic, cultural and resource terms than in the past. Without their contribution, the new global context cannot be made intelligible. But intellectual and institutional constraints hamper social sciences from contributing to the understanding of current global transformations, and from innovating as much as they should.

The current context for the social sciences offers possibilities for conceptual innovation and for empirical testing on a previously unheard-of scale. The fulfilment of this potential will call for institutional initiatives on a transnational scale. There is an urgent need for new research capacities and environments in social sciences to help humankind grasp and master current global transformations. While new economic, cultural and scientific centres are emerging, the landscape is still one in which deep knowledge divides persist.

Intellectual and institutional constraints hamper social sciences from contributing to the understanding of current global transformations, and from innovating as much as they should. One such dilemma concerns shifts in their epistemic ordering and in their relationships to other forms of knowledge, in the public sphere, in the humanities, and in the natural sciences.

From their inception as distinctive forms of knowledge, the social sciences have distinguished themselves from alternative, and sometimes competing, disciplines. Philosophical, historical, judicial and literary discourses, but also fields such as medicine, biology, genetics, neuroscience and even physics, have at times exerted a profound influence on the social sciences. In a historical perspective, the social sciences emerged largely from pre-disciplinary forms of what nineteenth-century Europe thought of as the humanities. This is particularly true of the relationship between the political, sociological and economic sciences and eighteenth-century moral and political philosophy. Many of the demarcations that became accepted and entrenched in the late nineteenth and early twentieth centuries are currently being reopened to questioning and critique.

The triple legacy of the humanities

With some simplification, we can suggest that the humanities have developed in the course of the past 200 years in response to three broad types of engagement.

First was a persistent effort in Europe to articulate the heritage of Greek and Roman antiquity in linguistic, historical and philosophical terms. Ever since the neo-humanists of the fifteenth and sixteenth centuries, this heritage has been interpreted in universalistic terms. Developments in the late eighteenth and early nineteenth centuries involved the rebirth of the idea of the university in the German countries under the influence of idealistic philosophy, and the reaffirmation of the universalism of the classical heritage.

At roughly the same time, similar rearticulations of learned traditions occurred in other parts of the world. This is true, for instance, of the flowering of Sanskrit knowledge between the sixteenth and eighteenth centuries. By and large, however, these traditions remained closer to pre-eighteenth-century European conceptions than to the disciplinary and university-based humanistic scholarship that subsequently evolved in the region.

Second, the building of different national traditions in linguistic, ethnic and historical terms was a key process shaping the humanities in nineteenth and early twentieth-century Europe. The evolution of the humanistic disciplines in their modern form is intimately linked to these developments and to the various European nation-state projects. This is true of their role in institutions of higher education, in the construction of national museums, in the preservation of folklore, and in the quest for archaeological and ethnographic traces of national pasts.

Third, encounters between European and extra-European nations, ethnic groups and spaces exerted an important influence on the humanities in the nineteenth and early twentieth centuries. This was most clearly the case for anthropological and ethnographic research, but also for the study of languages and cultures.

Throughout the late nineteenth and early twentieth centuries, these different strands of inspiration developed in mutual interaction, and often led to unresolved tensions for the humanities. The traumatic events of the mid-twentieth century forced a reappraisal in most European countries, with various outcomes. This was clearly the case in Germany, where the historical, literary and philosophical sciences had been intimately linked to the project of constituting identity and nation, and had conflated with the practices of Nazi Germany. A profound rethinking was unavoidable. In most other countries, the humanities could point to a more mixed record. They had helped to raise a spirit of resistance and national independence ahead of occupation and war, but had been also involved in defining exclusionary national traditions, and had been associated with colonial practices that were to become challenged in the post-1945 era.

This post-war period involved a weakening of the humanities in all European countries relative to the technical, natural and medical sciences, but also in the face of the emergence of the social sciences as autonomous disciplines. In this era the social sciences prevailed over the humanities for several decades. But recent mass migration, increased global economic interaction and renewed religious fervours have put social scientists' claims of the advent of purely secular societies into question. These phenomena confirmed how crucial the humanities were for understanding the world, and called for renewed collaborative relationships between the social and the human sciences. Nevertheless, policies regarding the humanities tend to be cast either in technocratic terms, calling for them to respond to concerns for immediate usability, or as appeals for a revival of past times when the humanities underpinned national cultures and canons.

Rethinking the relationships between the social and the natural sciences

The social sciences and the humanities emerged in the late eighteenth and early twentieth centuries, not only out of moral and political philosophy but also through interactions with botany, medicine and agriculture, and in the context of reflections about the divide between the human and the non-human. This period of 'Inventing Human Science', as the title of a famous book (Fox, Porter and Wokler, 1995) has it, drew a very thin line, if any, between the social and the natural sciences. Hence, the clear-cut distinction that we know between the cultural and the natural sciences has existed only for 150 years or so. It is also a demarcation that has rarely been fully accepted.

Biological and evolutionary thought continued to influence the social and human sciences during their disciplinary consolidation in the late nineteenth century. The frequent use of evolutionary metaphors in the analysis of the history of human societies and states shows this influence. The elaboration of public policies for the genetic 'improvement' of populations was another, pervasive influence, propagated by scholars from the entire political spectrum, and particularly significant for disciplines such as statistics, demography, criminology and sociology.

The horrendous experiences of the 1930s and 1940s, and the realization that European colonies and settler societies often violated indigenous populations' rights, dominated most interactions between social and natural sciences for a few decades. Today these boundaries are being assailed from different sides again, and many cutting-edge research projects are based on collaboration between social and natural or medical scientists. They include:

- Studies of the long-term development of languages and linguistic families are jointly led by linguists, historians, archaeologists and geneticists.
- Studies of the human mind, of the philosophy of mind, and of consciousness rely increasingly on collaborations between philosophers, psychologists, neurologists, brain researchers, and specialists in cognitive science and artificial intelligence.
- Long-term collaborations between mathematicians, logicians and computer scientists are now extended to historians and biologists. They constitute a field in which aspects of classical humanistic scholarship meet with application-oriented engineering.
- The ancient problem of the distinction between humans and nonhumans is reopened by medical and genetic engineering today, as shown by the growth of bioethics.
- Virtually all policy-oriented studies now require collaborations between social, human and natural scientists. This is evident in studies on environmental change, but also in cases where public policy requires human–machine interactions, where the social embeddedness of technologies is at stake, or where innovation challenges previous beliefs and practices.

- Dramatic advances in evolutionary biology inspire the study of human societies.
- Military and security concerns have instigated new methods of surveying and tracking the movements of individuals and populations.

In other words, there is a need for close collaboration between the cultural and the natural sciences. That being said, the autonomy of the social and human sciences also needs to be protected. The paradoxical combination of the small material demands of the social and human sciences and their great potential contribution makes it all the more important that a strong element of critical and historical self-reflection be preserved in the major research institutions, such as universities, institutes for advanced study and centres of excellence. One of the great challenges of the period concerns the support and development of centres and institutes which are open to cooperation between the cultural and the natural sciences, but which maintain scepticism about proposals that the social and human sciences break with their own theoretical traditions.

Rethinking knowledge divides: centres and peripheries

Human activities are characterized by varying degrees of inequality and asymmetry. Some individuals and populations have greater access to resources, lower transaction costs, better social reputation or more political influence than others. Concentrations and movements of people, capital and other resources occur in centres and peripheries.

Geographers have long since developed concepts in time–space geography to capture the formation of and movements between centres and peripheries. Historical sociologists depict long-term developments in similar terms of relationships between the centre and periphery in particular epochs, or they combine macrosociology with the analysis of networks and with interactions between individuals and groups of thinkers. World systems theories have served as a backdrop for global histories of the social sciences.

At any point in time, some centres concentrate people, capital and other resources. In terms of scientific and scholarly interactions, we may envisage networks based on an analysis of references, acquaintances or even spatial movements. On a global scale, such analyses undoubtedly yield interesting and important insights.

Torsten Hägerstrand, a pioneer of time–space geography, was interested in analysing phenomena of innovation and diffusion, and argued that research became innovative when it brought together strands of research which had hitherto developed separately within a new conceptual framework. It is, he writes, as if a window suddenly opened and allowed us to see the world in a new light, to scrutinize new empirical relationships. This window metaphor belongs to a specific tradition of knowledge, but more significantly it calls our attention to some determinant aspects of social and human sciences.

First, the social and human sciences do not merely describe, retell and count the already familiar; they provide new conceptual tools and expressions to let us learn about the world.

Second, no public policy can be developed, no market interaction can occur, and no statement in the public sphere can be made, that does not refer explicitly or implicitly to the findings and concepts of the social and human sciences.

Third, modern research depends upon public support and the willingness of governments and peoples to guarantee the resources they require. In the case of large surveys of the population, these can be significant, but most social and human science projects need comparatively few resources. The most important may well be intellectual openness and the toleration of thoughts with potentially far-reaching effects.

In other words, the history of the social and human sciences in modernity can be analysed in terms of intellectual, institutional and political centres and peripheries. At any point in time there is one or a number of such centres. They are surrounded, not by an undifferentiated periphery but rather by potential alternative centres, challenging their power.

