Demographic Transformation and Socio-Economic Development 1

Véronique Petit

Counting Populations, Understanding Societies

Towards an Interpretative Demography

Springer

Counting Populations, Understanding Societies

Demographic Transformation and Socio-Economic Development

Volume 1

Editors-in-chief: Yves Charbit and Ian Pool

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Foreword by the Series Editors

The discipline of population studies is at a crossroads. This challenges the way it has accumulated its corpus of knowledge – what has become its 'conventional wisdom'. Over the post-war decades, we had gained a reasonably systematic and robust picture of macro-demographic trends, focusing on the causes and consequences of rapid population growth. To this end, the discipline also built a massive empirical and theoretical knowledge base on a key driver of natural increase, fertility and family formation. But, swept to one side, relatively speaking, were other critical questions that throw more light on processes covarying with demographic change, namely, the transformation of cultures, societies and economies. Even within demography itself, there was far less focus on population structures than on dynamics. As a net result, there was a relative neglect of many aspects of population and development.

Furthermore, it has become clear that the classical population and development models are too often unidirectional and deterministic and assume almost an unchanging initial state. But critical historical analyses, including new studies in historical demography in Africa and elsewhere, are eroding those comfortable but unrealistic assumptions. In reality populations, technology, politics, societies and economies have always been dynamic, not just awaiting the munificence of colonialism or, post-colonially, of the 'Washington Consensus' agencies. The reason that this now provides a challenge for researchers is simple and driven by its subject matter: people, in both the developing and developed world, are not behaving the way they had over recent decades. So, the universe that demography has been measuring, mapping and explaining for the decades since 1945 must be complemented by new agendas and methodologies grounded in new paradigms.

This book is the first in a series that takes up this challenge. The series offers a seminal platform on which empirical results representative of emerging paradigms, as well as the leading-edge methodologies and theories that underpin them, can be communicated to a wider scholarly community. Broadly speaking, it provides the vehicle for the exposition of new paradigms – and new substantive knowledge – about population and development. These could range from macro-level approaches that focus on aspects of composition, such as those on the demographic dividend, to

anthropological and other micro-level approaches that show, *inter alia*, how decision-making occurs. Moreover, the series recognises that the traditional boundaries between 'developed' and 'developing' are becoming increasingly blurred, so, though this series is oriented towards the latter, it cannot exclude populations in developed countries and in former Soviet societies in transition. It thus implicitly accepts the effects of globalisation on individuals and communities, perhaps most manifest in those migrating between different global regions.

At a macro-level, the series makes a shift away from the populationist perspective of recent decades that has focused on growth and numbers. The series instead emphasises wider demographic transformations occurring through age-structural, demographic, epidemiologic, labour force and mobility transitions and their underlying determinants and consequences. There is, however, still an important place for analyses on problems of socio-economic development faced by high growth populations or disjunctions between population change and food security, poverty and access to potable water.

At a more micro-level, the series recognises that, breaking away from the usual demographic treatment of the socio-economic characteristics of the individual or the households, there is a need to turn to disciplines such as anthropology and sociology. This will provide a more enriched perspective on the roles of social and cultural factors in driving demographic change and, in turn, the ways in which societies and cultures are being affected by population trends such as shifts in composition. If one lists all the constraints exerted on individuals by their social and cultural environment (family, community, religious and ethnic affiliation, etc.), can one really call anybody a truly autonomous actor? How then should demography throw light on the contents of what has to date been a sort of 'black box': culture?

These latter major challenges are at the core of this first book of the series. It addresses both fertility and migration, the two factors that were changing so rapidly and inexorably altering the known world as it existed in 1960. Veronique Petit shows that, by the innovative incorporation of anthropological and sociological methodologies, in-depth analyses can provide the keys to understanding how individuals, families and small groups come to make life-altering choices. Starting from the premise that what is needed is a thorough and careful epistemological approach, Petit has chosen to identify systematically the mutual fertilisation of demography and anthropology. She first demonstrates this at a theoretical level, but then, also their interweaving when undertaking fieldwork and, last but not least, when carrying out explanatory analyses of the data collected in this way. In short, the author offers a quite different level of explanation of demographic phenomena, made more comprehensive because of her approach. She illustrates this by drawing on African-sourced case studies.

Yves Charbit and Ian Pool

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Introduction

My position is neatly summed up in the title of this book, *Counting Populations, Understanding Societies*. The aim is not to provide yet another how-to guide to demography. Rather, it is to step back and take a critical look at this discipline, presenting a novel reflection on epistemology, methodology and conceptualization, based on 20 years of research experience in population studies in several sub-Saharan African countries.

Counting Populations refers to data collection, which forms the very cornerstone of demography. It underscores the primacy given to measurement, demography's central – and obsessive – activity. This measurement is applied to four main areas of human behaviour (natality, mortality, nuptiality and migration), and its unit of observation is the individual. The general assumption is that one only needs to tot up all these individuals to arrive at a population. However, while I unreservedly acknowledge the usefulness of measurement, I hold that population is not automatically captured by quantification, because the concept of population is less self-evident and less homogeneous than its almost universal usage leads us to think, and I believe it is important to ask how something that has come to form the backbone of our discipline came to be constructed and defined. We will see how 'population' gradually came to be conceptualised across the centuries, not least because our two key historical data sources – censuses and parish registers – were so closely bound up with the state and the nation, forming just one of the Gordian knots between demography and politics. Even though demography is now a discipline in its own right, its analytic methods continue to shape the almost universal consensus on what a population is.

One should therefore only embark on what is a very necessary exercise of deconstruction once one has established demography's distinguishing features, its positioning within the social sciences and the porosity of its borders with other disciplines. When it comes to examining how institutional contexts have shaped demographic thinking, France is a case in point. For example, to explain the absence of anthropological demography, one needs look no further than the country's institutional and scientific configuration. It is hard to find a single researcher who will own up to practising it, even though it is clearly a source of inspiration for some.

Lastly, France exemplifies a certain idea of demography and gives us an opportunity to explore a particular demographic ethos.

The title juxtaposes *Counting Populations* with *Understanding Societies*, and the latter should be read as an extension of the former. For the purposes of my argument, it also, crucially, serves as a critical pendant. Keen-eyed readers will have spotted the twofold shift, from *populations* to *societies* and from *counting* to *understanding*. 'Societies' is in the title because while demography's avowed object of study is population, as we said earlier, this object is far less homogeneous than its definitions would lead us to suppose. Furthermore, although a population may indeed be the sum of its individuals in the statistical sense, it is more heuristic to think of 'population' as a statistical product – almost a chemical distillation – intended to designate a historicised and sociologised collection of human beings. In sum, it is more accurate to talk about *societies* than *populations*, because although demographic analyses are technically based on populations, they actually refer – more or less implicitly – to societies, that is to say, to historical groupings, to individuals and sets of people bound by a common fate made up of laws, customs, cultures and value systems. Thinking about society means thinking about social and family bonds in the plural and about how the individuals scrutinised by sociologists, anthropologists, historians and demographers are bound together by networks, affiliations and memberships. It is the societal context that dictates how individuals elaborate their behaviours, emotions and desires. Lastly, as all societies are politically organised, we can safely predict that even 'national' population policies will implicitly or explicitly focus on 'target populations', that is to say, on categories of individuals defined with specific situations and objectives in mind (controlling fertility, immigration, etc.). These objectives will, in turn, be defined according to norms (equality), principles (e.g. disease control and prevention, freedom of movement) and the rights of particular social groups (protection of women and minors, legal recognition of homosexuality). Claiming to work on *populations* is tantamount to ignoring or, at the very least, downplaying the importance of context. 'Population' is an artefact that allows researchers to sidestep the complexity of the individual in society. By contrast, when I talk about *societies*, I acknowledge the absolute necessity of anchoring demographic analyses in their specific contexts. This in no way prejudges the homogeneity of these societies – far from it. Adopting a local, micro-level approach is a way of taking this process of contextualization one step further. However, while micro-local demography can highlight the limitations of its macro-level equivalent, the reverse is also true. Thus, far from arguing for the rejection of analyses undertaken on a macro scale, which are an intrinsic part of our discipline, I maintain that demography cannot be reduced to a single viewpoint.

The advantage of the micro-scale is that it allows to identify a broader range of explanatory factors and intermediate variables and to grasp the sociocultural, demographic, economic and political mechanisms at work in a given society. The biological dimensions of certain demographic processes, such as natality and mortality, must not be allowed to obscure the sociocultural dimensions. Death, disease, health and birth are the subjects of rituals, representations and ideological manipulations. Our knowledge and understanding of the biological reality must

therefore be examined in the light of the processes by which that reality is appropriated by individuals and communities. Only through a multidisciplinary approach can we tackle the duality of demographic processes and take on board the complex nature of the units of analysis and the various issues at stake. Combining the demographic and anthropological viewpoints is particularly heuristic here, whether we are defining the problematics, selecting the most appropriate methodology or, last but not least, analysing collected data. Although anthropological demography has grown in stature over the past few decades, it is not yet mainstream science. This book therefore sets out to plead its cause and demonstrate its heuristic value, emphasising that it should not be confused with or reduced to the use of qualitative methods.

I also draw attention to the necessity of the critical and reflexive perspective that is embedded in anthropological demography. This perspective might very well account for the reticence expressed by many demographers towards it, especially those who adhere firmly to the positivist project of science, for whom it is nothing short of subversive. In a nod to Weberian sociology, I propose an *interpretive* demography. While most demographers select a few cultural, social or economic factors, viewed either statically or dynamically, and use them at an aggregate macro-level to account for such-and-such a natality or mortality rate, it is crucial to supplement this approach by taking the actors' own viewpoints into account, asking what their decisions and behaviours mean to them.

Max Weber claimed that 'sociology must reject the assumption that "understanding" (*Verstehen*) and causal "explanation" have *no* relationship to one another. It is true that they begin their work at opposite poles of events (…)' Weber (1981), and this contestation needs to be extended to demography. This book does not question either the usefulness of measurement or the advances that can come out of causal explanations. It does, however, contest the view that that is the beginning and end-all of demography. Paradoxically, establishing causalities seldom gets us beyond the descriptive stage and fails to offer a sufficiently complex account of socio-demographic reality. By associating *counting* with *understanding*, we put measurement and interpretation on the same plane. To some extent, this reference to Max Weber implicitly roots demography in a sociology of social action, especially when it comes to explaining how people make decisions about controlling their fertility, choosing partners, protecting themselves from HIV infection or devising strategies in the face of poverty. This can only be done by grasping the actors' intentions, motivations, reasoning processes and ambiguities, although we also need to look at culture as a model of thinking, being and action. As Marshall Sahlins has written, the problem of cultural determinism, namely, the problem of the 'relation between individual action and cultural order' (Sahlins 2000: 277), must be posed. This raises the question of the actor, insofar as 'in their practical projects and social arrangements (…) people submit these cultural categories to empirical risks' (1985: 9). As for culture, it 'likewise has a dual mode of existence. It appears both in human projects and intersubjectively as a structure or system' (2000: 286). Identifying motives for action also means recognising their psychological dimension. Individuals may be creatures of reason, but they are also creatures of passion.

To conclude, the purpose of this book is to show how demography and anthropology can be used in conjunction in research on population and development, despite the fact that they are based on very different research traditions and practices. I argue that the main difficulty of this project stems from the role assigned to epistemology within each discipline and that this issue is directly linked to their divergent institutional histories, particularly in the study of population. The book is organised as follows. I briefly compare the roles allotted to epistemology in each discipline (Chap. 1), then I argue that the historical institutionalisation of demography has had a triple impact; first on its current position in relation to other sciences; second regarding its object of study; third on the boundaries it has set itself (Chap. 2; the main players in French demography are listed in the Appendix).

I go on to consider demography in the broader context of the social sciences, examining how the discipline has defined itself as a social science and the extent to which it has been recognised as a legitimate member of the social sciences beyond the strict confines of the subject (Chap. 3). Chapter 4 focuses more specifically on the historical roots of the concept of 'population'. A backward glance reveals that, nowadays as in the past, the specific type of demographic analysis and the particular focus of research questions and objectives are actually dictated by the underlying conception of population which, in turn, is contingent upon the wider intellectual context.

The central question is whether 'epistemological convergence', to use the expression coined by French sociologist Jean-Claude Passeron (2006), is at all possible. Throughout their parallel histories, anthropology and demography have developed close relations that have waxed and waned in different periods and according to research foci (Chap. 5). I use my experience of research on international migration, poverty and reproductive health (female genital mutilation, family planning) in sub-Saharan Africa to illustrate what I call a 'comprehensive demography'. Data are only meaningful if demographers use appropriate theoretical resources to provide an interpretive model. The kind of demography advocated in this book requires extensive fieldwork, and I make the case for a form of field demography that is based on a continuum running from the initial conception of the research to its effective implementation and data analysis (Chap. 6). Clearly involving a search for meaning and a *rapprochement* between different disciplines within the social sciences, comprehensive demography will inevitably encounter specific forms of resistance within each discipline, particularly in view of the growing use of qualitative methods among demographers (Chap. 7).

Chapter 1
Epistemology in Demography and Anthropology

The role and the place assigned to epistemology differ significantly in ethnology and demography. I once fell into conversation with a young doctor in anthropology after a thesis defence, and we agreed that whereas ethnologists are always required to justify their research decisions, demographers are generally spared any such trouble without appearing to suffer any consequences. We were both equally puzzled by this difference of position since it appeared to suggest that a quantitative approach based on statistical analyses was necessarily legitimate, while an approach founded on a comprehensive analysis required justification throughout the research process without ever resulting in a recognition of scientificity beyond the strict confines of the discipline. We agreed that the significant difference between different approaches in the social sciences is entirely unjustified since it is based on a fundamental illusion, the dogma of figures and numbers. We both felt that it was self-evident that any approach claiming to be scientific needs to be explicit about its methodological choices and implicit presuppositions. In reality, it is clear that the extent to which the underlying assumptions and mechanisms of the research strategy are revealed and articulated varies significantly across disciplines.

The gap between the vast array of books and papers with a distinct epistemological objective or bent published in anthropology and the far smaller number of studies addressing the nature and foundations of demography suggests that an examination of the role and place of epistemology in demography is required. Demography seems to be committed to constant progress – that is, both linear and cumulative progress. Benefiting from the latest technological advances (e.g. more powerful computers, more efficient analysis software, direct data capture, satellite location of nomadic populations during censuses), recent developments in the field have enabled demography to strengthen its capacity to generate increasingly more detailed and complex analyses based on an increasingly efficient chain of data production. The close connection between the refinement of demographic analysis and technological development is bound to likely to foster a sense of omnipotence or control over events. By contrast, there is very little evidence of any thought given, for example, to what an individual or a person may be, to the notion of time, or to the relation between researchers and research participants. The *conception* of time in

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demography appears to be universally shared and independent of any particular culture, while the *perception* of time is based on the hypothesis that it is experienced in the same way by all irrespective of age, generation or life experience. As for the interactions between the interviewer and the interviewee and the potential effects of these interactions, these are said to be fully controlled and standardised.

Though perhaps less true in recent years, the silence of demographers continues to remain deafening (notwithstanding some notable exceptions). Epistemology is not a central concern of demography and continues to be largely overlooked, thus remaining a marginal issue often reduced to discussions concerning the reliability of a given indicator, the construction of a given category or doubts surrounding a given type of data. While the context of data production is being made increasingly more explicit by researchers in the field, its exegesis and deconstruction tend to be less radical than in ethnology. These questions still appear to be of secondary importance compared to the core focus and objective of demography – that is, data production. Phrases such as '*generating numbers*', '*cleaning data bases*' or '*data processing*' are common among contemporary French demographers and are indicative of the core focus of their research interests. The point is not to doubt or to question the legitimacy of such practices but to emphasise the extent to which their weight have impeded reflexivity in demographic research. Reflexivity is made all the more difficult by the fact that the process of data collection and analysis in demography involves large budgets, significant human and material resources and a high level of institutional support compared to ethnography. The weight of the demographic edifice provides stability, not least because the foundations of the field are supported by state structures. By comparison, anthropology is more akin to a sand castle.

Demography is a discipline that is not prone to reflexivity and that has always been unwilling to reconsider or challenge its traditional role and position. Anthropologists, sociologists and historians can often be found devoting countless training and research seminars to epistemological questions in which the situation of the researcher and the process of data production are deconstructed and challenged and in which the interaction with the field is a matter of constant debate. By contrast, demographers address these issues with a far lesser sense of urgency and far greater reluctance. The assumption is that while demographers work with '*clean data*', anthropologists and historians have their hands in all sorts of grease and dust. The gap develops at a very early stage, as students in social anthropology and history are required to take methodology classes aimed at developing a deconstructionist approach and fostering reflexivity in the very first years of their university degrees, whereas the critical position is secondary and sometimes entirely absent in demography courses, which tend to put a great emphasis on developing techniques for demographic and statistical analysis. Demography students are not assessed on their ability to elaborate a complex object of research but rather on their capacity to produce and analyse reliable data.

Anthropology has been in crisis since the 1970s and 1980s. Since the heyday of postmodern critique, the discipline has been in search of itself and has sought to develop new research objects. Research in anthropology has radically challenged the status of the field (the traditional monograph has been pulverised by decolonisation)

and has critically examined a whole range of issues, including globalisation, upheavals resulting from the new information and communication technologies, increased human mobility and the nature of the ethnological text. Compared to the existential questionings of anthropology, the academic life of demographers resembles a long quiet river. Censuses and surveys have followed one another at a regular pace, while the refinements of statistical and demographic analysis have only served to strengthen the pride and self-confidence of the discipline and its strong sense of self-satisfaction. However, based on my own personal experience of demographic data collection and my observations of other operations such as large-scale surveys (DHS, HBCS), I would argue that there is evidence to doubt the exactitude of data (albeit not their interest or value). Like those collected by ethnologists, demographic data are directly dependent on the discourse of interviewees or respondents – a discourse that is subsequently reworked by demographers or more generally by researchers (another issue that will be addressed in due course) in a matter of seconds or minutes within the field. Demographers are prone to bombarding their subjects with questions about the figures, dates and events analysed in their research without ever considering the specific representation of time or the meaning of quantification in the society under scrutiny. The constant progress of standardisation and the refinement of quantitative methods are not enough to remove the human dimension of the methodological process, however much this may be the secret or unconscious dream of many a demographer.

I fail to understand how the anthropological approach might be deemed to be more open to doubt than the approach adopted (say) by a demographer, a quantitative sociologist or a historian. Scholars in these fields operate within the sphere of the social sciences, and their object of research is invariably 'the empirical knowledge of the social' (Olivier de Sardan 2008: 442).[1] While ethnologists may not be involved in the transformation and elaboration of reality, all researchers make crucial decisions in the course of the process of research. The problem is that the personal and academic decisions made by scholars – that is, their research policy – are not clarified and articulated in the same way across the social sciences, and the demand for transparency and reflexivity is present to a greater or lesser extent. The research process itself has almost become an object per se in anthropology, a discipline that has come to produce an ever increasing amount of knowledge about the interaction between researchers and the field. By contrast, this issue has been far more marginal in demography, although it is beginning to attract interest as a result of contact with other disciplines, particularly anthropology. While the danger in anthropology is that the 'focus on the research interaction may serve to generate more knowledge about the interaction than it does about the object of research per se' (Olivier de Sardan 1995b: 439), demography faces the opposite danger, since it is all too ready to view that which has been politically, socially and historically constructed as natural. This is a significant issue since demography works on sensitive research objects where the boundary between science and politics may be blurred or peculiarly porous (such as international migrations and reproductive health).

[1] Unless otherwise stated, all quotations in English are to be credited to the translator.

Research objectives, categories of reference and key concepts in demography are often derived from the political and administrative sphere, whether at a national or international level.

This reluctance is explained by a whole range of factors operating at different levels. Many demographers consider that demography is the hardest of the social sciences and that the use of statistics, mathematics and modelling is a sign of quality, an indisputable guarantee of rigor and scientificity. The implicit or explicit reference in demography is the model of the hard sciences, not the social sciences. At an institutional level, key institutions in France (INED, INSEE and IRD[2]) are responsible for producing data, statistical series and analyses aimed at supporting national policies or development policies in the context of international cooperation. These institutions were created by the French state at key historical moments and were underpinned by clear political objectives linked to specific ideologies (e.g. supporting fertility, strengthening North-South cooperation, regulating international migrations). As a result, their scientific and academic output has never been altogether independent of the broader political context. Since they are at the service of the state, demographers have never had any incentive to engage in critical reflection on the conditions of data production. In France, the state requires research institutes to provide the demographic data required to implement state policies in the short or medium term. Because they are not subject to the demands placed on research institutes, universities by contrast have greater freedom of thought. However, because of their limited human and material resources (a consequence of the history of the academic institutionalisation of demography), universities are not (and have never been) the main actors of demographic research in France.

The specific history of each discipline also needs to be considered. Demography, as an academic discipline, was born in Europe with its traditional emphasis on the utmost value of reason and the written word. Demography was an applied science from the outset and was an instrument of power derived from mathematics and statistics. In its beginnings, the discipline was viewed as a hard science and has remained so to this day in the eyes of scholars who have steadfastly refused to incorporate demography within the social sciences. The demographic field expanded significantly in the nineteenth century in parallel to the development of nation states. Demography contributed to the reinforcement of the nascent European nation states, which returned the favour by legitimising demography and granting the discipline a central position at the heart of the state. The discipline thus experienced an institutional dynamic that served to turn it into an instrument of administration, forecasting and policymaking rather than a pure research discipline. The national census in France is conducted by a national research institute and is clearly designed as an instrument of public management and forecasting at the service of the state. The

[2] INED: Institut National d'Etudes Démographiques.

INSEE: Institut National de Statistiques et d'Etudes Economiques.

IRD: Institut de Recherche pour le Devéloppement.

See below (Chap. 3) a brief account of their place in the French institutional context.

very existence of demography being thus intimately connected to the existence of the state, the discipline has survived several successive political regimes, thereby developing an institutional basis and stronghold that neither sociology nor ethnology has been able to secure. Sociology and ethnology have tended more often to operate as instruments of counter-power. I will return to the institutionalisation of demography in France in due course.

By contrast, anthropology developed in relation to the Other – that is, the most exotic or most distant Other, often in cultures with a strong oral tradition. The great geographical discoveries of the Renaissance, the expansion of the world and the discovery of human diversity all served to foster a critical spirit that may be viewed as the prehistory of anthropology (Laplantine 2001: 51–53). The project of a science of man was not developed until the eighteenth century, as Michel Foucault argued in *Les mots et les choses*: 'before the eighteenth century, man did not exist. Neither did the power of life, the fertility of work or the historical thickness of language. Man is a very recent creature crafted by the demiurge of knowledge less than 200 years ago. […] At least one thing is certain: man is neither the oldest nor the most constant problem ever to face human knowledge. Man is a recent invention, and the recent creation of man is shown by the archeology of our thought' (Foucault 1966). While the understanding of the Other is a noble subject, this highly philosophical object was soon irreparably incorporated into a far wider and more terrible project: colonisation. For two centuries, the Other became a subjugated, oppressed, repressed and dominated man. Ethnologists developed their thought and conducted their studies in an imperialist context which they did not immediately challenge or question. In the power relations of colonial rule, ethnologists were firmly on the side of the masters. Ethnological research was sometimes funded by colonial authorities with a view to gaining a better understanding of the populations they were seeking to integrate in ever expanding empires.[3] For decades, ethnologists served as agents of the evolutionary ideology and contributed to reinforcing the image of the noble savage or horrible cannibal that needed to be civilised, thus helping to legitimise a colonial discourse that promoted the ideas of progress, civilisation and development. Ethnologists working in their offices or in the field served as ideological agents of colonisation without always being aware of their implicit role. Paradoxically, ethnologists may be said therefore to have contributed to the subjugation and destruction of the very cultures they were seeking to understand. However, it is important to note that unlike many other colonisers, and because of their desire to understand men who were so different from them, ethnologists often lived with and alongside their objects of study, and sometimes even became loved, developed a concern for their future and sought to protect them from the harmful effects of colonisation. Although they were experts in the service of colonial authority and power, ethnologists played a distinctly marginal role in the conquest of new lands and populations and did more to foster the imagination and to reveal exotic cultures, even if

[3] See, for example, *The Nuer* by Evans-Pritchard E. E. (1940). *The Nuer. A description of the modes of livelihood and political institutions of a nilotic people*. Oxford: Clarendon Press.

they failed to make them fully understood and respected within their own society. The process of decolonisation had direct implications for ethnology, which was suddenly faced with a mutant object bluntly reflecting its own flaws and weaknesses. The historical reversal of decolonisation resulted in an identity crisis and a radical questioning that involved prolonged critical self-reflection and a deconstruction of the entire disciplinary edifice of the field.

A strong commitment to fieldwork, prolonged contact with local populations and the shock of independence served gradually to distance anthropologists from the sphere of the state and to convince researchers operating in the field to work in the interests of local populations. While demography has tended invariably to remain on the side of the state and political power, anthropology gradually shifted its focus towards misfits, the excluded and the oppressed. Whereas anthropology was forced by the convulsions of history to question itself, demography saw its expert role recognised and further consolidated, passing from national institutions to international institutions (especially after World War II). We may therefore say that not unlike demography, ethnology emerged initially as an applied and sometimes politically committed discipline, and that early ethnological studies – it seems premature to speak of *research* – were driven to varying degrees by a clear governance objective. However, ethnologists momentarily lost their role as experts, which they subsequently regained by offering their services to local populations, NGOs, associations, alter-globalisation movements and international institutions. According to their personal beliefs, anthropologists were free to choose from a range of positions that extended between two extremes. Following Claude Lévi-Strauss, some anthropologists took refuge in 'pure anthropology', while others opted for a 'diluted anthropology' (Laplantine 2001: 24), that is, applied anthropology. Some, like Jean Copans, argued that anthropology 'must serve the cause of the revolution' (Copans 1975). The two positions appear to be extreme and to some extent incompatible with ethics and reality. From an ethical point of view, we may question the legitimacy of the anthropologist to speak in the name of a tribe or society that is not their own and to decide what is good or bad for a given community. In this sense, there is a subtle shift from scientific discourse to political discourse, despite the significant differences in the nature of the two discursive frameworks. From a practical point of view, it would be naive to assume that there can ever be such a thing as pure anthropology since the mere presence of the anthropologist in the field and the renown that may accrue to the studied population as a result of the presence of a researcher may have an impact that is difficult to measure (the Dogon are a particularly illuminating example in this respect). Alternatively, anthropologists may sometimes use the Other in cynical pursuit of their own intellectual or professional interests. The anthropologist is a part of the human world upon and with which she/he works. The world is not a pure abstraction or equation, not unlike what a population may be for a demographer taking refuge behind a computer.

There is another key difference that needs to be emphasised. Demographers participate less often and less directly in the process of data collection. While they usually design the questionnaires used in censuses or surveys, the task of distributing the questionnaires is actually performed by pollsters and census takers. Demographers

also tend to use statistical series collected by other administrative services (e.g. in the healthcare and education sectors) that were not designed with a research objective in mind. They also analyse databases produced by other institutions specialised in demography or statistics, despite not being involved in their development. Above all, demographers are prone to emphasising their ability to master the transformation of statistical series into databases, enabling them to construct the most accurate indicators. Considerable value is placed on this particular technical ability since it constitutes the core foundation and heart of the discipline. But unlike the distinguishing feature of anthropology, that is, control over the research process from beginning to end[4] (from research project to survey to analysis and finally the definitive text), demographic analysis merely represents one stage of a broader research process. The transformation of reality into data is performed by a single researcher, while the demographer (like the quantitative sociologist) uses a study design and method that may require significant technical and human resources. In the case of history, scholars generally only have access to traces.

As noted above, the core aim of this book is to determine how both disciplines can be used in conjunction. Based on research conducted in West Africa, it seems clear that neither discipline can afford to overlook the contribution or support of the other discipline. Anthropology and demography provide models and research instruments which, though aimed at explaining reality, can never replace reality – which, to quote Gaston Bachelard, can only be scientifically 'approached' (Bachelard 1983). The point here is not to substitute one explanatory model for another but to establish how and to what extent the explanatory power of demography can be improved by using anthropology. Ultimately, the approach adopted in this book implies the development of another epistemological model that views individuals in their totality and complexity. It also requires an epistemological convergence that considers the full range of data and knowledge acquired in all sciences. 'The idea that we might be able to construct an object of observation independently of the observer stems from the objectivist model, which served as the foundation of physics until the end of the nineteenth century, but which physicists themselves have long since abandoned. It is the belief that it is possible to dissect objects, to isolate them and to objectify a field of study in which the observer is absent, or at least interchangeable. This model of objectification by objectification is perhaps relevant if

[4] This was not always the case, particularly at the time of the foundation of ethnology in the nineteenth century. The founding fathers (Morgan, Frazer, Maine, Bachofen, Tylor, MacLennan) wrote their books by using reports and descriptions provided by colonists, explorers, missionaries and administrators. A revolution occurred in the first third of the twentieth century: 'Ethnography in the strict sense of the term only began to exist from the moment we realised that researchers should conduct their own research in the field and that the process of observation was an integral component of ethnographic research' (Laplantine 2001: 71; translated from the French). Boas, Malinowski and Evans-Pritchard were (among others) the agents of this radical change in method and epistemological outlook.

the point is to measure or weigh (in this case, it matters little whether the observer is 25 or 70, African or European, a socialist or a conservative). However, it is not appropriate for understanding human behaviors that invariably involve meanings, feelings and values' (Laplantine 2001: 182).

Chapter 2
The Institutionalisation of a Wild Science

2.1 A Wild Social Science

An overview of the history of demography and of its institutionalisation in France and an analysis of the main actors of demography in teaching and research are required in order to understand the development of demography and the tensions in the field. This chapter has two purposes: firstly, to examine the development of demography as an academic discipline and the place of the demography of development within the discipline as a whole and, secondly, to consider the opportunities for interdisciplinary dialogue provided by institutionalisation.

Why might we describe a discipline that appears to suggest rigour and order, even austerity, as a 'wild science'? The term was often used by Alfred Sauvy and Louis Henry in writings aimed at asserting the distinctive and specific identity of the nascent discipline of demography after World War II at the French National Institute for Demographic Studies (INED). The equivalence established by Alain Desrosières between 'demography' and 'INED' is a good indication of the institutional position of demography in France – as if the field of demography were limited to the point of being assimilated to the new institute. In his view, the purpose of the two founding fathers of French demography was to emphasise that 'in 1945, demography had no ancient and recognized academic roots (unlike economics and sociology), and that the discipline was dependent on the administrative infrastructures of official statistics, the ultimate purpose of which was not primarily scientific'. In discussing the 'wild science' of demography, Sauvy and Henry described the discipline as a 'state science' and defined state sponsorship as the distinguishing feature of French demography (or at least as one of its key structuring principles). Demography was thus viewed as 'an activity that has both scientific and political objectives, and that is relatively distinct from the academic world, at least compared to its counterparts in other countries' (Desrosières 1997: 57). This chapter will examine the context that led to the creation of the National Institute for Demographic *Studies* rather than a National Institute for Demographic *Research*. As we will see in due course, the nuance is significant.

V. Petit, *Counting Populations, Understanding Societies: Towards an Interpretative Demography*, Demographic Transformation and Socio-Economic Development 1,
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Today, there is a widespread consensus in France that demography belongs to the human and social sciences. However, the definition of demography and the degree of disciplinary openness implied by its definition vary significantly according to the specific practices of researchers and their institutions (in particular the specific history and vocation of institutions). While a comprehensive overview of the full range of individual practices and research centres is beyond the scope of this book, this chapter will posit that institutional affiliation plays a key role in the definition of academic and scientific practices. In spite of the desire of researchers or *enseignants-chercheurs*[1] (as university academics are known in France) to keep their distance and to preserve their autonomy from their institution, it would be naive to think that trends in scientific and academic policymaking defined within institutions and the material and financial means at their disposal have no impact in shaping a particular culture, habitus, know-how and ways of being, as well as identity positions in relation to the outside world (e.g. openness, withdrawal, tension, feeling of superiority, inferiority complex). While it is clear that major methodological issues and scientific debates transcend particular institutional boundaries and affiliations, their meaning and significance vary greatly according to the context in which they are expressed and articulated. The reality is that researchers and university academics in demography operate within a system of pressures and constraints that directly shapes and informs their research practices (i.e., the definition of a research service and of the objectives that need to be met, the assessment of research programmes, the development of the content of research programmes by funding sources) and that their affiliation is embedded in specific institutional histories. The very rapid process determining the affiliation of young recruits to their new institution is based on a process of socialisation and an increasingly elaborate and systematised moulding process founded on a corporate model.[2]

[1] In French universities, professors (*professeurs*) and senior lecturers (*maîtres de conférences*) are ranked as *enseignants-chercheurs* (literally teacher-researchers). The conjunction of the two terms is designed to imply that university academics are required to devote half of their time to research and the other half to teaching. The term was introduced in 1984 as a result of a reform of French higher education and was designed in part to reassert the value of research among university academics. It is worth noting that in France, the assessment of university academics is based exclusively on their research output (especially their publications), while teaching and administrative duties play little or no role in the promotion process, despite the fact that these encroach significantly on the required amount of time devoted to research. The status of French university academics was altered in 2009 to take better account of the full range of tasks that they are required to perform (i.e. teaching and supervision, distance learning, integration of graduates, international cooperation, training courses, tutoring and pastoral care, promotion of research, dissemination of scientific culture). The consideration given to non-research activities is the responsibility of individual departments in accordance with the law on the autonomy of universities.
Source: http://www.enseignementsup-recherche.gouv.fr/cid25131/statut-des-enseignants-chercheurs-les-nouveautes-du-decret.html

[2] It should be kept in mind that researchers at INED have the status of civil servants with lifelong guarantee of employment and total immovability. To that extent, their situation is exactly the same as that of academics teaching and doing research in University Paris Descartes, Paris Ouest Nanterre and a few others in France. The institutional context is far less flexible than in the USA.

The process of integration within a professional group is not without consequence in a system that offers limited opportunities for mobility between research institutes and higher education institutions. Those who decide to leave their original institution in search of a new experience elsewhere often find themselves misunderstood, negatively perceived, and even viewed as 'traitors' despite the range of procedures specifically designed to encourage transfers between institutions. Extreme reactions of this kind are indicative of the importance of particular institutional traditions. The sense of belonging (a social construct involving the prestige of the institution, internal communication, self-promotion in the outside world and the favoured type of training and education, among other factors) is also further consolidated at an individual level by a whole range of psychological factors (e.g. the need for recognition, the desire for social and professional success, the social pressure exerted by peers or by friends and close circles). Researchers soon understand that they have an interest in adopting (even minimally) a position of conformity and compliance (i.e. playing the institutional game) if they do not wish to be marginalised. This brief overview of the impact of structures on individuals is echoed by Pierre Bourdieu in his analysis of the importance of the feeling and idea of freedom among intellectuals. As noted by this specialist of the sociology of reproduction, 'My issue with those who willy-nilly invoke freedom, the subject, the person, etc., is that they tend to enclose social agents within the illusion of freedom, which is precisely one of the ways in which determinism is expressed. Of all social categories […], intellectuals are the category most inclined to indulge in the illusion of freedom. It is in this sense that Sartre […] may be viewed as the ideologist of intellectuals, i.e. the agent who maintained the illusion of the "unattached and rootless" intellectual (as Mannheim put it), the illusion of self-consciousness, the illusion that the intellectual is able to control their own truth. […] This refusal to unveil the intellectual enslaved by specific forms of determinism is indicative of individuals holding on to categories of thought, mental structures, academic affiliations and support…' (Bourdieu and Chatrier 2010: 40). In order to understand the tension in the practices of demographers between imprisonment in demographic analysis and openness to other social sciences, it is important to return to the foundations of demography and to identify the key stages in the development of demographic thought and research objects.

Historically, demography was born of the conjunction of new scientific developments (especially in mathematics, statistics and political economy) and the emergence of states in Europe.[3] More precisely, it benefited from a significant level of interaction between two forms of authority that had developed over the course of the previous centuries: science and political power. In order to govern, administrate and assert their power, governments and national administrations were increasingly required to *know* their populations. The ideas of progress and development (Rist 1996; Taguieff 2004; Lash 2002) and the notion of rationality, developed in

[3] This historical overview is based on research conducted by Alain Desrosières (1985, 1993, 1997).

particular in the Scottish and Enlightenment philosophies, and the gradual detachment from religion encouraged the development of a new form of state management based on the description and counting of subjects (and later citizens). However, it is important to note that the development of modern statistics and the institutionalisation of demography varied significantly in different countries. For example, Germany bequeathed the term *statistics* (*statistik*) and a tradition of global description of states. Through political economy, England transmitted religious and administrative censuses and calculation techniques (mortality tables) used to analyse and extrapolate from censuses. Through centralisation and unification, first under the absolute monarchy and then under the Revolution and the Empire, France provided a political framework for developing and establishing a model for a *Bureau de Statistique Générale*, with a body of state engineers drawn from the *grandes écoles* rather than universities.

2.2 Germany: *Statistik*

The German *Statistik* anticipated modern sociological questions and aimed to provide a systematic description of the territorial diversity of a given population (Desrosières 1997: 28–32). It was rooted in a synthetic research ambition aimed at achieving a comprehensive understanding of a specific human community (e.g. state, region, town, profession) viewed as a whole and that could only be described by combining a wide range of factors: climate, natural resources, economic organisation, population, law, customs, political system, etc. In this sense, the discipline of German statistics involves a holistic perspective that is difficult to apply insofar as it requires a significant quantity of data, the articulation of which may pose a particular difficulty. German *Statistik* provided the prince or relevant civil servant with a framework for structuring the available knowledge concerning the state – in short, a nomenclature and a classification of knowledge of great use to the administrative and political authorities. Conring (1606–1681) codified the nomenclature in 1660 and defined statistics as a means of categorising heterogeneous knowledge. According to Pierre Lazarsfeld, Conring's aim was to develop 'a system that would make facts easier to retain, easier to teach, and easier to use by men in government' (Lazarsfeld 1970a). In the eighteenth century, the method was transmitted by the University of Gottingen and its department of statistics, especially Achenwall (1719–1772), who is known for having coined the term statistics, and his successor, Schlözer (1735–1809). Schlözer was the author of a treatise on statistics in which he recommended the use of exact numbers rather than indicators and indices expressed in literary terms. For Schlözer, statistics is 'immobile history, while history is statistics on the march'.

In the German microstates (Prussia, Bavaria), description provided arguments in discussions over disputes between neighbouring and rival states. Once Germany had become a nation, the classifying tradition of statistics shifted towards the creation of statistics services and departments comparable to the French *Bureau de Statistique*

Générale. As in France, statistics was directly linked to the needs and imperatives of the German state and was designed to promote population growth, to defend the national territory, to assess available food production and stocks and to develop trade. Statistics was also designed to highlight the human and financial resources available to the state within its administration (i.e. its political, legal, educational and military administration). Finally, the 'makers of cross tables' also aimed to conduct internal comparisons between the administrative units of a particular state and to conduct international comparisons between European nations. While it may be viewed as having encouraged emulation and the acceleration of modernisation (two positive virtues), the comparative impulse in German statistics also contributed to fostering the rising tide of nineteenth-century nationalism, a development that would have tragic consequences in the twentieth century, when they claimed a lebensraum.

2.3 English Political Arithmetic: Demographic Expertise

A wide range of recording and counting techniques known as political arithmetic emerged in England in the 1660s. A new relationship was established between the state (i.e. the monarchy) and the various social classes, enabling the latter to carry out their activities in relative autonomy from the monarch, with the two chambers ensuring the representation of social groups. Drafted by John Graunt (1620–1674) and subsequently formalised by William Petty (1623–1687), the new techniques were key factors in the development of demography and enabled the statistical analysis of parish registers of christenings, marriages and burials and the development of mortality tables (calculation of life expectancies) and population estimates based on a sample incorporating the estimated margin of error. The new calculations involved three key stages that have continued to serve as the foundation of all demographic research to this day: the provision of written records, their analysis and tabulation based on a predefined framework and data interpretation in terms of 'numbers, weights and measurements'. The process of incorporating data in records designed to preserve the written traces of christenings, marriages and burials is linked fundamentally to a concern to define the identity of individuals, initially for religious purposes and also for legal and administrative purposes. It is the founding act of all statistical work in the modern sense of the term, as part of a process that presupposes defined, identified and stable units.

A distinction must be drawn between political arithmetic and German *Statistik*. Political arithmetic has very practical though limited applications since as it is not designed to produce a comprehensive understanding of society. Emphasising the pragmatism of demographic techniques, John Graunt spoke of the 'shopkeeper's arithmetic', while Charles Davenant (1656–1714) alluded to 'the art of reasoning by figures upon things relating to government' (quoted by Le Bras 2000b). Hervé Le Bras notes that the particular context of the mid-seventeenth century resulted in the development of productive forces: 'the development of the first great manufactures,

expanding foreign trade, and financial capitalism involving life annuities resulted in an unprecedented demand for management and measurement instruments' (Le Bras 2000a, b: 8). Mortality tables served as a basis for life annuities and life insurance premiums, and the economic use of these techniques ensured their widespread recognition and dissemination throughout Europe. Mortality tables soon attracted the interest of the great minds of the time (e.g. Huygens, Bernoulli, Halley, Leibniz, Witt), followed in the eighteenth century by Simpson, Alembert, Buffon, Euler, Condorcet and many others.

The difference with the German school is clear: rather than university theorists aiming to develop a general description of the state, English political arithmetic was practiced by individuals of diverse origins developing practical knowledge within their particular field of activity and making their knowledge available to the government. John Graunt was a haberdasher and a tradesman, William Petty worked successively as a doctor, mathematician, businessman and pitiless governor of Ireland and Charles Davenant worked as a civil servant before becoming a Tory parliamentarian. Graunt, Petty and Davenant may be said to have pioneered a new social role – the role of the expert endowed with a specific technical skill or competence. However, the liberal conception of the English state forced political arithmeticians to use indirect methods and oblique calculations to achieve their ends, that is, to estimate the national population. The political liberalism that triumphed with the 1666 Revolution significantly impeded and limited the role of the state. As a result, direct large-scale surveys of the kind performed in France were impossible in England since they were considered to be too costly. In 1753, a census project was rejected in parliament because it was deemed to undermine the freedom of the English people. The refusal to conduct large-scale demographic data collections in the eighteenth century resulted in a stagnation of English statistics, while France, Holland and Sweden significantly developed and improved their census practices during the same period. The expertise and practical applications of demography were key features of the new discipline almost from the outset. However, as will be seen with France, it was the recognition of demography by the state that enabled the new discipline to fulfil its potential.

2.4 France: Demography as a State Science

2.4.1 The Ancien Regime: Intendants and Learned Individuals

Unlike Germany, France under the Ancien Regime left no statistical data or knowledge in treatises but transmitted a lively administrative tradition of records, surveys and memoirs to later periods (i.e. the Revolution and the Empire), a tradition that eventually resulted in the creation of a dedicated institution in 1800 and the expansion of learned and scholarly activities independently from the state, especially descriptions (often in the form of quantitative or qualitative population monographs written by monks and men of letters, i.e. enlightened minds). The distinguishing feature of France compared to Germany and England is that since 1660, the monarchy

had enjoyed significant power and was founded on a centralised administration. Provincial customs and disparities in law were consistently weakened by the monarchy, almost eliminated by the Revolution of 1789 and further rooted out by Napoleon. Royal intendants were entrusted with the task of providing the king with descriptions of their provinces using increasingly codified methods. Linked to the development of royal administration and of its various services, the surveys conducted by royal intendants became increasingly more specialised and quantitative, focusing on population and households censuses, inventories of available food reserves, prices, etc. Emergencies and crises caused by famine and epidemics such as the plague in Marseille in 1720 or by wars gave rise to partial population and food surveys. Based on objective descriptions, the surveys were designed to take the full measure of exceptional events and circumstances and to define the measures required to remedy the resulting issues. Surveys and censuses were largely driven by the need for the state to maintain order by guaranteeing a minimum level of food and health security. Surveys often had specific tax objectives: in 1686, Maréchal Vauban aimed to reform taxation (the *taille*) in a work entitled *Méthode facile pour faire le dénombrement des populations*. Vauban's method was tested in the French colonies of the New World before being applied in metropolitan France. The aim was to assert the presence of a French population in the face of English claims to dominance. The political stakes were high since the aim was to extend the presence of France throughout North America. In 1694, a comprehensive population census was design with a view to introducing the first head tax.

Little by little, specialized and regular statistics concerning non-exceptional circumstances and tax reforms began to emerge – for example, the annual birth, marriage and death records introduced by Abbé Terray in 1772, the starting point of the so-called Statistiques du mouvement de la population, the recording of the prices of agricultural and industrial products, which had to be sent to Paris every week to draw up a *Tableau général du royaume*, and a survey of all criminal convictions between 1775 and 1786 conducted by Montyon.[4] Regular counting and statistical practices relating to specific areas at a national level were thus gradually introduced and implemented. The aim was to provide comprehensive descriptions of trends over time to serve the interests of state management. The new developments heralded later practices in the nineteenth century except for one key difference: whether they were destined directly for the king or the king's administration, they were always kept secret and linked to royal prerogative (as in Germany). The new statistical practices were designed neither to inform civil society nor to encourage the emergence of public opinion, unlike the role they perform today.[5] For political and military reasons, the size of the population was considered to be a state secret. The era of making census results widely available online seems very remote indeed.

[4] In the nineteenth century, these statistics became the *comptes de la justice civile et criminelle*.

[5] The Physiocrats were a notable exception since they believed in the importance of informing public opinion. But this can be explained by their desire to extend their influence through the 'true' laws of political economy (Charbit 2010).

In the 1750s, a distinct tradition of social description began to emerge in civil society. Travel narratives, geographical studies of local areas and towns and compilations examining the land, customs and the economy were produced by learned individuals (statisticians, lawyers, etc.) inspired by the French Enlightenment, who came together in learned societies (such as local Académies and Sociétés d'agriculture) and reforming clubs. For this new groups marked by the influence of Enlightenment philosophy, the circulation of ideas and knowledge was needed to ensure social progress.

2.4.2 The Revolution and the Empire (1789–1815): A Mirror to the Nation

The period from 1789 to 1815 was a decisive moment in the development of key political, administrative and cognitive tools that provided the foundations of original statistical descriptions of the social world in France. The homogenisation and codification of a wide spectrum of aspects of human life further entrenched the visible unification of the French national territory. The reforms introduced by the constituent assembly were now defined at a national rather than at a local or provincial level. The complex process of unification of reference systems concerned the division of the national territory into administrative districts known as departments, the introduction of the metric system and the unification of weights and measure, the generalisation of the French language and the fight against local dialects, particularly in schools and the army, and the universalisation of human rights.[6] The new reforms were designed to introduce greater rationality in the organisation of the state. Between 1789 and 1795, censuses and surveys were conceived and developed, though none were conducted since they were initiated during periods of famine or war and were not supported by adequate administrative infrastructures. Between 1795 and 1806, the new departments were the subject of global surveys. Between 1806 and 1815, regular quantitative statistics were introduced, especially in the agricultural and industrial domains.

Napoleon Bonaparte provides the clearest case of the institutional development of demography and demographic statistics. Bonaparte came to power in November 1799 and immediately introduced a series of reforms that still retain their imprint on the structure and ethos of French society (e.g. *lycées*, universities, *grandes écoles*, civil code, prefectural administration, *Bureau de la Statistique*). The unification of the French nation required a large-scale circulation and dissemination of knowledge concerning the local regions and areas composing the nation, agricultural and

[6] Dominique Schnapper (2001b) also showed that the policy of nationalisation has its limitations and is part of the ideology of nation states aiming to unify its regions and to create a common national identity. For instance, the use of the French language only became compulsory in the twentieth century.

industrial techniques, markets, etc. Prefects were required to implement the new policies, which were aimed at promoting a new political-cognitive spatial construct defined as a unified nation that would be 'one and indivisible'. To assist the prefects in their task, a large-scale statistical survey was launched in 1800 by Jean Antoine Chaptal. It was also during this period that statistics developed from the manuscript locked up in the archives of the administration to the published text aimed in principle at a large audience. The shift was linked to the fact that the state was deemed to represent society as a whole through electoral representation, but also through statistics, a field conceived as having become 'the mirror of the nation' and no longer the mirror of the prince. The ambition to provide a reflection of society to society based on a system of surveys entrusted to prefects was the first major directive of the new *Bureau de la Statistique* created in 1800 by the Minister of the Interior, Lucien Bonaparte, who was later replaced by Jean Antoine Chaptal. In 1805, Jacques Peuchet[7] published *Statistiques élémentaires de la France, contenant les principes de cette science et leur application à l'analyse de la richesse, des forces et de la puissance de l'Empire français, à l'usage des personnes qui se destinent à l'étude de l'administration*. Although the *Bureau de la Statistique* was abolished in 1812, the memoirs of prefects and the project of ordered political management based on regularly produced data continued to exert their influence. Their reports can be used to reconstruct a quantitative social and economic history of France. Above all, they encourage the development of long statistical series.

2.4.3 From the Statistique Générale de la France to INED and INSEE

From 1833 to 1940, the *Statistique Générale de la France* (SGF) remained a small department based in Paris and entrusted with the task of organising the 5-year censuses and analysing census data and population movement based on the register of births, marriages and deaths. At its creation in 1833, the SGF was entrusted with the responsibility of collecting, coordinating and publishing the statistical tables produced by other administrations. During this period, the census came under the control of the Ministry of the Interior, which created a *Bureau de la Statisique* in 1840 chaired by Alfred Legoyt. The founder of the SGF, Moreau de Jonnes, (1788–1870), was head of the *Bureau de la Statistique* until 1852. According to Desrosières, 'the call for the centralization of numerical documents in preparation for publication was not enough to guarantee the strength of the institution, as long as standard recording tools were not used upstream: regular inventories, record books, nomenclatures. […] During its first period, in addition to censuses, the SGF initially published regular administrative data produced by others, but it also published the

[7] Jacques Peuchet, *Description topographique et statistique de la France* (1810–1811) and *Mémoires tirés des archives de la police* (1837–1838).

results of surveys on its own initiative, on agricultural (1836–1839) or industrial structures' (Desrosières 1997: 186).

Alfred Legoyt was appointed head of the SGF in 1852 and brought together all census-related activities, introducing a number of innovations that affected the recording of professional occupations and economic activities. The SGF was linked to the *Office du Travail* created in 1891 (the ancestor of the *Ministère du Travail* created in 1906) and began to develop the double use of censuses, that is, for economic and demographic purposes. From 1891 to 1914, the *Office du Travail* represented the first academic-administrative institution to be granted significant resources. The *Office* included research and survey departments that studied wage levels, unemployment levels and living conditions among the working classes. Their studies were based on direct statistical surveys, monographs and administrative data such as statistical data about strikes. In 1907, the sociologist Maurice Halbwachs conducted surveys on working-class household budgets. Alfred Sauvy (1898–1990) entered the SGF in 1923. In parallel to the reinforcement of the institution, this period also saw the development of a scientific activity devoted to the analysis and interpretation of demographic and statistical data that favoured the emergence of national and international networks. The resulting exchanges and their broader intellectual context have been studied extensively by Yves Breton and Michel Lutfalla (1991) and Yves Charbit (1981). Societies of political economists (both in Paris and in the provinces) began to emerge in the 1840s and eventually became highly influential. In 1860, a group of publicists, economists and doctors (such as Chevalier, Passy, Villermé) who sometimes were also political figures, created the *Société de Statistique de Paris* (SSP) with the support of the Ministry of Trade. The society published the *Journal de la Société de Statistique*, which acted as a forum for advocates of statistics. Right up to the 1930s, the *Société de Statistique* played an important role in the creation of large administrations and statistical schools.

The French case is also marked by a significant concern among politicians over the secular decline of fertility. The *Alliance Nationale Contre la Dépopulation* was created in 1896 under the impetus of Jacques Bertillon. During the interwar period, the French political elites became increasingly concerned about the issue of the declining birth rate. Some argued that the decline was a dangerous trend and viewed it as the cause of the social and economic difficulties suffered by France in the post-war period. The *Alliance Nationale Contre la Dépopulation* marked an entire generation. Its efforts were finally rewarded in 1939 when, faced with the German threat, the Daladier government created the *Haut Comité à la Famille* and promulgated the *Code de la Famille* under the pressure of public opinion. The interest of the state (and of the political classes) in population issues needed to be transmitted to the population as a whole through education: 'the teaching of demographic problems from a statistical perspective and from the point of view of their relation to moral and family questions is compulsory for all teachers and pupils, at all educational levels, and in all public and private schools' (article 42, *Code de la Famille*; translated from the French). Soon after coming to power, Marshal Pétain singled out the declining birth rate as the primary cause of the collapse. By the law of November 13, 1941, the Vichy government created the *Fondation Française pour l'Etude des Problèmes Humains*

or Fondation Alexis Carrel, under the leadership of the Nobel Prize in Medicine.[8] Based on an alliance between biology and the social sciences, and privileging social medicine and economics, the foundation was introduced in the autumn of 1942. At the time of the Liberation, the institution (which was deemed to be guilty of collaboration and became a focus of intense debate) became an object of desire, with prominent figures from all political persuasions competing to take control of it. After much hesitation, General de Gaulle, the head of the provisional government, finally accepted the solution recommended by the professor of medicine Robert Debré, that is, to create a national institute for demography that would take over one of the premises of the foundation, as well as the small proportion of the foundation's staff dedicated to population matters (Drouard 1983: 1017–1047). The pro-natalist policy promoted by de Gaulle and the concern to develop an immigration policy, but also to assign an institutional role to Alfred Sauvy, were key factors in this decision.

2.4.4 The Origins of Demography Teaching

The first lectures on demography ever to be delivered in France were given at the Collège de France. Because of the peculiar status of the institution, professors at the Collège de France have always enjoyed more freedom to address areas regarded as unconventional or untraditional. In the second half of the twentieth century, chairs were also founded elsewhere in law departments and business schools, since population issues were deemed to be part of the theoretical corpus of economics, as shown by the many textbooks and treatises written during this period. For instance, the economist and essayist Paul Leroy-Beaulieu,[9] who had succeeded his father-in-law Michel Chevalier[10] in 1878 as chair of political economy at the Collège de France, addressed a number of key issues in demography (Charbit 1981: 202–203). In 1913, Leroy-Beaulieu published a book entitled *La question de la population*. However, while these developments constituted a form of recognition for the discipline albeit far less prestigious than today, demography classes were not sanctioned by any examinations and did not result in the delivery of a diploma in demography. The target audience of the new discipline, though chosen, was also very limited in numbers. The development

[8] In 1912, the surgeon Alexis Carrel was awarded the Nobel Prize in Physiology or Medicine.

[9] Paul Leroy-Beaulieu (1843–1916) was a liberal economist who supported and inspired the policy of colonial expansion of the Third Republic promoted by Jules Ferry. In 1874, Leroy-Beaulieu published *De la colonisation chez les peuples modernes*. His attachment to the principles of liberal economics was never an obstacle to his social concerns. For example, Leroy-Beaulieu studied working-class wages, local administration in England and France and female labour in the industrial sector.

[10] Michel Chevalier (1806–1879) was a French economist and politician. A former student of the famous *Ecole Polytechnique* and a member of the Council of State, Chevalier obtained the chair of political economy at the Collège de France in 1841, before becoming a member of the *Académie des sciences morales et politiques* and a senator in 1860. A Saint-Simonian at the beginning of his career, Chevalier later became a liberal and an advocate of free trade. For a detailed study of Michel Chevalier, see Yves Charbit (1981: 193–208).

of demographic data and teaching was also one of the core objectives of the *Alliance Nationale Contre la Dépopulation*. However, although the *Alliance* provided textbooks designed for teachers to ensure that pupils were given an introduction to population issues, demography was not introduced in educational curricula during this period since the statutory texts were not published or made widely available.

After World War I, two chairs in demography were created (one focusing on the Paris region,[11] the other on social demography). Perhaps inevitably, the first courses emphasised the link between statistics and demography. Elisabeth Garlot notes that it was in this way that 'the analytical techniques in the body in charge of data collection (were transmitted). In 1922, the University began to offer statistics classes by creating the Institute of Statistics of the University of Paris (ISUP), which included a statistics class taught by the director of *La Statistique Générale de la France*' (Garlot 1968: 499–500). Created in 1922 by the mathematician Emile Borel, the ISUP is the oldest statistics institution in France and was an applied school of the *Ecole Polytechnique*. It is worth noting that two *polytechniciens* who had a decisive impact on French and INED demography studied at the ISUP: Gérard Calot, the future director of the INED, and Albert Jacquard, who developed genetic demography at INED. At the time of the creation of the *Ecole d'Application du Service National des Statistiques* in 1941, the demography course was entrusted to a statistician. Demography was thus viewed as an application of statistics and 'outside statisticians, a few isolated figures cultivated the pursuit of pure demography. They were selftrained. There was no systematic teaching aimed at the study of the economic and social aspects of demographic evolution. This task was left to the initiative of professors of sociology, human geography and political economy' (Garlot, op.cit).

2.5 Demography and Governance

This institutional setting explains why demography developed and continues to operate in close proximity to the state, upon which it is heavily dependent. Today, the relation between demography and the French state remains as close as it ever was and seems likely to continue since the entire statistical apparatus is at the service of the French state and is dependent on the financial and material resources that successive governments have been willing to grant it. Demographic and statistical categories, indicators and measurements have an impact that extends well beyond the strict confines of the scientific field since they have wider repercussions in the

[11] The chair was held (among others) by Louis Chevalier. A former student of the prestigious *Ecole Normale Supérieure* and a historian, Chevalier worked as a researcher at the INED and taught general history and demography at the Paris Institute of Political Studies. In 1951, Chevalier defended a doctoral thesis entitled *Les Fondements économiques et sociaux de l'histoire de la région parisienne* at the Sorbonne. He was subsequently elected to the Collège de France, where he held the chair of the history and social structures of Paris and the Paris region from 1952 to 1981. It was thanks to the appeal he made to his former fellow student, President Georges Pompidou, that the INED was not suppressed in the early 1970s. Gérard Calot then became director of the INED.

media and political arena and within the public sphere more generally. Throughout the twentieth century, a whole new range of regional and international issues emerged in addition to national issues. The consubstantial relation that has made demography an instrument of governance indicates that two key points require particular emphasis: firstly, the autonomy of institutions and individuals in relation to a more or less flexible political framework; and secondly, the evolution of demography, a field that initially developed as an applied discipline. Frank Lorimer notes that from a historical point of view, predominantly 'non-scientific' interests (i.e. taxation, military recruitment, the moral or religious control of the population) were key factors in the development of demography as an academic and scientific discipline. It was precisely these governance objectives that resulted in the development of census and vital records as key databases. Returning to the origins of demography, Lorimer notes that 'we may recall the dual orientation of demography as set forth by John Graunt, its first exponent: "political and natural observations". The objective analysis of population changes in their biological and social context serves both the enlargement of science and the formation of realistic public policies' (Lorimer 1954: 166). Lorimer also notes that 'in all countries quasi-political action programs have offered inducements toward deviations from scientific objectives and respect for the limits of science' (Lorimer 1954: 161). What then is the key distinguishing feature of the case of France? It is important to remember that there are different national traditions in demography and that the development of the discipline is specific to every country, political regime, historical context and mode of organisation. The conference organised by INED to celebrate its fiftieth anniversary in 1995 provided an opportunity for French and foreign demographers to assess the state of their discipline and for the INED to reflect upon itself (Chasteland and Roussel 1997: 57–94). The conference included specific reports on the United States, France, Italy, the United Kingdom, Hungary, Russia, the Netherlands and Canada. We might regret that the national analyses focused to a great extent on northern countries and that the situation of demography in China and India was largely overlooked despite their status as demographic giants. Desrosières draws a distinction between a mode of organisation in which the state organises and funds research (i.e. France) and a freer and more open mode of organisation based on private foundations and universities, as illustrated by Italy and the United States. According to Desrosières, 'demography can be national, under the supervision of the state and funded by the state, without necessarily resulting in censorship or control over research' (Desrosières 1997: 12). This is debatable given the inflammatory context (the relations with the Carrel Foundation) that surrounded the creation of INED and the importance of research on fertility in response to the pro-birth concerns of the French state since the late nineteenth century. This is also to forget that the tensions between researchers and political power have been a recurrent feature of intellectual life in France. In 1974, at the time of the retirement of Paul Vincent, a *polytechnicien* and communist and a member of the founding INED team (Calot 1979), Alfred Sauvy, the director of INED, publicly emphasised[12] that

[12] Anecdote recounted in personal correspondence by an INED researcher.

Vincent had always made a point of separating his scientific responsibility from his political beliefs – in other words that he had censured himself. More generally, in the French intellectual context of the late 1950s and 1960s, when the Left was largely dominant (as illustrated by the intellectual marginalisation suffered by Raymond Aron), INED developed social surveys (e.g. on child mortality in the Nord department) while carefully refraining from any politicisation. Similarly, the statistical data produced by the survey on educational success conducted by Alain Girard was subsequently discussed in a far more polemical tone by Pierre Bourdieu and Jean-Claude Passeron in their work on social reproduction. Surveys on the situation and future of immigrants also tend to be delicate matters since their results are liable to be interpreted in relation to specific political positions. A number of studies conducted by INED researchers (Alain Girard, Michèle Tribalat, Patrick Simon) caused violent debates within the institution and were given significant media coverage because of the type of concepts invoked (tolerance threshold, assimilation, ethnic category) and their potential political implications. In some sense, to conduct a survey on immigration often amounts to providing a form of support to government or on the contrary to challenging the government by contributing to the public debate.

The institutionalisation of demography illustrates one of the key characteristics of government control in France. The common ground shared by the Ancien Regime and successive French republics has tended to overshadow the fundamental differences between political regimes. The centralisation of knowledge in the field of population is based on quantitative data collected to serve primarily as an instrument of governance.

Chapter 3
The Contours of a Social Science

3.1 An Ambiguous Position in the Social Sciences

Despite its status as a highly institutionalised discipline, the position of French demography in the more general field of the social sciences has been a controversial subject for many years. Perhaps out of sheer ignorance of its internal development, but also because of the image of demography promoted by some of its practitioners-researchers outside the discipline have continued to foster this impression, or at least to express a degree of reluctance or scepticism in including demography within the social sciences. This is also true at an international level. Mattei Dogan and Robert Pahre were only able to include demography in the social sciences by opting for a broad and nondogmatic definition of the social sciences. According to Dogan and Pahre (who are both political scientists), 'sociology, anthropology and political science constitute the heart of the social sciences'. They note that 'most scientists agree that economics, social psychology and history may also be included', while psychology, geography, demography, archaeology and linguistics can legitimately be incorporated based on a broad conception of the social sciences, since these disciplines 'are partly natural sciences' (Dogan and Pahre 1991: 16–17). Any classification is subject to debate and discussion, and theirs is no exception. Anthropology (which was mainly physical anthropology for part of its history) can also be included in the list of social science disciplines that are somewhat less 'social'. Dogan and Pahre also note that 'some sub-disciplines in philosophy, education and town planning may also be viewed as integral components of the social sciences'. In addition to the issue of categorisation in a field borne of the fragmentation of disciplines, their definitions tend to vary from one country to another. Dogan and Pahre refer to the example of demography which, though a full-fledged discipline in many European countries, is defined in the United States as a subdivision of sociology and is not an autonomous field (just as archaeology is defined merely as an area of specialisation in anthropology). The definition given by the American demographer Kirk is particularly enlightening in this respect: 'Demography is generally considered an interdisciplinary subject with strong roots in sociology and

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weaker, but still important, connections with economics, statistics, geography, human ecology, biology, medicine and human genetics. It is rarely thought of as a completely separate discipline, but rather as an interstitial subject or as a subdivision of one of the major fields' (Kirk 1972: 348). The situation is markedly different in the French social sciences because of a specific process of institutionalisation, as shown in the final appendix to this book.

The sociologist Jean-Claude Passeron, an expert in epistemology, includes demography in a category that also comprises linguistics, demography and economics, referred to as the 'particular' or 'autonomising' social sciences. Passeron uses these terms since 'through pure abstraction they seek to isolate a particular level or aspect of phenomena, sometimes a sub-system of the social system – e.g. communication, population, the trade of rare goods, or the market. This is a highly productive approach, but it also has its downside: since there is more in their object than what their construction of it can possibly encompass, demography and economics, in their attempt to reduce the gap between their models and historical reality, can often be found borrowing the knowledge of external mechanisms or contextual properties from synthetic disciplines in order to restore to objects all of their many variations – "exogenous variables" or "parameters" of formalized systems, the analysis of which is left to sociology, anthropology and economic history' (Passeron 2006: 83). Through the medium of the basic criterion of his typology, Passeron raises a crucial point, the relation between a discipline, its object of study and the construction of the main or privileged method, and how it relates to other cognate or neighbouring disciplines. The strict limitation (i.e. object, method) that it imposes in an attempt at methodological efficiency paradoxically carries within itself the embryonic potential of a future opening to other disciplines. The next chapter will deal more specifically with the object of demography.

Furthermore, the boundaries between the social and human sciences are blurred. As the sociologist Jean-Michel Berthelot puts it, they 'are, in view of their history, so porous and so fluctuating that it is possible to move from one to the other without having to cross any real threshold. Among the "sciences of the social", only four disciplines, namely sociology, ethnology, demography and social psychology, share an epistemic space, i.e. a space of knowledge which, beyond superficial differences and divides, can reveal movements and processes of a similar nature' (Berthelot 2001b: 203–204).[1] His argument is debatable since many demographers and anthropologists have no sense of sharing a common epistemic space. The gap between the proponents of a pure unadulterated causality and the defenders of a more comprehensive approach may be seen as a veritable barrier, with both camps firmly convinced of their intellectual superiority. Yet it would seem that the poros-

[1] The ethnologist Dominique Desjeux adopts a similar perspective, listing psychology, economics, anthropology, linguistics, sociology, cognitive sciences, history, geography and philosophy. He notes that some scholars also include demography and education. Desjeux concludes 'that the world of the social and human sciences is not a world that is made up of highly stable boundaries and frontiers. This is in the order of things, involving a constant play between identity, blending and differentiation between different disciplinary fields' (Desjeux 2004: 5).

ity of boundaries varies according to different disciplines, since some are better able to protect themselves from transdisciplinary migrations by using (for example) highly specialised jargon or elaborate techniques. Rather than a continuum, the field of the social sciences is more akin to a space structured in levels or thresholds. The nature of the epistemological regime represents one of the major dividing lines (Fabiani 2006).

The philosopher and anthropologist Ruwen Ogien has provided seven criteria for determining the nature of the social sciences and therefore coming to a definitive decision about the inclusion of demography within the social sciences (Ogien 2001: 527–528). The table below summarises Ogien's arguments:

General criteria of the social sciences (Ruwen Ogien 2001)	Application to demography
1. 'Formal properties of social groups'	Descriptions and comparisons of populations and subpopulations (cohorts, age groups, generations, etc.) Examples: distribution by gender and age; fertility rate of women aged 15–49 by age group
2. 'Influence of these formal properties on individual behaviours or on other formal properties'	Measurement of fertility based on age group and the type of union, educational level or occupational category
3. 'Institutional facts (norms) and their influence on behaviours and beliefs'	Consideration of the beliefs (religion) informing the choices of individuals in terms of fertility (number of children, use of contraception) Understanding morbidity and mortality rates in the light of representations of illness, sexuality and death
4. 'Structural facts and their influence on individual beliefs and behaviours or on other structural facts'	Impact of migration policies on migration flows (size and sociological composition), effect on migration strategies (individual, family, communities)
5. 'Aggregate data and their relations with other aggregate data'	Measurement of sex ratio in a population affected by international emigration
6. 'Functional imperatives of groups or societies and the influence of these imperatives on the selection of certain institutions'	Demography studies population dynamics (stationarity, growth, depopulation) and aims to highlight the sociocultural processes of birth control and population policies implemented by societies in order to control the dynamics of their population
7. 'Individual actions as significantly directed towards others; collective phenomena as the voluntary or involuntary effects of intentional individual actions'	Demography studies the power relations between individuals within couples, families and communities; the analysis of the processes subtending the constitution of unions; the decisions concerning procreation or mobility and the interactions between different sociological levels

In short, for non-demographers, the inclusion of demography in the social sciences raises the question of marginality and centrality (Dogan and Pahre), the consideration of social structures and facts (Ogien), the capacity for autonomisation

(Passeron) and the porosity (Berthelot, Desjeux, Fabiani). The opinions of demographers may provide a good indication of what distinguishes demography from the other social sciences. In a survey conducted in 2000 by Jean-Claude Chasteland, Michel Loriaux and Louis Roussel, one of the questions referred to the classification of demography as a social science, a natural science or as both. Three quarters of the 1,631 respondents classified demography as a social science, while less than a quarter classified it both as a social science and a natural science. Barely 1% of respondents defined demography as a natural science (Chasteland et al. 2004: 83–84). While the inclusion of demography within the social sciences is a majority-held view, the hard sciences continue to serve as a key model or reference forming and structuring the identity of many demographers – whether consciously or not. Demographers working on the modelling of demographic or demo-economic behaviours and the improvement of analytical techniques are likely to be more sensitive to the scientific legacy and to emphasise the term 'arithmetic' than its associated adjective, 'political'.

However, unlike physics or biology, demography cannot resort to experimental methods in order to verify its models. Is the mere fact of using probability and statistical techniques enough to classify demography as an exact science? This is surely to forget that the stages that precede the analytical stage may be heavily imbued with normativity. It is also to operate under the illusion of being in the enviable position of producing laws by examining statistical regularities and correlations and by emphasising the search for mechanical causal relationships, while forgetting that in the mid-eighteenth century, David Hume had already demonstrated that regularity and simultaneity are not a sufficient basis for establishing a scientific law. Is it not to overestimate an epistemological regime often judged from outside as being perfectly scientific, that is, independent of any human dimension (Passeron 2006)? Demographers largely subscribe to the ideal of the nomological model, unlike (say) researchers in quantitative sociology. The temptation to associate demography with the natural or hard sciences can partly be explained by the discourses or attitudes of demographers. Placed in situations that require them to justify their approach and feeling compelled to defend their (small) discipline, or seeking resolutely to demarcate themselves from other 'social scientists', demographers can often be found adopting (more or less consciously) research perspectives that involve presenting demography as the 'hardest' social science or as having 'the highest degree of scientific rigor' within the social sciences. This belief is based on the premise that the rigor and objectivity of demography are greater than the rigor and objectivity of related disciplines. The fact that demographic analysis is based on mathematics and statistics and is founded on the laws of these forms of knowledge serves as a guarantee of scientificity, seriousness and professionalism. To seek to associate demography with the natural sciences is not simply the reflection of a legitimate desire to take account of a historical heritage. It is also – and perhaps above all – to aim at converging on an epistemological regime constructed on the basis of experimentation and the search for causal systems and laws. It is to defend oneself against the charge of producing data and results marred by uncertainty and errors. It is to believe once again in the purity of results.

3.2 From Demography to Demology?

Despite these ambiguities, the inclusion of demography within the social sciences is widely supported in current research, although a number of specific features require emphasis. A closer examination of 'external' and 'internal' perspectives reveals three key tendencies: demography tends to be included in the human or social sciences; demography tends to be presented as a discipline based on an extremely rigorous technique, the heart of which is demographic analysis; however, demography needs to be more open to other disciplines in providing explanations or interpretations for the data it produces. These issues require a more detailed analysis.

3.2.1 The Foundational Definition

The term 'demography' was used for the first time by the statistician Achille Guillard, who published *Eléments de Statistique Humaine ou Démographie Comparée* in 1855. Seemingly at the request of his publisher, Guillard was forced to coin a new word in order to explain the central objective of his book: the application of statistics to human populations. According to Guillard, demography is 'the natural and social history of the human species. In providing information about the current characteristics of the population of a given territory, demography continues the great tradition of political arithmetic and illumination for the purposes of informing public policies. However, to reduce the discipline to the business of counting men would be to give an abstract and restrictive impression of demography. Demography is based on the most concrete and fundamental datum of all: the life and death of men. Its purpose is to examine the most significant events of daily life: births, weddings, divorces, deaths, and migrations' (Guillard quoted by Chesnais 1990: 3–4). The idea of applying statistics to the study of populations represents the core foundation of the discipline, and even the shortest definitions can be found emphasising this basic principle: 'Demography is the study of human populations' (McFalls 1998 quoted by Rowland 2003: 4), or 'Demography is the science of population' (Weeks 2002 quoted by Rowland 2003: 4).

What might we retain from the founding definition of the new discipline, given 25 years after Auguste Comte (1830) first spoke of sociology? Though writing in the era of positivism, Guillard insisted from the outset that demography should not be reduced to a form of 'accounting'. In other words, the point is not to adopt a petty or restrictive attitude since the discipline examines a fundamental question that has been ever present throughout the centuries – life and death – and since it construes human destiny as a collective process from a new perspective that is not religious, philosophical or naturalist. A similar perspective was reiterated by Jean Bourgeois-Pichat, the successor of Alfred Sauvy at the head of INED (1962–1971), who argued that 'there is a very limited number of demographic facts, and they tend to define themselves as soon as we begin to ask ourselves how the life of the human species

unfolds. […] The human being is the indivisible entity that represents the essence of phenomena, and once we have said that a being is born, lives for a certain amount of time in the course of which it procreates, moves, and finally dies, we have defined most of the central concerns of demographers. Everything in demography ultimately boils down to these fundamental events' (Bourgeois-Pichat 1970).

The fact that Achille Guillard (1799–1876) spoke of 'natural history' suggests that he was a man of his times who merely reflected the prevailing intellectual context and that he was the heir of Condorcet[2] (1743–1794) and Buffon[3] (1707–1788). Guillard was a contemporary of Auguste Comte (1798–1857), Charles Darwin (1809–1882) and Karl Marx (1818–1883) and elaborated his definitions just as the sphere of the social sciences was in the process of being developed. While the process of differentiating the nascent disciplines was also under way, the natural sciences remained central, as illustrated by the ideas of evolution and the emphasis on the need to establish laws. Social evolutionism sought for instance to take advantage of its semantic proximity to Darwinism to gain a degree of scientific legitimacy, while Marx set out to determine the laws of a history which, in his view, was characterised by a key shift from feudalism to communism. As he observed in *Das Kapital*, 'the development of the economic formation of society can be likened to the march of nature and of its history'. Economists and sociologists in the nineteenth century set out to understand the workings and future of modern society and accordingly granted a central role to population, thereby favouring the emergence and formation of demography. In defining the field of demography, Achille Guillard clearly associated a given population with a specific territory defined as the product of a particular political division. Emphasising the links between demography and political power from the outset, Guillard thus justified the social utility of demography in informing public policies.

3.2.2 A Key Dimension: Demography as a Science of Numbers

Many definitions of demography have emphasised that it is a science of numbers. Let us quote Louis Henry: 'the quantitative point of view is absolutely predominant in demography – to the extent that we may say that there can be no demography without numbers or statistics. This is clearly obvious in considering the state of a

[2] Nicolas de Condorcet (1743–1794) initially distinguished himself as a mathematician. As a teenager, Condorcet was a pupil of D'Alembert. His writings in this area centred on political arithmetic, the calculation of probabilities and integral. His work was greatly acclaimed, and as a result he was elected to the Académie royale des sciences in 1769. After meeting Turgot, Condorcet turned his attention to political responsibilities, developing an interest in politics and philosophy. The last of the encyclopaedists, Condorcet wrote an *Esquisse d'un tableau historique des progrès de l'esprit humain* at the end of his life, published posthumously in 1795.

[3] Between 1749 and 1788, Georges-Louis Leclerc, Comte de Buffon (1707–1788), wrote an immense panoramic work on the origin of the earth and humanity, entitled significantly *Histoire Naturelle*.

given population, i.e. the number of inhabitants and their distribution in different categories, since demography precisely provides the answer to these questions. This is less obvious when examining population movement insofar as movement is driven by events, births, deaths, and migrations, which can be dealt with by demography. Yet nothing could be further from the truth, either because these events are so common that there is no need to describe them, or because the study of such events from a qualitative point of view properly belongs to other disciplines, such as medicine. Although this is not emphasised in the necessarily condensed definition given above, it is also important to remember that the study of human populations from a quantitative perspective includes demography and sub-domains such as biometrics and population genetics, economics and sociology. The boundaries between these disciplines are not very precise, and it is merely use and practice that teaches us what pertains to the specific field of each discipline and what belongs to several disciplines, or which may be claimed by several disciplines at once' (Henry 1984: 15).

Henry's lengthy definition of demography is interesting in several respects. Although it clearly emphasises the predominance of the quantitative perspective, it also implies that populations can be studied in other disciplines and not necessarily from a quantitative perspective. It also implicitly defines the limits of the object of demography (an issue that will be re-examined in due course) by emphasising that population movements can be partly explained by nuptiality and mobility. The analysis of these two factors is far more complex than the analysis of births and deaths since because of their reversible nature. Louis Henry, probably the best French demographer of his generation and the progenitor of key methodological advances in the field,[4] hardly ever ventured outside the realm of demometrics. In a paper on measurement in demography published in 1963, Henry emphasised the impact of the development of an apparatus of statistical data collection on demography: 'the creation of official statistics departments and services has contributed significantly to the emergence of demography as a full-fledged science. In other scientific disciplines, theoretical reflection, observation, analysis, and teaching are closely linked since it is the same person who reflects, observes, analyzes and teaches. […] Demography is a science in which observation is conducted by a specialized body. Specialization has resulted in very close links between demography and statistical services and in an excessive emphasis on observation at the expense of theoretical reflection and analysis, and has tended to isolate demography from the university system' (Henry 1963: 239–240). A similar view was taken by Daniel Courgeau, also a former student of the Ecole Polytechnique and the proponent in France of multilevel analysis: 'the object of demography is the quantitative study of human populations based on basic phenomena that cause populations to change, such as birth, spatial mobility and death' (Courgeau 2004: 208).

[4] The various contributions made by Louis Henry include the concept of natural fertility based on data collected among the Hutterites; the method of family reconstruction, which resulted in an upheaval of historical demography and a more detailed and accurate understanding of the demographic behaviours of populations before the age of censuses and the method of parity progression ratio, a handy tool for analysing fertility.