As has been pointed out by the historical sociologist S.N. Eisenstadt, these dynamics between the centre and peripheries have important implications for the understanding of what he terms the 'age of multiple modernities and globalization'. Even though most states still uphold their monopoly of the use of violence, none of them, not even the superpowers, uphold a monopoly of interpreting realities or of assigning value to their policies. The social and human sciences provide interpretive tools which enable contenders and critics to question the interpretations of societal reality, the legitimacy of policies, and the terms used by the centres themselves. Many of

the scholarly and political debates of recent decades share precisely such critical features, and in this respect, the social and human sciences are indeed a very important element of modern tensions and antinomies.

In institutional terms there can be no doubt that various countries, universities and disciplines have served as models to be emulated. More often than not, such emulation has amounted to creative misunderstanding, for instance when leading US academics attempted to reproduce German scientific institutes and universities between the 1870s and the 1920s. In fact they developed a system that today's academic leaders, Europe and China, are trying to replicate themselves, although with much more limited resources.

The transformative force of the social and human sciences may never have been greater than today, as are their intellectual vigour and innovative capacities. Consequently, there is a greater need than ever for intellectual sites where these potentials can come to fruition and where independent and innovative theoretical work is encouraged on the same level as large-scale empirical and policy-oriented studies.

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Body

The human body is far from an obvious object for the social sciences. Its study has for long mostly been the territory of medicine and biology. Yet since the 1990s, the body has been an interdisciplinary meeting point for various social sciences and for some of the natural sciences. It has also compelled the social sciences to contemplate their epistemic assumptions more deeply.

This process of ennoblement of the human body within the social sciences took almost a century. Until the first part of the twentieth century, the human body did not have the dignity of an object in these disciplines. Then anthropology, history and psychoanalysis started questioning the body and its functions. Its role in the construction of selfhood and personality was the main focus of these first studies. The human body's expressive qualities, its movements and its gestures were later topics of interest, covering such areas as nonverbal communication, bodily styles, and cultural variation in bodily behaviour. This work generally tended towards a critique of the biological essentialism that usually dominates common-sense approaches to the body. Later on, changes in the body through time, sports and their evolution, and medical technologies and the ways they construct an imaginary body became the focus of interest. And since the 1970s, the human body is no longer an immutable substrate of human nature for the social sciences. Rather, it is a historically variable entity, which can be transformed by technologies, discourses and situations. The self-control of bodies, as illustrated in modern etiquette and in professional sports, is a good example of the effects of long-run historical processes on bodies.

In the 1990s, political science also started to pay greater attention to the ways in which governments regulated populations and all aspects of human life and bodies through 'biopower'. The field of politics and the life sciences has been growing since.

For some feminist and postmodern theoreticians, the body is just the effect of discourse rather than a stable site of experience. At the same time, the human body is at the core of many debates in cognitive sciences and biomedicine. Those approaches are not contradictory, since contemporary technologies also create new bodily abilities and functions, and transform our senses and our body images. Thus, the human body is currently a cross-disciplinary object par excellence.

Environmental and ecological economics

Environmental and ecological economics are good examples of new scientific specialties emerging at the boundaries of other specialties or disciplines, and crossing the borders of social science to reach out towards the natural sciences. But whereas environmental economics remains in the realm of economics, ecological economics aims at creating a new and distinct field of studies with its own basic assumptions and paradigm.

Neoclassical economics describes people's behaviour regardless of the environmental systems that sustain their existence. However, since 1970, there has been a growing realization among ecologists and economists that this approach can lead to serious mistakes, as the market does not allocate scarce natural resources to generate the greatest social welfare. Since the late 1970s, the field of environmental economics has developed to understand and correct market failure in the environmental domain, as well as to assess the costs and benefits of alternative policies (meaning policies that are alternatives to the free market) (Smith, 2001). One of the early challenges of environmental economics was to internalize environmental externalities in order to make ecological realities (which might be either pollution and destruction of the environment, or conversely, ecological restoration) visible in macroeconomic accounting. This involves assigning money values to environmental services and losses. Many authors also assign specific economic characteristics to environmental amenities, such as fish stocks or air quality. Nonexcludable is the term used for goods whose access cannot be limited; nonrival is used for goods whose consumption by one person does not reduce the amount available to others. These characteristics define an 'international public good', and can have an impact on the way these goods are managed. Nonexcludability favours 'free-riding' behaviours in that others can 'free ride' on one agent's effort to improve a good. In the case of carbon emission reduction, for instance, national incentives would only be effective if they were coordinated with other countries. The development of studies in this field responds to a strong demand from decision-makers for simple tools with which to assess and compare the efficiency and relevance of different environmental policies (see, for example the *Report on the Economics of Ecosystems and Biodiversity*, which was commissioned by the European Commission in 2007; and the *Stern Review on the Economics of Climate Change* for the UK government, released in 2006, which assesses the costs of failing to act in the face of climate change).

A more recent development has gone further in integrating environmental and economic issues: this trend is embodied by the International Society for Ecological Economics launched in 1987. Mainly founded by ecologists trained in economics and vice versa, ecological economics considers the economy as a subsystem of a larger, finite global ecosystem (Martinez-Alier, 2001). This transdisciplinary perspective questions the sustainability of economies based on infinite growth and with both strong environmental impacts and high material and energy needs. Hence ecological economists are very interested in developing physical indicators and indexes of sustainability. Their view also includes issues such as property rights and rules of access to environmental resources and services, the social distribution of power and income (including gender and caste issues), irreversibility, risk assessment, the diversity of environmental value systems, and their weak comparability in the frame of economic models. Ecological economists distance themselves from environmental economics by claiming that cultural, ethical or enjoyment value, which is often associated with the preservation of nature, has little commensurability with money and cannot be reduced to a price. They propose alternative methods such as multicriteria evaluation to capture the value of environmental services and losses. These research interests definitely make ecological economics a transdisciplinary field, which bonds with political ecology, geography, anthropology, philosophy and other subjects in response to worldwide concern about the ecological, social, economic and political dimensions of sustainability.

The interdisciplinary challenges of climate change research

Roberta Balstad

There is a widely acknowledged need for social science contributions to climate and environment research. Meeting the challenges posed by these expectations involves understanding the barriers and hindrances to the social sciences assuming their central role in climate change research. It also involves understanding the consequences of a commitment to developing the social science of climate and the environment as it will affect research, education, and research support in these fields.

Climate scientists from many disciplines recognize the value and potential contributions of the social sciences to their work. Moreover, with the disappearance of any credible objections to the existence of climate change and the growing emphasis on climate adaptation and mitigation policies, policy-makers recognize the need for social scientists to contribute to climate change research. This growing emphasis on the role of the social sciences in climate change research stems in part from the assumption that the study of climate-related policies naturally falls into the social science sphere. However, it also reflects a growing recognition that neither physical and biogeochemical processes, nor their rates of change, can be understood fully apart from their anthropogenic impacts and origins. In short, there is a widely acknowledged need for social science contributions to what was initially conceived as a purely physical and biogeochemical research agenda.

The challenge is whether the social sciences are capable of meeting this need. Despite a sustained emphasis on climate and environmental research within the social science community over a number of years, and the involvement of excellent social scientists in this research, social science contributions to climate change have been less than many had expected. To date, climate change research remains a small specialty within the social sciences, and potential contributions by social scientists continue to outstrip their actual contributions.

There are well-known barriers to climate research across the social/physical divide:

- Social scientists are wordier than physical scientists.
- Some social scientists believe in the social construction of scientific knowledge, a belief that can undercut collaboration with physical scientists.
- Social scientists often employ a wide range of theoretical approaches.
- Social scientists are particularly sensitive to small differences of time, space and culture.
- Disciplinary loyalties in the social sciences often interfere with multidisciplinary collaboration.

But we also recognize that these are not insurmountable barriers; they are intellectual and stylistic differences between scientific fields that can eventually enrich multidisciplinary research.[1]

However, other types of barriers have been more difficult to overcome. The social science community has been ambivalent about climate research. Although some social scientists initially participated enthusiastically in this research, others objected to joining what were predefined projects in which their role was subordinated to that of the climate or biogeochemical sciences. They argued that climate scientists had initially defined the role of social science too narrowly, and that what they actually needed was not new research but a basic understanding of what was already known in the social sciences. The perception that the social science research challenges in interdisciplinary projects were too limited led some social scientists to avoid collaborative projects with natural and physical scientists.

Another barrier was the high entry threshold for conducting research in the climate and environmental fields. Graduate training, and indeed most research in the social sciences, is focused on social, behavioural, economic and institutional interactions between human beings.

1. I am indebted to Professor Ortwin Renn for contributing to this list.

The nineteenth-century focus on the social implications of the physical environment had faded by the 1950s and 1960s, a formative period in which the social sciences expanded rapidly. With the advent of climate and Earth systems science research in the late 1980s and early 1990s, few social scientists had the necessary physical science background to exchange ideas with climate scientists or identify the flaws in their ways of conceptualizing either the human contributions to, or the impacts of, climate change.