Sociologists specialising in epistemology have also naturally tended to subscribe to this view. The emphasis is generally laid on the predominance of the quantitative perspective in demography, that is, measurement and demographic analysis. Jean-Michel Berthelot refers to the 'close links' between demography and statistics (2001b: 209), links borne of 'the construction of categories, counting tools and summary tables'. He views statistical description and the rational organisation of data as primary and central within the discipline, with the notion of 'table' best reflecting this double concern (Berthelot 2001b: 209). From a more symbolic and anecdotal (though nonetheless revealing) perspective, the institutions involved in demographic research or education often opt for logos with some demographic significance, such as a population pyramid, a geometric excerpt from a Lexis diagram, or the line of a curve – in short the formal expression of a quantification.[5] This is to touch upon a key aspect of the identity of demographers. The ability to use the techniques of statistical and demographic analysis plays a fundamental role in shaping the construction of the identity of demographers in the sense that their skills in this area are often seen by outsiders as an esoteric language that represents an insurmountable barrier. Dogan and Pahre note that 'mathematical language and the jargon built around it, like other research languages, impedes communication between formal disciplines and makes transdisciplinary influence more difficult. […] Overquantification is at least as widespread as jargon' (Dogan and Pahre 1991: 50). This observation has been echoed by some demographers: 'The number crunchers develop by communicating amongst themselves, vying with each other in statistical virtuosity' (Gérard 1985: 15–51). We will return to the primacy of the quantitative dimension in due course since, while demography is a science firmly based on numbers, the tendency to reduce the field to mere 'accounting' (the term used by Achille Guillard) has been met with increasing resistance in recent decades. While some demographers object to 'the frenzy of quantification' (Loriaux 1985: 55–129), others note with regret (if not bitterness) the secondary interest of demographers in theoretical matters (Tabutin 2007: 15–32).

3.2.3 Beyond Quantitative Description: Demology

The Greek term *graphè*, meaning 'to describe', is indicative of the descriptive dimension of demographic analysis, with the word 'demography' thus literally meaning 'the description of the people' (Rowland 2003: 16). The political function of demography, in the sense that it is conceived by the political authorities as having to serve their purposes by informing public policies or as enlightening the Prince, requires demography to produce data and indicators in a systematic and

[5] See, for example, the INED logo, with triangles from the Lexis diagram, and the INSEE logo, based on a stylised curve.

organised framework. The point is to produce a meticulous description of the state of a given population, but not to explain the underlying causes. An assessment is given, and, at best, consequences will be inferred, or future trends will be forecast based on various projections and prediction models. The descriptive dimension is invariably fundamental, be it in reference to the current or future state of the population. Unlike ethnography, which subsequently tended towards ethnology and (later) anthropology or sociology, that is, disciplines with a clear explanatory purpose from the outset, demography has been conceived as a descriptive discipline and resists the temptation of becoming a '*demology*'. I mention this change of terminology (Petit and Godard 2005) to encourage increased awareness within the community of demographers about a term that is no longer reflective of their practices, which are becoming increasingly more open to more interpretive and comprehensive qualitative approaches, or of the evolution of their discipline. An unsuccessful plea had already been made by Michel Loriaux in 1996 in calling for demography to become a 'global demology': 'Until now a mere form of arithmetic or counting of men, demography will need to be conceived as a full-fledged social science, no doubt a quantitative science but also an increasingly qualitative science that is both descriptive and increasingly comprehensive and explanatory – less causal and more systemic, less closed and more global, and less pure but also more human' (Loriaux 1996: 411).

The previous chapter showed that institutional developments in the second half of the twentieth century resulted in the emergence of demography as an autonomous discipline. The field of study of the new science became gradually narrower, with the new discipline seeking to delimit its territory by demarcating itself from its sociological, economic and statistical origins. A specialist in economic demography, Georges Tapinos noted in 1985 'that twenty years ago, a clear contrast was drawn between general demography and demographic analysis. Gradually, demographic analysis has come to be identified with the discipline as a whole. A point in favor of this development is the exceptional progress of analytical instruments. It remains that demography in the full sense of the term – i.e. the study of human populations – *is* a social science, in fact one of the social sciences most closely linked to other branches of knowledge, in which statistical induction cannot replace the formulation of hypotheses' (Tapinos 1985: 5). The improvement of measurement techniques was achieved at the expense of the expansion of the analysis of causes and effects. Unfortunately, Tapinos went no further nor did he draw out the full implications of his remark, especially the formulation of research questions and the construction of hypotheses.

Roughly at the same time, other demographers were raising the issue of quantification. Jean-Claude Chesnais clearly distinguished between two key dimensions of demography: 'pure demography (or demographic analysis) and broad demography, or social or "open" demography (demographic economics, demographic geography, etc.). The former is a technical activity, the application of statistics to human populations: its object is to record and to measure phenomena. The latter goes beyond measurement by examining the causes that generated the observed phenomena and their effects on population structures or socio-demographic behaviors'

(Chesnais 1990: 3). It is worth noting that the use of the adjective 'pure' describing demography implies that the discipline was originally perfect and that the mere fact of opening it up would only serve to sully it and to strip it of its ideal status. The implication is that only measurement is perfect in essence, whereas explanation, since it extends beyond the strict field of demography, is by its very nature imperfect because of its complexity. Yet Chesnais argued that it is important to go beyond measurement. The analysis of causes and effects and the search for explanations involving complex causal relations require a commitment that extends well beyond the strict confines of demography. An understanding of demographic phenomena requires firstly an examination of the interaction between demographic factors and non-demographic factors (Ross 1982: 147). Secondly, a description of the morphology of a population and an explanation of the mechanisms of its dynamics are only possible by 'reference to the social, economic and cultural characteristics of the observed society' (Rollet 1995: 7). The reduction of demography to demographic analysis implies the need to reconsider the relevance of defining a discipline based on the application of its methods. To focus on one of the aspects of the research process, to omit theory, to set aside the explanatory dimension or to underestimate the development of the field of demography are all equally problematic tendencies. All demographers emphasise the dual nature or focus of demography by drawing a distinction between the necessary quantification based on sophisticated methodologies and techniques and the importance of assigning meaning to numbers and of searching for both causes and consequences outside demography in disciplines that focus primarily on social, political, economic and cultural matters. The problem is that once their plea has been made, demographers (even if they explore neighbouring disciplines) generally fail to incorporate the attendant research questions, hypotheses and analyses based on an interdisciplinary combination of demography and other disciplines. Numbers are produced, possible causes are evoked and at best logistic regressions are established in order to highlight the importance of the various factors selected to explain (say) fertility. Similar observations have been made in Anglo-American demography, though more critically or at any rate without claiming to provide an answer. For example, Rowland (2003: 16) merely noted that the recent evolution of 'issues' (environmental issues, status of women, AIDS epidemic and applied demography) has required a 'shift of emphasis'.

In response to a question about the territory or proper remit of demography included in a survey conducted in 2000 (Chasteland et al. 2004), over 80% of demographers stated a preference for a broad definition that includes population studies to the detriment of a rigorous definition, that is, demographic analysis. In response to the question 'Do you think that it is important to explain demographic phenomena primarily by reference to other demographic phenomena or primarily through other factors?' Seventy percent of European demographers and 79% of North American demographers responded that demographic factors should be combined with other factors in searching for explanations, while one-fifth of respondents felt that demography explains demographic matters (2004: 80–83). This may at first sight be interpreted positively as the sign of a definite evolution of demography. However, we may question these statements of intent insofar as searching for

explanations outside the demographic field implies a profound change of perspective in research and practices. Openness to other sciences also largely depends on individual initiatives that may or may not be encouraged by the prevailing institutional context. The reactions of prominent figures show that openness cannot be taken for granted and that an approach that seeks to define demography on the basis of its core methods has continued to play a significant role in recent research (Caldwell 1996). For example, Massimo Livi-Bacci defined demography as a tool kit rather than a substantial science (1994), while Samuel Preston argued that methods are a 'fundamentally unique distinguishing feature of the field of demography' (Preston 1993: 593–606). Nancy Riley and James McCarthy shrewdly note that the recent change of the cover of *Demography* emphasises that demographic knowledge is derived from numbers and that demographic methods are quantitative, since the following definition of demography is given on the cover: 'The statistical study of human population' (Riley and MacCarthy 2003: 52).

It is perhaps worth recalling Michel Foucault's argument (2003) that the sciences pass through three successive explanatory stages: biological, economic and finally cultural. This chronological order is associated with a growing complexity involving a shift from an almost natural determinism to the richness and diversity of culture. Annie Vidal echoed this idea in claiming that demography 'has acquired the maturity of an autonomous discipline with strong links to statistics from its origins, which it preserved while gradually moving away from the biological model in order to establish itself increasingly as a social and human science' (Vidal 1994: 5). In the specific context of French demography, it is important to note the role played by Alain Girard[6] in the emergence of a department of psychosociology at INED. Girard succeeded Jean Stœtzel (Rosental 2006a)[7] who had inaugurated the department at the creation of INED and served as its head until 1970. Jean Stœtzel was a precursor since he 'organized psycho-sociological research applied to demographic problems and gave them a vigorous impetus (i.e. at INED)' (Girard 1986b; 1987: 208). Coming from a strictly literary educational background (with a doctorate on personal diaries), Alain Girard (along with Louis Chevalier and Jean Stœtzel) sought to counterbalance the weight of Ecole Polytechnique alumni (Louis Vincent, Alfred Sauvy, Louis Henry, Jean Bourgeois-Pichat) at a time when INED was involved in addressing a range of key social issues (housing, town planning, immigration, educational success). In a tribute paid to Alain Girard by Louis Roussel (1996)[8] after his death in 1996, Roussel noted that 'at a time when, in demography as in many other sciences, most researchers prioritized biological explanations, the fundamental contribution made by Alain Girard was to emphasise the importance of social factors and to shift the center of gravity of our working hypotheses from nature to culture'.

[6] Alain Girard was the assistant of Jean Stoetzel before succeeding him as head of the department of psychosociology.

[7] On the contribution of Jean Stoetzel to the development of social psychology in population research, see Boudon et al. (1981).

[8] Louis Roussel was Deputy Head of the department of psychosociology at INED.

It is difficult therefore to speak of a 'natural and social history' of populations insofar as the phenomena observed by demographers are invariably mediated by individual actions and intentions. The assumption is that demography needs to depart from biologistic models and evolutionist traces and to examine cultural facts, not natural facts. In a study conducted on the Guayaki Indians, the ethnologist Pierre Clastres illustrated this emphasis in his description of the birth of a child in the Amazonian night (Clastres 2006: 26–29). While they are both the outcome of a biological process, birth and death depend to a great extent on the context in which they occur – that is, the cultural context, the social context and the technical context. Research on measles, plague and HIV/AIDS indicates that the spread of and fight against these epidemics cannot be understood if the analysis is reduced to a strictly demo-epidemiological approach. For example, rituals, organisation of transport, pattern of settlement, burial practices, gender relations and representations of illness may be key factors in the spread of an epidemic. Societies are also prone to giving a cultural interpretation of the biological and genetic phenomena (twinning, sterility, hyper-fertility, genetic malformation) that resist their understanding. Their beliefs and representations inform and direct their behaviour. For example, twins are either adulated or feared in different cultures. In some West African societies, albinos suffer ill treatment and are hidden or marginalised within the community. To be born white in a black population exempt from miscegenation is explained by a supernatural explanation, ill fortune or the fault of the female parent. Anything that resists or defies understanding or anything that is deemed to be unacceptable must be rationalised. Morbidity and mortality have a deep societal meaning and significance.

3.3 The Variability of Disciplinary Boundaries in Different National Traditions

A number of scholars in the field (Crimmins 1993; Greenhalgh 1996; Keyfitz 1993; Poirier and Piché 1999; Teachman et al. 1993), especially on the occasion of journal anniversaries or conferences, have provided general presentations of the state of demography. Their accounts invariably emphasise the lack of theoretical perspective in demography (albeit to varying degrees) and reach two conclusions: very few theories have been directly produced by demographers, who have been forced to use theories or concepts elaborated in other disciplines (e.g. modernisation theory, push and pull theory, the concepts of culture and rationality), thus raising the question of the use of such theories or concepts in demography. The point was initially made by a number of demographers keen to see radical changes in their discipline. In 1995, Michel Loriaux expressed his regret at the relative isolation of demography within the social sciences and explained its isolation by emphasising the 'strategic choice' of the founding fathers of the discipline in seeking to develop a 'pure' demography that would confer upon it the status of a hard science. The intellectual sclerosis caused by the isolation of their discipline (so the argument goes) condemned demographers to borrowing from other disciplines theories and paradigms required

to explain population phenomena as a result of having failed to produce their own (Loriaux quoted by Poirier and Piché 1999: 7). However, these criticisms are not shared by all demographers. For Poirier and Piché, this applies especially to American demography and in particular to fertility studies (1999: 41–64). Because demography has evolved differently in the various contexts in which it has been practised, can one talk of different schools of demography? Frank Notestein notes that 'if each American demographer evolves along a partly unique path, the same must be said *a fortiori* of each national school of demography. Since the last quarter of the nineteenth century, the dominant social issue related to population studies has differed from one country to another: in the United States, for many years, immigration and race relations; in Britain, historical demography and the statistics of less developed countries; in France, the low birth rate and how to raise it; etc.' (quoted by William Petersen 2003: 15–16). Is this early assessment still relevant today?

3.3.1 The North American School

I shall focus on the substantial contribution of American demographers to the demography of developing countries, which displays two salient features of particular interest to this book. Firstly, in the study of fertility, macro-level research tends to be dominated by functionalism, while culturalism exerts the greatest influence at a micro-level. However, theoretical contributions derived from Marxism (especially the link between development and capitalism) and feminism (on patriarchy) have also significantly enriched the theories of fertility. Secondly, the contribution of American demography in the field of migration involves both conventional approaches (functionalist and neo-liberal schools) and more critical and innovative approaches (ethnosurvey).

3.3.1.1 When an Ethnologist Deciphers Demography

In a paper published in 1996, Susan Greenhalgh retraced the intellectual, institutional and political history of demography in the United States (Greenhalgh 1996) because American demographers represent the largest and (in her view) most influential contingent of demographers in the world. Because of her position as an anthropologist working in the field of population and her research conducted with demographers,[9] Greenhalgh is an authority with genuine legitimacy and cannot be charged of being defensive of anthropology. From the outset, she noted that critical histories of demography have already been conducted by other scholars and that some demographers

[9] Greenhalgh worked at the Population Council between 1984 and 1994 in the division of social science research and is a member of the editorial committee of the *Population and Development Review*.

have bemoaned the state of their discipline and that their portrayal of the demographers and of their motivations has been somewhat unflattering: as individuals they are blinded by class and gender preconceptions, and as researchers they are unaware of the fundamental methodological and theoretical issues contaminating their discipline in addition, they place their commitment to serving American politics above their academic integrity. Greenhalgh was referring in particular to the criticisms levelled by Demeny (1988a), Hodgson (1983) and Szreter (1993). She put these criticisms in context, searching in the process of institutionalisation of American demography for elements that may serve to explain the deficit of theory. Her initial premise is that there is nothing in the nature of the object of demography that was bound to result in the development of a distinctly mathematical discipline based on a weak theoretical foundation. Other types of demographers might easily have emerged, and other scenarios of population studies might have been elaborated. Why has demography taken the form that it has in the United States?

3.3.1.2 The Dilemma of the Demographer: Scientist or Expert?

Demography is characterised by an internal tension that is an inherent part of its dual identity as a social and political science involved in producing both knowledge as an end in itself and practical knowledge with a wide range of applications. While this duality is not specific to the discipline, it is particularly pronounced in demography because of the particular historical circumstances surrounding its birth. When the American university institution was consolidated in the late nineteenth and early twentieth centuries, five core disciplines formed the social sciences (economics, psychology, anthropology, sociology and political science), while demography only emerged as an autonomous discipline in the 1920s and 1930s. Until then, scholars with an interest in population issues had no specific status or regular funds – in short no institutional security. Demography had yet to acquire the social status, intellectual authority and material resources that were required to establish itself within the realm of the university.

Demography also inherited very close ties with politics and political movements. Associations in favour of birth control, eugenics and limited immigration subsidised demographic studies and used the results of these studies to support their arguments, pursuing objectives and agendas that were not those of academic intellectuals. Demography was forced to assert its academic position by simultaneously embracing and denying its intimate ties with politics and politicians. Since it could not exist without the financial support of associations, the private foundations and the state (in particular for access to data), demography from the outset defined its field of investigation and theories based on the specific needs and time constraints of its clientele, and responded and adjusted to demand as and when required. In order to establish itself as a science, demography also distanced itself from politics, going so far as to stamp out any link or tie, while simultaneously emphasising its mathematical foundations, a key source of prestige and scientificity (Greenhalgh 1996: 30–31). In other words, demographers keenly aware of this weakness (i.e. of not being a *pure*

science and of lacking ambition by comparison with the other social sciences) reversed the stigma by accusing these very same disciplines of a lack of scientificity, with mathematics serving as a scientific guarantee for demography. Closure and confinement were thus part and parcel of the history of the discipline from a very early stage. The same observation actually applies to other national contexts.

This tension is clearly apparent in the textbook *The Study of Population* by Philip Hauser and Otis Dudley Duncan (1959), a classic for generations of students. In Greenhalgh's view, the main aim of the book was to prove that demography has the characteristics of a pure science, as shown by the following excerpt: 'a sharp division of labor must be effected between research with its related scientific activities and "social engineering" behavior directed toward the formation or implementation of policy (…). The preponderant proportion of demographers (…) recognize that their function is that of pursuing and finding knowledge rather than that of preoccupation with policy formulation, program administration, and problem solution. These latter, it is recognized, are the tasks of the social engineer and not of the social scientist'. Hauser and Duncan, who enjoyed a level of authority within their discipline that is beyond dispute,[10] expressed, as she nicely put it, 'the nub of the issue in a rare moment of candor': 'since the recognition of demography as a discipline in the administrative framework of universities, demographers are sometimes slightly marginal with respect to their home disciplines (…) A large part of the demand for the services of a demographer as a professional person is of an extra-scientific character (…) Much of the research and publication generated by this demand can be said to have only incidental value, at best, as contributions of "science" (…) The professional environment of the demographer, therefore, is one that has certain unusually stimulating features but at the same time one that has certain distractions from the pursuit of science (…) On the whole the goal of building sciences constitutes a subordinate and less than autonomous motive' (Hauser and Duncan 1959, quoted by Greenhalgh 1996: 31–32). The question that arises is whether demography is a science on a par with the other social sciences or whether it is merely a 'tool kit'. In short, are demographers researchers or experts?[11] The interesting point – perhaps more so than the answer to this question – is the mere fact that the question is raised at all, and in addition that some demographers are aware of this original crack and have sought to repair it by elaborating legitimation and recognition strategies derived from the world of science. While the professional role of expert has become increasingly widespread in recent decades in the public sector and the world of business, it has contributed in a very specific way to the development of demography and to its institutional consolidation, perhaps at the expense of the academic expansion of the discipline.

[10] For example, Otis Dudley Duncan was president of the Population Association of American in 1969.

[11] In France, Pierre Georges (1959) demonstrated this point in a paper published in 1959 entitled 'La démographie, une science humaine appliquée'.

While it is defined as a social science, demography is generally required to construct and to defend theoretical frameworks designed for practical applications in response to the institutional demands of its financial backers, such as reproductive health. As such, the theoretical frameworks developed in demography are more of a response to standards of utility (e.g. enabling the implementation of programmes with the development of indicators) than to intellectual standards. Financial backers have no interest in theory since their aim is to fund studies and surveys rather than research to obtain measurements and indicators that will enable them to define development projects and to evaluate them. A complex or refined paradigm would clearly be a handicap since it would be both more difficult to apply (in the sense that it would involve more variables and more interactions between variables) and more difficult to turn into a political message. The theory of democratic transition provides a good illustration of the demand for practical application and implementation.

3.3.1.3 A Success Story: The Theory of Democratic Transition

The theory of demographic transition occupies a large part of the theoretical field of contemporary demography and has largely contributed to shaping its specific boundaries and directions, particularly the demography of developing countries. Various factors ensured the success of the theory after 1929. The evolutionist bias of the theory predicts that countries pass from a pre-transitional stage (traditional) to a post-transitional situation (modern), the decline of the birth and death rates being explained by 'modernization characterized by the development of "urbanization, industrialization, increased standard of living, a generalization of education and popular participation in political life"' (Notestein 1982: 651–687). The model conceived the Western way of life as the reference model, allegedly superior, an approach perfectly acceptable to American and international financial backers, the former being largely funded by the latter.

The national and international ideological context has also been very favourable to the reception of this highly ethnocentric theory. The Cold War, decolonisation and population boom all served to create a general atmosphere of fear. Susan Greenhalgh notes that Princeton demographers were not content with developing their own theoretical framework but also took an active role in its dissemination and reception in political circles. After World War II, demographers such as Frank Notestein[12] and Kingsley Davis, in outlining the political risks to the United States of a spectacular demographic increase of southern populations (Asia and Latin America in particular) to key decision-makers, were able to position demography as a discipline that was considered to be indispensable for controlling this evolution. As a result, they were able to secure their position for decades to come, with the

[12] From 1949, Frank Notestein became one of the staunchest proponents of family planning.

theory of democratic transition serving as their pension fund. The conjunction of a particular demographic and political context and the operationalisation of the theory of demographic transition produced what Greenhalgh refers to as 'the family planning industry'. The institutions of demographic research,[13] but also demographers as individuals, greatly benefited from the godsend that blessed the world of demographers in the golden years between 1960 and 1980. Her analysis of the editorial content and articles published in *Demography*, the journal of the Population Association of America, is illuminating. The legitimation of family planning as a full-fledged object of demography fully reflects the demographer's dilemma, since it is an object of application of demography before being a research object. In 1975, Paul Demeny founded (not without some difficulty) the *Population and Development Review* based at the Population Council with the aim of promoting a broad approach combining several disciplines in order to take account of interactions between sociological, economic and demographic factors and by including the study of factors relating to demand in terms of family planning. The new journal signalled the opening of demography, while the Population Association of America and its journal *Demography* played the role of guardian of the temple.

The application of the theory of demographic transition became a highly profitable endeavour, a development that had a number of scientific consequences. Demographers began to focus on the reduction of fertility and the rationality of decision-making rather than the general context in which such decisions are made. The theory also implied a renunciation of any historical perspective. The general aim of demographers was to solve problems rather than to develop a highly elaborate theoretical framework. This emphasis also implied a greater interest in the conditions of modern contraception use than in the motivations governing the use of contraception by individuals and couples. The difficulties encountered in the operationalisation of projects or the inadequate results of population policies, particularly in Africa, might even be said to have favoured key advances. The limits of pure quantification became clear, with demographers turning to economists and anthropologists to seek for explanatory or interpretive models of human motivations. David Kertzer and Tom Fricke (1997a) recalled that the project of the Office of Population Research at Princeton University, directed by the demographic economist Ansley Coale from 1963, aimed to test the theory of modernisation in European countries from a historical perspective. After two decades of research, it was clear that the paradigm had failed. The classic explanatory variables of the model (urbanisation, schooling, industrialisation, infant mortality) were unable to account for the decline of fertility in Europe. The failure of the paradigm compelled demographers to rethink their model, particularly by considering the role of cultural factors in demographic change.

[13] The Rockefeller Foundation funded one of the research projects conducted by Frank Notestein in China in 1949. Between 1951 and 1961, private foundations such as the Ford Foundation developed and largely supported activities in the field of population. In the late 1960s, the American government created the USAID. Alongside major universities such as Princeton, Michigan and Berkeley, research centres on population issues also emerged.

This is not to say that the quantitative and statistical approach was radically challenged – on the contrary. Paul Demeny argued that the United States Agency for International Development (USAID) contributed significantly to the development of an industrial mode of research by emphasising a quantitative and standardised research format that could be easily replicated anywhere in the world. He was implicitly targeting the programme of demographic and health surveys,[14] which he referred to as an 'industrial research model' (Demeny 1988a: 451–479). Standardisation is pushed to the extreme, be it in terms of methodology, development of questionnaires or format of the report, with a view to enabling regional and international comparisons. The demand for measurements of changes in demographic behaviours turns the process of data collection into a highly profitable business since it implies the need to conduct surveys on a regular basis. Socio-demographic surveys have become an incontrovertible source of data for anyone working on fertility, health, child mortality or AIDS in developing countries. By contrast, nuptiality or adult mortality is rarely included in these surveys since they are not the key priorities of development agencies.[15]

The success of the theory of demographic transition and the resulting paucity of theoretical production – after all, why seek to create a new theory if a profitable system can be perpetuated? – can also be explained by the institutionalisation of demography within universities (Greenhalgh 1996: 46–50). In the 1960s and 1970s, American demographers benefited from the security provided by their position as professors, associate professors or assistant professors. Their institutional status meant that they benefited from the good working conditions offered by universities (offices, libraries, networks, seminars) while remaining firmly independent from them since they were subsidised by external bodies. The effect of the ambivalent position of demographers was to isolate them from the other social scientists, who did not share their utilitarian concerns. Their relative isolation meant that the majority of demographers were cut off from key advances in neighbouring disciplines. As a result, they remained largely unaware of the criticisms levelled against the theory of modernisation in the 1960s and 1970s, just as they missed out on the various theoretical developments linked to gender, postmodernism and deconstruction. They were de facto excluded from the crises and intellectual ferment affecting the social sciences during this key period. In addition, the sociological references used by demographers have tended to be somewhat dated and have been widely criticised and even altogether abandoned in their field of origin, despite still being used in demography. The birth of anthropological demography can be explained in particular by the desire of some demographers to close the gap in order to breathe new life into their discipline. The structure and reduced

[14] For more details on these surveys and their derivatives, see http://www.measuredhs.com

[15] A module focusing on the reconstruction of the nuptial life of women, previously included in the programme of the World Fertility Survey, was thus abandoned. Since the 1940s, the usual typologies in the Caribbean had been modified (married, unmarried, divorced, widow) to take account of multiple partnership. The WFS considerably enriched data collection and provided new input into the vast debate surrounding matrifocality, thus opening demography to the question of gender (see Yves Charbit 1987). These questions disappeared following the shift to the DHS (Demographic Health Survey).

size of the demographic world have also fostered a culture of strict self-discipline. Demographers generally avoid openly criticising or challenging the work of their fellow demographers. A spirit of loyalty and community has developed within the discipline that is hardly conducive to the emergence of competing schools of thought. For Susan Greenhalgh, as a result of the marginalisation and confinement of the discipline through quantification pushed to the extreme, demographers communicate only among themselves. Demographers also fail to draw sufficiently on advances made in other social science disciplines or at best respond belatedly to them. Greenhalgh hypothesises that the technicist bias was designed to discourage researchers in the other social sciences from entering the field and to avoid any encroachment on the field of population.

3.3.1.4 The Population Council: The Private Sector and Ideology

Among the private institutions that played an increasing role in the formulation of population questions and the implementation of population programmes, the Population Council, created over half a century ago, has become a centre of reference in the field, while the review that it has supported since 1975, the *Population and Development Review*, has come to play a central role in research on the relations between population and development. The declared aim of the journal is to promote a deeper understanding of the interactions between population and socio-economic development and to provide a forum of discussion on public policies.

In June 1952, at the initiative of John D. Rockefeller III, a conference on population issues was held in Williamsburg under the auspices of the National Academy of Sciences. The conference was attended by roughly 30 delegates from the social and biological sciences. The demographers present at the conference included Kingsley Davis (Columbia University), John Hajnal and Frank W. Notestein (Princeton University) and Pascal K. Welpton (Population Division of the United States Census Bureau). The conference resulted 5 months later (in November 1952) in the creation of the Population Council. The philosophical and intellectual positions at the origin of the foundation can be traced in various documents (Population Council 1977: 493–502). The report published at the close of the Williamsburg conference clearly highlighted rapid population growth as the main problem, the theoretical perspective being the optimum of population (1977: 494). While the issue of food supplies was raised, it was recommended that it should be addressed alongside the full range of relevant social and economic factors. Particular attention was paid to the case of India, although decline of fertility in the West and Japan was not overlooked. The situation of the United States was also addressed, for two main reasons: firstly, the agreement was based around the fact that all countries experience population problems and, secondly, that it was difficult to speak of the problems of others if we failed to pay close attention to one's own.

This led to a sharp awareness of a potential bias: 'the discussions at the conference had presented a particular point of view – which might be called the "Western

Protestant" point of view. In the world as a whole, this was a minority point of view' (Population Council 1977: 496). 'Quality' of populations was also addressed. In the terms of the discussion conducted at the time, by reducing the process of natural selection, modernisation would enable an increasing number of individuals to survive and procreate. As such, it was felt that research on heredity was required. Less than 10 years after the end of the World War II, this kind of language is somewhat puzzling. However, while the need to act was beyond doubt, a number of participants emphasised that population measures should not be viewed as a form of interference by the United States in the internal affairs of other countries. This argument was a plea *pro domo*, justifying the role of NGOs. The link between the internal situation of the United States and population measures was constantly emphasised: the negative role of the Catholic Church, which was seeking to limit the debate over these subjects, the need to promote understanding of population issues among the American general public and the inclusion of these issues in university biology and geography courses in addition to what was already being taught in sociology courses. The various types of measures proposed by the participants converged on a unique and avowed purpose: the reduction of fertility. Particular emphasis was put on the importance of conducting research on cultural change, on the need for experiments aimed at identifying cultural barriers impeding the use of contraceptives, on the means of making birth control acceptable and on raising awareness among the elites. The potential role of UNESCO was emphasised on the question of culture. Concerning research on the physiological processes of reproduction, the pharmaceutical industry was also viewed as a source of funding. The most modern strategies (research training, communication training, development of research in the field of the social sciences and biology, use of advertising, etc.) were examined to ensure the efficiency of future programmes.

In short, the mandate of the future Population Council was clear: to study the problems generated by population growth throughout the world, to support research and the dissemination of the results of research, to serve as a forum for the exchange of ideas and data and discussion and to cooperate with individuals and institutions involved in the implementation of population programmes. However, despite the stated need to take account of the cultural dimension and the diversity of institutional actors, William Petersen notes that in the 1960s and 1970s, the population policies supported by the American government and private American agencies were 'remarkably similar in spite of the wide divergence in such key variables as the countries' population size and density, their family types, the cultural practices affecting their fertility, and the level and rate of growth of their economies' (Petersen 2003: 87).

3.3.1.5 Concerned Demography: A Stillborn

A little-known episode of the history of American demography, that of Concerned Demography (1969–1974), highlights the difficulties encountered by those seeking to change the discipline by shifting its boundaries and adopting a more

reflexive perspective. At the annual meeting of the Population Association of America held in 1969, students from the universities of Cornell, Wisconsin and Michigan founded a group called the Concerned Demographers 'this loose fellowship of citizen-Demographers was concerned about the political implications of demographic research, the unexamined assumptions underlying the field's research and training activities, and the threats to scholarly integrity posed by heavy dependence on government and foundation funding.' Far from seeking to break away from American demographic circles, the new group aimed to have an impact on prevailing practices, in particular by sponsoring sessions of the PAA. Their strategy also involved the publication of a journal entitled *Concerned Demography* based at the University of Wisconsin. The journal published highly varied material, particularly assessments of the practices 'of the family planning establishment' and criticisms inspired by Marxist, feminist and human ecology approaches and therefore very foreign to traditional demography. This radical posture reflected the general mindset that reigned on campuses and involved an unhesitating and even clandestine transgression of the boundaries of the discipline with a view to stepping outside the areas described by Mattei Dogan and Robert Pahre as being "saturated" in order to benefit from "external fertilization"' (Dogan and Pahre 1991: 55). The project was poorly received in the milieu since the general view was that the young members of the new movement went beyond what was deemed acceptable by publicly revealing the torments of demography. In 1969, O.D. Duncan, then PAA president, informed the dissidents that they were free to leave the organisation if they were dissatisfied with it. His call to order sounded the death knell for the movement and was reflected by a decline of institutional support, gradual loss of funds and increasing pressures on the movement, with personal careers at stake. The journal eventually disappeared after 30 issues, and the group dissolved.

This episode signals the triumph of the demographic establishment, which was very reluctant to accept the active presence of critical dissident voices. Any attempt at reflexivity was discouraged precisely because it was foreign to the disciplinary tradition of demography. Greenhalgh mischievously quotes Avery Guest describing the personality of demographers: 'Most demographers, especially male, are super straight…. Due to their relatively conventional personalities, demographers tend not to be troublemakers…. They largely accept conventional issues, including research topics and approaches…. It is my observation, in contrast, that many academic sociology departments are filled with "deviant" personalities, often attracted to the study of society by a preoccupation with their alienation from it' (Guest 1994: 87). While Guest's portrayal is to some extent a caricature, it also suggests the possibility of subtending pressures aimed at reaching a consensus on the method and objects of research in demographic circles.

American demography has been constantly concerned with the legitimation of the discipline in relation to other social science disciplines. While it has been constantly affected by the debate between formal demography and population studies, it has taken a resolutely social direction in the last 20 years. The conclusion reached by Susan Greenhalgh requires some qualification since, despite its concern

for recognition and its proximity to the financial backers, American demography has generated a particular school of thought, anthropological demography, that puts the practices of demographers in radical perspective, suggesting a degree of intellectual ferment in the field of population research.

3.3.2 The French-Speaking School

Demography in the French-speaking world emerged very rapidly as an autonomous field. In French-speaking countries, demography has been far less connected to funding sources than it has in the United States and other English-speaking countries, thus enabling diverse branches to develop. Demometrics has generally prevailed and as a result demographic analysis has often been given a central role in French demography. However, original social demography often combined with sociology or history has also flourished.

3.3.2.1 Historical Demography

Historical demography entered the field of population research in Europe between the 1950s and the 1980s and expanded in particular in France (Smith 2003: 484–490). Fascism and Nazism prevented a rapprochement between demography and history, while in English-speaking countries, history has been made to compete with economics, in particular the new family economics, in addressing population issues (Rosental 2006b: 8–9). In 1958, Louis Henry organised a large-scale survey covering entirely France, using an original method, so-called family reconstructions, based on parish registers. The main aims of the survey were to reconstruct the age and sex structure of the population of France to determine the evolution of mortality before 1830 (the so-called pre-statistical period) and to study nuptiality and the evolution of fertility at a time when 'man is almost defenseless against illness, and in which, with a few exceptions, he leaves to nature the business of determining the number of children' (Henry quoted by Seguy et al. 2001: 6). The first monograph, examining a Norman village now famous among demographers (Crulai), was published in 1954 (Gautier and Henry 1958). One of the results was the development of the concept of natural fertility, used to determine the number of children produced by couples not using contraceptives – a question that would have direct repercussions on the study of population growth in Third World countries. It was later used to measure the effectiveness of the fertility reduction policies implemented during this period and the potential demand for contraception based on the gap between desired and actual fertility. It is worth noting that in the name of a so-called time/space equivalence, demographers unscrupulously applied a concept elaborated from a highly specific context, modern Western Europe, to a radically different context, that is, developing countries, in spite of the technical impossibility of determining past fertility trends in developing countries because of a lack of data sources.

From the 1980s onwards, the supremacy of that particular type of historical demography was challenged by historians such as André Burguière. The 800 monographs produced on the basis of Louis Henry's model were running out of steam from the point of view of the cumulativity of their contributions, which were nonetheless impressive (Séguy 2001: 76–78; Renard 1997). As noted by Pierre-André Rosental, the strategy developed by the *Annales* School, totally independently of INED, was 'to produce knowledge about the largest and most anonymous social groups and to promote history to the status of a science through quantification'. However this positivism and the statistical productions of historical demography ultimately disappointed historians, who brought about both a change in method – the advent of Italian *micro historia* – and a change in the objects of research, since social history shifted from the study of fertility to the study of maternity, for example. Finally, in France, while history reappropriated population questions by reformulating them, anthropology was not involved in the elaboration of the object 'population'. By appropriating population as a specific object of research and by defining itself exclusively in relation to it (the science of population), French demography claimed exclusive competence (even the monopoly) to produce knowledge about this object, while the harnessing of population by demography in other countries was less obvious and less totalising.

3.3.2.2 The Montreal School: History, Anthropology and Demography

The demography of the Montreal School was heavily influenced by the research in economic anthropology on West African societies conducted by Claude Meillassoux, though it also served as a significant extension of French historical demography on populating questions. Dennis Cordell notes 'the significant contribution of anthropology in the text by Meillassoux on Inuit societies, in the wake of the approach developed in the book *Femmes, Greniers et Capitaux*, which marked the course of demographic thought of the Montreal School' (Cordell et al. 1993). The contribution of anthropology resulted in particular in the concept of demographic regime. Meillassoux articulated domestic relations (nuptiality and fertility) and wider economic structures (the workforce of young people and the reproductive capacities of women are controlled or exchanged by elderly men) to account for the social reproduction of a society. French-speaking Canadian demographers therefore suggested 'studying population reproduction as a coherent sub-set – a regime – formed by various demographic components (fertility, nuptiality, mortality, migration). All of the phenomena that combine more or less directly to adding or subtracting members to or from society are therefore part of the whole: we cannot understand one without understanding the others and without understanding the social process that structure them' (Cordell, op.cit.). Consequently, what is needed is a dynamic analysis at a macro-level, an interdisciplinary historical approach, the use of the notion of strategies for the analysis of itineraries at an individual and family level, the recognition of the central place of women in the study of the articulation of the demographic regime and the different social structures and finally of the unveiling of the key political issues at the heart of demographic questions.

This approach was subsequently criticised (Lockwood 1995, 1998) in particular because Claude Meillassoux incorporated human reproduction and social reproduction within the same framework. Matthew Lockwood has argued that a distinction between biological reproduction, reproduction of the labour force and social reproduction needs to be made since they operate at different levels, are not perpetuated through the same institutions and evolve at different rhythms according to specific economic and technological conditions. For example, social reproduction implies the transmission of the control of resources from one generation to the next through the medium of individuals. The analysis of this process requires an examination of property, land tenure and access to education and power. The changes affecting these institutions may be entirely independent of the material conditions of human reproduction. The second criticism levelled against Meillassoux's explanatory framework is that it presupposes the total submission of women to the system, implying that women have no room to negotiate and have no access to certain resources. The Marxist anthropologist incorporates the analysis of rural societies in a social system of male domination without considering key factors of change such as mobility, diversification of economic activities and modern fertility control, which alter both the structure of society and gender and intergenerational relations.

Beyond these criticisms, this school can be credited for its attempt to take account of the various components of population dynamics, based on a historical and anthropological contextualisation. In recent years, the pre-eminence of this research perspective in Montreal[16] has gradually declined in favour of a return to more traditional demography, with the departure (retirement, death or professional mobility) of some of the key individuals who had originally developed and promoted the project. This fall from grace provides a good indication of the difficulty of promoting a genuinely interdisciplinary approach strictly in line with the dictates of traditional demography. The destiny of such innovations is largely dependent on the career of its individual proponents and on their capacity to ensure the institutional and scientific perpetuation of their project at the margins of dominant disciplinary thought. It also seems reasonable to posit that a Marxist-inspired approach will be viewed as a relatively unfashionable type of argument in an ultra-liberal North American context and a relatively inefficient strategy for fundraising.

3.3.2.3 The Louvain School

The Louvain Institute of Demography was founded in 1968. As a result of the circulation of demographers between the Catholic University of Leuven and INED strong ties soon developed between the two institutions. French demographers (including Dominique Tabutin) were recruited in Belgium, while Belgian demographers worked

[16] As shown by a presentation of the provision of demographic training given by Thomas Legrand (a professor of demography at the University of Montreal) at the International Population Conference in Marrakech during the side meeting organised by the UNFPA.

in France as part of their training (Guillaume Wunsch, Hubert Gérard and Christine Wattelar). According to Michel Loriaux, the proximity to INED resulted in a relatively narrow framework of demographic thought in the early days of the institute: 'at the origin of our institute, the range of choices was highly restricted, since our young founding fathers were heavily influenced by a very limited view of demography, perhaps largely inspired by the principles of the French school of demographic analysis. There was no question of departing from the three main basic phenomena. Even nuptiality was tolerated only as a permissive phenomenon of fertility…. Fortunately the Bucharest message and the calls for openness resulted in a broader vision of demography…' (Loriaux 1996: 407).

Michel Loriaux was one of the key agents of the expansion of demography at Louvain. With a touch of provocation and a heavy dose of irony, Loriaux has constantly sought to pinpoint the main foibles of his discipline in recent decades: the frenzy of quantification, the lack of openness and the lack of theoretical ambition. He has also consistently resituated the specific position and contribution of the Louvain school in the wider landscape of the evolution of demography. To summarise his analysis, he concedes that a strict definition of demography initially enabled the discipline to assert itself within the social sciences, rising almost to the status of a hard science, but that the claim subsequently became a cause of deadlock. Loriaux regrets that demographers failed to reap the benefits of this period 'of scientific glory in order to develop comprehensive or interpretive paradigms – not to say explanatory paradigms – of population facts'. The effect of disciplinary closure was to make demography 'a science held as a hostage, i.e. a science dependent on the goodwill of neighboring disciplines, e.g. economics, sociology, anthropology, etc., and borrowing interpretive frameworks or theories that are never its own creation'. Loriaux reacted strongly to the analysis conducted by Louis Henry (1963), for whom 'demography had no mechanisms to describe since illness and death were the preserve of medicine, reproduction was the preserve of anatomy and physiology, and marriage the preserve of sociology or ethnology, so that beyond statistical observation, the only remaining preserves were doctrines and theories of population…'. Since demography has no mechanisms to describe and therefore no causal relations or consequences to analyse, it follows that it is merely 'a set of mostly automated and computerized techniques, and might be claimed as an integral component of the universal heritage owned jointly by the entire scientific community' (1996: 408–409). Loriaux clearly highlights the danger for demography of limiting itself to demographic analysis, a temptation linked, as was said, to its ambition of being a hard science. To focus on measurement and to avoid the more perilous endeavours of theoretical and interpretive research result in the loss of any legitimate claim to being a science. The ambition of being a hard science is a completely vain desire or unrealistic dream since 'the reality of social facts is always too complex to fit into the framework of simple (and sometimes extremely simple) models, of which our hard disciplines are particularly avid users'. According to Loriaux, while the attraction of simplicity can be explained by the reassurance it provides, it is also entirely detached from reality, a reality that 'ceases at some point to allow itself to be twisted'.

As a result of this critical discourse, also illustrated by Dominique Tabutin though in somewhat more diplomatic terms (2007), Louvain demographers have sought to expand their sphere of reference by turning to English-speaking demography. While the point is still to defend the rigor of demographic analysis, it is required to fit into the broad approach of population studies. According to Loriaux, the Louvain School can be credited with having produced a synthesis of the Anglo-American approach and the French school of demography. Under the aegis of the United Nations in the mid-1980s, the Catholic University of Leuven hosted the International Center for Research and Training in Population and Development (CIDEP). Beginning in 1991, an internal restructuring process resulted in the creation of the department of population and development sciences. Its aim is to provide postgraduate training (masters, doctoral school) and to conduct interdisciplinary research in demography and development. The department is supported by the Institute for Development Studies and the Institute of Demography. In 1995, the CIDEP was transferred to Rabat in Morocco. This French programme focusing on population and development has contributed to establishing the reputation of the Louvain demography department, which has trained a significant number of French-speaking (particularly African) demographers, thus competing with French Canadian and French universities. In addition to training, a summer university is devoted to reproductive health issues and based on funding provided by Belgian cooperation and the support of UNFPA, a course that is currently experiencing some difficulties and that will probably be reorganised by merging with French partners (CEPED). As in Montreal, the continued provision of population and development training at Louvain is becoming an issue for a number of reasons. The generation of demographers who initially developed and promoted the project is gradually reaching retirement age, and their successors (if they have any) will no doubt adapt to this heritage in their own way. Last, the strengthening of Latin American, Asian and African Universities dried up the flow of foreign students, who constituted the majority of enrolled cohorts.

Finally, it is impossible to evoke the demography department of the Catholic University of Leuven without referring to the Quetelet Chair. Attended by participants of different nationalities with an interest in population sciences, the chair was first held in 1974 on the occasion of the world population year and the hundredth anniversary of the death of the Belgian statistician and demographer Adolphe Quetelet (Tremblay 1983). Following the events marking the anniversary, the department of demography decided to hold an annual meeting for demographers on a specific topic. The Quetelet Chair represents a major intellectual landmark in European demography.

3.3.2.4 The French-Speaking African School

The French-speaking tradition south of the Sahara is heavily marked by the French school of demographic analysis embodied by the *Institut de Formation Régional en Démographie* (IFORD).[17] Poirier and Piché (1999) describe the

[17] Source: http://www.iford-cm.org/spip.php?article65. Consulted on April 5, 2010.

French-speaking African school, like the Latin American one, as being 'marginal' by comparison with the American and French-speaking schools in developed countries (France, Belgium, Switzerland and Quebec). Its marginal position is clearly indicative of its dependence on its financial and academic backers, who do not require it to be technically or theoretically innovative but merely efficient in responding to the demo-economic challenges of development in Africa. More generally, its marginality is indicative of the current state of science and research in the poorest developing countries, where it is not a priority.

However, it developed a critique of family planning and adopted the dependency theory in the field of migration (Poirier and Piché 1999: 57–58). These two critical approaches emphasise the specificity of the African context, particularly family organisation and social logics. The sociocultural focus is used in particular to account for the continued high level of fertility in Africa and Africa's delayed demographic transition. This alleged specificity has since been widely discussed. While African demographers have contributed to these debates and while fieldwork in Africa was used to test theoretical approaches (dependency theory, demographic regime, articulation of modes of production and modes of reproduction), it remains that theoretical debates tend to be conducted without ever consulting African actors. For instance, the emphasis on cultural specificity has not resulted in any detailed theoretical and methodological reflection on the measurement and the definition of culture, on the development of qualitative approaches in demography and on the articulation of demography and anthropology. These concerns have remained the privileged object of demographers and anthropologists in the north, with African countries remaining privileged sites for experimentation. From this point of view, the contrast with historical research is striking.

The history of IFORD is indicative of the difficulty of establishing a demography that is independent of institutional pressures. The institute was founded in 1971 in Yaoundé by the United Nations and the Cameroon government following a recommendation by the Council of Ministers of the Economic Commission for Africa. The institute was designed as a response in the early days of the post-colonial period in the 1970s to the concerns voiced by international institutions about the importance of maintaining an efficient statistical system capable of ensuring the durability of census and survey systems. In 1982, IFORD became a regional institute primarily at the service of the 26 African countries where French is the official working language and with representatives on the board of governors. IFORD was academically affiliated with the University of Yaoundé II in 1993. In 1999, following the withdrawal of direct funding from UNFPA, IFORD became an intergovernmental institution. During this period, it experienced a severe institutional and financial crisis that considerably damaged its reputation after having established itself as a centre of reference in demographic training in Africa. Throughout these years, IFORD had provided training to several hundred African demographers, enabling national statistics institutes to benefit from high-quality human resources. In 2006, a symposium bringing together member states, partners and friends of IFORD issued in a rebuilding process that eventually resulted in the definition of new statutes.

As a result of this reform, IFORD's missions were significantly updated. The new leadership team was entrusted with the responsibility of implementing a strategic plan over the period 2008–2011 aimed at giving a new impetus to the institute, with three main objectives: to provide training to specialists in population sciences, to conduct research on population issues and to provide technical support to member states and partners. Besides the definition of the institutional and financial dimensions, the purpose of the overhaul was to rethink teaching and research in demography in line with international academic standards. As a result, IFORD has developed key partnerships with multi- and bilateral institutions and organisations with an interest in population and development issues and which provide key funding. As a result of being forced to adjust to international standards, the teaching team now includes university lecturers who have all undergone doctoral training. The current provision of training includes postgraduate training in demography and has developed increasingly close ties with research projects. Besides training, IFORD also provides expertise in the collection, treatment and analysis of demographic and social data and in the development and implementation of population policies. Despite the recent redirections, the crisis has continued at IFORD for a number of reasons (including the difficulty of securing the financial contribution of member states, the weight of the gerontocratic system, the departure of several high-level researchers and the effect of personal consultancy activities). Ultimately, no scientific policy has emerged, while competition with other West African institutes and universities has become increasingly more intense (Ecole Nationale Supérieure de Statistique et d'Economie Appliquée in Abidjan, the Institut Supérieur des Sciences de la Population in Ouagadougou), and demography has become firmly established in English-speaking African countries (African Population and Health Center in Nairobi, University of the Witwatersrand in Johannesburg).

3.4 Openness or Dissolution?

This chapter showed how the boundaries of demography are not as clearly defined or as stable as one might initially think. While the heart of the discipline, or the 'anchor point' of demography (to use the term employed by Jean-Michel Berthelot), is clearly identified (statistical description, demographic analysis), the contours of the discipline appear to be far more blurred and unstable (Berthelot 2001a, b: 208). Finally, the definitions of demography tend to vary according to national traditions and schools. Some have clearly opted for population studies, some remained faithful to the traditional focalisation on demometrics and some tried to conciliate the two branches of the alternative. The line of demarcation between demographers is built around the tension between a formal demography centred around the 'core of procedures and references' and a more open form of demography, generally referred to as population studies, which tends to question the primacy of methodology. It is important to recall the original warning by Achille Guillard concerning the risks of an excessive emphasis on counting, which carried within it the seeds of this internal rift.

Language is crucially important here. In the first case, the same name is given to the discipline, whereas in the second case, it is the specific object of research that is emphasised (population). The implication in the latter case is a relative dissociation between the object and the discipline of origin, an openness which in my view is unjustly denounced as a 'dissolution' or appropriation of the object by researchers in other disciplines. This tension is indicative of the process of 'contemporary pluralisation and complexification' at work within the social sciences. For example, research on the question of ageing, while it is emphasised by demographers and by the production of population pyramids, or research on the question of the deficit of girls in some regions of Asia based on the analysis of sex ratios, birth rates and demographic structures eludes the discipline when research investigates the causes and consequences of this process. The definitions presented in this chapter tend to be caught between two forms and two contents: pithy and tautological definitions (demography is the science of human populations) on the one hand and on the other hand far broader definitions that aim to explain the definition of the demographic object. Given this variation, the following chapter will focus more specifically on the construction of the object 'population' and the related epistemological implications.

It was beyond the scope of this chapter to account for the lively national demographic schools (India, Latin America, England, China…). It focused on the French school and those likely to have been influenced by it, notably the French-speaking Canadian, Belgian and African ones. However, since I discussed the various forms of articulation between demography and anthropology, I began this chapter with North America, where anthropological demography progressively asserted itself as an alternative to hardcore demography. The following chapter critically discusses the quest of the Holy Grail of purity within French demographic circles.

Chapter 4
An Object Called Population

4.1 The Concept of Population in Historical Perspective

Demography is generally and exclusively defined as the study of population or human populations, based on methods designed to analyse the structures and the dynamics of populations and their key demographic events (births, marriages, deaths, migration). This appears to be the common objective of all members of the demographic community. Against the grain of the standard definition of demography, a closer examination of how the notion of population was conceived significantly complicates the matter: firstly, the notion itself is not univocal; secondly, the specific type of demographic analysis and the specific focus of research questions and objectives will depend on the underlying conception of population and, in turn, on the wider intellectual context; thirdly, it is not merely that population predates demography, since it has not always been the central object and exclusive preserve of demography – however, much the two terms, that is, demography and population, may appear to overlap.

In its long history, the concept of population has been used for significantly different purposes in political philosophy, moral philosophy and economics. It is only recently that the term has been appropriated by demography, which only emerged as a nineteenth-century autonomous discipline. The contours of 'population' as an object of research are thus far from self-evident and are far more blurred and ambiguous than the common use of the term may suggest. Far from being a natural or spontaneous reality or indeed a purely scientific concept, population is first of all a philosophical and political construct. However, retracing the entire history of the concept would require detailed research involving a whole range of disciplines (history of ideas, moral and political philosophy, political economy, sociology of knowledge, etc.), as shown by the very detailed analyses conducted in recent years by Philip Kreager and Yves Charbit.

V. Petit, *Counting Populations, Understanding Societies: Towards an Interpretative Demography*, Demographic Transformation and Socio-Economic Development 1,
DOI 10.1007/978-94-007-5046-3_4,

In a paper on the historical development of theories of population, the former noted: 'The history of population as a problem in Western thought is viewed as a long process of progressive refinement: the many ingenious measures of the political arithmeticians are seen as flawed by the poor data, moral preoccupations, and primitive mathematics with which they worked; the rise of modern population theory, analysis, and statistics appears then as a gradual shedding of misconceptions as past writers came closer and closer to the concepts we use today' (Kreager 1991: 208–209).

According to Kreager, this failure can be explained by the specific directions taken in the history of population research. The first line of inquiry considers the various thinkers in the history of population thought by the yardstick of Thomas Malthus from a demographic perspective. Secondly, current population theories generally ignore the wider intellectual context, partly because in the sixteenth, seventeenth and eighteenth centuries, very few writings that addressed population issues were presented explicitly or directly as population doctrines or theories. Instead, population questions were generally discussed as passing considerations related to another object of inquiry. Finally, the intellectual history of population ideas was writen independently of the history of quantitative methods despite the fact that 'the application of science – and especially mathematically informed science – to human problems is, of course, a quintessentially Western intellectual tradition'. Kreager's aim is to write an integrated history specifically designed to remedy all of these deficiencies. Along the way, he shows for instance how the theory of demographic transition, particularly through the concept of individual choice, reflects many of the concerns addressed by the earliest modern thinkers and how mere quantification emerged as a central concern.

The purpose of this chapter is to show that several conceptions of the notion of population have existed and that they continue to coexist in current research. Firstly, I start from research conducted by a small number of contemporary scholars (Philip Kreager, Yves Charbit, Hervé Le Bras) who have analysed the conceptualisation of population or the origins of demography, often from an epistemological perspective, in order to reconsider the core or heart of demographic analysis – the Holy Grail of purity. Secondly, I argue that demography has never achieved such purity, but that the price it has had to pay has been very high since the object 'population' has often been reduced to mere measurements. The theoretical work carried out by advocates of the quest for purity provides a good indication of the extent to which epistemological and methodological questions that entail a renunciation of purity have tended to be eluded. Finally, I show that the focus on the notion of the individual has narrowed the scope of research, which I contrast with the possibilities opened by multidisciplinarity. In line with previous chapters, the following pages will show that the notion of population is inextricably linked to territory and state, thus reflecting the deep link between demography and politics.

4.2 Population: A Plural Concept

4.2.1 The Greek Origins of the Concept

While the term 'population' derives from the Latin term populus, the term 'demography' is rooted in Greek civilisation, demos being the Greek term for population. A brief return to Greek philosophy is required because Greek philosophy had a decisive and long-term impact on the Western intellectual framework, as the matrix of the modern human and social sciences, including demography. Any history, however brief, of demographic thought must begin with some reference to Plato, who is often quoted as one of the forerunners of demography. While Aristotle is less commonly invoked, there is significant evidence to suggest that his work is more relevant than Plato's for understanding the emergence of the modern concept of population.

4.2.1.1 Plato and the Ideal City

Plato has often been viewed as a precursor of demography on account of his assessment or estimate of the size of the ideal city (around 5,040 citizens) but also because of his practical solutions designed to ensure that the number of citizens remained stable, whether fertility regulation, including infanticide, the choice of partner and the age at marriage, or migrations. In his work on the history of population thought, Charbit (2002, 2010) has critically examined the claim that Plato was a precursor of demography, commonly based on the often quoted number of citizens in the city (5,040) and various policy measures, which have been viewed as a form of population policy. A summary of some of his analyses is provided below.

The fundamental issue for contemporary demography is to determine whether Plato's thought concerns the concept of population as such or the city. In Plato, the usual avatars commonly associated with population are shot through with major ambiguities – and in some cases, with significant contradictions. Firstly, the concept of population defined as the size of a given entity (in this case, the city-state of ancient Greece) bears little resemblance to the modern concept of population. To assess the demographic size of the city, Plato only counts the number of citizens, excluding slaves and aliens despite the vital economic role they performed in the city. The figure of 5,040 citizens given by Plato is therefore of little use for reflecting on the balance between population and resources. While it may be useful to seek for precursors of demo-economic theories among the mercantilists, the Physiocrats, Cantillon, Malthus or Marx, Plato's philosophy has little to do with the economic sphere and is primarily political, as is very clear in the Platonic conception of space, which differs significantly from the conception commonly prevailing in demography, generally construed in terms of the relationships between population and land

or population and mobility. Plato suggested a spatial division of property characterised by a concentric urban structure based around the Agora designed to ensure that every individual property was equidistant from the political and religious heart of the city. Last, in Plato's population control policies – namely, legal age at marriage, a limited time span for childbearing, abortion, emigration and colonisation – there are blatant contradictions between the Laws and the Republic. As such, it is difficult to make a case for Plato as a demographic thinker. More interestingly, the many discrepancies and contradictions of his thought in this area soon vanish if his work is read exclusively as belonging to the domain of philosophy and more specifically political philosophy. Plato aimed to give a philosophical legitimacy to the organisation of the city by starting out from a fundamental problem – the question of justice. However, he was also an anti-democratic polemicist deeply hostile to Athenian democracy, to which he preferred the strict hierarchy of Sparta. This explains why philosophical reflection on the city conceived as a system of political organisation is far more central in Plato's work than the concept and reality of population.

For example, the ideal number of citizens (5,040) – though a reflection of the place of mathematics in ancient Greek thought (in music, philosophy, astronomy) and the influence of the Pythagoreans in the life of certain cities – was largely based on the fact that it is divisible by 12, a number which has a clear religious connotation. The religious dimension is fundamental in this respect: 'Before being a civic division of society, the tribe for Plato is the twelfth of the population due to each god. (…) The obligatory rotation in the exercise of the duties of magistrates and guardians is based on twelfths, i.e. on the basis of the twelve religious months'. The practice of dividing into twelfths is opposed to the division into tenths implemented by the short-lived Cleisthenian revolution of 507 BC. Cleisthenes defined the Agora as a central civil space in preference to the ancient religious organisation of the heart of the city. Plato's return to a duodecimal system clearly positioned him within the traditional social order in opposition to democracy. Similarly, stationarity has a distinct political significance and purpose: 'The city must not change since any change implies decadence (…) The reference to Sparta, where the Doric order prevails, is crucial: Sparta, and not Athens, is deemed to be the city best able to stop the process of decadence and represents the closest embodiment of Plato's political beliefs. In the Republic (as in the Laws), Plato argued that the best regime is timocracy, a regime found in Sparta and Crete' (Charbit 2002: 242–243). For Plato, the issue was not to quantify or estimate the population or to impose a qualitative control of the population – based in particular on the selection and education of elite warriors and guards – but to develop an ideal concept of the city founded on philosophical knowledge. For Plato, the best guarantee of the political order of the city was to ensure that men are in the image of the city, that is, fair and temperate. The idea of a homothety between the individual and society, itself built in the image of the gods and the cosmos, is clearly unrelated to the modern conception of the individual. It follows that the concerns about eugenics raised against Plato are founded on an anachronistic reading of Platonic thought.

Plato rarely, if ever, conceptualised the notion of population, and it is in itself an epistemological aberration to criticise the pseudo-demographic incoherences found in his work and to describe his ideas as demographic. Therefore, we may legitimately

ask why Plato is of interest to the modern reader. Firstly, insofar as he established a close connection between the individual and the city, Plato may be said to have paved the way for a conceptualisation of population. Today, the individual is defined as the central conceptual unit in demographic theorisation. An atomistic conception of the population, which still largely underestimates other levels, therefore tends to prevail in contemporary demographic thought.[1] Plato showed how behaviours are overdetermined by supra-individual political factors. In Plato's time (and indeed today), the constraints imposed on individuals are presented as legitimate since they reflect decisions defined at a political level (based on Weber's principle that the state has the legitimate monopoly on violence). As noted above, Plato's aim was to justify the right for the city to transform individuals at their very core by resorting to eugenic measures. Plato raises a very modern issue, the ethical legitimacy of research, when it goes as far as genetic modification of the individual. Collective value systems are also imposed on individuals. In the Western tradition, the contemporary concept of population tends to be defined within a largely secular framework. However, attempts to rethink the concept of population from a religious perspective have recently re-emerged as a result of the impact of Islamic fundamentalism. Plato provides a textbook case of this tendency since in his view, all population-related issues are governed by a political philosophy that has a distinct religious flavour. Finally, while a whole range of modern ideas linked to the concept of population, such as identity, residence, mobility and national affiliation to a political body (mainly the nation state), have been the objects of allegedly objective research, Plato provides a useful grid for elucidating the underlying politicisation of modern population thought, so vigorously denounced by the advocates of an anthropological reading of population issues.

4.2.1.2 Aristotle: The Idea of Open Population

In this area, Aristotle is far closer to our modern conceptualisation of population by virtue of his more empirical, albeit less profound, work. In his re-examination of Aristotelian thought, Philip Kreager argued successfully that Aristotle needs to be seen as a highly innovative thinker in the history of population theory (Kreager 2008: 599–629). Themes and concepts developed by Aristotle are of relevance both to some of the main issues facing contemporary societies, especially social and ethnic diversity, integration of migrants, mobility, social inequality, social disaffiliation, and to the current context of globalisation, the development of new communication technologies, the importance of networks, etc. Kreager has highlighted population or subpopulation membership, an Aristotelian concept that is a key constituent of political organisation: 'how several subpopulations contributing to the polis are

[1] We will see in due course that multilevel analysis remains within demography and hinders any consideration of the issue raised here.

created by patterns of human association that bring people together, divide, and reconfigure them. Migration, inequality, and effective communication are major factors shaping the size, the composition, and identity of population memberships. Conscious control of fertility and mortality follows these patterns of association: differences between memberships determine their relative needs for children and the means appropriate to controlling group size. The processes that establish the size, composition, and cohesiveness of subpopulations are thus not variables dependent on macro-level economic or other forces: they are the major factors determining the type of political regime and prevailing economic relationships' (Kreager 2008: 622).

As in Platonic thought, population in Aristotelian thought is defined firstly in relation to those with full rights as citizens and, in particular, the right to participate in the life of the city. However, because of his highly pragmatic approach, Aristotle was careful not to overlook the reality of Greek city states and emphasised two other groups in addition to the 'primary' population (citizens themselves divided into social classes, i.e. the oligarchy, the middle class and the poor): the slaves and the foreigners residing in Athens, the metics. Although the latter are declassified both politically and socially, their role within the city is nevertheless recognised. They are all deemed to contribute to the running of the state in a very specific way and at a particular level. The challenge for the state is to form an assembly of these groups despite their distinct natural characteristics. The state needs to achieve a balance by fostering relations of solidarity within and between subpopulations while preserving the distinct identities and attributes of every group. Inequalities in Greek cities were based fundamentally on citizenship since access to citizenship defined the power and influence of each group. Those who were able to secure power aimed to strengthen their influence by capitalising on the economic and political opportunities that were available to them. The power games of the privileged minority thus served to shape the social and material inequalities affecting the population as a whole and to determine demographic differences in mortality, reproduction and mobility. The power of a subpopulation was therefore not directly dependent on its demographic weight but rather on its particular political and economic attributes.

The relations between citizens and other groups were a second key issue addressed by Aristotle in addition to the monopoly of power held by the oligarchy. The sociopolitical configuration implicitly raises the issues of social mobility and integration in the highest group of members of other subpopulations that have achieved socioeconomic success or of migrants. What are the conditions required to ensure that the general balance is not disrupted by the integration of other groups or individuals? What are the kinds of relations that need to be fostered with migrant populations? As noted by Philip Kreager, it is difficult for a modern reader not to recognise themselves in the terms of this debate: what economic and political rights should be granted to migrant workers? What place should a state grant to refugees and to what extent should the practice of naturalisation be encouraged? Aristotle conceived a population as an open and heterogeneous whole and not merely as an aggregate of individuals. He may be said to have developed a political, and even an organic vision of population, insofar as he examined the nature of the relations

between subpopulations required to enable sound governance and to ensure the perpetuation of the state. Aristotle may therefore be said to have foreshadowed a founding and recurrent focus of sociology: the question of the foundations of a society (integration and social cohesion) and the attempt to determine the social, demographic and economic processes that produce differences between distinct groups and the strategies used by groups to organise themselves in order to perpetuate and consolidate their social positions. Beyond the question of numbers, Aristotle also examined the capacity of states to optimise the human resources (qualities) structuring their population, the organisation of social relations and the fluidity of identities in processes of social recomposition. Aristotelian thought on population, particularly the concept of open population, contrasts markedly with the prevailing conception of national populations in the early nineteenth century. By defining a population as a group of equivalent individuals – citizens living within the confines of a national territory with clearly defined frontiers in an established and stable state, the early nineteenth-century conception of population inevitably led to a more rigid analytical framework (i.e. a stable and closed population) but allowed in return for the use of data collection methods (censuses, large-scale surveys) and analytical tools that were both highly efficient and compatible with the democratic ideology. According to Kreager, the effect of this fundamental shift in the concept of population was a lack of interest in questions relating to population heterogeneity and in the integration of new subpopulations. Both became more difficult to address for methodological reasons linked to the new political conception of the unit of analysis – the individual conceived not as a subject but as a citizen on a par with other fellow citizens – and the broader analytical framework, where the emphasis is on unifying processes. As a result of the emergence of nation states, the concept of population was definitively established and almost essentialised on the basis of an identity model. This brief overview of Greek thought has served to establish two important points: from the outset, there was no unique or exclusive conception of the idea of population; a reflection on the concept of population appears to be a necessary stage in political thought insofar as a population is both an object and a means of governance.

4.2.2 Population: Subject and Actor

4.2.2.1 The Modern Use: An Abstraction Generating Ideological Controversies

In *L'invention des populations. Biologie, idéologie et politique*, Hervé Le Bras notes that 'to conceive a population as a group of human beings present on or attached to a given place is a recent and very specific idea that may be said to have been invented in the modern era' (Le Bras 2000a: 13). He begins by reconsidering the etymology of the term in the Roman Republic: 'Populus refers to a section of citizens sharing power with the senate and as such is a large political entity, the equivalent of the Greek

demos. Plebs refers (as it does today) to the lower or inferior section of society in a pejorative sense. […] Various shifts in meaning occurred under the Empire. Populus became increasingly synonymous with plebs, almost to the point of meaning the mob, since the old political distinctions lost their meaning and were replaced by an administrative hierarchy. […] It was not until the late Empire that the term populatio appeared in Low Latin in the sense of a census of men or households, generally the citizens of a town, replacing the five-year census of the Republic' (Le Bras, op.cit.).

Le Bras emphasises two important points. Firstly, he re-examines a point made by Norbert Elias concerning the tyranny of the predicate in European languages. As soon as the term 'population' emerged, it could be used as the subject of a sentence (Ellias 1991). A population could be embodied or 'anthropologised' as if it were an actor of history and came increasingly to be perceived in these terms. Examining the specific uses of the term, Le Bras notes its absence in France until the second half of the eighteenth century. Until roughly 1750, writers with an interest in issues related to demography in the modern sense of the term, especially Mirabeau, Quesnay, Bodin, Vauban and Montesquieu, generally used other terms such as 'peoples, races, populating, depopulation, the lower classes ['*bas peuple*'], number of inhabitants, subjects or abundance of men'. No mention was ever made of population as such. By contrast, since Bacon, the term 'people' in Britain had increasingly come to reflect the modern sense of population 'since it combines both the people and the nobility and therefore all inhabitants from an accounting point of view in contrast to another accounting point of view, i.e. the production of food, or riches enabling the purchase of food. The accounting point of view was definitively established in England at the end of the seventeenth-century with political arithmetic'. According to Le Bras, an entire century separated the use of the term population in England and its use in France because of the specific English political context – a context deeply marked by the impact of Hobbesian political philosophy, the belief in empirical science based on theoretical principles inspired by political philosophy, the greater continuity of English society and the effect of the Civil War on the rise of egalitarian ideas (Le Bras 2000a: 19–21).

In France, the term '*population*' entered common parlance after 1750 (Mirabeau, Rousseau, Quesnay, Moheau) and was directly linked to new intellectual and conceptual developments in politics. A comparison of *Qu'est-ce que le Tiers Etat?* by Emmanuel Sieyès and Essay on the Principle of Population by Thomas Malthus or the Tableau de la France by Jules Michelet provides a good indication of the dynamics of the use of the terms 'people', 'race' and 'population'. While an exhaustive summary of the detailed analyses conducted by Le Bras is beyond the scope of this chapter, it is worth quoting an important comment he makes on Malthus: 'The "population" is not a mere quantification, as Sieyès defined it, but an abstract substance endowed with great plasticity and capable of freeing itself from the concrete circumstances of the existence of human groups, which are transferred to the "people" in various aspects. Malthus draws a distinction between hunters and pastoralists and goes so far as to speak of "tribes", while he uses the term "nation" to describe the societies surrounding him, "the most civilized nations". […] While it is clear that Malthus's geometrical and arithmetic series are nonsense, they may

nonetheless be said to enable a use of "mathematics" that "peoples" prevented. In return, the peoples become the receptacle of the non-mathematical, a qualitative realm that is increasingly the refuge of the irrational' (Le Bras 2000a, b: 26–27). These peoples would later become the object of another discipline, anthropology. Le Bras thus showed that 'population' preceded 'demography' and that the term 'population' was constructed and shaped ideologically under the pretence of science designed to serve the purposes of specific demonstrations, and it has continued as a result to carry a whole range of negative implications to this day.

4.2.2.2 Population and the Control of Society

It is thus clear that politics was a key determining factor in the development of demographic concepts. In his work on the development of state power and the way in which the state gradually began to discipline individuals and populations, Michel Foucault (2009: 278) re-examined a fundamental difference between Francis Bacon and Niccolò Machiavelli. The latter's aim was to describe the ideal prince, his attributes and strengths and the various games he must be able to play, such as concealing his weaknesses, showing strength and appearing to be fair or on the contrary unfair. An altogether different kind of calculation emerged with Bacon: 'It is a calculation that appeared on both capital and real elements, (…) i.e. the economy. According to Bacon, the calculation of the government must relate to riches and their circulation, to taxes, duties, etc. – these must be the object of the government. We therefore have a calculation relating to the elements of the economy and a calculation relating to opinion, i.e. not the appearance of the prince, but what happens in the minds of the people who are being governed. The economy and opinion are (…) the two fundamental elements of reality that a government will need to manipulate'. The possibility of performing calculations is founded on statistics, which etymologically means 'the knowledge of the state, the knowledge of the forces and resources that characterize a state at a given point. (…) All of these data and many more will now constitute the basic content of the sovereign's knowledge. What characterizes the reality of the state is thus no longer a body of laws or the capacity to enforce them when necessary, but the full range of technical skills and knowledge' (Foucault 2009: 280). Alongside the development of this particular type of knowledge, there also emerges the need to protect the new forms of knowledge from enemies or rivals of the state. So it is that the notion of state secret emerged, with 'the need for surveys, therefore, that are in some sense coextensive with the exercise of an administration, but the need for a precise coding of what may be published and of what must not be published. This is what was known at the time – and what was explicitly part of the raison d'Etat – as the arcana imperii, the secrets of power, and statistics in particular were long considered to be secrets of power that should not be disclosed' (Foucault 2009: 281). Foucault's interpretation is debatable and requires significant qualification. State secrets existed long before the emergence of statistics and have an altogether different origin. A secret may come from the appropriation of the prerogatives of gods by

the political authorities. Beyond the matter of the origin of a secret, it is also important to emphasise that the development and management of information requires the establishment of a community of experts or specialists. Furthermore, the collection of data is not merely a sign of the reflexive knowledge gained by the state. Competition between states, which developed in the sixteenth century in Europe, established the need to acquire information about rival states for defining foreign policy and increasing or maintaining a position of dominance. Competition between countries favoured the development of statistics, enabling a state to compare itself objectively with other states with regard to population, the army, natural resources, production, trade and monetary circulation. Thus, statistics were 'the self-knowledge of the state, but equally knowledge of other states' (Foucault 2009: 323).

Foucault goes further than Le Bras in establishing the key links between state and population. In reflecting on the enforcement of discipline and the practices of control and imprisonment imposed on individuals by the state, Foucault is constantly faced with the core element, that is, population: 'The state cannot be dissociated from the set of practices that resulted in the state becoming a way of governing, a way of doing things (…) with regard to obedience and submission, to truth, surveys and the public, there is an element that is both, shall I say: present and absent (…) this element is the population' (Foucault 2009: 282–283). The development of the notion of population between the early seventeenth century and the mid-eighteenth century is directly linked to the emergence of administrative practices (edicts, measures, rulings), reflecting Foucault's well-known concept of 'governmentality'. This led to 'the emergence of the problem of population in new forms. Until then, fundamentally, the focus was not on population so much as populating or depopulation' (Foucault 2009: 356–359).

4.2.3 The Contribution of Political Philosophy: Power, Sovereignty and the Individual

In his search for the origins of the concept of population, Yves Charbit (2010) takes a different standpoint to Foucault's. Firstly, any society is faced with three vital needs: the need to ensure its reproduction, the need to ensure its economic survival and the need to establish a system of political organisation. Charbit sets out to analyse the origins of the concept of population viewed as the best solution to this triple constraint. Secondly, while it is commonplace to observe that the relations between politics and population have been explicitly posited throughout the centuries,[2] the real issue is to determine how these relations have been conceived and understood.

[2] Indeed, population size and growth have often been invoked in order to strengthen or challenge power: power is founded on population growth, which in turn is the sign of a good government. The assertion of a depopulation of Europe since antiquity was a veiled criticism of absolute monarchy, but the argument has a more general significance: in the exercise of power, any bad government will diminish the power and happiness of the nation. However, it is important to go beyond the notion of the future of subjects as evidence of the efficiency and effectiveness of a government, that is, to develop what are known today as demographic indicators.

Until the eighteenth century, the idea of population was part of two main theoretical and conceptual fields – political philosophy and moral philosophy, supplemented in the eighteenth century by the nascent political economy.[3] The emergence of the concept of population was governed by some of the fundamental issues raised in these disciplines, such as sovereignty, power, the conflict of interests and the emergence of individualism. Today, it is common (especially in demographic research) to posit distinct levels of observation and analysis: the individual (micro-level), the family and sometimes the community (meso level), the country or the international system (macro-level). However, well before the emergence of demography as a full-fledged discipline, political philosophy had already conceptualised the relations between the state, the family and the individual. Throughout the centuries, analyses of power and of its legitimacy, and of sovereignty, were conducted by political philosophers who gave significantly different and sometimes conflicting answers to these questions. In 1521, Grotius followed the Aristotelian tradition: children are under the authority of their parents because they have no capacity for discernment, but parental authority loses its raison d'être when the child leaves the family. Against the royalist Robert Filmer, a supporter of Charles I who assimilated political power to family power,[4] John Locke argued in his Two Treatises on Government in 1690 (followed in 1740 by Pufendorf) that the two forms of power cannot be assimilated, positing that it was a duty rather than a power. Viewed from the perspective of the concept of population, this distinction shaped the clear distinction between the various levels of analysis. Political power was not only different from family power but was also superior to it. But what of sovereignty? Today, it goes without saying that any state, however, weak, is sovereign. In 1576, Jean Bodin, the inventor of the theory of absolute sovereignty, argued in his Six Livres de la République that sovereignty in the private sphere (the sovereignty of the father) is just as absolute as sovereignty in the public sphere (the sovereignty exerted by the king over his subjects). Sovereignty draws its legitimacy from itself. Demography inherited from political philosophy a fundamental dyad, which provided an implicit structure of populations: there is always a chief (the king or the head of the family) who embodies one of the poles of the relation of subordination. Household surveys start with the head of the household, who is required to list all household members under his authority. However, this has drawbacks when dealing with atypical cases. In surveys and censuses conducted in West Africa, the demographer must be satisfied with mediocre information when forced to ask the heads of concessions (sometimes elderly men) to list the 60 or 80 people under his authority, including children for whom he is unable to provide a name or age.

Property (a central concept of political philosophy) contributed significantly to the emergence of the concept of population. Firstly, thought on property is inseparable from the question of the political and social organisation of space, particularly

[3] Much of what follows on political philosophy is borrowed from Charbit.

[4] In *Patriarcha*, Filmer argued that Adam, as the first man and the father of humanity, was granted an absolute power of control and domination by God and that this power has been transmitted from generation to generation, right up to present-day sovereigns.

in Plato. For 'it is essential for the running of societies to firmly embed individuals in a clearly delimited space identified as property'. Property is clearly linked to power through the classic distinction between the control of things (dominium) and the control of men. In the Middle Ages, when the religious order prevailed over the secular order, scholasticism posited a common divine origin to the double power over men and things to ensure that the riches of the lower world would not escape the church, following the old adage that charity begins at home. From the sixteenth century onwards, sovereigns in Europe sought to hold both powers. Grotius and later Pufendorf developed the concept of the eminent domain: the king has a right above his subjects but must in return ensure respect for property. It is thus not surprising that the population censuses conducted in France under the Ancien Régime were based on the number of distinct households or family groups attached to clearly identified homes. After the 1789 Revolution and the assertion of the right of property independently of any religious legitimacy, the theory of property contributed to the conceptualisation of population, to such an extent that in the nineteenth century, demographic thought argued that fertility, mobility and to a lesser extent mortality depended on proprietorship. The equal division of estates introduced by the *Code Civil* was supposed to encourage peasants to reduce the number of children to ensure that their land would not be divided up at every succession. By contrast, and precisely because he was landless, a labourer was necessarily 'irresponsible': he was exceedingly fertile in view of his meagre resources, he was also geographically unstable and he was destined to an early death.

Since it aimed to strengthen the exercise of power, political philosophy ran the risk of conflicts and divergences between individuals and the power holder. Hobbes's Leviathan and Rousseau's idea of a free social contract implied an atomistic conception of society that had profound implications: to assign the same political weight to every individual entails counting them as distinct units, thereby paving the way for demography. However, this was only made possible by the works of Grotius (1625), Hobbes (1651), Samuel Pufendorf (1672) and above all Spinoza (1670), which resulted in a radical challenge to absolutism throughout Europe. In his Tractatus Theologico-Politicus, Spinoza showed that religion and philosophy were two different orders and that freedom of thought in no way excluded faith. Spinoza's revolutionary work showed that the authority of religion should remain a spiritual form of authority, which amounted to undermining the religious foundation of temporal absolutism. In short, there can be no abuse of power in the name of faith. This was a remote though decisive factor in the emergence of the modern concept of population. In the sixteenth and seventeenth centuries, the king of France still viewed his people as an undifferentiated and almost amorphous mass in which individuals were not conceived as subjects. As a result of the dissent heralded by political philosophy, the subject was decisively established as a central and fundamental concept in the eighteenth century and above all in the nineteenth century. Because they no longer had a divine legitimacy, the political authorities could no longer condemn the behaviours of individuals, especially adultery and illegitimacy ('bastardy'), or even contraception and abortion, in the name of religious morality. Admittedly, throughout the nineteenth century and even in the twentieth century,

religion was instrumentalised by various governments with a view to controlling the behaviour of individuals. But what the challenge to absolutism enabled was the emergence of individualism or more precisely the idea that not everything can be analysed exclusively and necessarily in relation to the prince. The concept of population was thus able to emerge fully because the recognition of subjects facing the prince was established. In short, 'if we want to perform a serious archaeology of the concept of population, this is where we need to start digging' (Charbit 2010: 160).