Still a third barrier was the discomfort that some social scientists felt with the idea of social engineering, that the social sciences should provide the social equivalent of engineering applications for climate change policy. Climate scientists often suggested that the social science contribution to their work should be in the definition and implementation of government policies for climate change adaptation and mitigation. This reliance on the social sciences to stimulate specific types of behaviour is contrary to major currents in the social sciences in the twentieth century.

For many social scientists, the history of their disciplines since the early 1960s has involved a movement away from politically oriented social engineering towards a more basic, and by implication more scientific, form of social research. The social sciences were often harmed by their forays into policy, including the close association of anthropology with colonialism in the early twentieth century, the US Defense Department's use of research funding in Latin America in the 1960s as an instrument of foreign policy in Project Camelot, and the justification of apartheid in South Africa on a 'scientific' basis by so-called social engineers. In short, the misappropriation of their research in public policy has led some social scientists to embrace a pure rather than an applied approach to research, an approach that is distinctly at odds with the expectations of many physical scientists.

One consequence of the early barriers we have discussed here was that social scientists who were drawn to climate change research often attempted to create a purely social science research agenda for climate and environmental change that was scientifically divorced from the research of climate scientists – just as the climate scientists had conducted their research for decades without mapping the underlying anthropogenic influences on physical processes. For some research topics, this social science-centric approach was obviously legitimate and valuable. But by itself, it was insufficient to meet the growing scientific needs of the field of climate change. Such disciplinary segregation ignores the fact that climate change is a multifaceted interdisciplinary problem that requires an understanding of the full range of interactions between the Earth and its inhabitants.

This brings us to a fourth, very serious barrier, which has nothing to do with ambivalence or misunderstanding but which is almost certainly the major reason for the limited involvement of the social sciences in climate research. Social scientists have never had access to the same level of research funding as their climate science counterparts. Apart from a few notable exceptions such as Norway, social scientists have mostly had to make do with existing and often inadequate research funds. In the USA, it has been estimated that as much as 98 per cent of all climate research funding goes to the physical and biogeochemical sciences. The remaining 2 per cent has to cover all social science research in a set of disciplines that are increasingly considered as crucial to understanding the social impacts and causes of climate change.[2]

Having said this, the major challenge that confronts us does not relate to the capacity of the social sciences to contribute to climate change research, but rather to their ability to fill their rightful place as full participants and even leaders of interdisciplinary research planning for climate change science. The physical and biogeochemical sciences have done a great deal to identify, clarify, and map out climate-related problems and processes. Yet the social science contribution is equally essential if we are to understand the critical problems we now face, including the role of human action in climate change over time and space, and the short-term and long-term impacts of climate change on individuals, economies and societies.

Assuming a more active role in the climate research enterprise will not be easy for the social sciences. Although the current climate research leadership believes in the importance of interdisciplinary research, and specifically in the need for the social sciences to contribute to the climate research agenda, few social scientists have experience of planning for multidisciplinary climate research. If social scientists are to assume a greater role in research planning, we will need a series of changes in the social, physical and biogeochemical climate sciences, as well as in the funding structure for climate research.

This will involve social scientists changing some of their attitudes about the dominance of traditional disciplinary departments and disciplinary research. Disciplinary

2. For a discussion of the role of inadequate funding for social science research on climate change, see *Restructuring Federal Climate Research to Meet the Challenges of Climate Change*. National Research Council, 2009.

institutions will remain important as the source of graduate and undergraduate training, focused research projects, and new scientific hypotheses. In the future, however, the traditional disciplines will compete against interdisciplinary research and education projects. If social scientists are to advance scientific knowledge on climate change, they will need to strengthen their disciplinary bases at the same time as they open their disciplines to greater interdisciplinary training and education. This is a very difficult balance. Most human dimensions specialists receive their initial training in specific social science disciplines. In the future, however, they will probably spend shorter periods in these fields. More people are already being trained in one discipline and working in another. The traditional disciplines need to build upon their strengths and encourage the growth of new, collaborative fields of research rather than competing with them.

Social scientists also need to engage in a major new educational effort which involves both educating physical scientists in the social sciences and educating social scientists in climate science. This will require that the foundations of graduate and undergraduate education in the climate sciences be rethought. Social science knowledge cannot be limited to social scientists. Basic undergraduate social science courses, including economics, demography and social statistics, and possibly cognitive psychology and decision-making, are needed for all climate scientists. Similarly, social scientists need to learn more about the basic elements of the physical and biogeochemical sciences.

There must be new career paths for social scientists who are active in interdisciplinary climate research. Students are attracted to courses and research on anthropogenic influences on the climate and to the study of the role of policy, economics, governance and communication in dealing with climate change. But there is also a need for research scientists who combine the human, physical and biogeochemical sciences to address these issues. In order to produce this new generation of academics, there must be many more interdisciplinary fellowships and postdoctoral positions that are open to social scientists.

Once this new cohort of interdisciplinary research scientists has emerged, an institutional reward structure will be needed that is comparable to the rewards structure for more traditional research. This is particularly important in the social sciences since there is no established career path for the human dimensions of climate science. If support for the hiring and promotion of interdisciplinary social scientists is not provided within the traditional disciplines, new interdisciplinary departments will form and draw scarce resources from the traditional disciplines. In this situation, the contributions of the traditional disciplines to climate science could be weakened and their role in the university diminished.

Solving the problem of underfunding for social science research on climate change is critical to meeting the scientific challenge it poses. If the social sciences are to respond to the scientific challenge, it is essential to persuade those who provide research funding to increase support for human dimensions research. Equally important, financial support for data collection on human behaviour and climate impacts must be increased. Social scientists should enlist their colleagues in the physical and biogeochemical climate research communities to join in calling for increased funding for social science research on climate, even if, as is likely, some of those funds will come from the same pot as their own research funding.

Meeting the challenge of climate change will not be easy. Social scientists have strong incentives to do so, and bring valuable assets to the task. Many excellent and experienced social scientists are already working in the field. But there is a great deal more that must be done. Some of it involves conducting research that crosses new scientific frontiers, which is exciting, and some of it involves slogging through the difficult institutional, educational and research policy changes required to support integrated, interdisciplinary research. Some of it requires changes in the organization of the social science community, and some of it requires changes in the traditional climate science community. The first phase, getting social science research on the climate change agenda, has been completed. Dedicated individuals have successfully shown the value of social science for the broader climate science enterprise. In the next phase of climate change research, social scientists must consolidate these gains, find ways to obtain the necessary fiscal and institutional support for integrated, interdisciplinary research, and take their rightful place among the broad leadership of the climate change research community.

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Psychology at the vortex of convergence and divergence: the case of social change

Rainer K. Silbereisen, Pierre Ritchie and Bruce Overmier

Accelerated social change in many societies has brought macro contexts and their cascading effects on individuals' adaptation to the attention of psychologists. In recent decades, psychological knowledge of the vast effects of broader contexts on behaviour has grown, particularly concerning phenomena such as how people deal with economic hardships and other manifestations of social change.

Psychological science has always been informed by, and is part of, the biological and social sciences. While the biological connection has recently become prominent again, the social science dimension too has gained in importance. This can be attributed to the pressure of accelerated social change. Globalization, migration, demographic shifts and political transition illustrate the increasingly normative instability of societal conditions, even within the span of a single generation (Hofäcker, Buchholz and Blossfeld, 2010).

The concept of psychology as focusing on the individual (for example, as an actor in society, as an agent in economics or as a role player in institutions) is increasingly recognized from different perspectives and by research bodies in various disciplines. Hence it is important to consider the relationship between psychology and the social sciences in general, and between psychology and other fields of study such as economics and sociology. There are many ways to illustrate the relationship between psychology and social science. All human beings live in societies, both influenced by social structures and shaping them. Likewise, we are influenced by and shape our biology. Such observations are explained by the 'epigenetic systems' view advanced by Gottlieb's (1991) theory of human development. It posits a bidirectional interchange between heredity and the environment.

In this paper social change is the vehicle for discussing psychological science as a source of convergence and divergence in its relationship to the social sciences. It is accompanied by two boxes, one drawing more on cognitive dimensions and the other on psychology as a health science.

Social change research

Research on the role of social change in family and individual development exemplifies the fruitful collaboration between psychology and sociology. Bronfenbrenner (1979) alerted developmentalists to their subject's social context. He distinguished between micro, meso, exo and macro contexts. Briefly, the main micro context is the family; the meso context is constituted by interactions between micro contexts (for instance, family and work); the exo context is represented by neighbourhoods and community institutions; while the macro context addresses societal structures and belief systems. These contexts are not constant but change as a function of both life stage and social change. Furthermore, these contexts are thought to have a cascading influence on behaviour through their effect on 'proximal processes'. Such processes promote development through individuals' active participation in progressively more complex and reciprocal interactions with persons, objects and symbols over extended periods of time. An example of research focusing on these contexts is disorganization within a poverty-stricken neighbourhood characterized by an absence of social cohesion and control, thus increasing the risk of delinquency in adolescents via a lack of positive, caring role models. This could reduce the proximal processes' quality of developmental instigation (Sampson, 1993).