4.2.3.1 Rationality Filtered by Political Economy

Charbit goes on to document the shift from homo economicus to homo demographicus from Adam Smith to Malthus. Population entered the modern era as a result of its theorisation by political economy, a process that paved the way for modern demography. The influence of economics can still be felt today in the approach adopted, whether consciously or not, by most demographers. While population facts are construed and analysed as research questions or issues, individual demographic behaviours, such as procreation, the choice of a partner or migration decisions, are examined in the light of a supposed rationality. The assumption is that demographic behaviours are based ultimately on a rational calculation. In other words: what are the advantages, for me, of altering my behaviour, or in other words, what is the cost of change? The implicit presupposition of this approach is that the economic logic is universal and the economic dimension thus represents the final determinant, sweeping away any cultural dimension or specificity. Even when they focus on local contexts and in particular on systems of representations, demographers rarely depart from an interpretation based on rationality. I would argue that the emphasis on rationality entails a close association between population, problem and modelling. When demographers examine demographic trends with a view to providing the political authorities with a basis for reflection and action, they need to view individuals as rational beings exclusively intent on improving their well-being. Well-being is in turn defined by economic criteria: increase of income level, access to consumption, saving and investments and good health to ensure high performance levels. If rationality is taken for granted, individuals are evidently able to respond positively to the population policies implemented in order to reduce (for example) a level of fertility that is denounced as being too high. A population must therefore comply with models of being and behaving promoted and disseminated through information campaigns. The point is to act in order to protect oneself in order to enjoy good health, to reduce fertility in order to increase one's standard of living with the same income levels, to migrate legally in order to obtain social welfare, etc. The rationalisation of behaviours also presupposes extreme normativity. Guiding behaviours in one direction or the other implies that one knows what is good for a given population. Demographers contribute more or less directly to shaping the image of what is a good migrant, a good patient, a woman or a responsible couple.

My argument goes further. It is impossible to construct medium or long-term models without being committed to the belief that the individuals who make up a

population are capable of making constant judgments and assessments because economic rationality implies a capacity for self-projection and self-determination based on a given end or objective. The assumption is that individuals never make decisions that involve their future (e.g. getting married, having a child, having a sexual relation) based on a sudden impulse, urge or desire. To quote the phrase used by the sociologist Raymond Boudon (2003), there must be a 'good reason' for a given behaviour, that is, a cause that can be made to fit into a framework and be modelled. However, 'real life' is somewhat more complex. Demographic surveys and the failures of certain population policies suggest that some individuals are probably incoherent and undisciplined and are often prone to be subversive and to baulk at having to adopt the solutions devised for them and their own good, that is, in their own interest.

4.2.3.2 Conceiving Population as a Problem

To parody the title of Karl Popper's All Life is Problem-Solving (Popper 1997, 1998), we might posit that all demography is problem-solving. Our brief historical overview has recalled that the rationality hypothesis had significant implications, since by determining the methodological choices of the discipline, it contributed to forging the analytical frameworks of demography and the resulting research products, thus often influencing policymakers. Charbit, Foucault, Kreager and Le Bras converge on a major point: population is considered first of all as an obstacle, a problem or a factor in a social, economic and political equation that needs to be solved, a vision that deeply permeated the Western mental universe and contributed to structuring political and economic thought in the internal management of European states. Later it took a much larger dimension, when European states began to impose their vision of progress on the rest of the world. Population, which was an obstacle to development in the twentieth century, has come to be viewed in the twenty-first century as a major cause of environmental problems.

This vision has also been disseminated throughout the opinion of Western laymen, as shown by statements such as 'there are too many Chinese or African people' or 'the planet can't feed everyone'. In the 1970s, Western couples have pushed this reasoning to extreme lengths by choosing not to have children in order to preserve the future of the planet. The point is not to discuss the truth or relevance of the opinions of the 'man on the street', which tend to reflect the views of the media and scientists, but to underline the widespread acceptance of this framework of thought. However, a number of dissenting voices have emerged in recent years.[5] Indeed, by removing it from the mould in which it was shaped, the ethnocentrism of the idea soon becomes apparent. Having worked in Western Africa for over 20 years, I can witness that this vision of population is not an accurate reflection of the reality

[5] Following Boserup (1965), there is ongoing work in France by Luc Cambrezy and Gabriel Sangli.

and representations of this particular region of the world (Petit 1994; Petit and des Robert 2004).

The idea of population as a problem is fundamental since it has had a profound impact on the development of demography and the way in which demography is represented and presented to outsiders.[6] It does not define itself as a science with high-flying ambitions, pursuing knowledge per se, but rather as a technique aimed at solving problems and providing solutions. Because of this constant stand, demography has had no other option but to operate as a purveyor of data aimed at producing solutions that will help to understand and manage an unsatisfactory or dangerous situation that needs to be resolved. Almost naturally demography has been fully incorporated into an evolutionary, universal and positivist framework, and demographic changes have tended to be presented as major advances and as a sign of progress for mankind. It is clear that even before demography emerged in the nineteenth century, population was already closely and directly associated with the state, both at the level of administrative practices and of the exercise of sovereignty. While it has continued to this day, the close link between demography and the state has taken less explicit and more ambiguous forms throughout the centuries. Indeed, the results of censuses or surveys being no longer state secrets or a mirror of the nation, demographers and politicians have become increasingly keen to emphasise the need to respond to 'social demand'. A point has been reached where individuals and NGOs, up to now objects of study, have become actors of demographic research. Civil society is viewed as a new source of legitimacy for producing knowledge. Politically, this gradual shift may foster the illusion that having received the sanction of society or of its self-proclaimed representatives (e.g. associations, NGOs), demographers can break the ties linking them with the political sphere and the risk of being manipulated by the institutions that represent order. Researchers have acquired greater legitimacy to intervene among their fellow citizens. While this issue is not the object of this book, it would merit further analysis. For example, an increasing number of researchers in the field of international migrations or reproductive health have sought in recent years to emphasise the high level of acceptability of their surveys among migrant populations in Europe and populations in the African countries whence they originate. According to them, surveyed populations believe that the studies in which they are required to participate and even support speak of them and that they recognise themselves in the questions they are required to answer. Researchers emphasise the strong need felt by people involved in international migration or affected by HIV/AIDS, for example, for self-expression and their desire to give an account of their individual destiny. These individual actors or the associations that represent them have become increasingly involved in the development of survey systems and methods and have tended increasingly to become actors of the framework in which a specific type of discourse relating to them is formed and elaborated. Their active involvement is deemed to provide additional

[6] Demography has never viewed population as an object of curiosity or surprise, unlike the vision of exotic societies commonly found in early ethnological literature.

support to research. The motion to put their social history into words, that is, 'one's history, itinerary and the history and itinerary of one's family', raises a number of questions.

First of all, I hold that this is a very slippery slope for research because it rests on the naive belief in what people say when being surveyed. Furthermore, this generates a form of self-reassurance in the researcher, who is, so to speak, encouraged in his work, if not backed up, by his respondents. But there is more to it than this. From a methodological standpoint, is a socio-demographic questionnaire really adapted to the need for self-expression? This conception of research might foster a sense of frustration, in so far as it may easily produce gaps and misunderstandings between participants and researchers, who share fundamentally different goals. More fundamentally, can research be viewed as a form of collective and individual catharsis and can an isolated participation in a socio-demographic survey compensate for a cultural, social or political lack of verbal exchange, of freedom, of expression and of social recognition? From an ethical perspective, researchers run the risk of manipulating the desire of individuals to be heard, to be listened to and to 'have their words matter', based on the debatable premise that they are seeking to account for the experience of a population affected by precarity, marginality or illegality. Is establishing oneself as the spokesperson of a population an acceptable scientific justification, or rather does it legitimise the social utility of the researcher? Finally, this highly debatable conception of research results in a desecration of the figure of social scientists, since they are now required to act in partnership with other members of the city. For the sake of an allegedly democratic and egalitarian system, a distinct status based on competence and knowledge would therefore no longer be legitimate. Whereas sharing the output of research and more generally knowledge is a democratic virtue, the underlying idea that non-specialists can produce knowledge is extremely dubious.

4.2.3.3 Population, Genetics and Networks

As noted above, the notion of population emerged at a much earlier date than demography, and a wide range of disciplines have contributed to its development. In addition to those mentioned above, that is, political philosophy and economics, it is also important to emphasise the contribution of biology, which transited in particular via Lotka, who theorised the evolution of species, including the human species, in a mathematical model. Lotka's work prompted demographic practice to treat populations as closed units and to analyse populations at a macro-level. After World War I, demography moved away from evolutionary population biology as a source of inspiration (Kreager 2009). However, the spectacular developments in contemporary genetics remind demographers that the evolutionary theory represents an 'inescapable element of modern population thought'. Since the 1990s, biology has re-emerged as a potential source of theoretical inspiration for demographers, who are fully aware of the implications of the key features of the last stage of demographic transition (ageing, low fertility and the epidemiological and nutritional

consequences of modernisation) for the transmission of the gene pool. Genetic factors also play an important role in life expectancy. However, many contemporary demographers appear to be largely unaware of the evolutionary synthesis because of the significant gap that has emerged between demography and population biology over the course of the last 50 years. Lotka's concept and his mathematical formalisation were widely applied in human sciences. As a result, demography has had to defend itself against accusations that it is merely a form of 'macrobiometry' and to distance itself from eugenics – as a result of which 'The impetus that Darwin had provided Lotka as a motive and foundation for his theory was quietly dropped'. In a comparative analysis of the construction of population in Darwin and Lotka, Kreager (2009: 469) showed how their apparently conflicting approaches (open vs. closed population) may complement one another and provide contemporary demography with potential new avenues for research. What might be the benefits for demography if it were to reconsider the evolutionist paradigm? For Kreager, the question is important insofar as it may provide a general conceptual framework for the study of population while opening demography to areas of research at the frontier of the biosocial sphere. The question of evolution is linked to the measurement, analysis and level of observation of change and to heterogeneity. Beneath the interactions between the environmental context and the transmission of genes, there is potential room for the analysis of social networks (Kreager 2009: 472–473), notably the transmission of HIV/AIDS, the use of contraceptive practices, intergenerational transfers and migration. Demography appears once again to have sought for inspiration outside the confines of the field, suggesting that whatever many demographers might think, population is not their exclusive object insofar as it can be addressed from a wide range of disciplinary perspective and standpoints. There is perhaps one positive outcome for the discipline: in this configuration, demography is at the interface of genetics and culture (Roth 2004), but it remains to be seen whether demography will be able to reap the benefits of its strategic position.

4.3 The Demographic Holy Grail: The Quest for Purity

Based on the definitions given above, it seems clear that the nature of the object 'population' is far more complex and plural than the mere study of human populations. As noted by Harrison and Boyle, 'demography essentially provides a methodology which can meaningfully be applied to many situations which are not primarily concerned with population definition' (Harrison and Boyle 1972 quoted by Kreager 2009). Significantly enough, in The Dictionary of Demography, Roland Pressat, one of the founders of the French school of demography, chose not to define population or demography, but merely to provide a definition of demographic analysis, a less problematic concept: 'Demographic analysis: a form of statistical analysis which employs, for the most part, a modest array of mathematical and statistical techniques to deal with the data produced by censuses, surveys and vital registration systems' (Pressat 1985: 52). Pressat's definition is indicative of the relative lack of

interest, particularly among French demographers, in conceptual debates and discussions, even those that involve a key notion. What are the links between the different conceptions of population and the successive types of demographic analysis that have emerged within the discipline? Daniel Courgeau, one of the leaders of the second generation of the French school of demography, has broken down the evolution of demographic analysis into four distinct stages, holding that the evolution of demographic approaches and techniques has allowed for an increased emphasis on the plurality of levels of observation and the complexity of interactions in the analysis of individual behaviours (Courgeau 2004).

4.3.1 Cross-Sectional Analysis, Reification and Homogeneity

During the first stage, roughly between the eighteenth century and the mid-twentieth century, cross-sectional analysis was the dominant approach in demography. It was based on the widespread use of censuses and vital records in the eighteenth century, and following the path of political arithmetic, demography developed a range of demographic indicators in the nineteenth and twentieth centuries. The main feature of this approach is to remove 'all thickness from human life, insofar as it is situated at a given moment and assumes that demographic phenomena are determined by the characteristics of the studied population, just before the moment they occur. In this approach, events that occurred in the more or less distant past or the characteristics of previous periods are not considered to have any impact on the events of the examined moment' (Courgeau 2004: 39). The demographic indicators generated in this type of approach relate to a fictional cohort. While a number of criticisms were levelled at this type of approach, it is beyond the scope of this chapter to discuss or address them. Beneath this approach, there lies a paradigm in which 'social facts exist independently of the individuals who experience them. They are explained by various economic, political, religious and social characteristics of society: this defines a form of causality that finds its origin in society and not in the individual, and its effects are felt throughout the population as a whole' (2004: 32–33). Courgeau concludes that cross-sectional analysis is 'a form of holism insofar as it accounts for the evolution of a society based on its global ends without any reference to individual will'.

The contextual reasons of this direction are not explored by Courgeau, although Chris Wilson and Jim Oeppen have argued that particular attention needs to be paid to the 1920s and 1930s in examining the history of demography. First of all, the 'methodological toolkit' of demography was largely formed during this period and that according to De Gans, to whom Wilson and Oeppen refer, the new predictive methodology is indicative of a paradigm shift in the sense of the term defined by Thomas Kuhn. The demographic practice that emerged in the 1930s dominated the field until a new paradigm led to in a major methodological redirection (Courgeau and Lelièvre 1997). The second point emphasised by Wilson and Oeppen is the extreme conservatism of demography throughout this period. The need 'to create abstract

measures of population processes and to treat these measures as if they comprise the best, or even the only, way to conceive of the issues at hand' resulted in a reification of demographic thought and considerably slowed down the shift of demography to the next stage.

This process of reification is rooted in a deeper and wider tendency of Western thought. In the case of demography, the discipline suffered from a 'marked conceptual and methodological "lock-in" during the first half of the twentieth century' (Wilson and Oeppen 2003: 13–14). In defining and discussing the notion of reification, Wilson and Oeppen examined the work carried out by Stephen Jay Gould on Western thought, who highlighted the perverse effects of measures or practices that emphasise the central tendency at the expense of variance, the plurality of experiences and heterogeneity, which may be crucial for analysing and understanding phenomena such as natural selection. Gould goes as far as suggesting that the Western tendency to give simple solutions to complex problems is rooted in Plato's attempt to define essences. Despite the obvious prevalence of heterogeneity, demography has remained firmly attached to the implicit hypothesis of homogeneity and emphasised the search for the average behaviour, driven by Quetelet's obsessive quest for the 'average man' (Porter 1986).

The focus on homogeneity also governed the choice of the specific social and economic determinants used in the analysis of demographic processes, as is clear with the analytical framework used in the 1911 Census of Fertility, which governed British demography throughout the twentieth century. Following Simon Szreter (1996), Wilson and Oeppen inferred a third consequence of this professional practice: repeatedly transmitted indicators become natural assumptions of demographic research and have become so familiar to us that their nature and underlying hypotheses have been forgotten (Wilson and Oeppen 2003: 120). They ironically remark that demographers are often more fascinated by their models than the actual results of the processes observed in the course of demographic research. Yet it is precisely these results that will serve to direct public policies and measures taken in the field of population and health. The consequence of this 'methodological lock-in', which is clearly in evidence when comparing demography to other disciplines such as statistics, economics and the natural sciences, has been that 'many of the analytical and explanatory frameworks used by demographers show a remarkable record of survival' (De Gans 1999).

4.3.2 Cohort Analysis

After World War II, demographers devised new research based on cohort analysis in response to the criticisms levelled against cross-sectional analysis. In contrast to the fictional cohort posited in cross-sectional analysis, demographers 'follow' the destiny of actual cohorts, examining how a range of demographic events (marriages, successive pregnancies, deaths) and socio-demographic events (migrations, professional changes) are actually experienced. What matters is the time spent in a given state, for example, the duration of marriage. This new research perspective resulted

in the development of 'aggregate data analysis', in which 'the examined groups are not groupings of subpopulations observed at a given moment in time, as in cross-sectional analysis, but groupings of subpopulations observed at every age and drawn from a given generation' (Courgeau 2004). An epistemological-methodological debate emerged in the late 1990s in the small world of French demography. Chantal Blayo, an advocate of traditional demographic analysis, defended the importance of longitudinal analysis defined as an approach aimed at 'isolating various demographic phenomena in their purity, in order to rid them of the effect of disruptive phenomena and to draw comparisons between countries and periods. Its paradigm can be defined by the following postulate: demographers can only study the arrival of one phenomenon, and one phenomenon only, throughout the life of a single generation or cohort, in a population 'that preserves all of its features and the same features as long as the phenomenon is observed' (Blayo 1995: 1054). In addition to new types of demographic indicators, a new research objective also emerged since the new aim of demography was to draw comparisons between different countries or periods without them being marred by the effects of the structures characteristic of cross-sectional analysis. However, the application of cohort analysis requires a double condition (already emphasised by Louis Henry): the obligation to consider a population as a homogenous entity and the fact that disruptive phenomena must be independent of the examined phenomenon. Contrary to Blayo, Courgeau argues that cohort, like cross-sectional analysis, implies a form of holism, but for reasons that are equally questionable, cohort analysis is based on a hypothesis of homogeneity, but in reality, it is heterogeneity that invariably prevails (Courgeau 2004: 48–49).

4.3.3 Biographical Analysis

In France (as in other countries), the limits of this approach led to the development of biographical analysis in the early 1980s. This third stage represents a revolution in the conception of demographic analysis since it requires 'the application of methods involving relations of dependence between a range of phenomena and population heterogeneity' and requires the use of 'probabilistic mathematics and theories far more complex than those used previously'. This shift of perspective had significant implications since it radically changed a discipline that had been characterised until then by clearly delimited objects (age structures, gender and marital status, fertility, mortality, internal migrations) and solidly established data (vital records, general population censuses) (Tabutin 2007: 16). The new approach required a new kind of demographic data collection (the so-called biographical surveys) since traditional population registers, censuses and surveys do not provide the level of accuracy and information adapted to the new unit of analysis. Research was thus no longer focused on homogeneous subpopulations, but on individual trajectories, the unit of analysis being the individual biography conceived as a stochastic process. According to Courgeau, this approach amounts to a renunciation of the attempt to isolate every phenomenon in order 'to see how a given event can subsequently affect

the life of the individual and how certain characteristics may compel an individual to behave differently from another individual' (Courgeau and Lelièvre 1996; Courgeau 2004: 13) In a nutshell, the trajectory of an individual at a given moment in time is thus assumed to be a function of previous experiences.

The proponents of this approach defend the idea that biographical analysis is a resolutely individualistic approach based on a form of methodological individualism and that as such it is clearly opposed to cross-sectional analysis as an instantaneous aggregation. But they also add the most debatable assumption that 'the behavior of a man needs to be connected with his past life history, *without searching in society for the reasons of his actions*' (Courgeau 2004: 70; emphasis mine). I would object that even if it takes into account the individual and the past motivations of his present actions, the biographical approach loses sight of the fact that the attitudes and behaviours of individuals are largely governed by social cohesion and social control. The individualised approach therefore suffers from a decontextualised vision of the individual, isolated from the wider social environment and reduced to a free atom.

4.3.4 Multilevel Analysis

In order to remedy this deficiency while continuing to reap the benefits of recent advances in the field, biographical analysis shifted towards a fourth stage of demographic analysis based on contextual and multilevel analysis. The aim of the new approach is to introduce 'multiple levels of aggregation in order to examine the effect of underlying constraints imposed or introduced by the various levels. […] This method involves keeping track of an individual throughout his life and highlighting the interactions between different demographic phenomena that occur simultaneously in a physical space and more generally within a social space' (Courgeau 2004: 13–14). Compared to biographical analysis, the new method examines not only the events of individual trajectories but also the characteristics of the environments in which individuals live. This new approach has three major characteristics: firstly, it identifies relevant levels of analysis and privileges the most relevant ones; secondly, it is no longer governed by a strong demand for data collection since the entire sample can be used, though with a limited range of data; thirdly, it draws on different data sources (on these three points, see Golaz and Bringé 2009). While the multilevel approach undeniably represents a methodological innovation allowing for a greater consideration of social complexity, Valérie Golaz and Arnaud Bringé note that its implementation is dependent on the existence of appropriate data, thereby qualifying their initial enthusiasm. This constraint explains why the applications of multilevel analysis have developed slowly, as shown by their estimate of the number of publications that has resorted to multilevel analysis.

Courgeau presents the four types of demographic analysis as successive stages in the development of demographic analysis, posited as mere evidence of progress in the explanatory power of demography. However, it would be wrong to assume that the demographic community has invariably shifted outright from one type of

analysis to the next. The various types of analysis are not mutually exclusive since their application depends on the available data, the particular type of analysis favoured by demographers and the specific objectives of their research. Different paradigms linked to different conceptions of population with specific epistemological implications coexist within the field. According to Thomas Kuhn, 'a paradigm designates what the members of a scientific community share: in a circular fashion, a scientific community is a group of individuals who share a common paradigm. They began by sharing a common education and experiencing common forms of "professional initiation". A scientific object is thus defined, conservatively, based on what the standard literature says about it. […] A scientific revolution is nothing more than the reconstitution of a collective engagement around an object, irrespective of the size of the object or group' (Kuhn 1983 quoted by Fabiani 2006: 16). While I agree with Kuhn's definition, the general consensus around the object and methods of analysis which long characterised the demographic community appears to have collapsed in recent decades and has not entirely recovered: more than a shift from one type of analysis to the next, it is a juxtaposition of different types of analysis that appears to be the chief feature of the development of demographic analysis.

4.4 Critical Perspectives

4.4.1 Which Paradigm for the Social Sciences?[7]

It is worth dwelling on the revolution that has disrupted demography over the past 30 years or so. While it is a sign of definite progress within the field, multilevel analysis is generally presented by its advocates as placing demography in a position of hegemony within the social sciences by virtue of the increased explanatory power of the discipline. Courgeau asks 'whether multilevel analysis, by highlighting the important role played by levels of aggregation on human behaviors and above all the fact that they can no longer be conceived in isolation, is capable of objectifying one of the categories of human experience'. The answer is boldly assertive: 'by opening itself to the analysis of new structures, demography extends the field of the human sciences while enabling their rapprochement, since these more general structures are relevant to many of the human sciences. By enabling a simultaneous consideration of the many meanings and implications of a human fact within a model involving an active temporal dimension, it should facilitate progress toward an objectification of human experience and more generally toward a new form and a more complete theory in the human sciences, even if it is still difficult to map out the route with any great precision' (Courgeau 2004: 209–210).

Whatever its advocates may think, the new paradigm will not lead to a generalised rapprochement within the social sciences. It will merely lead to a rapprochement of

[7] A shorter version of this section has been published in Population and Development Review (2012).

disciplines or researchers sharing this specific epistemological framework. Far from sharing these prerequisites, other researchers prefer to emphasise subjectivity and contingency at the expense of causality. While economics, quantitative sociology and geography appear to be directly concerned by the opportunities provided by this type of analysis, it is difficult to imagine how anthropology, history and a more comprehensive form of sociology might also benefit. This provides a useful illustration of Jean-Louis Fabiani's remark that 'the epistemological break is in itself institutionalizing: it produces demarcation' (Fabiani 2006: 24). This model also overlooks – or at least fails to position itself in relation to – another attempt to construct an epistemological framework capable of transcending disciplinary boundaries, by seeking in particular to reconcile quantitative and qualitative approaches, a position I share with Jean-Claude Passeron. This state of mutual ignorance can be explained by a fundamental disagreement: while demographers have no interest in extending beyond an explanatory framework governed by the laws of statistics and probability, sociologists seek to integrate the diversity that is characteristic of sociological thought – involving a constant toing and froing between statistical reasoning and historical contextualisation – within a broad epistemological framework. Passeron repudiates the idea of confinement within 'a specific but reductive epistemological framework' because the historical and anthropological approaches remain (to quote Passeron) 'the epistemological pivots of the complex framework of the social sciences, because they deal with the "total social fact" that Marcel Mauss placed at the heart of his theory in *L'essai sur le don*, not conceived absent-mindedly as a flatly reiterated assertion that everything is connected to everything else or that everything is in everything, but as an invitation to search within a given society for the nodal symbolizer(s) that is (are) distributed differently in different cultures within a given society' (Passeron 2006: 84).

Though everyone agrees to introduce social complexity in the development of a new epistemology, scholars differ in a number of respects. Passeron is aware that he may need to defend himself against a charge of lesser scientificity, noting from the outset 'that a science located half-way between two scientific approaches is not a science located half-way from science' (Passeron 2006: 57). This is no doubt riskier because of the difficulty of articulating epistemological registers based on different paradigms and even of the attempt to extend beyond them. However, I would argue that this issue is fundamental, especially for demography, which is increasingly prone to borrowing methods and notions from anthropology. To what extent is it possible to work on one single object, in this case population, by using epistemological frameworks that are based on unrelated references and specific conceptions of scientificity and causal analysis? This is a significant challenge for a number of reasons. The relations between different disciplines are largely based on the general representations of science fostered by researchers in their own disciplines and their representations of scientificity and of the specific degree of scientificity of their chosen discipline. However, irrespective of the chosen epistemological model, it is clear that social scientists invariably struggle to depart from the ideal or more precisely the idealised model that is characteristic of the natural sciences, that is, the hypothetico-deductive method, verification and refutation. The constant justification of the social sciences in relation to the hard sciences is thus not specific to demography. In developing their

epistemological position, the social sciences, affected by a nagging inferiority complex, have often felt compelled to justify themselves in relation to the natural sciences by seeking to prove that they can be just as scientific, thereby implying a deficit of scientificity serving to discredit the social sciences. This position is based on an outdated or inadequate knowledge of the epistemology of the natural sciences and more specifically a faith in causality and determinism. For example, while priding themselves on using qualitative methods and thus standing as pioneers, demographers have sometimes felt compelled to emphasise in conference papers that their quantitative approach is 'more rigorous' than the qualitative approach effectively adopted in the same paper, thus implying that all their results are not equally valid because they are based on different epistemological frameworks. One sometimes hears qualitative interviews being questioned by researchers in seminars, on the grounds that they pertain to 'journalism' or 'novel writing'. In my view, the coexistence and ranking of fundamentally different epistemological frameworks are a fundamental issue for anyone keen to open demography and to promote the advance of interdisciplinarity. What justifications might demographers provide for the use of two methods, that is, a quantitative method and a qualitative method, combined within the same research project, if they devalue one epistemological framework in favour of the other and if they insist on viewing one as the yardstick of validity of the other?

To assume that the specificity of the social sciences, that is, the fact of having 'man as the object of research, in his many activities, and elaborated by man in his cognitive activities' (Piaget 1967: 54–56) mechanically implies a common epistemological framework is a mere illusion in the current state of the social sciences, not least because the various disciplines within the field posit remarkably elastic conceptions of man and observe fundamentally different phenomena at equally different levels of observation. The consequence of this shift is that the emphasis on proof and evidence varies in different disciplines within the social sciences (Descola 1988: 21). This is particularly true in anthropology, where there is no unanimous agreement on the use of any common epistemological position for defining causal analysis (Descola 1988: 45). The explanatory approach of structural anthropology is relatively remote from the position defended by culturalists. For Clifford Geertz, an ethnological study 'should not therefore be an experimental science in search of laws, but an interpretive science in search of meaning' (Geertz 1993: 5). Finally, the paradigm of multilevel analysis significantly improved the explanatory power of demography, but it ignores crucial problems that will need to be addressed in twenty-first century demography.

4.4.2 The Statistical Individual: A Man Without Qualities

The various stages of the development of demographic analysis identified by Daniel Courgeau and Robert Franck correspond to different epistemological statuses of the individual in society and of the relations between individuals are defined, but they incorporate a specific type of demography analysis in a minimal sociological framework

(Courgeau and Franck 1997: 793–802). This was a characteristic of demographic research in the 1980s, which was out of step with the advances in knowledge and the new theories developed in other social sciences, and even the natural sciences (genetics), with an interest in socialisation, learning conditions, the transmission of identity and other such issues. The individual as conceived by demographers was and still is a being endowed with very few social and psychological qualities[8] and therefore deprived of any significant cultural and historical thickness. Demographers have had no choice but to tailor the individual as a sketchy statistical entity, for otherwise it would be impossible to submit such an overly complex and puzzling unit to demographic analysis. This gap is not specific to demography, as noted by the sociologist Bernard Lahire in admitting that 'sociology appears to operate on the basis of partly outdated and partly challenged psychological knowledge, as if encysted in its theories of action and cognition' (Lahire 2001: 18). However, insofar as demography is even more resistant to the contributions of psychology or philosophy, the gap appears to be far wider. This resistance is explained by history and perhaps even by the very nature of demography, a discipline that predisposes its practitioners to producing data and privileging practice, that is, action. Demographers are rarely found reflecting on the nature and quality of what they observed, however central this might be. The concept of individual, and indeed that of time, is thus seldom examined or questioned by demographers, who uncritically use both in their common Western sense. It is only when demography is confronted with other societies shaped by other philosophical traditions, cultures and religions or by a different conception of or relation to time that it is forced to recognise the limits of its conceptual and methodological ethnocentrism. Despite generating a salutary crisis of anthropology, decolonisation had very little effect on demography since the process of independence resulted in the emergence of new states that were keen to develop their own statistics by using the same instruments and categories (including the notion of ethnic group) as those used the former colonial powers. The kind of analysis conducted by Gérard Lenclud (1/2009)[9] aimed at comparing differences between anthropological discourse and philosophical discourse concerning the ontological status of the human person is almost always absent from the work of demographers. Similarly, research on time and the meaning of age and age categories is generally conducted by anthropologists, historians and philosophers, but not demographers.[10] One may doubt that the ageing process observed today will encourage a reconsideration of the concepts of age and time beyond a mere quantification of relative changes in the size of age groups.

Demographers ask women questions that are not harmless from an affective and psychological point of view, about their desire to have a child by using methods such as surrogate mothers, IVF or abortion. It is undeniable that women rationalise

[8] Hervé Le Bras notes that demography 'can be viewed as the science that makes the most limited use of psychology' (Le Bras 2005: 421).

[9] http://www.cairn.info/revue-terrain-2009-1-page-4.htm

[10] See, for example, Paul Ricoeur (2000), Maurice Bloch (1/2009), Carlo Cristini and Louis Ploton (2009/3), quotation p. 77.

their decisions or seek to justify their behaviour, whether it be as part of a conscious strategy of self-protection or the protection of a third party or as a subconscious reaction of self-defence and indeed the 'true' or 'good' reasons cannot always be identified or expressed in questionnaire responses, irrespective of the technical quality of the survey document and the experience of the researcher. To counteract this epistemological shortcoming, demographers sometimes resort to conducting semi-structured interviews. However, when turning to the demographic analysis of the questionnaire that constitutes the core material of their survey, they do not fully infer the consequences of what is revealed by their qualitative material. They are usually content to inserting quotes from their interviews in their papers. These are hardly elaborated upon and even less often contextualised. And yet it is important for the discipline to derive benefits from theories originally developed outside the field, as is the case in sociology, for which 'some philosophical reflections may sometimes be useful for clarifying the concepts used by sociologists in their research on the social world' (Lahire 2001: 18). It seems reasonable to assume that what is true of sociology also applies to demography.

Whereas multilevel analysis implies a more complex vision of social dynamics, it is unable, by virtue of the very nature of the discourse obtained, to capture it in its totality. The complexity and precision required by data collection also raise specific problems when conducting research on certain populations. In some disadvantaged or marginalised groups in developed countries, and even more so in developing countries, field experience shows that obtaining dates, ages and 'high-quality' statistical data is not a straightforward process and requires significant time and patience. Demographers generally tend to consider that they work on perfect or almost perfect data because of sophisticated data collection procedures, in particular '*saisie directe*', and because they work on increasingly educated populations. Demographers are constantly involved in developing verification and control procedures designed to test the coherence of the information provided by interviewees and strategies designed to increase their memory performance. The inquisitive approach used by demographers has some affinities with the life histories used in anthropology and sociology but differs from these in a least one key respect. In a qualitative approach, researchers aim to reconstruct the meaning given by interviewees to their actions, though without forcing interviewees to draw systematic links between all areas of their life. Dissimulation, incoherences, contradictions, hesitations and omissions are treated as such. The role of emotions is also increasingly taken into account since memory (so often solicited by researchers in the social sciences) is directly linked to the realm of affects and motivations. Some researchers have emphasised the importance of the interactions between autobiographical memory and the cultural and genetic heritage transmitted by previous generations (Cristini and Ploton 2009: 77). According to the demographer John Hobcraft, 'this interest in the internal processes of individuals implies a significant degree of openness to behavioral genetics, affective neuroscience and behavioral economics' (Hobcraft 2007: 47). Unfortunately, in the case of demographic analysis, the search for meaning based on the identification of correlations partly serves to erase the more or less conscious intentionality of

the individual and the mechanisms of adjustment to social constraints in favour of the identification of determining factors.

As was said, in the multilevel approach, individual trajectories are explained by past events in the history of individuals and by the specific configuration of their environment, which serves to restore a kind of dynamics, of meaning, according to the various contexts that individuals have experienced. The same flaw affects the qualitative approach when sociologists and anthropologists seek to reconstruct a life history based on an interview. Processes of decision-making and rationalisation introduced a posteriori to reconstruct a social or demographic logic. The attempt to ascribe or to impose coherence on individual behaviours presupposes the primacy of the mind over the senses, desires and emotions. Human actions are assumed to be logical and rational and to reflect conscious intentions, based on a relatively clear vision of a future in which time is clearly defined. While the search for meaning is the driving force of the social sciences, social scientists must resist the temptation to assume that everything has a meaning and that everything can be explained, revealed or uncovered. Improved survey and research techniques do not compensate for the fact that memory is always a selective construction. Individuals are asked to produce a discursive articulation of their past, reconstructing past gestures and attitudes based on what they remember at the time of the survey. Put differently, discourses express one's perception of the past based on later experience and not the meaning of the event at the time it occurred. A rereading of our individual or collective past is always conducted by the yardstick of our current situation and our current expectations of a more or less distant future. Last but not least, the own categories of the interviewee might be quite different from those imposed by the survey.

For an increasing number of demographers, the gap between demography and the other social sciences has become untenable and unjustifiable. However, the social relations and sociological levels that demographers are increasingly keen to incorporate into demographic analysis are currently in the process of being radically redefined in Western societies, especially regarding the processes of disaffiliation at work in certain social groups – particularly those experiencing poverty – and the more common and widely shared process of individualisation, particularly among young people. Ironically or paradoxically, just as demography is seeking to capture individuals in society within the context of their various relations and networks, individuals are increasingly seeking not to leave society but to redefine the relations they wish to foster with society at their own level and on their own terms. This implicitly raises the question of the identification of the various sociological levels that are generally incorporated into demographic analysis, because the relevant analytical levels will vary in different societies, and even in given social groups within the same population – not to mention that different sociological structures are often superimposed. The various levels are hierarchised but are also competing and even conflicting, and an individual will tend to use their many affiliations or memberships according to the circumstances of the particular context in which they find themselves. The increased complexity of the individual as the basic unit of research represents a new dilemma for disciplines such as economics, sociology,

anthropology, history, social psychology, epidemiology and medicine. How can research cover the full range of identity affiliations and the more or less distended relations linking individuals to their reference groups, which place the individual in a range of networks without prejudging the importance that needs to be given to one rather than another? Describing the wide range of contexts that determine demographic behaviours, John Hobcraft has inferred two major consequences from the increasing complexity of demographic determinants. First of all, more elaborate hypotheses are needed to measure the relative influence of each level. Secondly, the study of dynamics and processes and their interactions implies modifying the angle of observation – or redefining an object that becomes less purely demographic and more socio-demographic or anthropo-demographic. 'The viewpoint thus shifts away from marriages, divorces, deaths, migrations and the description of the structure of households toward a perspective that encompasses couples and intimacy, parenthood, potential and well-being, the position within society and geographic space and interpersonal relations' (Hobcraft 2007: 50). It is clear enough that a broader conception of the individual is needed that requires abandoning the implicit or explicit idea of a homo demographicus or homo economicus.

4.4.3 The Temptation of Reductionism

Reducing the object of demography to population dynamics excludes de facto a whole set of issues from the discipline and firmly re-establishes demographers as the only researchers competent to manipulate demographic variables, a position which implies a reductive and highly debatable disciplinary confinement. Firstly, even in accounting for population dynamics, the demographer will still need to use techniques and knowledge that are not strictly demographic. Who would ever claim that population growth in China is explained solely by a 'particular combination of fertility, mortality and migration'? The specific history and politics of the country are also key factors in the particular case of China. Without the drastic population policy introduced in 1979 and its highly coercive form of sociopolitical control, fertility would not have declined so rapidly and the size of the Chinese population would be far above its current level. The population of India will soon be greater than the population of China since the largest democracy in the world has opted for greater personal freedom and has not coerced its people except in brief and largely unsuccessful periods to comply with a specific birth spacing or birth control policy. The population dynamics of the two giants of the planet are only intelligible if we extend beyond a strictly demographic framework. We might also cite the example of Iran, where an analysis of the links between demographic evolution, political changes and religion is required to understand the current situation (see Ladier-Fouladi 2009). This is why the claim 'to highlight the interactions between the different demographic phenomena', together with the assertion that 'the explanation lies ultimately in a particular combination of fertility, mortality and migration' (Courgeau and Franck 2007), amounts to demographism, that is, to explaining

demographic changes intrinsically and within their inner logic without considering the interactions between demographic, economic, sociological and cultural phenomena. This is at a wholly unsatisfactory level of analysis, since individual and collective demographic behaviours are deeply embedded in social and cultural phenomena and cannot be understood or measured without examining them with the broader social and cultural context. To enter a complex world that resists understanding is to enter a world that is far closer to social reality than the 'population' artefact generally examined by demographers. However, it is clear that all researchers working in the social sciences work on an artefact and that all are confined to 'approaching' social reality (to quote Bachelard). The reductive approach to social complexity implied by demographism implies a disembodiment of reality.

Secondly, Courgeau and Franck claim that demographers are required to focus exclusively on the measurement and analysis of the 'part' of growth explained by the three demographic variables: 'The specifically demographic perspective is that the growth, decrease or stabilization of a population is explained by a particular combination of fertility, mortality and migration' (Courgeau and Franck 2007). In their view, to set out to analyse all population phenomena would result in a subversion of 'the specific object' of demography and of 'the delimitation of the privileged viewpoint in demography'. This position is explained in part by their attempt to defend multilevel analysis and by their desire to establish it as the hegemonic paradigm of the discipline. Arguing that 'demography is not or is no longer merely a technique for reducing events' and that the discipline addresses 'population questions', Dominique Tabutin has developed a position that is both more relevant and more modern, in the sense that it takes account of the developments of the discipline and of the developments of the social sciences more generally (Tabutin 2007: 18). In the debate opposing Courgeau and Franck to Tabutin, the former criticise the latter for not making clear what he means by paradigm and for not explicitly naming those he refers to. However, when Courgeau and Franck reduce demography to the methodologies described above (cross-sectional, longitudinal, biographical and multilevel), they forget that they are largely founded on other disciplines, such as sociology,[11] statistics and mathematics. They also eliminate any reference to theories that might have served as a basis for their four types of demographic analysis. The shift from one methodology to another is therefore not indicative of an expansion of the theoretical corpus of demography and clearly offers no alternative to Thomas Malthus, Karl Marx or the demographic transition.

Because of the limited explanatory power of the discipline and the lack of theoretical debates and ideological discussions in a discipline not prone to reflexivity, 'demography remains as hesitant and stammering as ever when it comes to understanding and to explaining phenomena. When fundamental advances are made, they often come from outside the field (from sociologists, historians, anthropologists, economists…). In other words, demography is "rivaled" within its own field. Without better endogenous explanatory performances, demography is at risk of leaving to

[11] Daniel Courgeau himself referred to the theoretical and conceptual basis provided by sociology in his introduction to multilevel analysis (see Courgeau 2004).

others a key task of any science – i.e. understanding – and therefore of losing its credibility' (Tabutin 2007: 25–26). It is, for instance, worth recalling that the successive improvements of the theory of demographic transition in the second half of the twentieth century were largely inspired by advances in other areas outside demography, such as sociological theories (functionalism, modernisation), anthropological theories (diffusion, culturalism, the institutional approach) and economic theories (new economics, microeconomics). The programmes of the two most recent International Conferences on Population held in 2005 and 2009 also indicate that the sessions strictly devoted to theoretical issues (excluding methodology and epistemology) were marginal. At the 2005 conference held in Tours, only two of the 188 sessions referred explicitly to some form of theoretical content: session 48 chaired by Thomas K. Burch was entitled 'Demographic theories: new approaches', while session 91 chaired by Oystein Kravdal was devoted to 'Empirical, methodological and theoretical aspects of multilevel modelling in demography'.[12] Four years on, the situation had clearly not improved. In Marrakech, only one session (soberly entitled 'Theory') was devoted to theoretical matters. Only three papers were presented and significantly the session was allocated a small room, which fortunately turned out to be full[13]… Regrettably, demographers clearly display very little interest in higher theoretical issues at the risk of being subject to C.W. Mills' fierce warning: 'theory without data is empty, data without theory are blind' (Mills 1968).

To reduce the objective of demography to measurement has indeed a number of major implications. The first is that demographers can and must work only with methods that produce measurements and must work exclusively on phenomena that are by nature measurable. But what is a measurable object? This question is a fundamental issue since it is precisely along these lines that the distinction between the demographic field and the non-demographic field tends to be drawn. Over 40 years ago, Alfred Sauvy had already examined (in a book entitled *La Population*) the nature of the qualities of individuals that must be measured. There were measurable qualities such as age (at least in Sauvy's ethnocentric vision), while others, such as intelligence or 'the cultural assimilation of immigrants' (to use Sauvy's expression), were regarded as more problematic (Sauvy 1968: 55). He defined as problematic phenomena anything that pertained to culture, identity and social processes – in short, anything that could not easily be reduced on account of its inherent complexity and instability. Besides the question as to whether everything is measurable, the quality and utility of measurements must also be addressed. First of all, while statistical description is a first stage of analysis insofar as it presupposes hypotheses, methodological choices and variables, the implicit presupposition that we need to measure

[12] UIESP, 25th International Conference on Population, Tours, July 18–23, 2005. *Conference program*, p. 303.

[13] UIESP, 26th International Conference on Population, Marrakesh, September 4 to October 3, 2009. *Conference program*, pp. 96–97. The 'theory' session included a paper by Philip Kreager ('Two concepts of population'), a paper by David Coleman ('Diverging models of the ethnic transformation of developed societies: the final stage of the demographic transition') and a paper by Yves Charbit and Véronique Petit ('The theory of change and response').

in order to understand phenomena is highly debatable in the social sciences. We might invert the logic and say that we need to understand a phenomenon (to identify its components, its mechanism) in order to measure it as accurately as possible. Should the object precedes its measurement or vice versa? This is especially true of the timing of quantitative and qualitative investigations when they are used in combination. While I do not claim to have an answer to these questions, I would argue that a particular dialectics is at work. The logical order between measurement and understanding is not as straightforward as it is generally assumed to be.

Secondly, the imperative of measurement is usually governed by two key factors: by demographic tradition and by the need to provide indicators to funding agencies. A research project I conducted in Senegal (Petit and des Robert 2004) was aimed at measuring current levels of knowledge and use of contraceptive methods among women in rural areas. While the resulting indicators met the requirements of the Ministry for the Promotion of Women, the face-to-face interviews and the focus groups conducted among women showed that the measurements underestimated the actual practice of modern contraception and that women often used the pill without consulting their partner because they assume that their partner would object to contraception for a variety of reasons. Women had therefore devised strategies to space births or even limit their fertility without being socially discredited within their community. The difficulty of measuring contraception use reliably raises the double question of the scientific and social utility of measurement. What mattered was the social acceptability of women's autonomy concerning their reproductive behaviour.

4.4.4 Multidisciplinarity and Intelligibility

The question of understanding is vital for any discipline that aims to be a science. By classifying demography (construed as applied statistics) as one of the nomothetic science, Jean Piaget noted that the demographic field remained 'relatively closed yet thriving, the absence of possible experimentation (in the strict sense of dissociation of factors) being compensated by the relative precision of measurements and the success of the various statistical methods relating to variances and the various functional connections accessible to calculation' (Piaget 1970: 68–69). Though somewhat outdated, since it does not take account of the recent advances of demographic analysis, Piaget's definition remains highly relevant insofar as it illustrates the particular situation of demography and the difficulty for demography of moving on to the next stage of its intellectual history. The same idea was later taken up albeit in a different form by Georges Tapinos. There were different types of demography (i.e. economic demography, demographic anthropology, medical demography) and 'to ignore this fact is [was] to reduce the discipline at best to a domain for the application of mathematical statistics and at worst to a compendium of measurement procedures. It [was] to take the risk of describing better by explaining less' (Tapinos 1985: 5; emphasis mine). Between the two risks

(i.e. describing better by explaining less or describing less well by explaining better), demographers have never hesitated and have consistently preferred ever more refined descriptions.

Le Bras has argued that demography cannot be defined as a science of processes since this is also true of the other social sciences. However, demography is the only science in which 'processes exist in a pure state, with the minimum of hypotheses concerning human behaviour' (Le Bras 2005: 421). The fertility models developed by Bongaarts are a perfect illustration of this dual characteristic. Comparing demography to sociology and economics, Le Bras notes that the social sciences make more use of psychological factors than demography to explain the motivations and actions of individuals. Primacy is given to measurement at the expense of a more comprehensive explanatory framework. The decision not to account for 'population facts' implies a renunciation of any explanatory or interpretive ambition and a confinement of demography conceived as an applied discipline strictly designed for the purposes of social utility. Expressed in less neutral terms, is this not ultimately to give up the ambition of forming a science? The increasing emphasis on complexity also implies modifying the treatment of (or the 'natural' mistrust of demographers towards) anything pertaining to the cultural realm. Once they have exhausted all statistical possibilities, if the variables used in their model have failed to explain the totality of the observed object, it is very uncommon for demographers to say 'the rest – that is, that which is unexplained, not to say inexplicable, is cultural'. Demographers are thus prone to admissions of impotence when faced with culture as a multifaceted elusive magma that is so peculiarly resistant to quantification and modelling. Demographers recognise the limitations of their discipline and seek to clear themselves of all responsibility, arguing that culture is an issue that extends beyond the boundaries of their disciplinary field. However, a serious integration of culture in demography analysis is a significant challenge. Is the treatment of culture by demographers acceptable by other social sciences? By acceptable, I mean that demographers must be able to provide both a sufficiently substantive definition and an indisputable quantification that make sense to an anthropologist (Hammel and Howell 1987; Hammel 1990).

In 1997, Jean-Claude Chesnais wrote: 'another dimension of the causal constellation is emerging – namely cultural transmission, or in others words diffusionism, evoked by Kirk as early as 1946'. Chesnais's remark calls for two comments: firstly, it is indicative of the late realisation of some members of the demographic profession of the need to incorporate cultural factors in the analysis of demographic behaviours. Secondly, once convinced of the need to incorporate the cultural dimension in demographic research, demographers are faced with a number of conceptual and methodological problems that cause some practitioners to postpone the task. On the other hand, the reference to an ancient and much criticised theory, that is, diffusionism, reveals a significant gap in knowledge between demographers and anthropologists in seeking to develop the theoretical and methodological framework required to examine identity and culture. Culture can be examined from two different perspectives: from the perspective of groups, who will be defined by the key cultural features forming their identity – given that culture, like identity, is

necessarily contextual and historical – or from the perspective of cultural mechanisms, such as education, transmission, socialisation or cultural integration. While demographers may seek to quantify certain aspects of culture in order to incorporate culture into their models, they may also integrate the complexity of culture or identity within their research questions by using more anthropologically oriented approaches and by refining the contextualisation of demographic behaviours. The distinction between demographic and other human behaviours (i.e. social, economic or political) is becoming increasingly less relevant insofar as the cultural dimension has prevailed over the weight of the biological substrate.

4.5 Contextualisation and Interdisciplinarity

Faced with the growing complexity of the issue of explanation, what is needed is a detailed and systematic contextualisation of phenomena, the construction of a set of multidisciplinary variables that can be used to test a whole range of hypotheses and acceptance of the notion of an individual not isolated from the fundamental dimensions of their structural determining factors. Since the disciplinary logic is largely obsolete, these objectives need to be pursued in conjunction and require a multidisciplinary approach to population studies, and for each specific research, the demographer will have to select the relevant concepts and methods. As early as 1970, Bourgeois-Pichat advocated opening demography to other social sciences chiefly because before providing explanatory factors, demography had no other choice but to show an interest in the theoretical contributions of other disciplines (Bourgeois-Pichat 1970: 19). It is remarkable that a number of subdisciplines have emerged (economic demography, demographic anthropology, genetic demography, historical demography, etc.) that have invariably privileged a particular vision of the relations between measurements and explanations. This was probably the only means of avoiding an even more sterile imprisonment within the confines of measurement. Other disciplines provide a set of methodological, conceptual and theoretical resources and sources of inspiration in addition to the internal advances made within demography itself. It is no coincidence that ‘most of the transformations affecting the general configuration of disciplines occur at the boundaries or margins of fields of knowledge’ (Fabiani 2006: 20), even if an increased openness to other disciplines may have the perverse effect of reducing the incentive to develop a theory that would be strictly internal to demography.

The difference between demography and anthropology is spectacular, as revealed by a quote from a influential French anthropologist: ‘far from heralding, by dint of deconstructions, their disappearance or more simply their dissolution in the soft forms of cultural studies, the crisis of anthropology and the social sciences is the prerequisite for their reconstruction based on a level of critical rigor and vigilance that was unheard of in the previous stages of their development’ (Godelier 2007: 10). The deconstruction at work in the social sciences has finally caught up with demography, and this critical perspective constitutes one of the fundamental contributions

of anthropological demography. Demography can no longer be reduced to demographic analysis. Likewise, demography can no longer be conceived merely as a technical application. The discipline is currently experiencing a critical stage and even an upheaval since the very object of demography has come to be contested and the boundaries of the explanatory field challenged. If we are to move from demography to demology, that is, to engage in explanatory processes and not to content ourselves to mere description, we need to put forward theories and hypotheses and theories to provoke internal debates within the discipline and critical encounters with areas outside demography. In 1970, the psychologist Jean Piaget provided a perfect description of what awaited demography: 'the object of any innovative current of thought is to push back horizontal frontiers and to reject transverse barriers. The real object of interdisciplinary research is therefore to structure and to reorganize fields of knowledge through exchanges that are in fact constructive recombinations' (Piaget 1970: 57).

Renewing theory, taking the risk of interdisciplinary and even that of deconstruction, as has been the case of anthropology, is all the more urgent because the second half of the twentieth century has witnessed new population problems that demography is incapable of handling alone. A brief backward glance will be particularly illuminating in this respect. In the nineteenth century, when the decrease of fertility provoked significant concern among the French elite, by comparison with the dynamism of the British and German populations, the phrase 'population question' was often used – as if population was a question that necessarily implied others insofar as it went without saying that no satisfactory answers could be provided by numbers alone and therefore within the demographic dynamic itself. Today, ideology uses the veil of scientificity to legitimatise itself. In the nineteenth century, discourse was far more transparent and the assertion of class interests (predominantly the interests of the bourgeoisie) involved no such dissimulation. When the elites addressed population questions or issues, they searched for economic, social, cultural and political explanations. In other words, they adopted a 'population studies' approach a*vant la lettre*. However, as noted above, demography subsequently became increasingly more sophisticated for several decades (and therefore increasingly withdrawn and isolated), particularly in the French context, where the recently created National Institute for Demographic Studies was forced to carve out a space for itself within the institutional landscape.

Today, there is evidence of a return to openness and of an extension of research questions which is the triple result of recent demographic trends (population ageing, hypofertility, emergence of new causes of morbidity and mortality), of the institutional and political treatment of these questions (reproductive health, population and poverty, population and the environment, international migrations, the importance of 'biopolitics', to use Foucault's term) and finally the evolution of the social sciences (gender approaches, reflexivity, expansion of the explanatory field). Even if these currents and phenomena of hybridisation between demography and the

other social sciences are marginal, they are nonetheless important since they serve to introduce a wide range of modes of thinking that are required for the internal life of the discipline and to foster exchanges with related disciplines. Today, there is no longer one type of demography but a whole range of types of demographic practice reflecting areas of specialisation but also a quest for meaning, thus resulting in an expansion of the discipline. The uncoordinated subdisciplines of previous decades are now required to address new objects, whereas previously the object of demography appeared to have a stability and solidity that would stand the test of time.

Chapter 5
Demography and Anthropology: A Return to the Origins

5.1 Two Antithetical Disciplines?

The previous chapters showed that because of the expansion of its object of research, demography had become increasingly open to other disciplines, and the research questions developed by demographers have increasingly involved multi- or interdisciplinary research projects. But is interdisciplinarity a mere pipe dream? While many advocates of interdisciplinarity would perhaps struggle to provide a definition of interdisciplinary research, it is clear at the very least that the term implies a desire to depart from the established frontiers and confines of a discipline by fostering dialogue and research practices with scholars in other disciplines and by developing new methods and knowledge in order to foster mutual understanding, which generally involves specific research project within specific field. Dogan and Pahre (1991) defended the concept of hybridisation defined as the 'combination of two branches of knowledge'. A hybrid can become institutionalised as the subdiscipline of a formal discipline or as a research centre or programme at the crossroads of several disciplines aimed at fostering dialogue between researchers in different disciplines or subdisciplines. Examples include research centres such as CEPED, which has developed a wide range of programmes on a multi- or interdisciplinary basis. The second type of hybridisation involves the informal emergence of a new field of research rather than the development of an entirely new discipline. However, rather than defining two types of hybrids, it is perhaps more accurate to speak of two successive moments or stages, with the informal stage preceding the process of scientific formalisation and institutional recognition. Dogan and Pahre doubted that even if economists were involved in examining development issues and fostering contacts with sociologists, political scientists, historians and anthropologists sharing the same concerns, the emergence of a fully institutionalised sub-disciplinary hybrid would still be unlikely (Dogan and Pahre 1991: 87). More than 15 years later, we may safely say that Dogan and Pahre were wrong and that development economics (particularly as a result of the emergence of research on poverty, microcredit and solidarity economics) has become fully established as an institutionally sanctioned

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discipline. The conditions of a rapprochement or hybridisation within the social sciences are not only explained by the advances or specific processes of specialisation within each discipline but are also connected to the social and political context shaping the development of a whole range of research questions appropriated more or less rapidly by the various disciplines capable of providing answers. This chapter re-examines the rapprochement between demography and anthropology and its institutional formalisation through the medium of anthropological demography. The emergence of anthropological demography should not be taken as evidence that the common history of the two disciplines is a recent phenomenon, as shown by the many rapprochements, missed opportunities and isolated attempts marking their disciplinary history.

Demography and ethnology have traditionally been viewed as two almost antithetical disciplines within the social sciences, with demography having emphasised the precision of measurements, the use of numbers as indicators and the search for universal laws, while ethnology has generally emphasised the search for meaning, contextualisation and relativism. Yet ethnologists have not always rejected demography or at least a certain form of quantification. In textbooks published in the nineteenth century and written for young researchers and colonial explorers, population censuses were often explicitly recommended and advocated. For example, in 1874, the Royal Institute of Anthropology published *Notes and Queries, for the Use of Travellers and Residents in Uncivilized Lands* under the supervision of a committee responsible for ensuring the quality of the data provided by travellers, ethnologists and other observers (Céfaï 2003; Kertzer and Fricke 1997b). The textbook met with considerable success and was republished several times (eventually becoming *Notes and Queries in Anthropology*). Censuses are defined as a necessary stage of fieldwork: 'Notes and queries in anthropology established census-taking as one of the first steps of fieldwork, constructing a framework on which all further social research would rest' (Kertzer and Fricke 1997b: 3). The publication of textbooks is clearly indicative of the ambition to systematise and professionalise data collection *in situ*. Despite being marred by ethnocentrism and evolutionism, their methodological recommendations and questionnaires were an important stage in the development of the first ethnological corpuses. The figure of the missionary, colonial administrator or army officer was gradually replaced by experts in the observation of populations subjugated by force. In France (as in Britain), sociologists used social surveys and monographs to describe the new groups or populations produced by industrialisation and urbanisation (e.g. the working classes, immigrants, the homeless, marginals) and to describe living conditions. Whether in Chicago, London or Paris, the aim was to observe new social groups often perceived as dangerous. It is worth noting that in sociology and ethnology, the purpose of acquiring a detailed knowledge of populations viewed as inferior on the social scale or on the scale of humanity (Blacks, American Indians…) was social control (and even subjugation) in the name of the public interest or civilisation. In this sense, the history of the social sciences was primarily the history of their instrumental use in a process of domination, and the promotion of the quantification was not unrelated to the

imperialist context of the time, and it was only gradually and at different rhythms that sociology and anthropology became instruments of counterpower in democratic societies.

Among the data collected by the various agents of colonisation (including ethnologists), population censuses were key objective for the colonial authorities and learned societies. Once ethnology had become fully established, some ethnologists in Britain and France resorted to a demographic corpus, while others remorselessly abandoned any such approach. This chapter precisely aims to discover what lies beneath the different perceptions of demography in the field of ethnology.

5.2 British Social Anthropology

5.2.1 Malinowski: Field Observation

Bronislaw Malinowski (1884–1942) is generally considered to be the founding father of British social anthropology and modern anthropology. Malinowski owes this reputation to the methodological revolution that he initiated and which involved a radical and definitive departure from the practices of his time (e.g. armchair anthropology, which was content to analyse data collected by colonial administrators or by religious missionaries). In his research, Malinowski gave primacy to intense field observations in a specific community based on detailed examinations of local life and culture and the importance of conducting fieldwork in person. Data collection, data classification and data quality gradually emerged as central questions in ethnology (Kuper 2000: 14–16). Theory and field were made to merge, thus further consolidating the continuum between data production and analysis. Malinowski's *Argonauts of the Western Pacific* was published in 1922 and was the first of seven monographs devoted to the inhabitants of the Trobriand Islands, with each monograph examining a particular institution. The final volume in the series was *Coral Gardens and their Magic*, published in 1935. In this founding monograph, Malinowski made no use of demography. Two reasons may account for this. Unlike Evans-Pritchard, who sought to determine the size of the studied population, the data collections performed by Malinowski included no reference to population censuses. While Evans-Pritchard worked on large dispersed tribes, the populations studied by Malinowski on the Trobriand Islands were limited and circumscribed by natural geographical boundaries. Insular populations could be identified more easily and more rapidly than populations such as the Azande or the Nuer, who lived in far more open spaces. Malinowski also focused on the description of key institutions such as exchange, family life and procreation, myths, compliance with and enforcement of social codes and rules, gardening and agricultural production, traditional questions in ethnology.

5.2.2 *Radcliffe-Brown: Social Morphology and Demography*

In 1922, Alfred Reginald Radcliffe-Brown (1881–1955) opened his classic monograph on the Andaman Islands with a demographic observation (Radcliffe-Brown 1948). As part of his search for population estimates, Radcliffe-Brown conducted a critical assessment of the 1901 Indian census. He reconstituted the decline of the population of the Andaman Islands, emphasising the high mortality rates caused by the introduction of diseases by Europeans. He also discussed the decrease of fertility and the social impact of population decline. The examination of limited populations was thus not an explanatory factor of the use (or non-use) of quantification. Radcliffe-Brown's attitude towards quantification is explained instead by the specific research perspective of the observer. Like the generation of British anthropologists that followed him in the post-war period, he developed a more particular interest in demographic questions. In this respect, he was deeply influenced by the renewal of the epistemology of the human sciences in the first half of the twentieth century under the impetus of Emile Durkheim, who was keen to demonstrate the specificity of social phenomena and argued that the causes of a social fact need to be sought in earlier social facts (Durkheim 1896).

Since his aim was to establish sociology as an autonomous discipline distinct from anthropology and psychology, Durkheim put significant emphasis on the specific nature of social phenomena. The research conducted by Radcliffe-Brown and his students made explicit reference to the analysis of social morphology developed by the French sociological school. Emile Durkheim (1858–1917), Marcel Mauss (1873–1950) and Maurice Halbwachs (1877–1945) established demography as the 'foundation of sociology' and defined population as 'the most general framework in which all social facts need to be placed'.

5.2.3 *Evans-Pritchard: Demography as the Explanatory Variable of Politics*

Whereas Radcliffe-Brown viewed the collection of demographic data as the foundation of ethnological monographic research and while data collection represented both a key dimension of the monographic framework and a key stage of the data collection process, Edward-Evan Evans-Pritchard (1902–1973) argued that demography could also serve as an explanatory variable of an ethnological issue or phenomenon. Evans-Pritchard used demographic data to examine the political institutions of the Nuer, drawing a causal link between the environment, social morphology and political organisation. The principle of segmentation structuring the sociopolitical organisation cannot be understood without replacing it in its wider context: 'the physical environment, the way of life, poor communications, simple technology, irregular supplies – in short anything that can be referred to as ecology – contributes to explaining the demographic particularities of political segmentation among the Nuer people' (Evans-Pritchard 1994: 175).

Evans-Pritchard developed the following explanatory framework: the environment determines economic activities, the economy accounts for social morphology,[1] and the social organisation defines the political organisation. Here, the point is not to examine the meaning or intensity of the causal relations defined by Evans-Pritchard but to consider his use of demography: did Evans-Pritchard use data, conceptions or variables? For example, to what extent can population numbers and age and gender structures be said to be explanatory factors of Nilotic political institutions? According to Evans-Pritchard, the demographic characteristics of the Nuer are explained by geographical, economic and sociological variables. In the chapter entitled 'Ecology', Evans-Pritchard described the environment (savannas and swamps), the climate (wet season, dry season), the available resources (water, lack of ore) and the activities of the Nuer (horticulture, farming, fishing) and concluded that the Nuer's difficult living environment and their low level of technological development represent significant constraints shaping an economy that enables the group to 'maintain its position' within its environment. In the following chapter (entitled 'Time and Space'), Evans-Pritchard showed how the economy, because of its mixed character, determined the life of the group, in turn shaped by the calendar of transhumance, since an entirely sedentary lifestyle and an entirely nomadic lifestyle were both equally incompatible with their economy (Evans-Pritchard 1994: 116). This form of seasonal mobility had a direct impact on the form, location and duration of residence (villages, camps, small temporary camps); on the *significance* and direction of the geographical mobility of groups; on the social organisation (the organisation of small groups as economic units and the relations of interdependence operating at different sociological levels) and therefore on the political organisation.

The purpose of the research conducted by Evans-Pritchard was to understand the mechanisms of fusion and schism – what he referred to as the 'principle of segmentation' of the Nuer political structure. He began by identifying the various political units and by describing how they are superimposed, ranging from the lowest to the highest in terms of political hierarchy – that is, hut, farm, village, tertiary tribal section, secondary tribal section, primary tribal section, etc. Evans-Pritchard did not collect any data himself, seeking instead for quantitative information found in administrative reports or provided by the stories of explorers. While he bemoaned the lack of suitable statistics on the population (1994: 134), he used estimates to draw a density map of different tribes, estimated at 5.5 per square mile (1994: 135). He also examined the seasonal migrations of the Nuer, and commented on the size of villages, noting for instance that 'their population varied from a 100 souls to over a 1,000, and that these concentrations were never at the level of tribes, but included more or less important tribal sections' (1994: 135). Further on, Evans-Pritchard reproduced the most recent available estimates of the main tribes (1994: 142) based on various government documents. In short, he was interested in the form (morphology) of social units (segments) and sought to

[1] I use the term 'social morphology' since in his preface to the *Nuer*, Louis Dumont noted that while the research conducted by Evans-Pritchard is deeply rooted in the tradition of British anthropology, it was also nurtured by French sociology. Though it was originally published in 1937, a French translation of the *Nuer* was only published in 1968, before being reissued in 1994.

understand the relationships between the various units. He used demographic data to structure and to organise his argument, and the descriptive social morphology required for his work may be said to be at the interface of sociology and demography.

5.2.4 *Firth and Fortes: Optimum and Dynamics of Traditional Populations*

The research conducted by two of Malinowski's students further consolidated the interest of Anglo-American anthropologists in incorporating demographic questions in ethnological studies. Firstly, in *We, The Tikopia* (1936), Raymond Firth (1901–2002) devoted an entire chapter to *A modern population problem*, in which he examined the balance between resources and population within the limited space of a small island. Firth criticised the sources of data for European populations and questioned the impact of colonisation on traditional birth control mechanisms. The Christian missionaries had opposed the abortion and infanticide practices traditionally used by the local population to limit its population growth. Meyer Fortes (1906–1983) played a central role in the recognition of the contribution of demographic analysis to our understanding of traditional societies. Like Evans-Pritchard and Firth, Fortes showed that our limited knowledge of the structures of primitive populations cannot answer some of the key questions raised by ethnology. He also showed that because of their unreliability, official statistics are of little use in the specific case of Africa. He concluded that anthropologists need to devise their own approach and to collect demographic data at a local level in accordance with their specific research objectives (Fortes 1943: 99–113; Kertzer and Fricke 1997a, b: 4–5). The principle established by Fortes is still highly relevant today. The importance given to fieldwork and to the control of the data collection process by taking an active part in it remains a distinctive feature of ethnological research. Ethnologists have often criticised demographers for using databases developed by other scholars and researchers. The proximity of ethnologists to the field also implies a circumscribed area of research, since researchers need to be able to cover the field in order to gain a detailed knowledge of it – an impossible task for demographers working at a national level or on populations living in a vast area. Combined with the fact that a census needs to be conducted as quickly as possible, this constraint eventually resulted in the development of micro-demography.

5.3 A Different Tradition: French Anthropology

Though largely founded on colonial conquest (like British anthropology), modern French anthropology is distinct from British anthropology insofar as it has different historical roots (in particular, different philosophical roots), has been subject to different influences and has been shaped by different political and institutional contexts.

5.3.1 Mauss: 'Total Social Facts' and Concrete Social Reality

As we know, Marcel Mauss differs from Durkheim because of the status he granted to anthropology and the development of an interdisciplinary epistemology. For Mauss, anthropology is a full-fledged science and is not a branch of sociology specialised in 'primitive' societies (contrary to the view taken by Durkheim). One of Mauss's most significant contributions was the development of the concept of 'total social fact'. In his *Essai sur le don. Forme et raison de l'échange dans les sociétés archaïques*, Mauss defined the concept of 'total social facts' based on an analysis of gifts and exchange. After providing a definition of the concept of 'total social fact', Mauss defined the holistic vision that is the trademark of anthropology and presented the analytical benefits of the holistic approach. Particular emphasis was given to the idea of figures and numbers, mass and entire groups, numerically defined quantities or crowds. Mauss even evoked the idea of the 'average Frenchman', thus creating a 'concept' or at least a 'statistical image'. Viewing the mass as a whole, namely the population, is useful for the purposes of examining society as a whole and for understanding its fundamental behaviours: 'In societies, we examine more than ideas or rules. We examine men, groups and their behaviors. We see them moving, just as in mechanics we see masses and systems […]. We see numbers of men, mobile forces floating in their environment and in their feelings. Historians feel and rightly object that sociologists are excessively prone to abstractions and tend too often to separate the various elements of a society. It is important to follow their example – i.e. to observe what is given. The given is Rome, Athens, the average Frenchman, or the Melanesian islander, and not a prayer or a law' considered *per se* (Mauss 1985: 120–121). The holistic conception defended by Mauss and his attendant emphasis on 'the numerical point of view' (Véron and Briand 2005: 111–130) were partly forgotten by subsequent generations of French anthropologists, who have tended for the most part to focus on institutions and systems of representation by dissociating them from their human substrate and concrete dimension. I use the term 'concrete' since the demographic weight and structure of a group determines its social and political organisation. For example, the deficit of female births observed in recent years in some Asian countries has a range of social effects on the choice of partner, the payment of a dowry and the status of women. Note for instance that the scale of the preference for boys and the resulting social issues have been highlighted by demographers at a macro-level, whereas the issue had escaped anthropologists working at a meso- or micro-level on the development of family structures.

However, according to Mauss, it is only 'by considering the whole' that it is possible to observe and 'to find new facts', particularly since the practical observation of social life has 'firstly the benefit of generality, since the facts of general functioning are more likely to be universal than various institutions or the themes of these institutions, which are always imbued to a greater or lesser extent with a local flavor. But above all, it has the benefit of reality. We are able to see social things themselves, in the flesh, as they are' (Mauss 1985: 120–121). Mauss used 'concrete' and

'complete' as rough equivalents, and this double quality is made to serve as the means and objective of sociology since it increases the explanatory power of sociology: 'The study of the concrete, i.e. that which is complete, is possible and more captivating and even more explanatory in sociology. My aim is to observe complete and complex reactions of numerically defined quantities of men, i.e. complete and complex beings. I also aim to describe what they are in terms of their organisms and their psyche, just as we might describe the behavior of the mass and its corresponding psychoses – i.e. feelings, ideas, crowd volitions or the volitions of organized societies and their subgroups. I am also keen to observe bodies and the reactions of these bodies, of which ideas and feelings are usually the interpretations and, more rarely, the motives. The principle and purpose of sociology is to understand the group as a whole and its behavior as a whole' (Mauss 1985: 120–121).

In chapter 2 of his *Manuel d'ethnographie* (1926), entitled 'Methods of Observation', Mauss argued that these 'instructions are aimed at administrators and colonizers without any vocational education. Designed as basic instructions, they can be used to perform intermediary work between an extensive study and an intensive study of the studied population, a study in which the proportions of different social phenomena are respected' (Mauss 1985: 10). Mauss argued that the study plan of a society must involve three distinct sections: 'Physiology', 'Social Morphology' and 'General Phenomena'. The section on 'Social Morphology' includes three distinct areas of observation: 'demography', 'human geography' and 'technomorphology'. Like Durkheim, Mauss argued that 'any society is first of all composed of a mass. The study of a society conceived as a human mass and within its environment is social morphology, which includes demography and human geography, both critically important fields' (Mauss 1985: 10). In summary, the study of a human mass must be performed in the field, that is, within the particular environment of the studied population. Rather than conceiving demography as an analysis isolated from its object of study, Mauss argued that not unlike an anthropologist, the demographer needs to be a practical man operating within the field. In this respect as well, Mauss's thought is remarkably and unusually modern.

5.3.2 Maget: From Population to Culture

While Maget's objective was more humble than Mauss's (since his aim was not to found a new discipline), the particular focus or direction of his research merits attention insofar as his aim was to develop a method of observation for anyone planning to work on the specific case of France. This is indicative of the extent to which Maget departed from the colonial context and from scientific objectives sometimes tinged with distinctly political undertones. Mauss's influence is in evidence in the recommendations he made in *Ethnographie métropolitaine. Guide d'étude directe des comportements culturels* (1962). His work was driven by a clear anthropological objective, that is, the study of cultural behaviours, based on a global analysis of the studied population, with statistical analysis highlighting what he referred to as

the 'elementary norm'. Although he never used the term demography, Maget invoked the concept of census through statistical classifications: 'the individuals of a given population can be classified in statistical categories or classes by noting the presence or absence of a determined characteristic in each individual: a biological characteristic (gender, age, skin color), a geographical characteristic (place of birth, place of residence, place of work), an economic characteristic (income, status symbols), or an ideological characteristic (knowledge, belief, moral views, aesthetics, etc.). Estimating the total number of individuals with the selected characteristic within a given population and at a given time, i.e. entering into the defined category, gives the mass or size of the category. From a cultural point of view, the size is indicative of the extension of the elementary norm' (Maget 1962: 89). According to Maget, the particular value of statistics is that it can be used to identify norms, which enable ethnologists or sociologists to work on deviations from the model, on phenomena of deviance or conformity, and the development of countercultures. The process of statistical data collection and processing is thus not considered to be in conflict with ethnological research but is deemed to support the development of empirical research. Maget also defined the foci of analyses of the 'domestic or household group' and in particular, the composition of a household group. Paragraph 118 on 'reproduction' (Maget 1962: 95–96) defined the areas where ethnologists needed to collect data: conception, the means of conception, religious prescriptions, the interval between marriage and first birth, intervals between children, indications concerning sexual practices, indications concerning contraceptive practices, childbirth, etc. Many of these issues are similar to the questions raised by demographers in studies examining fertility and birth control. In short, like Mauss, Maget aimed to identify the concrete conditions and not merely the representations, norms and value systems developed by every society to ensure its reproduction.

5.3.3 The Demographic Dynamics of Subsistence Societies

The interest in practical observations and the examination of the demographic regime of a population and its embeddedness in the sociocultural system were further developed by anthropologists working on the reproduction of subsistence societies. In *La société contre l'Etat* (1974) and *Chronique des Indiens Guayaki* (1972), Pierre Clastres used a range of demographic methods and indicators (census, sex ratio) but also a range of concepts such as overpopulation, life cycle, household and population collapse and boom. While these are classic questions of the demography of development, they are examined less frequently in anthropology. Clastres constantly underlined the heuristic value of a demographic perspective for his own research. His interest in demography is not altogether unrelated to the specific object of his research. Clastres focused on a very small population, that is, the last group of Guayaki Indians on the verge of extinction and extermination, since there were only a few dozen still alive at the time of his

research.[2] Clastres related the demographic characteristics of the Guayaki Indians (e.g. decline, imbalanced sex ratio and abortion and polygamy practices) to their way of life (i.e. more or less sedentary hunter-nomads), the appropriation of the environment in which they lived, the national political context in Paraguay and the tragic history of the Amerindians (especially the Guayaki and the Guarani Indians in this particular region of Latin America). The survival of a small group in an area that was decreasing by the day and in a political entity that refused to officially recognise them is the central focus of Clastres's research. The use of a demographic demonstration provided further support to his argument since his aim was to write a chronicle of a death foretold – the chronicle of an ethnocide.

However, the perspective adopted by Clastres is not entirely identical to the demographer's. His aim was to understand how demographic events, especially the major stages of the life of an individual (birth, wedding, reproduction, death), are socially transformed and constructed by culture. The narrative of his *Chronique des Indiens Guayaki* takes up this sequence of demographic and sociological stages: 'the impact of an abortion or the first menstruations is felt less strongly than childbirth at the sociological level of tribal life, and the incorporation of these elements always involves an institution: a ritual is a means of transforming raw immediate data into a mediated symbolic system by socializing them; to put it differently, it is in and through the ritual space that the natural order [we might say the biological order] is converted into a cultural order' (Clastres 2006: 26). The first chapter, entitled 'Naissance', begins with the story of a delivery in the cold night of the Paraguayan forest. One of Clastres's informants comes to wake him so that he may attend the delivery of a baby of one of the group's women. This descriptive concern is foreign to the approach adopted by demographers, who have generally shown little interest in observing demographic events in their original setting, thereby losing sight of the many factors involved in real demographic events. However, understanding the beliefs, values and meanings involved in such events and the rituals surrounding them would enable demographers to understand (for example) why their interviewees identify living heads of household in censuses despite the fact that they have died or why women often omit to declare children who died in the first few days of their life (Petit 1998). Observation enables ethnologists to identify the key categories of thought, being and action of indigenous peoples. By contrast, demographers tend to fit answers given by the population surveyed into standardised and pre-established research categories. Population accounting involves a more distanced description since it implies the use of categories that may be entirely disconnected from the own categories of the observed actors. This is a difficult position to hold for ethnologists, who are required, as part of their descriptions and analyses, to provide an account of the meaning assigned to practices by actors. This key difference is significant since it suggests that it is possible to have different albeit complementary perspectives on population events or facts and that such events and facts cannot be monopolised by any single discipline.

[2] Clastres conducted his fieldwork in Paraguay in the 1960s.

The position adopted by Clastres is relatively uncommon in French anthropology. Clastres noted that he was not indifferent to the political and scientific context of the time in which he wrote, that is, the late 1960s and early 1970s. In 1968, Paul Erlich published *The Population Bomb*, a book that construed the population boom in developing countries as the major new anxiety of the West. Despite working in developing countries, ethnologists are not always aware of the demographic specificities of the populations they observe and analyse. Like Evans-Pritchard, Clastres explicitly borrowed from the demographic knowledge and research questions of his time. Both focused on the population dynamics of their studied ethnic group. The research focus was particularly clear for Clastres since he was confronted with a group that was no longer able to ensure its reproduction, whereas from Evans-Pritchard's perspective, the Nuer had to fight to maintain their position within their environment. It is worth noting that Clastres wrote a preface to the French version of *Stone Age Economics* by Marshall Sahlins in 1976. Both were involved in research issues that examined the relations between economics, history, culture and demography, and both showed that so-called primitive societies, far from living in a state of subsistence or even poverty (as posited by Western perceptions), were actually affluent societies. Yet affluence is not a given but the product of cultural choices imposed by a specific environment. Marshall Sahlins concluded 'that a draconian demographic policy and an ascetic economics are the expression of the very same ecology. This demographic tactic is also part of a general strategy aimed at combating the law of decreasing returns in the area of food' (Sahlins 1976: 75). In his view, demography and economics are embedded in culture and can only be explained in relation to culture as part of a global approach. The untimely death of Pierre Clastres may have deprived anthropology and demography key mediator. His critique of the Marxist approach in anthropology, his experience in the field of American studies and his attention to demography might have provided a significant source of debate and openness to French anthropology.

5.3.4 Marxist Economic Anthropology: The Regime of Reproduction and Production

The anthropologists who have shown the greatest interest in demographic variables have tended to be Marxist or Marxist-inspired (Claude Meillassoux, Maurice Godelier, Emmanuel Terray), probably because of their object of study – that is, the relations of production and reproduction and the articulation of the structures of production and the structures of reproduction. In *Terrains et théories*, Claude Meillassoux analysed the agricultural economy in a society 'in which duration, waiting and cyclical repletion are key factors, i.e. time; the future becomes a concern and with it the problem of reproduction. The reproduction of the production cell in quantity and quality to ensure the continued supply of its members; the economic reproduction of the means of subsistence capable of ensuring the reproduction of the population; the social reproduction of the structures of the group in

order to preserve the hierarchy that guarantees its running' (Meillassoux 1977: 134–135). Meillassoux also referred to 'biological reproduction' in the socio-economic model that he sought to elaborate in ethnology (Meillassoux 1977: 70).

To what extent does the question of reproduction imply a process of quantitative data collection and the conduct of a population census and in particular a census of the examined social categories (elders, the youngest, women)? In response to Pierre Naville, who had asked 'whether ethnology can afford to overlook these kinds of procedures' in referring to the use of quantitative data (statistical data concerning the distribution of the social classes) for measuring the weight of a given group, Meillassoux argued 'that there are several possible approaches. One approach involves using research documents provided by studies conducted by other ethnologists, who generally provide qualitative data and seek to describe and to explain phenomena using very limited statistical resources. I perform censuses, and what tends to emerge is a contradiction between quantitative data and stated social relations'. The identification of this contradiction constitutes one of the key contributions of demography to ethnology. Yet it cannot possibly conceal the problem of categorisation (noted above) as practised by demographers. On this point, I agree with Meillassoux on the need for a detailed analysis of the criteria and typologies that must precede the process of data collection.