An emerging sociological research tradition founded by Elder (1974) endeavoured to explain the consequences of the Great Depression of the 1930s – a cataclysmic period of economic and social upheaval which was of renewed interest in the 1970s – for families and individuals. Interestingly, the data were originally collected by psychologists. Compared with past research on contexts of development, the progress made with assessing proximal processes was evident. This research tradition successfully addressed various crises at the macro level. It also provided the blueprint for research on the consequences of political transitions and transformations after the break-up of

the Soviet political system in the late 1990s. Research on the unification experience in Germany illustrates how the approach identifies and assesses new micro-level demands on families and individuals created by political change. The processes generating the demands, such as the need for individual responsibility in adapting to a profoundly changed work environment, created distinct challenges. For example, a mismatch developed between the society's ideological basis and the behaviour of its institutions, resulting in responses that undermined the system's legitimacy. Typically, we would expect a change in the learning environment at the micro and meso levels, influenced by changes at the exo and macro levels.

China provides an example of research on the effects of large-scale economic reforms on human development. Parental goals and teacher behaviours in favour of the traditional 'shy-withdrawn' pattern of child behaviour changed (Chen and Chen, 2010) in response to the economic reforms that required behaviour favouring individual responsibility, proactive social relationships and motivation for excellence. These changes in care-taker goals and behaviours were rooted in changing contexts at higher levels: from the ideological basis of the society, which valued new forms of enterprise and related work requirements, to the composition of social networks.

Social scientists refer to structural uncertainty when describing political transformation and the effects of globalization in countries such as Germany and China. For instance, rapid technological development and the global dissemination of communications technology dislocate labour markets. Given the current financial and economic crises, employers tend to reduce their uncertainty about profitability by transferring the risk to workers, who then face precarious employment. Those most affected are also those who are the least protected by qualifications or seniority (Hofäcker et al., 2010). Such social science analyses, based on data from many countries, allow psychology to map the dimensions and levels of the new demands confronting people in their daily lives. This requires systematic endeavour, resulting in psychologists developing instruments to assess uncertainties experienced in domains such as work and family (Tomasik and Silbereisen, 2009). An example is the perception that people have, which grows over time, that their employment is at risk because their expectations exceed their qualifications.

The division of labour between sociology and psychology is reversed when conceptualizing individual-level response to challenges and demands. Whereas Elder and others used topic-specific and data-driven categories of economic pressure, recent research has moved away from intuitive categories of action. It has turned instead to established psychological models of motivated behaviour to consider how people respond to challenging situations. Heckhausen's model of developmental regulation is of particular relevance for psychosocial development. It distinguishes two dimensions of action. The first is primary (outwardly directed) versus secondary (inwardly directed) control, while the second is selection (choosing from alternative goals) versus compensation (changing goals or means when confronted with failure).

This results in the classification of four generic types of regulation (Heckhausen and Schulz, 1995). Thus, actively pursuing a particular goal and staying on target by strengthening motivation are a combination of primary and secondary selection, such as looking for a job whatever it takes. Primary compensation refers to situations in which extra efforts and new means are required, such as improving one's qualifications or changing direction. These three goal engagement strategies are beneficial for well-being and other psychosocial outcomes, even when structural opportunities are unfavourable (Haase, Heckhausen and Köller, 2008). If obstacles to goal pursuit persist despite all efforts, people may need to turn to disengagement strategies, such as finding excuses or giving up entirely, saving energy for new attempts in different fields and thereby preserving their well-being. Thus, whether goal engagement or goal disengagement is adaptive depends on the context.

The developmental regulation model has features in common with other psychological approaches which have more or less explicit conceptual relationships with psychosocial development. Recent German social change research – prompted by the breakdown of the Soviet socialist order – demonstrated that people who maintain primary selective behaviours in pursuing new claims are better adjusted in terms of well-being. This was confirmed in the work and family domains (Pinquart, Silbereisen and Körner, 2009). Similarly, studies on the demographic shift toward an ageing population – characteristic of many Western societies – refer to the increased need for lifelong learning and for staying productive even after the traditional retirement age.

The nature of research at the nexus of the social sciences and psychology

Following Coleman (1990), the analysis of change in social structures is undertaken in a three-step procedure. Change at the macro level results in particular demands with which individuals deal in specific ways; the outcome

of these activities potentially leads back to the societal level, thereby influencing the social structure. For Hedström and Swedberg (1996), the three steps represent the following kinds of causal 'mechanisms', by which they mean small-range theories that explain the bidirectional flow of effects between levels of society and the individual. The three are situational, individual action and transformational.

The modes of developmental regulation distinguished by Heckhausen and Schulz (1995) can be conceived as an example of individual action mechanisms. As psychologists, we are not only interested in the situational emergence of behaviours, but also in their role as proximal processes that promote psychosocial development. Heckhausen and Schulz's model is attractive because it addresses the relationship between pursuing age-typical goals and life-course achievements. For example, how young people dealt with the demands of finding a job after graduation determined their actual occupational success and their well-being more broadly.

For social scientists such as Elster (2007), mechanisms at the individual level are at the core of their discipline and are indispensable in explanations of societal phenomena. Interestingly enough, this view omits the two other mechanisms (noted above) distinguished by Hedström and Swedberg (1996), which psychologists regard as integral to social science. Clearly, there are many more individual action mechanisms studied by the cognitive psychology tradition than have been used in research on social change. Researchers such as Kahneman (2003) have shown that individuals often do not act according to rational choice; rather, their behaviour is characterized by various biases. One example is 'hyperbolic discounting'; that is, people prefer smaller, more immediate pay-offs to larger, later pay-offs. This tendency may be triggered by contextual conditions. In the case of the German unification, the East's aspirations for improvement were high as a result of the West's higher prosperity. An unintended consequence was that communities accepted higher debts to satisfy expectations quickly. In times of financial crisis, this became a severe liability (Sackmann, 2010).

Psychological research has utilized only a few of the mechanisms that could explain how people deal with the demands of social change. Nonetheless, psychologists interested in families and children are motivated to go beyond the situational emergence of behaviour. Instead, they study ontogenetic implications, in particular, the advantage of mechanisms such as those spelled out in Heckhausen and Schulz's (1995) model.

The nonexperimental nature of most research on social change probably accounts for much of the divergence between psychology and other social sciences. The result is a discrepancy between the numerous potential mechanisms known from psychological research and the few mechanisms utilized in naturalistic studies on large-scale social change. In contrast, research on decision-making in complex and nontransparent situations often uses abstract scenarios, with experimental manipulation of the conditions. This allows causal interpretations, but is associated with problems of validity and generalization to real behaviour under conditions of social change.

There are few experimental studies that are as explicitly focused on social change as discussed here. One example is randomized control trials to improve parenting and child adjustment by providing employment and income to families suffering from economic hardship, regarded here as a prototypical manifestation of social change's negative effects. Houston (2005) reported that increased income, but not employment by itself, had an impact on children's adjustment, measured by factors such as school achievement. The pathways through which the effects were channelled seem different from those examined in previous research. Rather than improved parenting, it was qualitatively better childcare and opportunities for out-of-school experiences, received after the intervention that generated improvements. Such research yields further insight into the processes by which a variety of contextual conditions influence the development of children and adolescents.

Interdisciplinary research on social change in general, and on political transformation in particular, has high relevance for social policy formation. Examples include comparisons of cohorts that indicate different stages in the social change process within a society (Schoon, 2006), comparisons between countries representing different levels of change in political conditions (Kohn, 2010), and longitudinal studies following economic change within a society as it evolves (Chen and Chen, 2010). There are also quasi-experimental comparisons, such as studies on comparisons between East and West Germany (Silbereisen and Youniss, 2001). Together these approaches provide policy indices by identifying social groups that require extra support to cope with the challenges of political transition and globalization.

Prospects for constructive convergence and divergence

Attractive prospects for collaboration between psychologists and social scientists include integrated

research endeavours utilizing a combination of correlational surveys and longitudinal studies, experimental modelling and randomized field trials, all with an explicit policy perspective. Psychologists are receptive to learning more about situational mechanisms at, and transformational mechanisms from, the individual action level. By studying the effects of social change on individual adaptation and development, psychologists address the limited scope of actual social mechanisms studied thus far (Mayntz, 2004). The consequences of individual adaptation to change in societal structures are rarely addressed, except by some community and social psychology research. Wright (2002) found that people are driven to collective action by the perception of disadvantages for their own group and of the weakness of their opponent. Some social institutions' inherent flexibility may also contribute to their malleability (Macmillan and Biaocchi, 2010).

Beyond a certain universality which is often emphasized in experimental psychology and cognitive science, collaboration with social science will strengthen the understanding of how psychological phenomena are influenced by societal forces, especially during accelerated social change. Kohn (2010) found that changes due to political transformation in people's position on a social stratification ladder influenced aspects of personality that are often conceived as stable during adulthood, such as intellectual flexibility. A knowledge-based society needs to promote such change. But we know that in one extreme case, the collapse of the Soviet Union and its allies, there was clear continuity across historical time. Those higher up in the social stratification were more intellectually flexible because they enjoyed more complex working conditions, which promoted intellectual development.

The reality that human development is shaped by changing societal constraints requires more interdisciplinary research with the social and also the biological sciences. Broader interdisciplinary collaboration helps by capturing 'bio-psycho-social' functioning (Caspi et al., 2003). Champagne and Mashoodh (2009) showed that people sharing a particular allele tolerate life event stress better at the physiological level. This has consequences for outcomes such as depression. Such research marks the beginning of interdisciplinary endeavours to study social change, reminiscent of Gottlieb's (1991) epigenetic systems view.

Accelerated social change in many societies has brought macro contexts and their cascading effects on individuals' adaptation to the attention of psychologists. In recent decades, psychological knowledge of the vast effects of broader contexts on behaviour has grown, particularly concerning phenomena such as how people deal with economic hardships and other manifestations of social change (McLoyd, 1998). Nevertheless, a new effort at orchestrating resources to explain pertinent phenomena and inform policy decisions that can facilitate positive adaptation to change is both timely and promising.

Obstacles to cooperative efforts remain. One is compartmentalized funding of research strategies, which offers little encouragement for collaboration across disciplines. Another is the training of the next generation of scientists. Although there have been modest efforts to look beyond disciplinary boundaries, much remains to be done to promote interdisciplinary concepts and methodologies that address social change. The international 'Pathways to Adulthood' collaboration (2009) is an exception. This initiative brings together various sociological and psychological research groups, fosters comparative secondary analysis that addresses social change and psychosocial development, and offers postdoctoral fellowships. It is a beacon of hope for a new generation of policy-relevant research that constructively struggles with issues of convergence and divergence (www.pathwaystoadulthood.org).

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Applications of psychology to human health and well-being

Health and well-being are integral components of public policy in most countries. While anchored in values that approach universal acceptance, they also reflect enlightened self-interest. Economists recognize that they are central to economic performance in industrial and knowledge-based economies. Those experiencing social change, for example those who operate in economies in transition, or who experience institutional instability or migration, may be doubly challenged to manage the effects that generate poorer health outcomes.

To advance the World Health Organization (WHO's) objective of 'achieving health for all', the International Union of Psychological Science (IUPsyS) established official relations with WHO to bring science-informed psychological knowledge to targeted WHO programmes and policy development. In the context of health and well-being, social change is a particular concern for established societies undergoing rapid transition as well as those striving for rapid development, including the countries and regions cited in the article above. Drawn from the IUPsyS–WHO collaboration, the challenges of adherence to health interventions generally (WHO, 2003) and of achieving immunization in particular (Carr et al., 2000), illustrate how psychological research supports health and well-being in the midst of social change.

Adherence to treatment is essential for the efficacy of any health intervention. Since 1960 there has been a dramatic increase in new treatments for chronic and acute health problems. Notwithstanding these science-based breakthroughs, a major contemporary challenge is increasing effectiveness by creating conditions that enable people to derive maximum benefits from available treatments. Adherence early in the treatment process enhances long-term maintenance. Psychological science and practice concerning adherence looks at contributing factors which may be systemic, biological, social, cognitive, behavioural or emotional.

Contrary to some popular beliefs, the greatest challenge to achieving immunization today is behavioural – in terms of the initial immunization and the follow-up often required for effective immunization. To address this challenge, IUPsyS collaborated with WHO to produce a behavioural science learning module on immunization (Carr et al., 2000). Saxena (2000) noted that immunization is one of the most cost-effective methods of decreasing mortality, morbidity, disability and the overall burden of disease, making it a public health priority. Drawing on a wide range of psychological and other research focused on changing health behaviour and communication, the module identified factors that determine the effectiveness or failure of immunization interventions. These factors included knowledge (including perceptions and misperceptions), religious and philosophical concerns, socio-economic status, birth order and family size, family mobility, and social and political instability. It is evident that the frameworks for analysis of behaviour mentioned in the accompanying paper by Silbereisen et al. are especially pertinent, especially those of Bronfenbrenner, Elster and Heckhausen. Policy-makers may question the value of such theories or of related psychological and social science research, but when their pertinence is directly applicable to such basic components of health and well-being as immunization, the relevance is immediately obvious. (**Rainer K. Silbereisen, Pierre Ritchie and Bruce Overmier)**

Psychology applications to human challenges

As the science of the motivation, thinking, and behaviour of individuals or groups, psychology contributes to the resolution of many challenges that humans face in their daily lives. Here we hint at a few such challenges.

The 2008–2009 worldwide economic crisis sprang, inter alia, from badly managed personal economics regarding home-buying, savings and retirement planning. This means that a better understanding of human decision-making in the economic arena is important. From research initiated by the psychologists Kahneman, Slovic and Tversky (1982), we have a better understanding of how people make choices and how heuristics and biases determine them. Their work suggests that classical economics' description of how people make economic decisions is unnatural for humans and at best incomplete. People are not usually rational in their decisions and choices, as their actions are influenced by a wide variety of 'default shortcuts' that are intuitive, automatic, unconscious and associationistic, reflecting impulsivity and discounting future values. Even analytical and conscious human decisions are distorted by a variety of biases, such as risk aversion, loss aversion, status quo preferences, self-esteem needs and altruism (Kahneman, 2003). In cognitive neuroscience (such as Smith et al., 2002), psychologists are actually mapping the operation of these mental biases in the brain using brain imaging.

Modern knowledge of human decision processes can guide public policies on default conditions that favour societal goals, while allowing the individual free choice. Default examples are found on a driver's licence for organ donation, and on contributing to retirement savings plans (allowing opt out in both cases). This approach, rather than the more common one of the default requiring no contribution but allowing opt in, saves lives and makes them more secure, consistent with contemporary social values in the societies that have adopted them (Johnson and Goldstein, 2003; Madrian and Shea, 2001).

Furthermore, knowing how humans perceive, learn and think can contribute to safety and justice. Attention is one of the issues that cognitive psychology has studied intensively. When attention is focused on some goal object or transactional partner, all other issues are unlikely to be seen or heard. This 'inattention blindness' reflects the limitations of human information processing. In many situations, inattention blindness is a hazard. One example of critical importance is for driving behaviour in ever more urban environments. Cell phone use by both drivers and pedestrians has been of special interest. Psychologists have provided the data that has led governments to ban the use of cell phones, even hands-free ones, while driving because it impairs driving, perhaps as much as being intoxicated (Strayer and Drews, 2007).

Cognitive psychologists are also interested in the teaching and learning of skills. The methods that are best for different forms of learning and for maximizing job transferability and usefulness (Healy and Bourne, 1995) are especially relevant when job training is increasingly carried out in simulators or in virtual reality environments for cost reasons.

Another contemporary area of relevance, especially in respect of justice, is the new understanding of the accuracy of memory and of eyewitness reports of events. Both have been shown to be subject to error. Errors arise from bias and even from information received after the event in question. Indeed, it is possible for clever questioners to create circumstances in which eyewitness memories, descriptions and testimony are proven unintentionally false (Loftus, 2005). Psychologists are developing ways to query eyewitnesses and to conduct eyewitness identifications that minimize such errors (for instance, Wells and Quinlivan, 2009). (**Rainer K. Silbereisen, Pierre Ritchie and Bruce Overmier)**

Flash
The psychology of sustainability

Consumerism, the depredation of natural resources, overpopulation, social inequity and pollution form important human sources of environmental degradation. While seeking solutions to the current environmental dilemma, we must consider variations in human behaviour. In so doing, we can hope to ensure that human lifestyles not only meet the needs of present and future generations but also contribute to the protection of the environment.

Environmental psychology is the branch of science that deals with the study of interactions between human behaviour and the environment, including those whose objective is to preserve our planet's natural and social resources. It studies the psychological dimensions of sustainability. Research in this field since the late 1960s has provided us with valuable information on the underlying reasons explaining individual support for sustainability, and their wider repercussions. Environmental psychology has demonstrated that sustainable behaviour finds its origins in pro-environmental psychological antecedents, and produces positive psychological consequences.

Sustainable behaviour comprises a series of actions: pro-ecological, altruistic, frugal, equitable … All these forms of behaviour seek to strike a balance between human needs and environmental protection. The psychological antecedents of sustainable behaviour encompass a variety of tendencies or mental states: favourable attitudes; affinity towards social and biological diversity; environmental emotions; pro-ecological beliefs, motives, norms and values; and behavioural capacities such as environmental knowledge, pro-ecological skills and competencies. Physical contexts (weather, access to natural resources, access to technology and so on) as well as normative ones (laws, customs, religion and so on) also play an important role and can be powerful stimulators for sustainable lifestyles. What is more, research in environmental psychology has demonstrated that contacts with nature help in the recovery of exhausted mental capacities, and that the perception of the restorative properties of natural environments determines a significant part of people's pro-ecological behaviour variance. The promise of a better natural environment is a good incentive for sustainable behaviour.

Sustainable behaviour has a distinctive purpose: achieving people's well-being in the various spheres of human existence. These spheres include the enjoyment of a healthy and meaningful life and subjective well-being. In other words, 'happiness' forms a visible psychological outcome of a sustainable lifestyle. One of the challenges for environmental psychology is to enhance our understanding of the causal relations between pro-ecological behaviours such as frugality, fairness and altruism, and well-being.

The expanding field of environmental psychology will continue to provide valuable information on ways of achieving more sustainable lifestyles, as well as on the benefits that are associated with such a transition.