In *Anthropologie économique des Gouro en Côte d'Ivoire*, Claude Meillassoux examined the social and economic transformations of contemporary Gouro society. The study of the relationships between men and their environment and between different groups in economic systems that originally developed as a subsistence economy focuses subsequently on the impact of three key historical factors: Sudanese trade, colonial rule and the introduction of commercial agriculture. Meillassoux used economics, geography and history while observing that 'these are not enough to account in full for the functioning of a society since other (ideological and cultural) phenomena are likely to alter, impede or accelerate certain developments'. However, Meillassoux opted not to conduct a systematic analysis of these phenomena since they 'are beyond the scope of [his] study' (Meillassoux 1970: 10–11). In demographic terms, in addition to using used data from censuses conducted by the colonial authorities, Meillassoux also reconstructed the age pyramids of over 30 villages and collected a wide range of data focusing on two main themes: population and migrations and the employment-to-population ratio. Chapter 2 is entirely devoted to the history of the population of the studied area and accounts for the population dynamics (density, break-up of villages, recomposition, foreign migration, etc.) based on changes in economic activity, especially the development of modern commercial cultures and on displacements caused by high mortality (smallpox, guinea worm, poisonings, tribal wars) (Meillassoux 1970: 45).

In order to remain faithful to his theory, Meillassoux was compelled to resort to a range of demographic variables. He also refused to be impeded or constrained by the explanatory limits of his home discipline, arguing 'that there is no such thing as a system of closed causality within a single discipline in the human sciences. My research perspective is problem-based and not discipline-specific. My aim is to pursue the demonstration wherever it leads me without being impeded by the conventional

barriers of disciplinary specialization' (Meillassoux 1975: 73). Meillassoux's aim was to show that 'the domestic community is the first mode of production that shapes, within the mechanics of the relations of production, the dialectics of the social (and therefore demographic) reproduction of a human society' (Copans 2005). Despite repeatedly and critically emphasising their limits, Meillassoux has systematically resorted to censuses and demographic data from a historical perspective. His analytical perspective is at the crossroads of anthropology, demography, history and economics, an approach that can be explained in part by his atypical career within the sphere of French social science. The holder of a masters degree in economics from the University of Michigan, Meillassoux worked as an administrator in the services of the Marshall Plan, attended the Paris Institute of Political Studies and later the EPHE and later began his career as an anthropologist at the CNRS in 1964. Although Meillassoux is now widely recognised as the founder of French economic anthropology, he was never in charge of a large research centre and consistently remained at the margins of his institution. As noted by Copans, Meillassoux is more akin to a mentor. His influence has spread well beyond the confines of his discipline. For demographers at the school of demography at the University of Montreal have explicitly referred to his work and share the same concern as Meillassoux – namely, to find a model of social reproduction that incorporates the demographic, economic and sociological factors.

5.3.5 The Dizzying Heights of French Anthropology

In general, ethnologists only tend to use demographic data or methods if they are compelled to do so by the nature of their research question of objective or if they see it as having an explanatory benefit. While it may seem reasonable to assume that some research topics are more readily conducive to interdisciplinary research than others, nothing could be further from the truth. French anthropology distinguishes itself from American and British anthropology by virtue of a distinct 'ideological and philosophical tendency', it is based on 'sociological, structuralist and Marxist' models. Its privileged field of investigation concerns 'the systems of representation' (Laplantine 2001: 100). The particular focus of French anthropology is therefore not particularly conducive to the use of demography, unlike British anthropology, which tends to focus on the study of social organisation. In *The Nuers*, Evans-Pritchard clearly indicated that his object was not the cosmogony of a particular social group, but 'its political and other institutions; therefore my main interest is the influence of ecological relations on these institutions rather than the influence of the social structure on the conceptualization of ecological relations. For example, I do not describe the way in which the Nuer classify birds in various lineages modeled according to the structure of their own lineages' (Evans-Pritchard 1994: 117). The contrast with the level of abstraction reached in French ethnology is striking. Claude Levi-Strauss 'explained how people think and why they think in the way that they think' (Godelier 2002: 33). Procreation and its attendant issues and challenges seem largely trivial issues when operating at such dizzying heights.

In their work on the history of the populating of the Dogon cliff, Marcel Griaule and Germaine Diertelen reconstructed the order of creation of the villages and identified the founding lineages based on accounts given by their informants of the myths and beliefs surrounding the settlement of the Dogon on the Bandiagara cliff. Griaule's method was severely criticised by British anthropologists after the publication of *Dieu d'eau*. Radcliffe-Brown, R.G. Armstrong and M. Douglas expressed significant reservations before openly criticising the methodological approach used in the analysis of the symbolic representations of the Dogon (Radcliffe-Brown 1952; Amstrong 1957; Douglas 1967, 1968; Ciarcia 2003). Mary Douglas drew a parallel between French anthropology and British anthropology in a paper entitled 'If the Dogon…', in which she imagined what British anthropology might have produced if her fellow countrymen had researched the Dogon. In her view, the symbolic analysis of the Griaulian school is indicative of the inclination of the French for literary exegesis, whereas British research tends to focus on social institutions. Douglas argued that 'the presentation of the world of ideas, animated by a ceaseless movement of symbols, eliminates the dissonance between the ideal and the real and ignores the discordant dynamism characteristic of all social life' (Douglas quoted by Ciarcia 2003: 83). Douglas was thus highly sensitive to the contradictions that may result from the level or angle of observation adopted by the researcher. However, her criticisms need to be qualified since Griaule does not embody the essence of French anthropology. In Griaule's own research group, the studies conducted by Denise Paulme on the social organisation of the Dogon need to be set apart (Paulme 1940). It is perhaps no coincidence that Paulme subsequently left Griaule's research group to conduct research in other fields more in tune with her own personal research interests and perspectives (Paulme 1954). Griaule was never given unanimous support within the French anthropological community. For example, while her work was viewed favourably by Roger Bastide and Maurice Leenhardt, Georges Balandier eventually distanced himself from Griaule's work, levelling an acerbic threefold criticism: 'a) Inadequate reference to the "material" context and the social frameworks examined objectively; b) An overly systematic approach emphasizing the ordered and well-integrated dimension of society (in reference to the "ideologies" associated with the given society) that neglects the contradictions and conflicts inherent in any social system; c) the lack of dynamism of a method that construes facts according to mythical time and never according to historical time' (Balandier 1959: 15; a similar view can be found in Olivier de Sardan 1995a, b: 28). The criticisms levelled by Balandier against Griaule are indicative of the difference between an approach that allows for some use of demography and an approach that can afford to dispense with it altogether.

In the analysis of nuptiality, it seems reasonable to assume that parenthood might serve as a meeting point for demography and anthropology. After all, both anthropologists and demographers have an interest in examining the rules that govern the choice of partner. In every society, the rules of parenthood define the potential partners of every individual based on a principle of exclusion. These rules tend to favour specific unions, relations or partnerships by designating the most socially desirable partner, where social desirability is constructed in terms of parenthood. Ethnologists

study the rules with which individuals must comply and the sanctions that may result from a transgression. Claude Lévi-Strauss and Françoise Héritier emphasised the structures and rules of parenthood in different societies and identified possibilities in terms of the combination of systems of parenthood offered by the 'biological substrate'[3] (Héritier 1981: 16–17). However, they provided no detailed examinations of the constraints imposed by the population conceived as an open and dynamic basic structure. Socio-demographic studies have shown that preferential marriages are anything but a statistical norm since individuals fitting the desired genealogical situation may be lacking for various reasons (mortality, poor health) or have flaws that exclude them socially (impoverishment, disgrace, bad reputation). In order to comply with social norms, societies have generally manipulated parenthood like any other social construct. The fact that agents define, classify, reclassify or declassify potential partners clearly indicates that they are aware of the interaction between socio-demographic constraints and the more visible process of compliance with norms.

5.3.6 A Missed Opportunity: The Social Anthropology of Development

A similar observation applies to an issue that may initially appear to be more open than the question of parenthood – the question of social change. In his sociological analysis of change linked to the colonial situation of African societies, Balandier entirely ignored the broader demographic context. However, in his criticisms levelled against Griaule, Balandier had insisted on the importance of considering the morphological framework and temporal dimension of the studied society. While he advocated the study of social dynamics and the importance of disciplinary openness, Balandier argued inconsistently that population dynamics neither shaped the substrate upon which his observations were based nor represented an eminently political issue – in terms of social control or as a factor of development – from both an internal and an international point of view.

This can be explained by the fact that Balandier wrote his reference works in the 1950s and 1960s, that is, before the population boom became a significant cause of tension between countries in the North and in the South in the context of postcolonial relations. The positions of developing and developed countries began to crystallise in the 1970s, especially after the 1974 Bucharest Conference. West African states were among those countries that refused to control the high level of fertility. Algeria and Argentina positioned themselves as leaders of a large group of poor

[3] Françoise Héritier provided the following definition of 'biological substrate' or 'basic biological given': there are only two genders, male and female; procreation causes a natural succession of generations; the order of births within the same generation results in a clear distinction between the eldest and the youngest' (1981: 16–17).

countries intent on defending the idea that a young and significantly growing population is an asset for development. They were radically opposed to the opinion that the population boom was a disaster for the Third World and called for the introduction of a new economic order. Developed countries (particularly in the English-speaking world) adopted a Malthusian position and called for a control of population growth to resolve the problem of underdevelopment. In 1976, the UN launched a survey among African governments aimed at understanding the perception of fertility and the strategies required to limit fertility. Of the 48 countries that participated in the survey, 25 stated that they were satisfied with their fertility rate, including Libya, Algeria, Ethiopia, Mauritania, Mali, Ivory Coast, Niger and Burkina Faso. Five countries stated that their fertility rate was too low, including three African countries (Cameroon, Gabon and Central African Republic), while 18 countries stated that their fertility rate was too high (including South Africa, Botswana, Egypt, Ghana, Kenya, Morocco and Tunisia). The positions adopted by African states had changed considerably by the time of the Mexico conference held 10 years later in 1984. By then, the emphasis was on the need to act on demographic trends and issues. However, political rhetoric prevailed, and no quantitative targets were actually defined. While the gap between the development of a policy and its effective implementation remains considerable, the international context has changed significantly since then. A rapprochement between the attitudes of developing countries and Western countries was eventually achieved, resulting in a consensus that emerged in 1994 at the international population conference in Cairo.

The new political directions taken by political leaders in Africa is crucial since they shape the destiny of hundreds of millions of people in a continent that still has the highest fertility and mortality rates in the world (especially maternal and child mortality rates). However, the issue failed to result in analyses by French ethnologists that were anything like as detailed and intensive as the analyses generated years later by the many policies and measures linked to the HIV/AIDS epidemic. Besides the seriousness of the situation, the 'social' nature of the disease may explain the significant interests of ethnologists in this new issue, which resulted in a renewal of health anthropology. Some French demographers wrongly referred to a so- called 'African exception' to explain why Africa was lagging behind other regions of the world in entering the process of demographic transition, arguing that key characteristics of African cultures (e.g. their attachment to fertility, fecundity, large families, polygamy and religiosity) were likely to impede demographic evolution. This is a peculiarly simplistic form of culturalism. The idea of a homogeneous 'African culture' seems highly dubious given the wide variety of ethnic groups and the diversity of religious systems in Africa. In Asia and Latin America, beliefs and the place of the family are just as important, yet they have never impeded the decrease of fertility in these regions. This is a typical example of the tendency of demographers to use a black box (i.e. culture) in demographic analysis. There is no trace of any questioning of this excessive culturalism among ethnologists or indeed any sign of any interest in population policies. It might have been thought that ethnologists would have an interest in the differences of political position between English-speaking African countries and French-speaking African countries, with

the latter preserving the traces of French pro-birth policies in their legislation for decades. It also seems reasonable to assume that ethnologists would have an interest in the conflict between the pro-birth positions adopted by African governments and the popular demand for access to modern contraceptive methods. The contribution of anthropology to the field of population issues is not limited to the observation of the attitudes and practices of groups but also concerns the political and institutional analysis of the elites and the critique of the use of the concept of culture by demographers.

In the 1990s, observing the gap between French anthropology and American anthropology as a discipline applied to the analysis of social change, Jean-Pierre Olivier de Sardan set out to establish the socio-anthropology of development as a distinctive discipline. He defined the new field as 'the empirical, multidimensional study of contemporary social groups and their interactions, placed in a diachronic perspective, and combining the analysis of practices and of representations. It could also be called "qualitative sociology" or "socio-anthropology" because, thus defined, it distinguishes itself from quantitativist sociology, based on heavy enquiries through questionnaires, and from patrimonialist ethnology, which focuses on a favoured informant […]. It is the direct opposite of speculative essayism in sociology and anthropology. Socio-anthropology combines the traditions of field sociology (the Chicago School) and field anthropology (ethnography) in order to attempt an intensive *in situ* analysis of the dynamics of reproduction/transformation of diverse social sets, taking into account actors' behaviour as well as the meanings they attribute to their behaviour' (Olivier de Sardan 1995a: 36). Olivier de Sardan also noted that the epistemological convergence of the new discipline 'obviously includes history (and the other social sciences, political science, and economics: see Passeron 1991). However, historical research themes, properly speaking, as opposed to those of anthropology, call upon "dead" material, as it were, which justifies my leaving history – as a discipline – on the touch line. However, the historical perspective, the recourse to "oral tradition", and historical contextualization constitute essential ingredients of any kind of socio-anthropology worthy of the name'.

Unless I am mistaken, while he aims to account for the complexity of the 'processes of social change and development' and the 'dynamics of reproduction/transformation of diverse social sets', population issues were not part of Olivier de Sardan's field of interest. However, the care he took to keep his distance from heavy quantitative approaches did not commit him to renouncing the analysis of population dynamics since ethnologists may contribute to the field while continuing to use their specific and distinctive methods. Like Balandier, Olivier de Sardan also emphasised the importance of the diachronic perspective in social reproduction issues. However, what other discipline except history (with the exception of demography) uses the temporal dimension as a basic framework of analysis, while producing current data about living men? Olivier de Sardan included no reference to demographic variables in the explanation of change and failed to see – or perhaps underestimated – the potential contribution of demography to the analysis of social change, even though internal and international migrations cannot be eliminated as explanatory factors of changes in West African societies. Since some of

them operate as development brokers, returning migrants and migrant associations are among the category of actors that are given priority in his analysis. For example, half of the population of Senegal lives abroad, and international migrant remittances enable some regions (such as the river valley) to survive. Olivier de Sardan discussed development policies at length and referred to health issues but failed to specify that a significant proportion of health and development policies are population policies and that they are assessed based on demographic indicators (life expectancy, child mortality rate, sex ratio, etc.). He also overlooked a major social change which was to result from the introduction of modern contraception. Except in Western and Central Africa, modern contraceptive methods are now widely accepted and used in the rest of the world, thus enabling women to control their body and to acquire a freedom often feared by men. While Olivier de Sardan commented on the practice of abortion and traditional birth control since a range of techniques, though ineffective, remain in use (1995a: 145), his analysis of the relations between demographic evolution and social change was not sufficiently developed. The role of development broker posited by Olivier de Sardan demonstrates the heuristic interest of these figures as they are constructed by anthropologists but also demonstrates the limitations of an image describing a social function. A social role only emerges if it is socially or politically significant but also and above all because it becomes sufficiently frequent in statistical terms to be identified by the observer. Unfortunately, his analysis of representations and of the meaning assigned by actors to their behaviour partly prevented a serious interest in the conditions of emergence of this category.

5.4 The Institutional, Political and Scientific Context: A Disciplinary Rapprochement

I agree with Kertzer and Fricke (1997a) that the rapprochement between demography and anthropology is the result of the initiative of demographers who were dissatisfied with their own discipline. The dissatisfaction of demographers concerns both the limits of the demographic method (especially the problem of categorisation) and the theoretical weakness of demography. Because of these gaps and the incapacity of demography to generate explanations for the behaviours that it observes, demographers have been compelled to envisage anthropology as a model and source of inspiration for their methodological, theoretical and conceptual frameworks. The result of the rapprochement between demography and anthropology was the birth of a new branch of demography called anthropological demography. The new discipline led to the emergence of a specific form of micro-demography and resulted in a reassessment of the notion of culture and its dynamics in long-term accounts of demographic behaviours. The purpose of the new discipline is to take account of the complexity of social reality and in particular the complexity of the various sociological levels structuring social reality.

5.4.1 *Anthropology, Culture and the Theory of Demographic Transition*

The rapprochement between demography and anthropology occurred in a specific institutional context that requires some explanation. I will return to the methodological and conceptual aspects of this approach at greater length in presenting my own research. In 1951, the International Union for the Scientific Study of Population (IUSSP) founded the Committee on Population Problems of Countries in Process of Industrialization, which aimed to study the problem of high fertility and rapid population growth in poor countries (note that the committee appeared to have no particular interest in the problem of high mortality rates). The committee was chaired by Frank Notestein and included the anthropologist Raymond Firth among its members.

UNESCO called on the committee to examine the cultural and social conditions affecting fertility in nonindustrialised countries. In 1954, one of the main outputs of the research conducted by the committee was the publication of *Culture and Human Fertility*, edited by Frank Lorimer (1954). *Culture and Human Fertility* opens with a theoretical section ('General Theory') of over 200 pages written by Lorimer and also included a number of case studies written by Africanist anthropologists such as M. Fortes, A. Richards and P. Reining. The ethnological studies included in the book examined the role of culture in demographic behaviours, particularly fertility, and the contribution of the anthropological approach to demographic research. According to Kertzer and Fricke, two points merit particular emphasis: firstly, the studies included in the book were conducted within the framework of a structural-functionalist approach, and secondly, the marked emphasis on this specific line of interpretation also merits attention: cultural mechanisms produce a balance or equilibrium between population and resources (Kertzer and Fricke 1997a, b). The concept of optimum population soon emerged after the publication of *Culture and Human Fertility.*[4] The work conducted by the British anthropologist Mary Douglas (1966: 262–273) needs to be seen as part of the same research tradition. In *Population Control in Primitive Groups*, Douglas discussed the idea of optimum population based on the study of four populations where practices regulating the population were observed (infanticide, female infanticide, suicide, abortion, contraception, emigration, marriage outside the group): an Eskimo group, the Brahman-Namboodiri in Southern India, the population of Tikopia in the Pacific and a group of camel herders in the highlands of Kenya.

Research on the explanatory role of culture in population control continued nevertheless to remain marginal in the field of anthropology. As a result, the ethnologist Alan McFarlane published a paper entitled 'Population Crisis: anthropology's failure' in 1968, in which he bluntly criticised his British and American colleagues – while

[4] On this point, see Soriot (2002): 157–179.

singling out Mary Douglas as a notable exception – for their lack of interest in the population boom and for their failure to produce and to analyse data about demographic behaviours (MacFarlane 1968). His introductory comments are clearly indicative of the fears felt at the time since. He argued that the demographic situation was felt to be both a disaster for Third-World countries which had failed to set up effective family planning campaigns, thereby maintaining their population in poverty, and for countries in the North, which would be unable to sell their production in these countries. To give further weight to his argument, he presented a graph that showed the acceleration of global population growth throughout history and also included a figure presenting the demographic transition. He then proceeded to consider how anthropology might help to avoid the predicted apocalypse. According to McFarlane, the great plague and the two World Wars are insignificant compared to the consequences of population growth, unless a nuclear war or an epidemic was to resolve the issue once and for all.

McFarlane also sought to account for the lack of interest shown by his colleagues in collecting demographic data, arguing that demographic data collection ought to rank among their utmost priorities. 'Anthropologists are urged by their handbook, *Notes and Queries in Anthropology*, to collect "urgently needed" material "for the study of the relation between demographic conditions and social institutions". But they have seldom gone beyond broad classifications of the population by overall number, age and sex. Any latent enthusiasm for demographic information waned when it became clear that most native informants were hazy about their age and even hazier about past trends in population figures. Without written records, all attempts to assess population changes seemed doomed' (MacFarlane 1968). Armed with his initial training as a historian, McFarlane criticised the excessively static nature of the functionalist approach used by his colleagues. While emphasising the contribution of historical demography to the description and analysis of the demographic transition in Western Europe, he emphasised the key questions it raised, particularly the impact of fertility decrease on the status of women, family life, the labour market, etc., and to which historical demography was unable to provide an answer. This was precisely where anthropology needed to be invoked, especially the emerging field of economic anthropology. The discipline needed to consider demographic changes since these had significant implications for key issues examined in ethnology: power, relations within parenthood, representations of life and death, etc. McFarlane illustrated the point by remarking that because of the decrease of mortality and increased life expectancy, three, four or even five generations were now likely to cohabit. Forty years before the questions of ageing and intergenerational relations became topical issues, he anticipated key questions relating to the transmission of power and of resources between ever increasing numbers of generations living side by side and he rightly argued that the issues of power and transmission were central issues for anthropology.

The encounter between demography and anthropology was thus primarily built around two research questions that were central at the time: the validity of the theory of demographic transition (especially the analysis of fertility) and the relationship between population, resources and the environment. However, the rapprochement

mainly occurred in the English-speaking scientific, academic and institutional world for human, financial (i.e. the important role of private foundations in the United States) and political reasons. The spectres created or revived by the population boom – poverty, famine, epidemics, migration movements, overpopulation – in the 1960s and 1970s gave rise to significant concern in developed countries: given the growth differential between populations and resources, the future of the human species appeared to be compromised. Between 1960 and 1975, the annual growth rate of the world population was above 2% – a previously unimaginable growth rate. While it had taken 123 years for the world population to increase from one to two billion people (between 1804 and 1927), the six billion mark was reached in just 12 years (1987–1999). The increased rate of population growth can be explained by the impact of population policies and especially the decrease of mortality (especially child mortality). In the early twenty-first century, the time required for the world population to increase by another billion is expected to gradually increase as a result of the efficiency of population policies, particularly in Asia and Latin America.

Moreover, the undertaking of the World Fertility Survey (WFS) in 1974, followed from 1980 by the even narrower Demographic and Health Surveys (DHS), signalled the return of traditional demography, thereby hindering the rapprochement between anthropology and demography, because of the development of large-scale demographic data collections. Geoffrey McNicoll has noted that over time, the added value of these surveys will gradually decline because although the same type of knowledge is obtained for a larger number of societies, these surveys provided no input from an explanatory perspective since the same variables and models are used. The result is a growth rather than a refinement of knowledge. Despite the fundamental criticisms levelled against the theory of demographic transition, it has continued to serve as the paradigm of reference for most demographers. From the point of view of the discipline, a dead end has been reached that can only be resolved (according to McNicoll) by developing a micro approach.

5.4.2 Challenging the Demographic Transition in Europe

Set up in 1963, the Princeton European Fertility Project was designed to test the demographic transition paradigm by comparing demographic, economic and trends in Western European countries over the long term (i.e. several centuries). Ansley Coale led the team of researchers associated with the project, which included John Knodel, Peter Laslett, Ron Lesthaeghe, Etienne Van de Walle, Massimo Livi-Bacci and Richard Wall. Not one anthropologist was included in the group. The project ultimately showed that the theory of demographic transition cannot account for the historical decline of fertility in Europe since there is no unique model of demographic evolution. Research by Coale and Watkins (1986) showed the variations of demographic transitions and challenged the order of the various stages of the demographic transition process. An analysis of the dissemination of ideas and knowledge was supposed to provide a better explanation of the decrease of fertility than any

determinist framework (Cleland and Wilson 1987). Diffusionism, which has been severely criticised (see McNicoll 1980, 1994, 2009; Mason 1992), also poses a serious difficulty insofar as it is impossible to verify in developing countries, for lack of data which required to test the hypothesis. The ideational context is more sociological than demographic, is almost entirely overlooked in the DHS surveys. Apart from questions relating to the media as a source of information, demographers have never really addressed the question of the dissemination of knowledge in society. This would presuppose taking account of the specific features of every society in terms of culture, value system, social organisation and the structuring of networks and goes against the grain of the standardisation required to provide funding agencies (in particular, the USAID) with comparative international indicators.

These findings (i.e. the plurality of transitions, the need to take account of the context) suggest the need to rethink the entire strategy of research on demographic behaviours by using the practical and theoretical resources of anthropology. Ron Lesthaeghe, who also worked in Sub-Saharan Africa, sought to increase the number of variables used in demography by paying closer attention to culture and social organisation, the difficulty being to turn such complex notions into operational variables in a demographic approach. In a sense, Lesthaeghe aimed to incorporate his African experience into the study of European demographic history by incorporating ideological and institutional factors to account for demographic changes (Lesthaeghe 1983: 411–435; Lesthaeghe and Surkyn 1988: 145). While the use of anthropology was entirely legitimate in an African context marked by a lack of long-term historical demographic data, history has tended to prevail in research on population dynamics in Europe. This was particularly the case in France, where historical demography entered the field of population between 1950 and 1980 (Smith 2003: 484–490). The specificity of the French institutional and political context largely explains why anthropology was not involved in this development. Like history, anthropology had to fight to reappropriate the concept of population by significantly reworking and reformulating it. By appropriating population as its specific object of study and by defining itself exclusively in relation to the concept of population (the science of population), French demography claimed the exclusive right to generate knowledge concerning populations. By contrast, the appropriation of population by demography has been far less overt and less totalising in other contexts, for instance, in American demography (Caldwell 1996: 305–333). The concept of population is a research object that is always in the process of being constructed, and this process is at the crossroads of several disciplines.

5.5 The Emergence of Anthropological Demography

Anthropological demography only became a full-fledged field in the 1980s, in part under the impetus of the Australian demographer Jack Caldwell (1982, 1996). Caldwell defended two key principles: the need to develop a holistic vision and the importance of observing behaviours at a micro-level. The application of the two

principles logically resulted in the development of micro-demography. Caldwell described his revelation in the following terms: 'Most demographers work on large data sets, often with little contact with the people whom statistics describe. Fortunately, in early 1962 it became clear that the 1960 Ghana census was not going to yield material quickly enough to absorb my time. We [John Caldwell and his wife, Pat] thereupon used our limited funds for cheap and relatively small scale investigations which meant borrowing methodology from anthropologists (and reading them) and becoming intimately acquainted with each village and its families in turn. For a demographer with traditional training, the experience was illuminating – so illuminating that we have attempted to use similar methods ever since' (Caldwell 1982: 4). Almost 30 years passed between the 'illumination' experienced by Caldwell and the creation of a committee on anthropological demography by the IUSSP between 1988 and 2002, which may be seen as a sign of institutional recognition. The committee aimed 'to foster interdisciplinary research in demography and anthropology. The research methodologies at the heart of the two disciplines – quantitative on the one hand, ethnographic on the other – are very different, but they have the capacity to provide mutual information. This is because demographic processes and socio-cultural practices impact on each other. The important changes and the complexity of the variation models developed by demographers represent a significant challenge for anthropologists and should encourage them to look closely at the practices implemented during vital events and to examine the relations between local practices and practices observed at a national and global level. The different universes of meanings and practices described by anthropologists should encourage demographers to develop an interest in the cultural contexts of population processes'.[5]

Anthropological demography emerged in the United States, and the key publications in the field are the product of English-speaking scholars. The new field includes figures (both anthropologists and demographers) such as Jack Caldwell, Carolyn Bledsoe, Elisha Renne, Tom Fricke, Susan Greenhalgh, Alan Hill, Geoffrey McNicoll, Eugene Hammel and David Kertzer. The point of anthropological demography is not to abandon the field of demography altogether but to redefine it through the medium of its research object, epistemology and methods, as noted by Nancy Riley and Jack McCarthy: 'we are not interested in repudiating demography as a field of inquiry. Quite the contrary: we continue to believe that the systematic exploration of demographic behavior is critically important for our work, and ought to be a major theme in many academic and applied fields. However, we are convinced that demography as a field of inquiry can be more influential if it moves beyond its traditional boundaries, beyond its traditional epistemology, and beyond its traditional methodology. In effect, we are interested in a redefinition of the field of demography, perhaps even one that is

[5] Committee on anthropological demography (1988–2002).

Source: http://www.iussp.org/Activities/ant-indexfr.php. Consulted on October 26, 2009.

Source: http://www.iussp.org/Activities/ant-indexfr.php. Consulted on November 4, 2009.

so fundamental as to approach becoming a new demography' (Riley and MacCarthy 2003: 12). Revitalising demography by raising more incisive questions and by showing a greater interest in concepts represents a real challenge for the discipline as a whole. If the project it implies is carried through, it will involve challenging some of the core foundations of demography, even if these appear to be unshakeable.

In France, while ever increasing numbers of demographers have developed an interest in an approach combining both quantitative and qualitative approaches, this new field of demography remains unexplored. This lack of boldness and real commitment can partly be explained by the current institutional organisation of French demography. In France, demography remains a small discipline, and despite the emergence of multidisciplinary research centres, institutions and individuals are prone to adopt a position of disciplinary defence or to engage in a search for legitimacy. While it is not specific to French demographers, the sense of being besieged is further reinforced by significant budgetary restrictions and restructuring plans affecting research and higher education in the social sciences.

To conclude, let us quote two sharp and converging remarks by a French sociodemographer and an American mainstream demographer. In 2004, Louis Roussel wrote: 'One significant obstacle to the development of the identity of demography is the existence of a kind of entrenchment syndrome which, when faced with the necessity of drawing boundaries with other areas of scientific expertise, involves taking shelter behind a Maginot line designed to limit the risk of interdisciplinary contamination as far as possible' (Roussel 2004: 206–318). In 1993, Samuel Preston shared the same opinion about American demography: 'Demography is a small discipline lacking security in academic bureaucracies and always in need of a *raison d'être'*. In a nutshell, the marginality of anthropological demography in France is the unsurprising consequence of its roots in anthropology and only partly in demography.

Chapter 6
The Practices of Comprehensive Demography

6.1 Field Demography Versus Armchair Demography

This chapter examines the mutual contributions of demography and anthropology based on my research experience in Sub-Saharan Africa, with a particular focus on methodology and data interpretation. Field demography makes a case for a continuum ranging from the initial conception of fieldwork and research to its effective implementation and to data analysis. It markedly differs from research on secondary data analysis examining vital records, censuses or large-scale surveys, or, to put it bluntly, from armchair demography. In this conception, the focus of research is not fixed but is liable to change and to develop based on a productive exchange between observation and the broader framework of analysis (Glaser and Strauss 1967). The field is thus no longer viewed merely as a space for data collection but is construed as an area in which the reflections and analyses of researchers confronted with the reality of interactions that cannot be entirely controlled are elaborated and developed.

However, the interest and validity of field studies and research in the social sciences only seem natural to researchers. In working for the good of populations and in developing knowledge that serves the interests of the poor and the oppressed, the dominant position of researchers in the field is easily legitimised – assuming that local populations, civil society representatives and elected representatives understand and are willig to participate in a research project. Though once part and parcel of a colonial (or neocolonial) framework, this kind of justification has continued to serve as the implicit foundation of research programmes on public health or international migrations, that is, areas in which funding has tended increasingly to be linked explicitly to the resulting benefits for funding sources (i.e. support of public management). Researchers need to believe in the social sciences and in their salutary benefits for humanity in order to explain to communities or groups why they are the object of sustained attention. The effectiveness of their justifications will vary according to the kind of society in which research is conducted. How might we explain the nature or purpose of a research project, a study, a census or a questionnaire in cultures in which these terms and concepts are largely untranslatable?

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To what extent can explanations and documents be understood and disseminated outside the scientific communities, individuals and institutions directly associated with research programmes and the authorities responsible for granting work permits? Many studies conducted in Sub-Saharan Africa have relied on the hospitality of local populations and the relations fostered with researchers rather than any real understanding or acceptance of the research objectives. Today, because research is felt to usurp a degree of legitimacy, the disclosure and presentation of results are a compulsory stage of all research programmes and represent a form of ethical compensation. Examined populations are informed that researchers are working for them and that they have willingly given their support to the study. As a result, the populations examined by researchers and their representatives have become key actors of the research process, and the time when the results of censuses were viewed as state secrets is now long gone. The prevailing assumption today is that knowledge must be shared and openly discussed.

Concrete examples are drawn from four research contexts in the field involving a range of different research questions and objectives: the internal and international migrations of the Dogons of Mali (Petit 1995, 1997, 1998), contraception in rural areas of Senegal (Petit 1994; Petit and O'Deye 2001; Petit and des Robert 2004), poverty in two regions of Guinea-Conakry (Petit and Godard 2005; Petit et al. 2008) and female genital mutilation in Djibouti (Petit and Carillon 2007, 2008, 2009; Petit et al. 2008). I was in charge of these research programmes between 1990 and 2008, when I was affiliated with a Paris Descartes University research centre, *Population et interdisciplinarité* (POPINTER), and since 2008 with CEPED.[1] Research conducted by other scholars involved in these programmes will be quoted in due course.

6.2 Improving the Quality of Demographic Data

First, how might our anthropological knowledge of a specific ethnic group improve the research apparatus of demography and the quality of demographic data to remain as close as possible to the examined population? By analysing the specific social and cultural features of a group, research can be made more compatible with the social organisation artificially framed by the research apparatus, thereby making research projects more acceptable to the studied populations.

A socio-demographic study conducted between 1989 and 1993 among the Dogon ethnic group provides a useful illustration of the various issues encountered in the process of data collection. Some live on the Bandiagara Escarpment in the Niger Bend in Mali. The study was limited to the population living in Sanga (Petit 1997). The Dogons are a well-known group among anthropologists (especially French anthropologists), having regularly served as an object of research since the studies

[1] POPINTER was subsequently merged with CEPED.

conducted in the 1930s by a team of researchers led by Marcel Griaule. Rather than seeking to understand the social organisation of the group, the ethnological studies conducted by Griaule focused on the analysis of myths, cosmogony, belief systems and thought systems. The demographic research that I codirected was the first of its kind to be conducted among the Dogons, except for the national population censuses. Initiated by the INED department of genetic demography, the main objective of the study was to assess whether Dogons were a genetic isolate. Two demographic variables were emphasised in the study: matrimonial exchanges and migration movements, supplemented by an analysis of family structures and a study of the transmission of genetic markers (Bellis 1996; Ducrocq et al. 1994).

The socio-demographic study began with a population census covering all 24 villages located in Sanga, that is, 21,370 individuals in 1,314 households. A sample survey was conducted in selected villages, and a socio-demographic questionnaire was distributed to 685 men and 388 women as part of a sample survey of adult men and women. The anthropological component of the study (conducted at the same time as the demographic study) was based on genealogies, semi-structured interviews and focus groups. The genealogies were established with the help of the 1,314 heads of household interviewed at the time of the census. Some of the genealogies extended as far back as 17 generations, that is, almost to the time of the initial foundation of the villages (Petit 1998). The extended period spent in the field (more than 3 years) allowed for a high level of integration in the local population and provided an opportunity for conducting field observations by participating in the daily or seasonal activities (domestic activities, farm work, maintenance work on housing, etc.) and festive activities. The local effects of the various political and economic changes affecting the country at a national level (process of democratisation, economic impact of the Gulf War on tourism, climatic hazards) were also observed.

6.2.1 Introduction to the Field: A Discreet Entry

The choice of a specific research field is seldom the result of a reasoned and purely scientific process. Less orthodox and more personal motivations often lie beneath the intellectual and methodological justifications given to explain the choice of a specific community or population. The selection of a particular research field is often the result of encounters between individual destinies embedded in a wider historical context over which individuals have little control. In the case of French researchers working in West Africa, the relations fostered between demographers, anthropologists and local populations have been shaped by colonial relations and by the post-colonial context. Three key factors combine to account for my particular interest in the Dogons. First, from a purely scientific point of view, it seemed legitimate to view the Dogons as an isolated group given the history of the population of the Bandiagara Escarpment and their current living conditions. Second, from a disciplinary point of view, my demographic approach departed from a purely

anthropological vision that had previously held a monopoly over social science research on the Dogons. The anthropological literature relating to the particular Dogon group examined in this research also represented a significant resource in spite of the fact that it had overlooked key aspects of the social and economic life of the examined population. Third, from a methodological point of view, the choice of field was also based on the contacts developed by André Chaventré, then director of INED and research director of the project, throughout his career. Chaventré had previously worked as a military officer and had developed a close friendship with one of his soldiers, a Dogon, in the French colonial army. After studying the Tuareg people (Chaventré 1983), his attention naturally turned to the Dogons. Clarifying the full range of motivations underlying a given research undertaking – including motivations that are not strictly scientific and that may therefore seem more dubious – is a necessary but not sufficient condition for scientificity. Discussions with researchers in the field show that the choice of a specific field often depends on the availability of an entry point facilitated by personal contacts and not exclusively linked to strictly methodological imperatives.

The nature of this contact can hardly be made to fit into any kind of pre-established methodological framework and may represent either a drawback or an asset. The research team settled in a cabin located in a small village a few kilometres from the traditional and modern political authorities. The traditional authorities had become privileged informants of anthropologists working in the area, where they had been established for decades. The privileged relations between ethnologists and the family with the major chiefdom had been transmitted from one generation of researchers to the next. While it was perhaps less traditional and less orthodox than standard entry points, the entry point used in my research proved to have a particular interest. After having abandoned his military career, 'our Dogon' (Indiélou Dolo) had become involved in two activities. In the daytime, he worked as a waiter in a tourist campsite and hotel but spent the rest of his time working as a witch doctor. His reputation for efficiency was firmly established, with patients coming from over 80 km away to consult him. A number of episodes that cannot be recounted here for lack of space proved the extent of his power and the services he was able to provide, with the understanding that I would not abuse the privilege. Amid significant political tension caused by the process of democratisation, Indiélou Dolo was able to overcome various obstacles encountered in the course of fieldwork in the villages in spite of our work permits and our good relations with the local authorities. Another consequence of the particular entry point used in this research was that it highlighted a reality generally concealed from the eyes of foreign observers: the power and omnipresence of witchcraft in social and political relations. The ethnologist Jacky Bouju argued that the analysis of witchcraft has been underestimated in research on social categories and relations among the Dogons (Bouju 1984). In this research, daily contact with the dark forces of witchcraft contributed to undermining the image of a harmonious and peaceful society presented by the Dogons and naively reflected in previous studies conducted by a number of ethnologists.

6.2.2 The Census Process: Logistical Order and Ancestral Order

The study involved conducting a census in 24 villages serving as a basis for a questionnaire-based socio-demographic survey of reproductive life, nuptiality and migration trajectories. The topography of the area divided the villages in two, with some villages located on a plateau and others located on scree. The villages located on scree are built on rocky ground and are only accessible by foot. A census plan was defined based on a range of logistical and rational criteria (the possibility of using a car, the proximity to base camp, the decrease of transport time to limit the length of the census). A decision was made to begin the census in the villages located on the plateau. Before making contact with the traditional village authorities, a discussion was held with the interviewers and privileged informants, from which it emerged that the data collection strategy was ill-adapted to the local context. Any attempt at a rational organisation founded on Western criteria was therefore abandoned. Based on ethnological research and the knowledge of the informants, a new census plan was defined based on the specific history of the peopling of the escarpment. Among the Dogons, the relative prestige of villages is determined by the order of their foundation and the political weight of their chiefdom. It was important to respect the local hierarchy and to begin the study in the least prestigious villages before examining the villages with the highest-ranking chiefs. Contrary to the Jacobean logic so deeply internalised by French researchers, the starting point was thus not the central power but the margins of power, moving gradually towards the seat of the highest-ranking chief. By complying with local political customs, I was able to save valuable time and to avoid rebuttals that might have undermined the field study.