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6.3. Regional variations

Introduction

Trends and innovations across the social science disciplines should also be considered regionally, since research agendas may vary from one area to the other. Craig Calhoun, a privileged observer of social science in North America for many years, gives his view of the recent social science trends in his region. Since it is the most productive in the world and because many observers believe its research agendas have tended to be hegemonic since 1960, this overview might also suggest some elements of the immediate future for the social sciences. U. Kalpagam provides us with a trend report on current social science research in India, a fast-growing producer of social science knowledge. Like Calhoun's, her insight is individual. But it is informed by years of observation and practice in both anthropology and development economics.

As readers will see, these two views, one from the North and the other from the South, are different and contrasted. Other cases could have been selected (for Japan, see Brisson and Tachikawa in Chapter 5) and should be studied in the future. Obviously, social science research agendas and innovations are not alike everywhere (see also Chapter 2). Recognizing and encouraging their diversity should be an important element of future science policy-making.

North American social science: trends in and beyond disciplines

Craig Calhoun

Summarizing intellectual trends in North American social science is a challenge. All the disciplines are large and internally heterogeneous. All are methodologically diverse. All include sharp critics of the dominant tendencies. Moreover, there are major interdisciplinary fields that both have their own character and shape the participating disciplines. Not least, there has been a major growth in advanced professional training in fields related to social science, and these too exert an influence.

Only a few emerging patterns cut across the various fields, and most involve research methods or analytic strategies. One is increasing formalization and quantification. This is contested and far from universal, but undoubtedly significant. It is partially counterbalanced by strong qualitative research traditions, some of which have become more explicit about methodological issues. Another general pattern is a resurgence of experimental research, not only in psychology – where it has long been central – but in economics and to a lesser extent other disciplines. Closer ties to biomedical science have reshaped parts of a range of disciplines, from neuroeconomics to medical sociology and physical anthropology. Network analysis and the use of techniques drawn from complexity theory have been influential in several fields. Historical social science grew dramatically in and after the 1970s; its growth slowed in the 1990s but seems renewed. Interdisciplinary political economy is enjoying a resurgence boosted by analyses of the current economic crisis.

North American social science is highly international. Researchers from many different countries work at North American universities, and with US and Canadian researchers, study other parts of the world and transnational

or global phenomena. The extent to which internationally oriented researchers from different disciplines are connected through area studies has declined since the early 1990s, though there are some indications of renewal. Increased attention to India and China reflects both their growing global prominence and substantially increased academic linkages to the USA. At the same time, international studies has itself become a substantial interdisciplinary field with global-scale issues enjoying increased attention. Security is perhaps the most prominent.

Some substantive issues have attracted major attention across the disciplines. Health and health care have surged as themes for North American social science, partly reflecting the availability of funding, partly the problems of the US health care system, and partly the global prominence of issues such as AIDS and other infectious diseases. Life course research is prominent, for example on childhood and ageing. Environmental issues are equally prominent, and the attention paid to them is growing rapidly, though the social science engagement in environmental research is smaller than the public prominence of the issues would suggest. Migration research has seen rapid growth since the early 1990s, influenced both by immigration into the USA and by more global patterns. While this sustains interest in ethnicity and diversity, engagement in 'multiculturalism' and 'identity politics' has declined from a late-twentieth-century peak. Urban issues command increasing attention as the proportion of the world's population living in cities expands. There has recently been a significant increase in research on religion and related themes like secularism.

Some trends are new enough that we cannot confidently predict they will take root. Two seem significant enough to mention. Social science is beginning to connect more and more to the field of design, which has grown rapidly in recent years and itself connects architects, product designers, graphic designers and a range of others. The connections are perhaps strongest in anthropology, but also include sociology and other fields. Studies of technological innovation seem to be gaining attention not only in science and technology studies, which has been a relatively compartmentalized and separate field from the main social science disciplines, but also in economics, sociology, anthropology and other fields.

Anthropology

US anthropology has long been shaped by its four major subfields: cultural anthropology, linguistic anthropology, physical anthropology and archaeology. This has been the source of division, not least because some physical anthropology programmes have shifted to biomedical sciences. It has also been the basis for a greater engagement in environmental research than has applied to most other social sciences.

While many anthropologists continue to study small-scale or low-technology societies, the discipline has increased its attention to state-level organization, to smaller populations in large, complex societies (whether classrooms, gangs or clinics), and to questions about postcolonial and global relations, including human rights, cultural survival and media. Particularly active fields include medical anthropology (together with studies of the body, suffering, political economy and the cultural contexts of specific diseases such as AIDS), urban anthropology, with its close links to migration and transnational research, and environmental research, in which archaeologists as well as physical and cultural anthropologists are active. Studies of religion have enjoyed a recent renewal, and studies of science and various other fields of expert practice have become more prominent.

One of the most striking developments is in the ethnography of design. There is a growing demand from the design industry for anthropologists to study the ways in which people use consumer products and inhabit larger-scale designs such as buildings or even bureaucratic systems. Numerous anthropologists are now employed in design; academic research and training are following this trend.

Communication

The field of communication has grown dramatically in recent years. It has incorporated research from several distinct traditions: rhetoric and speech, small-group and interpersonal communication, performance studies, film studies, public relations, political communication, mass media, journalism, and now new media and information technology (IT). It has also overlapped and contributed to the growth of interdisciplinary cultural studies and critical theory.

Journalism remains for the most part a separate professional field, though connections are growing, not least due to new media's impact on traditional print and broadcast journalism. More generally, communication studies have grown partly because of high student demand and the need to instil the professional skills required by various media industries. There is no single, dominant model for how this emerging field should be organized, so there are examples of communication as a department of social sciences and others of it as a professional school.

Among the big questions in communication research today is the fate of the 'legacy media' such as newspapers.

The issues include business models, intellectual property regimes, shifting text-based technologies, and the rise of visual media and with them, visual rhetoric. More generally, the field of rhetoric is making a comeback, not just as the pursuit of persuasion but also as the study of situated reason (important in political theory too). Related to each, there is considerable engagement with questions about the organization and vitality of the public sphere, both in democratic societies and on a global scale.

Economics

Economics has perhaps the greatest internal agreement about the standing of different sorts of work, and yet researchers differ on theories, empirical methods, and analyses of major events such as the current economic crisis. There are differences within the dominant disciplinary mainstream, and between it and self-identified 'heterodox' economists. There is a resurgence of Keynesian analyses in the wake of the financial crisis, and there are those who think this is folly.

Since the late 1970s, American economics has grown larger and somewhat apart from the other social sciences. A basic intellectual theme was rethinking the structure of economic analysis from the 'micro' upwards, relying on models of strategic action, rational choice, game theory and individual decision-making. Microfoundations were the key to major advances in mathematical models and formal theory, and came to exert a dominant influence. Macroeconomics languished. While much of disciplinary economics focused on explanatory models grounded in accounts of representative (that is abstract) economic actors, finance grew as a field largely based in business schools rather than in arts and sciences and economics departments. Its focus was partly on the development of predictive models, and also on 'financial engineering' or the development of instruments and operations (for example pricing algorithms) to accomplish various kinds of transaction.

Since the 1990s, there has been a growing trend towards empirical studies of economic behaviour. Many of these have focused on limits to the assumptions underpinning formal models. Behavioural economics has addressed the limits of rationality, decision-making with imperfect information, and the role of culture and emotion in economic decisions. There has also been some renewal of institutional economics, with more activity in the wake of the massive market crisis of 2008. This has been linked to increased attention to social and cultural issues. Not least, there is resurgent interest in political economy, growth and development, with economic history informing approaches to each – and possibly some renewal of connections to other social science disciplines.

Geography

Satellite-based global information systems are producing a host of new data about the spatial organization of human life. Changing patterns of urbanization and migration are calling attention to the rescaling of social and political life. Climate change is just one of the factors demanding more studies on human–environment interaction. Shifting patterns of globalization call for the renewal of place-specific accounts of resources, shortages and transnational relationships. Prominent issues and new tools are thus converging to bring geography more centre stage than has been typical in the past.

Geography in the USA got its start mainly as physical geography. Cultural and human geography lagged (though less so in Canada). The discipline has long been divided between more 'scientific-technical' geographers and those with social science and humanities leanings. Some of the new trends may be reducing that division. In any case, they are bringing geographers into renewed interaction with anthropologists, sociologists and other social scientists. Perhaps the single most active shared endeavour is grasping the implications of massive urbanization, with its juxtapositions of highly planned and professionally designed developments and the 'spontaneous' (that is, locally and often illegally planned) slum settlements. Almost as active are closely related questions about multiple and overlapping agencies of power, and the ways in which government and political economy are being rescaled (not so much reduced, as ideology would have it) in the context of neoliberalism.

History

Long organized overwhelmingly in terms of period and place, history has in recent years engaged more with cross-cutting thematic issues. These include the impacts of colonialism and the challenges facing postcolonial societies, questions about women's history, gender construction and sexuality, and the analysis of different cultural forms. Examples range from popular entertainment to elite political culture, and from religion and religious dissent to cultural influences on economic life and constructions of ideas such as nature.

History is linked to all the other social sciences, particularly through the historical subfields that exist in all disciplines. The Social Science History Association is a particular hub for these connections. From the 1960s through to the 1980s, questions of class, state and political economy informed

perhaps the strongest links, along with gender, family and demography. The links to sociology, politics and economics were especially close. While these remain important, connections to anthropology and literary studies have grown stronger. Historians have recently asserted their identity as humanists more than as social scientists, though the field encompasses both.

The teaching of history remains largely organized in national terms, but this approach is increasingly complemented by other viewpoints. World history has become a rapidly growing focus, both through new research on transnational and global patterns and by changes in the syntheses of history for teaching and broader audiences.

Likewise, although the teaching of history in both the USA and Canada has long focused disproportionately on Europe and North America, attention on other parts of the world has expanded in recent years, and historians are even more central to area studies than before. The history of Europe has been rethought as simply one part of a broader world history. Even approaches to national history have become increasingly transnational. US history now puts more emphasis on migration, shifting international contexts, and ideas from abroad.

Political science

Political science is organized into four main subfields only loosely integrated with one another. The largest in the USA is American politics. Canadian politics is correspondingly the major field in Canadian political science. In both, case studies of elections, campaigns, political organizations and legislative processes loom large. The academic research emphasis is on the analysis of underlying causal relationships rather than immediate events.

Political theory is largely focused on normative theory, and on the history of political thought. After many debates over the relevant merits of liberal and communitarian perspectives, attention has shifted to questions of rights, including issues of migration, multiculturalism and cosmopolitanism. Democratic theory is enduringly important. Recent years have seen substantial work in the neo-Kantian tradition, renewed engagement with Hannah Arendt, and greater attention to poststructuralist theory. Recently, religion in the public sphere and questions about secularism have also become prominent.

One of the biggest changes in the discipline in recent years has been an analytic turn in comparative politics. This has sharply reduced the participation of political scientists in area studies research and has emphasized formal analytic methods, including game theory and rational choice theory. At the same time, there have been significant debates over the role of culture in politics. Transitions to democracy have been a central focus, but often redefined with attention paid to the efficacy of democratic institutions. An emerging trend is to pay more attention to institutional structures that enable democratic governments to be effective.

International relations is both a subfield of political science and a quasi-autonomous discipline. For many years it has been informed by the dominance of a 'realist' perspective that emphasizes the extent to which state interests govern international relations. This has been both contested and complemented, notably by 'constructivist' arguments, which emphasize the extent to which state interests are neither purely instrumental nor fixed. Increasingly, simple argument has given way to incorporating both perspectives. The field is engaged with the transformations of international politics post-1989, post-2001 and post-2008. Perhaps the most distinctive trend is an effort to understand the role of religion in international politics. This is a challenge because the field was founded on the idea that, since the 1648 Peace of Westphalia, religion has been a domestic matter and international relations are secular.

Psychology

New trends in psychology have pulled academic research increasingly into the domain of natural science. While social and developmental psychology remain active, they are less closely connected to other social sciences. Leading trends in the field (including cognitive studies) have linked to computer models of the mind and to empirical biological studies of the brain as well as to behavioural experiments, psychopharmacology and related studies of the psychological impact of physiological and metabolic factors, and evolutionary research.

Psychology is distinctive partly because experimental research is a dominant methodology. Few other social sciences work largely through experiments, though their role is growing in economics. More formal decision theory and more empirical studies of economic behaviour have built links between economics and psychology. These extend to studies of cognitive and neural processes, which in psychology are pursued using a wide range of non-economic questions.

This academic research trend towards natural science is paralleled by the engagement of many professional psychologists in practical work linked to hospitals and biomedically oriented social service agencies, and by the rise of drug therapies in clinical practice. At the same time,

many psychologists continue to work in education and testing, in clinical and counselling practices not primarily oriented to psychopharmacology, and in fields such as industrial psychology and human resources management. Many research psychologists continue to focus on issues related to these varied contexts as well as on issues like the impact of poverty on children. The very scale of the field allows for enormous internal diversity. Non-academic employment has contributed dramatically to the growth of the discipline. Academic programmes exist to train clinicians, counsellors and other practitioners, and these fields also produce research, some of it more closely related to other social sciences.

Sociology

Sociology is among the most internally diverse of the social sciences. In recent years, it has been marked by such contrasting trends as a renewal of ethnographic research and increasing emphasis on complex quantitative methods. It is a sign of the field's diversity that the American Sociological Association is not organized into a handful of divisions but into some 45 sections with anywhere from less than 300 to more than 1,000 members. Among the largest are crime, law, and deviance, medical sociology, and the sociology of culture, although the size of the subfields does not strongly correlate with their prominence.

Sociology has long been pulled towards both science and professionalization, and towards informing public discussion and direct engagement with social problems. A renewal of 'public sociology' has been prominent in recent years, and appears in the emphasis on teaching, reaching broader audiences and informing policy. It is also reflected in the choice of research problems. Many US sociologists have taken up such issues as incarceration, inequality, and sexuality, which are at the root of major social controversies in the USA. Canadian sociologists have historically had strong engagement with social problems and the state delivery of social services. The sociology of health and health care is particularly strong in Canada. Other major issues are clearly of interest in both countries, from migration to the intersection of race, class, and gender, ageing, shifting patterns of urbanization and the impacts of globalization.

Areas of sociology that have been especially active in the recent past include network analysis and formal techniques for the study of social structure, economic sociology (which combines cultural and organizational research in an approach to economic institutions), and, after some years of relative stagnation, political economy. Sociologists are making more links to natural sciences, with research on health and a growing engagement with cognitive science and genetics. Interest in culture remains high, and overlaps the growing interest in religion and in studies of science, knowledge and technology. Happily, research combining quantitative and qualitative methods is also becoming more common.

Interdisciplinary fields and connections

Exciting new work flourishes at the intersections of disciplines – as psychology informed the development of behavioural economics and anthropology informed cultural history, work on religion is now informing international politics. Most of these intersections do not become new fields. However, like historical work in social science, some do achieve enduring intellectual connections supported by publications and associations, albeit without establishing bases in specific university centres.

The most enduringly important interdisciplinary fields in North American social science have addressed area studies. These flourished especially in the post-war era until the 1980s, but then lost some support – ironically amid enthusiasm for globalization after 1989. A renewal seems underway, this time with an emphasis on different definitions of areas, and on issues that connect or cut across areas. The renewal is guided partly by recognition of the complexities of globalization, and the understanding that context-specific knowledge is both more accurate and more practically useful. It is also informed by the decline of US hegemony, the emergence of a new set of global powers with different regional zones of influence, and the question of how multipolar or multilateral relations might develop.

A number of other interdisciplinary fields have also become more important. Among them are demography and population research; studies of gender, race and sexuality (which are disciplinarily cross-cutting); cultural studies (which link the humanities and social sciences), and cognitive science (which links psychologists and other social scientists to neurologists, physiologists, computer scientists and philosophers). Studies of new media, though still underdeveloped, are also growing, and link researchers in anthropology, sociology and communication to those in engineering and computer science.

Professional schools

Social scientists are also active in interdisciplinary research and teaching focused on fields of professional practice taught in professional schools, such as business, law, education, social work and different health fields.

Professional schools have accounted for most of the recent growth in US academia. This has changed the circumstances of US social science. Business schools, for example, employ

economists (focused especially on finance), psychologists, sociologists (focused especially on organizational behaviour) and historians (focused especially on business history) in an interdisciplinary milieu – alongside other fields that draw on social science, including operations research and marketing. Medical anthropology and health economics are prominent in schools of public health; sociology and psychology are important in the training of nurses and teachers; and research on law and economics has become prominent in many leading American law faculties, often supplanting previous links to political science through constitutional law.

Professional schools provide jobs for new Ph.Ds from the social sciences. Likewise, links to professional fields are a source of vitality, new questions and access to new data. But professional fields are organized differently and often draw social scientists into different publishing, research and teaching agendas. This means that intellectual links are weaker than might be wished. Historically, social scientists often kept professional, applied work at arm's length because they regarded 'pure science' as more prestigious. Now professional schools are often moving to develop their own Ph.D. programmes, many of which are substantively focused on social science but are in competition with disciplinary departments.

While this trend is true of both Canada and the USA, it is much sharper in the USA – not least because inequalities among US universities (and among faculties or schools within the same universities) are more pronounced.

Background resources

Annual Reviews: these are published for most disciplines by Annual Reviews, a non-profit scientific publisher, and provide bibliographical resources for recent trends.

Many disciplines publish relatively general, non-specialist journals; see for example:

- *American Psychologist*
- *Canadian Psychologist*
- *Contexts* (sociology)
- *Perspectives in Economics*
- *Perspectives in Politics*
- *American Anthropologist* (less clearly non-specialist).

Craig Calhoun

Has served as the President of the Social Science Research Council (SSRC) since 1999. He also holds the title of University Professor of the Social Sciences at New York University (NYU), and is the Founding Director of NYU's Institute for Public Knowledge. He has written on culture and communication, technology and social change, social theory and politics, and on the social sciences themselves.

Image

Images are a new concern for social science, despite the fact that they have been studied for centuries in the humanities. Triggered by the new status of the image in contemporary societies, a whole project of cross-disciplinary studies, sometimes called visual studies, has developed since the late 1980s. Images are both an object and a method of inquiry in this new field of research. Its growth started when art historians and media theorists extended the boundaries of their specialties in order to analyse today's massive production and circulation of images on television, in the entertainment industry and on the internet. Much has yet to be done in this latter subfield. Using semiology, iconology and other techniques and theories, researchers look for analogies and hidden subtexts in the images. The relative concentration or scarcity of the images shown to audiences on the mass media is also a topic of inquiry. Sociologists, psychologists and anthropologists are interested in the ways individuals build their self-images and use images and visual signs to draw social boundaries between themselves and others. Iconoclasm and iconophilia as well as the strategic uses of symbols and images in politics and social movements are among the other emerging topics related to this new interest in the image. Computer games and a whole range of amateur productions of images are also being studied. However, ways of looking critically at images are not taught in most schools and universities.

Instruments of visualization are also becoming direct elements in the process of knowledge production and diffusion, and not merely tools of representation. The visualization techniques of the sciences and the social sciences are being researched more intensively. This raises new epistemological questions. It also implies new questions about cognition and its visual dimension. Brain research is thus part of social science's 'iconic turn'. Brain imagery has long been a major tool in the development of the neurosciences. However, only recently have research programmes like neuroaesthetics, which looks for the invariable criteria for beauty or aesthetic pleasure in the human brain, developed at the borders between these sciences and the social sciences.

Research on the image is thus another example of the diminishing divides between the social and natural sciences. Studying images requires both types of sciences to be more aware of their cognitive procedures. Images could thus become interesting loci of self-reflection for the social sciences.

International databases and data archives

International databases and data archives are essential tools for overcoming knowledge divides between different areas of the world, and for opening up the possibilities of international and interdisciplinary research. The collection and the circulation of these data have seen considerable changes since the 1990s. At first, social science data were local or were organized at a national level through censuses and sample surveys of various kinds. The development of international databases and data archives started with economists and political scientists in the 1950s. They developed data on national incomes, the stability of nations and political cultures. The early programmes to create international comparative databases were often supported by international organizations such as the United Nations and the Organisation for Economic Co-operation and Development (OECD). Other examples of such databases were National Election Studies, General Social Surveys, Eurobarometers and Latinobarometros, and the International Social Survey Programme. An International Federation of Data Organizations was created in 1977. The International Association for Social Science Information Service and Technology represents the new professions of data archivist and data librarian.

In the past decades, data with different statistical and technological formats have been made more interoperable. Access has been extended, thanks to the internet. Technological changes have also enabled some researchers to tabulate their data online. The development of global research programmes on the environment and its interactions with demographic, socioeconomic and behavioural changes triggered growth in the number and quality of international social science databases. Data from satellites and geographic information systems have become more widespread and more important for social and natural scientists.

These developments have numerous scientific consequences. Many researchers agree that the recent accumulation and standardization of data are a precondition for developing new and more robust theories in the social sciences in the coming decades. Moreover, globalization requires the development of large-scale and global studies and inquiries. The growth of, and wider access to, international databases and data archives have raised expectations. However, this growth is not going as fast as it should to deal with many complex topics.

Trends in social science research in India in recent times

Umamaheswaran Kalpagam

The post-liberalization period in India (generally noted as the period since 1991) has seen marked shifts in the focus of the country's social science research. This inference and the following analysis are based on a study of India's leading social science journals and books of recent times, as well as on the debates between social scientists in the weekly journal *Economic and Political Weekly*, which is widely considered a leading national social science journal.

The Indian Council of Social Science Research (ICSSR) undertook a review of social science in the country in 2007. My analysis was informed by this review, along with another evaluation of the state of social science in India, this time conducted by a team headed by Partha Chatterjee for the Social Science Research Council (SSRC) (New York) in 2002. The review of the trends that follow is, nevertheless, largely the perspective of an individual who has formed her opinions and views through active engagement in the years she has been a member of the Indian social science community.

Social scientists have reconfigured their domains and objects of analysis, which has led to certain issues moving into the foreground while others seem to have receded. The newly emerged disciplines of development studies, gender studies and urban studies gained vitality even as they became more interdisciplinary, while transdisciplinary awareness grew with the emergence of new fields like social studies of science, human development, and the cognitive and behavioural sciences.

Development economics constitutes a substantial part of development studies, encompassing areas such as development planning and policy, labour economics, environmental economics, rural development and urban economics. Empirical and policy-oriented studies on liberalization and the reform process have moved to centre stage, displacing the earlier focus on planning studies (Nayyar, 2008). This work focuses on regulatory frameworks, macroeconomics, sectoral analysis within a global open-economy framework, and cross-border causes and effects. Management studies have grown in an unprecedented manner, and business economics grapples with the impact of globalization on Indian business. Labour economics has concentrated on informal-sector workers, who account for 93 per cent of the workforce, from a largely policy perspective given the International Labour Organization (ILO) thrust on 'decent work' and 'social protection' (Oberai and Chadha, 2001). An awareness of the increased vulnerabilities of informal-sector workers due to globalization and the liberalization process has led to informal-sector studies focusing on issues of livelihood security and social protection. Further labour studies have focused on the workers in the new global economy, such as those in the IT sector (Jhabvala, Sudarshan and Unni, 2003).

Environmental economics has received some thrust, with more attention being paid to links between poverty and the environment and to the degradation of common property resources – especially water, land and forests – as well as to appropriate institutional mechanisms to prevent such degradation. The economics of climate change is only now gaining attention.

Perhaps the most remarkable shift in development studies is the focus on social sector development, especially education and health (Dreze and Sen, 2005). Such studies have highlighted the problems of public service delivery by state agents, calling attention to the issues of development governance (Rustagi, 2009). The possibility of public–private stakeholders in the social and physical infrastructure has also received attention. The impetus for studies on social sector development is unarguably the attainment of the UN Millennium Development Goals (MDGs). Inspired by the work of Amartya Sen, food security, nutrition and employment security studies have brought governance, accountability and participation issues to the fore, and development studies are increasingly grappling with issues of rights-based development. Decentralization, democracy and governance issues, which have been highlighted by

civil society organizations in recent years, have undoubtedly found their rightful place in the social science agenda. Simultaneously, democratic grass-roots governance and women's representation have gained constitutional legitimacy. The politics of modernization has gripped India's social movements as a result of displacement and marginalization through industrialization, urbanization and dam construction, and social scientists have also paid attention to these concerns (Baviskar, 2004). Studies on rural development have examined the present agrarian crisis, rural women's development and empowerment strategies through micro-credit, property rights, grass-roots leadership and entrepreneurship. Furthermore, these studies have investigated how practices like supply chain management and futures trading in commodities could transform the rural economy, since agriculture is being drawn into global trade (Kalpagam and Arunachalam, 2008).

While there has been greater gender sensitivity in development studies in recent years, gender studies have moved away from their earlier link to development studies, which was all too evident in the earlier phase. In recent years, gender studies have encompassed a broad range of issues that include development, but also law, culture, sexuality, violence, science, politics and media. As a discipline, it has confidently positioned itself to handle challenges in the domains of policy, movement and activism as well as epistemology. Urban studies have focused on urban governance issues, the economic and cultural impacts of globalization, and the role of the media (Vasudevan, 2001).

Studies in sociology have examined the effects of globalization on kinship and marriage, embodiment and identity, youth, caste and communal violence, as well as minorities, the nation-state and violence (Thapan, 2009; Chatterjee, 1993). Analyses of caste, which have been a staple of Indian sociology, have gained new dimensions with the resurgence of the politics of caste identity, while breaking free from the older paradigm. This resurgence was due to protective discrimination policies and caste-based mobilization in electoral politics (Gupta, 2004). A remarkable development was the increase in cultural studies of *Dalit* (the Untouchable and other low castes), which coincided with the national emergence of *Dalit* political power. While there have been some initiatives to study Indic religions, they have lagged behind the extent of India's religious resurgence, probably because social science in India carries a secular image, thus inhibiting social scientists. Cultural anthropology has made great progress in studying marginalized communities, highlighting human development and cultural issues. Anthropology lags, however, in analysing the cultural dimensions of global change.

Historical studies have been popular as well, with subaltern studies gaining international repute. In recent years, scholars of historical studies have creatively amalgamated subaltern studies with *Dalit* and cultural studies. Power, hegemony, dominance and resistance remain popular and useful frameworks of analysis in both historical and contemporary social analysis, overshadowing the earlier emphasis on class to some extent.

Research on the nation-state has gained momentum and an analytical focus, perhaps due to the influence of postcolonial studies. This research has highlighted the crisis of secular nationalism; the state's inclusive and exclusive practices; the attenuated rights of citizens, refugees and those living at the margins; and democracy and elections (Bhargava and Reifeld, 2005; Guha, 2007). While elsewhere in the world, political violence, terrorism and the role of religion in politics have caught the attention of social scientists, especially after 9/11, this is not so in India, although security issues in South Asia have received some attention. Given the frequency of terrorist attacks and the increase in political violence, it is expected that social scientists will soon be compelled to direct their attention to these issues.

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