6.2.3 An Identity with a Variable Geometry

Previous chapters emphasised the many identities of the individuals interviewed by researchers in the course of fieldwork. Respondents often use the complexity of their identity to seek refuge behind a status or role in order to elude overly inquisitive or irritating questions. Yet the ability of individuals to manipulate the various aspects of their identity and to build a façade can also be used by researchers. Researchers can emphasise or use a whole range of personal characteristics according to the specific individuals encountered in the course of fieldwork, the specific locations where field studies are conducted and the specific questions or issues addressed in research. In Goffmanian terms, researchers have to counter the 'stigmas' that may potentially discredit them in social interactions. In order to be efficient, this approach requires the complicity of local informants, interviewers and the examined population. The 'aesthetics of lying' (Dia 2009) enables individuals to maintain appearances and the social order.

Being a young white educated French woman might be considered to be a serious handicap for anyone men aiming to conduct research on a gerontocratic society in which women are viewed as younger than men. Anthropological training is a key

asset in such cases since it prepares researchers to foster interactions and to devise solutions for building bridges between individuals by deciphering sociocultural codes. First, being a foreigner or an outsider is not necessarily a handicap in cultures where hospitality is an ancestral rule. An outsider status confers a degree of latitude and allows for a degree of indulgence in the event of a transgression of rules. However, it is important not to abuse the privilege and to learn the rules of politeness and propriety (e.g. keeping promises, greeting rituals, formal respect of hierarchies). Discussion is positively encouraged provided it is conducted in the appropriate social, ritual and institutional sphere defined by the cultural context. The ethnolinguistic studies conducted by Geneviève Calame-Griaule (1965) on the nature of the spoken word and its use among the Dogons of Sanga are indicative of the importance of the production and circulation of spoken language in Dogon society.[2] Like children, researchers must develop the ability to show wit, to take part in endless discussions, to make jokes and generally to take part in the social process, insofar as speech is considered to be the distinguishing feature of humanity. In conversations with returning migrants, some alluded spontaneously to the empire, the AOF or Indochina. On several occasions, respondents proudly displayed old military uniforms and medals acquired in the course of serving France and kept in tin trunks smelling of mothballs. Beyond its trail of misery and injustices and almost three decades after the declaration of independence, colonisation thus continues to represent a shared historical legacy. Being French was not a cause of distrust in Mali, and colonial history and Franco-Malian relations were common topics of conversation. Reference to episodes of colonial history initiated a process of mutual recognition that served to overcome the ambivalence of the situation – that is, a young female researcher critical of the history of her native country and the old soldier nostalgically evoking colonial history.

In societies marked by strict age and gender hierarchies, it is considered inappropriate for a younger member to question an elder (note that by virtue of her age and gender, a young woman is 'young' on two counts). By adopting the position of a pupil and by presenting themselves as being there not to question but to listen and learn, researchers are able to position themselves in a more common relation of oral transmission. The elders speak to the younger members and initiate them in the mysteries of their culture through the medium of stories, tales and jokes. By adopting this strategy, researchers are also able to reduce the distance between two antinomic figures – the illiterate peasant and the educated researcher. While conducting censuses in Sanga, the heads of families were summoned by a council of elders to a meeting held on the village square in the shadow of the kapok trees. However, the men preferred to meet in the place commonly used for village meetings, the *togu-na* (discussion hut). The difficulty was that women are forbidden from entering the *togu-na*, since only circumcised men have the right to enter the discussion hut.

[2] Notwithstanding the criticisms levelled against her book in this chapter, Calame-Griaule's work remains a classic reference and a key source of understanding for anyone with an interest in Dogon society.

After consulting with each other, the elders decreed that although I was a woman, I belonged first and foremost to the category of white people and I was therefore permitted to enter a forbidden territory where serious matters are addressed and discussed. Symbolically, I chose to wear trousers instead of a skirt to adopt a more masculine appearance. Conversely, when I interviewed women away from the presence of men, I was careful to emphasise my identity as a woman to gain access to the hut sheltering menstruating women. When animist women see their blood, they must leave their home without uttering a word to anyone and move to the outskirts of the village in a hut reserved for woman in a physiological state regarded as dangerous. It is thus common for several women to be together without anything to do except talk and perform small artisanal chores. Their temporary social exclusion creates an atmosphere of complicity conducive to dialogue and revelations. It also serves as an opportunity for women of different ages and families to transmit knowledge and to exchange news. Researchers are thus able to access an exclusively female zone.

6.2.4 Choosing Interviewer-Interpreters

Much care needs to be taken in choosing interviewer-interpreters since they represent a mediator between the researcher and a given population. The process of selecting interviewers is based primarily on evidence of key technical skills linked to specific research objectives (educational and linguistic level, understanding of the objectives of the study and training) and to a lesser extent on their knowledge of their own society. However, in studies involving more detailed research than censuses, the technical qualities of interviewers are not enough. Their specific position within their society is also a key factor. As facilitators and interpreters, interviewers give form and meaning to words and to the conversations between local populations and researchers. Occupying a key strategic position, interviewers represent a filter that must be carefully assessed by researchers. In the absence of any knowledge about their precise status or position in social and political networks, interviewers may become a hindrance in cases where the research process places them in a position that conflicts with the local context. Among the Dogons, it is important to ensure that interviewers are not members of lower castes (cobblers, blacksmiths) since a free man (i.e. a member of a higher cast) cannot be interviewed by an individual with a lower social status. In a society still largely governed by animist beliefs, the circulation of individuals is also subject to taboos and proscriptions on entering spaces that have a symbolic significance. Cobblers, viewed as impure, are forbidden from entering certain locations after sunset. Similarly, pregnant women living in some villages on the plateau are forbidden from entering the scree area to avoid endangering their pregnancy. Moreover, women must be married and must have at least one child to be in a social position to interview other women about their matrimonial and reproductive life. The ideal interviewer is thus someone who, in addition to his technical competence, also has a sociological and political status that

enables him to navigate at all social levels without encountering refusals or reluctance. However, candidates for research are not always immediately willing to reveal all of the various components of their social identity, especially their real position in parenting networks and their proximity to power. With time and trust, researchers discover that their interviewers are not 'anyone' and that their status explain the deference (sometimes tinted with distrust), shown towards them by other members of the group. In short, interviewers represent a filter by virtue of their role as translators but also because of their personal status within the community.

6.2.5 Identifying the Relevant Social Units

The practical conduct of censuses, particularly the location of the data collection process (i.e. where should the heads of families be interviewed?), also depends on the social organisation of societies. In research conducted with a doctoral student on the use of contraception in rural areas of Senegal (Petit and des Robert 2004), the censuses of village populations were conducted traditionally by moving from concession to concession[3] after defining the map and list of households in the village. In 1989, every household (or concession) corresponded to a topographic unit (a square) visually demarcated by a wall surrounding the huts. In a second field study conducted in 1997, the break-up of extended households into smaller nuclei highlighted by the analysis of family structures was reflected by straw partitions spatially demarcating the family split within the concession. Every new household was thus able to assert its new-found independence.

It is impossible to use this particular census technique in the Dogon villages since the large family (the *guina*) is not a residential unit. The *guina* is split into several huts that are not systematically built around a court yard because of a lack of space, especially in the uneven landscape of the scree villages. Children or young men may have a specifically allocated room in a house, in which case they do not live with their parents, although they are not necessarily autonomous either economically or socially. Once up, washed and dressed, they give their regards to the head of the family in the house where the family's fetishes are kept and eat in silence before tending to their business. To avoid double counting or omissions caused by the break-up of households, all household heads were grouped with the support of the council of elders. A public census has a number of advantages. The list of heads of families was drawn up in active collaboration with family heads and under their supervision. In the event that a head of family or their representative (i.e. son or brother) was absent, the village chief sent one of his own advisers to fetch them. Because of the collective and political support given to the census, household heads were unlikely to refuse to take part. This approach also helped to determine whether

[3] '*Concession*' or '*carrés*' are extended families comprising up to 150 members, depending on the ethnic belonging.

the men stated as heads of family were still alive, an issue raised when heads of family held a particular prestige or power (as a reputable hunter, village chief or religious authority – the *hogon*). Their descendants often continued to refer to them in censuses as being alive despite the fact that they may have been dead for several months (or even years). The gap between death (as a biological event), decease (as a demographic event) and a funeral (as a social event) is explained by the practice of *dama* (a ritual event). The animist Dogons, that is, approximately half of the total population at the time of the survey, believe that the soul of the deceased wanders in the village as long as the ritual has not been performed. Caught in an intermediate state between the world of the living and the spirit world, the soul is considered to be dangerous. In order for the *dama* to be celebrated, families must have sufficient stocks of millet to prepare the required quantity of *dolo* (millet beer) in order to receive the members of the *Awa* (the society of masks) and the many spectators with dignity.

6.2.6 Declaring Ages and Dates

By filling the census questionnaire in front of all of the men waiting in turn, individual responses and statements could be validated by the community as a whole, thereby increasing the quality of responses and statements about household structures, ages and blood relations. In some Dogon villages, the *guina* can include up to 100 people (and even more in some cases). The household heads interviewed in the field study often omitted one or several members of their family, particularly those with a secondary status (i.e. children, wives) or families with recent additions (i.e. a new wife, the youngest child, a returning migrant). Household heads were also liable to make mistakes about first names, ages, matrimonial status and even gender. The search for the most accurate information became a source of pride among the men of the community, giving rise to epic debates or jokes about illegitimate births (for example). In a society in which the majority of men and women cannot read or write and in which very few people know their actual date of birth in the absence of vital records, individuals must be classified in age groups to determine ages, dates and durations, that is, the foundations of demographic analysis.

For a number of reasons, this part of the research process was easier to conduct among male respondents. First, circumcision determines 3-year age groups. In each age group, men are on an equal footing and know each other since they share significant common ground through their involvement in collective work, wedding rituals and actions of solidarity. Unlike other ethnic groups, the Dogons have not developed a practice of initiation applying to all members of society on a chronological basis generation after generation. The initiation of men is on a voluntary basis and is performed in the context of the *Awa*, the society of masks, and therefore only concerns members who have remained animist and are seeking for prestige and knowledge. Membership of the *Awa* must remain secret. Initiation cannot be used as a basis for classifying individuals – unlike circumcision, which concerns all men at

regular intervals. The case of women is more complicated. Marcel Griaule requested Denise Paulme to verify the existence of a society of women – a vain request since female society is less structured, with no society as such, no rite of initiation and no generalised practice of excision. In accordance with matrimonial and residential rules, women leave the paternal home after weaning their first child. The social and genealogical knowledge at the disposal of women, viewed as strangers or outsiders in the lineage of their husband, is not as extensive as the knowledge held by men. The lack of information among women is further compounded by the instability of unions and remarriages, key factors shaping the lives of women.

The socio-demographic questionnaire included questions on the reproductive life of women aimed at establishing fertility levels and the level of child mortality. In the case of women and female interviewers, the submission of questionnaires was often a difficult task. Because of the lack of vital records and of illiteracy, very few women knew their age and the age of their children. It was also a painful experience since women had often lost several children. The attention paid to the animist culture improved the quality of the data collected on fertility and mortality. Animist first names have a specific meaning and social significance that may be useful to demographers. First names may indicate birth order, age or a particular status among siblings: having only brothers, having only sisters, being a girl among boys, being born after a deceased child, etc. For example, the first names of twins are automatically assigned according to whether they are two boys, two girls or one girl and one boy. If a woman refers to just one child with a twin's name, the implication is that another child has been omitted. The social significance of first names is even stronger when, after consecutive deaths of several children, families ask the blacksmith to assign a name to their newborn baby. Thus, the child is placed under the protection of the blacksmith, who is viewed as having particular powers linked to his role in the creation of the world. Examination of the meaning of animist first names thus serves to improve the measure of child mortality.

In addition to ages, demographers are also particularly fond of dates. Questions about dates in censuses and surveys often give rise to odd or inaccurate answers that may reflect an attraction for round numbers or may cause an embarrassed silence among populations with high levels of illiteracy. Most often, the historical calendar provides a solution to this difficulty and represents a key resource in the process of data collection that makes the interaction between different disciplines (history, anthropology, demography) a reality. A historical calendar needs to be developed in the field according to the local, regional or national events that have affected the examined society. The knowledge of political events varies in different groups: men generally have more knowledge than women, as do educated individuals and residents (as opposed to migrants). Individuals also have a different experience of time and are likely to refer to different landmarks according to the specific nature of their activities. For example, men have generally been more involved in modernisation than women through their greater involvement in education, colonial administration, emigration or NGOs. The process of colonisation imposed new 'social frameworks of memory' (to use Maurice Halbwachs's term) more quickly and more firmly on men than on women. In Sahelian peasant societies, climatic hazards, locust invasions, epidemics and famines are dramatically efficient

landmarks. In research on migrations, these events are particularly significant since food shortages systematically result in an increase in emigration in self-subsistent societies. In addition to the calendar linked to the survival of the agrarian community, major political and religious events (e.g. the death of a chief, a quarrel between groups, the sacrament of a new *hogon*) also represent key temporal landmarks. In their measurements and analyses, demographers implicitly begin from the hypothesis of a homogeneity of time independently of cultures, periods and societies. Historians, anthropologists and linguists are by contrast more careful to avoid any such generalisations.

As part of my research on the Dogons, I developed a calendar based on local political events, cultural conditions and animist celebrations and not on national historical events since these had little impact on the daily life of a population in a marginal position nationally. The *Sigui* is a local celebration held every 60 years when Sirius appears in the sky. It begins in the sacred village of Yuga, where the masks are kept. Subsequent ceremonies are held over a period of 2–3 years in all of the villages. Irrespective of their current religion (Islam, Christianity), everyone recalls when the last *Sigui* was held (1967–1968). However, among the Malinke of High Guinea, because of widespread Islamisation and their role in national politics, my field study required a greater use of key dates linked to the political history of modern Guinea. In short, the choice of temporal and spatial scale in developing a calendar is determined by the specific research question and by the particular characteristics of a society.

6.2.7 Measuring Economic Practices

Questions relating to money transfers or remittances, resources and economic revenues are common in studies examining migrations or poverty. More than demographic data, the use of this category of data in the specific context of Sub-Saharan Africa is open to question. Respondents often presuppose that if they reduce their income or patrimony, they will reap greater benefits individually or collectively from national and even more so from international programmes. In censuses, households often declare lower levels of income than their real income because they fear being taxed more heavily. In addition to factors linked to respondents' representations of the state and of the interviewers, research on the economics of the households raises methodological problems. In a context of pauperisation, daily subsistence requires the active involvement of all members of a household capable of generating income in the informal economy, the domestic economy or the formal sector. Faced with the inflation of the prices of basic foodstuffs, fluctuation of raw materials prices and exchange rates, households are forced to resort to survival strategies that require other household members to work and that result in pluriactivity and diversification of resources and forms of remuneration.

This type of economy is characterised by unpredictability, discretion, opportunism and instability – making any attempt at measurement a particularly delicate affair. It is difficult to identify all sources of income since economic activities will

be referred to more or less explicitly by respondents according to their duration and recurrence. A small day labourer job will soon be forgotten by the head of the household despite the fact that the day-to-day survival of a child may depend on it. Similarly, men will often omit to declare a small business run by one of their wives if the activity lacks prestige or if the woman manages her income independently. The diversification of income sources would require interviewing all household members – an inconceivable task given its implications for the process of data collection. An analysis of the sexual division of labour as defined culturally in the examined society and as practised under the pressure of economic and environmental constraints based on interviews and observations can be useful for refining the answers given by respondents involved in socio-demographic surveys. It is especially important to consider the diversity of situations in a multi-ethnic context such as Guinea-Conakry. Gender relations, the status of women, the promotion of education, the role of international migration and the types of economic activity (religious economy among the Diakanke, subsistence economy among the Nalou and the Baga, trade and usury among the Fulani) vary significantly from one group to another (Petit and Godard 2005; Godard 2010; Baldé 2009). The analysis of the wide range of socio-economic organisations also highlights relations of dependence. For example, usury is a common practice, and while it is theoretically forbidden in Islam, it structures the relations of domination between the Fulani and the Nalou and Baga rice farmers. However, usury is never explicitly referred to by the Fulani in responses to questionnaires as a source of income by the Fulani or as a cause of debt by rice growers but only gradually emerges in the course of interviews and observations.

Ethnological observations also improve our knowledge of local conceptual categories, often resulting in the adoption by researchers of the local measurement units used by interviewees on a daily basis. For example, in order to estimate the production of rice (for both home consumption and trade) in the villages of maritime Guinea, the quantity of rice was measured in cans or tins (*estagnons*)[4] rather than kilograms or bags. Similarly, the production of palm oil is not measured in litres but in *sippa*, that is, recycled bottles of mineral water or soda. Households in towns generally have no running water because of a lack of infrastructures, and families must collect water at the local water pump. The consumption of water is billed per number of jerry cans and not in litres. While it does not allow for international comparisons, the use of local categories associated with the daily practices of respondents improves the quality of data. The internal coherence of the study is the first priority ahead of any potential comparisons.[5]

[4] An *estagnon* (from the Provençal *estagnoun* and *estanh*, meaning tin or pewter) is a tin container for oil and essences.

[5] In the published results, these measurements can be easily converted into more common units (litres, kilograms and US dollars).

6.2.8 *The Context of Production of Discourses and the Status of the Spoken Word*

Besides the general framework governing the production of research (the first level of the context of data production), interactions in the field between researchers or their interviewers and respondents are treated differently in anthropology and demography. The accounts given by respondents and the collection of discourse and its treatment have a different epistemological status in the two disciplines. A demographic study is a collective process that may involve a significant number of interviewers and that may not require the researchers who originally conceived the study and devised the questionnaire to participate in the process of data collection, that is, the submission of questionnaires. Interviewers are trained by researchers to ensure the highest level of standardisation. To ensure that they are compatible and analysable, the data must be collected using a strictly identical procedure. Interviewers are trained in the submission of questionnaires, the understanding of filters, response coding, the notation of answers to open questions and the transmission of instructions to respondents. The aim is to avoid any interference caused by personal biases in the conduct of the questionnaire or by the personality of interviewers. Once the questionnaire has been submitted, the supervisors of the survey read the completed questionnaires to ensure that they were correctly submitted, that is, in compliance with the instructions, and correctly completed by interviewers. An unsatisfactory questionnaire is either eliminated or completed by conducting a second interview on specific issues. The collection of responses is clearly not as linear and straightforward as we may think, and the quality of the operation is not dependent on the content of the expressed discourse but on its correct and complete formalisation as defined by the framework of the questionnaire.

The rigidity of the framework defined by the questionnaire – a data collection tool that leaves no room for initiative or leeway to both interviewers and interviewees since the process of completion is entirely formalised – may suggest that a questionnaire-based approach allows for a uniform collection of discourse and that the collected fragments of discourse, recorded in the form of a code, can be treated and processed statistically. However, while the standardisation of the procedure governing the completion of questionnaire in a demographic or sociological survey serves to attenuate the effect of the context, it would be an illusion to think that it eliminates it altogether. The completion of a questionnaire involves a social interaction located in a historically and socially defined temporal and spatial framework. The process is also shaped to some extent by a relation of domination and intimidation, even if it is concealed, since it involves obtaining the consent and adherence of respondents. As shown by research in sociology, conformism, distinction and social desirability are key factors in these forms of social interaction, a more elastic form of interaction than commonly suggested by demographers. While it may vary according to the availability and receptivity of respondents, the elasticity of these interactions implies that interviewees are given time to elaborate opinions or representations relating to the topic of the survey and the interviewers. Respondents are

not in the same mental dispositions when faced with interviewers since they will be more or less disposed to respond, more or less focused, more or less preoccupied about their daily lives and more or less concerned about the questions included in the questionnaire. Last but not least, in surveys conducted in rural areas of Africa on the measurement of poverty, the answers given by respondents to questions concerning their resources or their income are clearly determined by their representations of the interviewer and by their expectations of the awareness campaigns conducted in the lead-up to the survey and the information provided by interviewers before the completion of questionnaires. Researchers and interviewers are often perceived as representatives of wealthy institutions or as being endowed with significant economic and or political power (ministries, international institutions). They are also sometimes confused with NGO personnel. These misunderstandings disrupt surveys since interviewees develop their answers (e.g. overestimating their financial difficulties, minimising their resources) based on the (generally misguided) assumption that interviewers can act as spokespeople pleading in their favour to funding sources.

In addition, demographers are not systematically prone to questioning the status of the spoken word in the societies or groups where they work. However, this issue merits particular attention since, besides the fact that they do not have an opinion about everything (Bourdieu 1973), respondents are often unwilling to be asked questions even if they find it difficult to admit their unwillingness out of courtesy. Omissions or late arrivals at appointments and excuses given to shorten interviews are indicative of this ambiguity (Carillon and Petit 2009). Respondents often agree to answer questionnaires or interviews because a refusal is perceived negatively. Tradition requires hospitality, especially towards people from distant countries and cultures. This may sometimes be a matter of honour – for example, it may be important not to give the impression of fearing to answer the questions asked by an outsider. In other cases, respondents may be keen to satisfy interviewers for a whole range of reasons and agree to take part in surveys without understanding what the survey might involve. It would be an illusion to assume that interviewees invariably understand the process in which they are involved by agreeing to take part in surveys. Even if researchers present their approach and the objectives of their research with tact and honesty, their objectives remain partly abstract and remote from the experience and knowledge of respondents. There is a considerable gap between agreeing to respond to a questionnaire or interview about choices concerning contraception or reproduction and realising after a few questions that participation in a survey may involve discussing more personal or intimate subjects such as arrangements in couple relations, sexuality, extra-conjugal relations and attitudes towards religion or customs.

While in Western societies the spoken word and the production of discourse more generally were largely liberated in the 1960s and 1970s, the same cannot be said for all societies despite the widespread diffusion of new information and communication technologies. The production and circulation of speech are shaped by forceful social norms. The value or quality of the spoken word depends on the social status of the speaker. The words of men and elders tend to prevail over the words of

women or younger members, just as the words of so-called freemen tend to prevail over the words of individuals belonging to an inferior cast. The use of rhetoric, the ability to develop an argument, the memory of the history of the group and the knowledge of proverbs or of the Koran are distinctive signs of social and ethnic groups. Mastering use of speech among the Dogons in the Sanga region is considered to be an important social quality, because speech is believed to distinguish socialised men from animals and children – since children do not speak but cry (Calame-Griaule 1965). In Dogon society, it is important to articulate one's thought clearly. To speak too much, to speak unwisely as well as be taciturn is a sign of unsociability and is frowned upon as being dangerous for the cohesion of the group. The Dogon conception of speech (*so* in the Dogon dialect) is very broad: '*So* extends beyond the domain of language, since, as speech, it may also connote action and the material outcome of action; spoken language, the forged hoe, the woven fabric – all of these concepts are part and parcel of *so*. Speech is a force that must be used with caution since "all speech produces effects, whether beneficial or harmful; it is a force in action"' (Palau-Marti quoting Calame-Griaule 1968: 105–106). The cultural dimension is crucial. Researchers in the field must be careful to weigh their words and to present their requests to local informants in appropriate contexts, that is, chosen locations, permitted situations and moments. For example, it is important to be seated in order to exchange words and receive answers to questions. A person who remains standing is merely someone passing by and therefore someone with whom it is impossible to converse. To sit down is to be at the same level, to take one's time, and to be placed or to be put in a situation of dialogue. If researchers are unaware of the right course of speech, the likelihood is that they will be met with silence or receive a polished but empty answer. A wide range of myths (e.g. divination of the fox), symbols (e.g. loom and shuttle, the architecture of the palaver hut, the silver ring in the lip of women) and institutions (e.g. the palaver hut, the role of the blacksmith as a mediator) are linked to speech and language, which contribute to the maintenance of social order and the harmony of society. A 'good' word is a word that helps to avoid conflict or a pacifying word that helps to resolve a dispute. The observation and knowledge of language serve to nourish and to deepen the line of questioning according to the specific focus or objectives of research.

In this respect, I agree with Eugene Hammel when he argues that the virtue of the ethnographic approach in demographic research is that, since social actors know the sociological background, they are able to give directions about the path that needs to be followed in research: 'The value of culture for sociological analysis is not so much that local informants talk to researchers but rather that they talk amongst themselves and that their conversations can be overheard' (Hammel 1990: 475). It is in moments when respondents forget the researcher that they are likely to open up without even realising it. No longer viewing the interviewer as a professional collecting data (when he no longer has his questionnaire, computer or notebook in hand), social actors may converse and act without any fear of disclosing a secret or of revealing a particular aspect of their individual behaviour. Their actions are thus no longer governed by their representations of the objectives of the researcher but by their own attitudes.

While it is impossible for researchers in the social sciences to work without collecting discourse, they must also learn to listen to 'the sound of silence' and to identify avoidance or dissimulation strategies used in response to particular subjects that are perceived as intrusive or improper. During a study conducted in Mali in the Kayes Region, I attended a semi-structured interview in which a young French researcher interviewed a peasant who was a household head and a father with young children, about the education provided to his children. Despite repeated attempts to broach the subject from a wide range of different angles, the interviewee continued to respond with very brief and concise answers. His answers were not satisfactory to the researcher, who kept insisting to obtain more information and further details. Once the interview ended, the obvious reluctance of the interviewee to express his views on a subject – education – that did not appear to be a sensitive issue was discussed. I pointed out that the interview could not possibly understand the requests for further details and clarification since, in his culture, the transmission of values, behaviours and attitudes was based on exemplarity and imitation. Adults never explain to their children why a given action is good or bad, or rewarded or sanctioned, since it is up to the child to understand the attitude of their parents or peers by assessing the particular circumstances of the act. Because of their position of authority, parents are not required to justify themselves – unlike the parents of this French doctoral student, who had surely explained their educational decisions to her. The wide cultural gap meant that the Malian peasant was unable to understand the researcher's expectations and conversely that the young Westerner was disoriented by the respondent's reluctance. The 'sound of silence' serves to remind us that in addition to the actual content of discourse, the analysis of the answers given by respondents also needs to focus on the form of discourse. Taking one's time to elaborate an answer or reacting spontaneously may reveal what can be easily said or what is harder to say for an interviewee. In addition to body language, silence and avoidance suggest that interviews are hardly a miracle solution to the limits of quantitative research, and the problem of interpretation thus remains. Other sources and kinds of observation are required to determine the framework governing the meaning and coherence of discourse and to elaborate plausible hypotheses for its interpretation.

6.3 In Search of Lost Meaning

The contribution of anthropology is not limited to the improvement of the methods and techniques of demographic data collection. It serves also to consolidate the analysis and understanding of data. Individual or collective interviews may serve to reveal information that conflicts with the results obtained by quantitative data or to show that the approach has overlooked a significant factor based on the specific objective or focus of research. Comprehensive demography creates a synergy that deepens the analysis by using the conflicts or inconsistencies between the results of a demographic approach and the results of an anthropological approach.

6.3.1 The Secret Use of Modern Contraception in Senegal

In 1997, I conducted a WHO-funded study in four villages of the Thiès region in Senegal to examine the use of modern contraceptive methods. Whereas all recent surveys (1978 Senegal Fertility Survey, 1986 DHS, 1992/1993 DHS, 1997 DHS) found a high percentage of familiarity with modern contraceptive methods (above 70 and 80%), prevalence rates were found to be very low. Between 1986 and 1997, current use of modern methods in urban areas increased from 2.6 to 19.3% in 1997 while stagnating in rural areas, remaining at 2.1% in 1997. The aim of the study was to identify the factors behind the gap between rural and urban areas. The study aimed to extend the findings of a first study conducted in 1989 in which I was also involved and which examined the social, economic and cultural factors of fertility and birth control in rural areas (Charbit and Ndiaye 1994). The study was conducted at the request of the Senegalese Ministry of Social Development and the Rights of Women, which was keen to extend provision in terms of family planning in rural areas. I thus had two points of comparison.

In 1997 (as in 1989), the enumeration of the population was conducted in addition to a socio-demographic survey among women of childbearing age.[6] It was extended to include men, thereby enabling a comparison of the opinions and attitudes of men and women about the desires number of children or the use of contraception (among other things). In the Wolof village of Tassette, a survey appeared to indicate that almost all women never used modern contraceptive methods. However, interviews conducted with privileged informants working in both the public and private sectors revealed that supply was failing to meet demand. The nurse in charge of the health post explained that the stock of pills was inadequate for responding to the demand for contraception by women. Forced to prioritise requests, the nurse had opted to give priority to women who were deemed to be at greatest risk (in terms of health and even their life) as a result of general weakness caused by too frequent pregnancies. The nurse advised other patients to travel to Thiès or Dakar for an injection or an intrauterine device (IUD) – a more difficult option since it involved travelling and entailed significant costs and above all required women to find a credible justification to give to their partner. Individual patient records and the register of consultations were examined to verify the account given by the nurse.

The demand for contraception was also corroborated by Catholic nuns who ran a very popular clinic offering high-quality care, a constant supply of medicine and fixed costs. In accordance with Catholic dogma, the nuns refused to provide pills in response to demand, recommending instead the use of the calendar method. The nuns had developed a very efficient contraceptive method involving a string of pearls of different colours according to the level of risk of conception throughout the menstrual cycle. They found that the majority of women who sought to avoid sexual relations with their husband were almost always wrong about the exact date

[6] The benefits of the measurement of trends will not be reiterated here. See Petit and des Robert (2004).

of the high-risk period (a result subsequently corroborated by the quantitative study). The majority of women tended to avoid sexual relations immediately after their period. Like the nurse, the nuns provided useful information and directed women wishing to use modern contraceptive methods towards healthcare centres in urban areas. Recurrent discussions between the nuns and the women clearly showed that some women used modern contraceptive methods (i.e. pill or IUD).

How should the blatant contradiction between statistically based observations (no use of contraception) and the statements collected in interviews (significant demand for and use of contraception) be interpreted? To answer this question, I conducted a new round of interviews among women suspected of using contraception who had shown embarrassment or reluctance in response to specific questions in the initial interview. The nurse advised me to interview particular women without giving his reasons, although he had clearly understood my purpose. Several women admitted in the second interview that, contrary to what they had initially stated in responding to the questionnaire, they used a modern contraceptive method. If a married woman fails to give birth every 3 or 4 years she is viewed suspiciously by the husband, the family circle and the wider community. Gossip and rumours about the use of modern contraceptive methods soon begin to circulate about her. Women (like men) are very keen to protect their honour and their reputation – hence their denial of any use of family planning. They are clearly aware that their individual choice is a social transgression in the eyes of the community. If their practice were known, they would run the risk of being marginalised and of causing conflicts in the home and in their couple. Since family planning information circulates in the media in national languages and in local information sessions, everybody knows (to a greater or lesser extent) that there are efficient methods for avoiding pregnancies and exceedingly long birth intervals are even more suspicious.

Though not explicitly stated by women, a second factor also explains their self-protection strategy. The women interviewed in the course of the study had little trust in the female interviewers who had been recruited among the so-called female monitors of rural development working in the region. The women villagers refused to disclose highly sensitive information to other Senegalese women, seen as being likely to cause them harm by disclosing their secret. Their mistrust (and in some cases downright hostility) needs to be replaced in the context of the social organisation. Like many development agents appointed in rural areas, the monitors held a negative view of the local population. These young, educated women, generally of urban origins, were only interested in returning to live to Dakar and were unable to conceal their contempt for the women villagers and the local living conditions. In spite of national campaigns, family planning has remained a largely taboo subject in the villages. As an institution, the local political and religious authorities held a negative view of modern contraception. While the Imam of the village chief stated in private that the number of children was the responsibility of men and must be determined by their resources, this position was not stated or defended publicly. The absence of social legitimation was further compounded by significant inequality in gender relations. The quantitative study showed that respondents were generally unaware of the real opinions of their partner since the issue was never discussed.

Women who were younger than their husband were generally unwilling to broach the topic from fear of provoking anger and disapproval. By broaching the subject, they would be discredited and perceived as being open to having extramarital relations. The men claimed to be clumsy, stating that they 'did not know' how to begin a conversation on the subject with their wife and that they expected a reaction of self-esteem or pride on the part of their wife. In common representations the use of condoms and more generally of contraception was often associated with debauchery and promiscuity. Partners often tended to anticipate a negative reaction and emphasised the lack of mutual trust. In short, a woman wishing to resort to contraception had no other choice but to manage alone and in secret if she was committed to her choice.

While anthropology is unable to rectify statistics, it is at least capable of directing the meaning of statistical data by showing a pratice has been underestimated. Understanding the use of family planning is not merely part of the classic research questions of demographers (i.e. supply and demand) but also involves a gender and domination issue. The study showed that the break-up of concessions favoured the emergence of couple relations in which every man was more responsible since he had the sole responsibility for ensuring the subsistence of his wives and children. The break-up of concessions also entailed an individualisation of lands, production and resource management. The institutional analysis of supply highlights the notions of anonymity and trust, that is, paradoxical notions in a society highly subject to social control. Anonymity and trust become the primary conditions of use ahead of the question of the efficiency or adaptation of methods, as shown by the institutional analysis. The use of anthropological techniques thus captures the dynamics of a society in which men and women are aware of the benefits of family planning but in which they must negotiate the use of contraception within their couple, their family and the wider community. A more pronounced individualisation of attitudes and behaviours paved the way for a departure from religion. However, it was still modest, as witnessed by the Imams, who admitted that they had *partly* lost their hold over the local population and were unable to prevent the faithful from acting as they pleased. They could only set themselves up as models (being polygamous with a large family) without any certainty about the normative efficiency of what they represented.

6.3.2 Emigration as a Source of Conflict Among Dogon Families

Three types of migration movements are observed among the Dogons: internal urban migration towards towns in the Niger valley (Sévaré, Mopti, Ségou, and Bamako), internal migration involving the colonisation of agricultural land (plains of the Seno-Gondo) and international migration, mainly to Ghana and Ivory Coast (Petit 1997: 515–544). The census conducted in Sanga villages shows that a fifth of the population was involved in some form of migration at the time of the survey. A socio-demographic study of a sample that included returning or transiting migrants

was used to reconstruct migrant itineraries and key data about their relations with their families. Interviews were also conducted with returning migrants and nonmigrants in order to understand the motivations of emigrants, the basis of their decision to leave, their organisation and the extent to which their returns were prepared (among other subjects). The analysis of the migration system and its effects on the society of origin requires considering the Dogons in a broader national and regional context. Comparisons with other ethnic groups also involved in migration (e.g. the Fulani and the Soninke people) can be heuristic. To what extent are the migrations of the Dogons specific insofar as they exhibit the same characteristics as other societies in this particular region of Sahelian Africa and broadly the same environmental constraints? The first virtue of socio-demographic compared to ethnological studies is to avoid an excessive focus on cultural factors that may give the impression of an immutable society attached to a specific territory (the Bandiagara Escarpment).

Notwithstanding the basic assumptions of classic economic theories of international migrations, the choice of destination is not based on a simple rational calculation involving the income differential between the area of origin and the destination area. Ivory Coast became the privileged destination of international Dogon migrants in the 1970s and 1980s, gradually supplanting Ghana. During the years of the 'Ivorian miracle',[7] migrants were hired immediately on arrival in plantations, port activities, services and the construction industry. However, the euphoria of the 1970s soon dampened when the economic crisis began to affect African economies in the early 1980s. Although access to employment became increasingly difficult and many migrants survived on a day-to-day basis in the informal sector, young people in the Dogon villages of origin continued to dream of the Ivorian capital, using all of the means at their disposal to fulfil their migration objectives. As is the case with other migration flows, the gap between the socio-economic reality in Ivory Coast and the desire to emigrate can be explained by a number of factors. First, the stories and gifts of returning migrants continued to foster the myth of an easy life (freedom, access to consumption). In addition, the difficulties encountered by migrants (unemployment, illness, alcoholism, drugs, racism) were often concealed or downplayed since they are considered to be synonymous with shame and individual and family dishonour. While the reality of the increasingly difficult living conditions eventually transpired (migrants returning without any savings, an ailing son that needed to be fetched), the examples of negative migration experiences were found to have little impact on the desire for greater autonomy, which needs to be seen in the broader context of a deeper tendency towards individualisation. The imagination of young people is constantly fostered and nourished by the media, the new means of communication and the relations developed with Western tourists. In many societies

[7] In the 1960s and 1970s, Ivory Coast had one of the most dynamic and attractive economies in Sub-Saharan Africa. The country's economic development was based on agriculture, particularly export cultures such as cocoa. Agriculture represents half of the national GDP. A plantation economy requires an abundant labour force.

throughout the region, mobility is also part of a secular tradition, with West Africa defined as an 'open space' or an area of 'free circulation'.

The attraction of Ivory Coast is not merely a matter of higher income levels. An exclusive focus on economic motivations often results in an underestimation of the desire of young migrants to escape the oppression of a social structure that has a considerable impact on their daily lives and the decisions directly affecting their lives (such as the choice of partner). Young people are subject (particularly the youngest) to the decisions of their elders, and emigration is often an individual decision to take charge of one's destiny and an act of rebellion against the weight of family pressure. The elders are not always unaware of the intentions of their sons, no doubt because they experienced similar feelings in their youth. When asked about the choice of destination of young people, fathers often stated that if their sons really wished to earn money, they would target the paddy fields of southern Mali rather than the Ivory Coast, where jobs had become scarce. Young people often leave their village and their condition as peasants for a salaried job in towns. The average length of international emigration is 2–3 years. Returns are common and departures rarely renewed. Economic pseudo-rationality conceals the desire for another way of life and the desire for emancipation from the family stranglehold.

The emigration of the youngest members of society is not based on order and discipline – contrary to the initial accounts collected by anthropologists. The repetition and cross-checking of individual and collective interviews conducted among returning migrants, transiting migrants, nonmigrants and several members of the same family highlighted significant contradictions between the statements of fathers and the statements of their sons about international emigration (Petit 1995). The fathers often stated that they had given their blessing to their son's plans to migrate to the Ivory Coast, while the latter often stated that they had left against the will of their father. Describing the measures taken in preparation for their migration, migrants often referred to secret preparations, to night-time escapes along with a small group of other prospective migrants, their goodbyes to their mother and close friends and to the fact that they had often informed their maternal uncle, who in some cases had contributed to funding the expedition. Departures challenge the foundations of the social hierarchy and order based on the strict submission of the youngest members of society to the elders. Fathers were reluctant to admit to filial disobedience since it was viewed as a form of dishonour. By contrast the youngest members were proud to express their independence while regretting that they had caused pain to their father. According to them, they had no choice but to flee if they wished to fulfil their ambitions given their position in their gerontocratic society. The conflicting interests of fathers and sons rarely resulted in an open conflict between generations. Confrontation was rare since, in the absence of the migrant, the family head was forced to find a solution to the reduction of the labour force. Third parties were likely to defend the deserter and to seek to attenuate the wrath of the father. On his return, a young migrant was likely to fall into line by complying with family engagements concerning his matrimonial future. We may wonder whether there is not an element of play between father and son, with each party fully aware of the desires of the other and the limits that must not be overstepped. While

the destiny of women was to leave their family, the destiny of men was to stay. The door must be left open, with migration merely representing a brief parenthesis. Intra-family tensions showed that the internalisation of respect and submission to elders was not as easy to accept and to experience as may be suggested by the rhetoric developed and by the social veneer shown to outside observers. To understand the motivations behind emigration, individuals need to be situated within the broader social structure, since their rights (especially their access to land) are entirely dependent on their social status. Although international migration is a source of tension in families, it only leads to break-up in very exceptional cases since both sides are keen to preserve relations. The migration contract is never explicitly outlined since it involves an unknown future (Guilmoto and Sandron 2000). In some sense, the contract *links* individuals more than it *commits* them. The strength of ties maintains the bond of solidarity between the migrant and those who have remained at home and conversely guarantees the migrant's right of return. The vague terms of the contract also allow for some degree of negotiation and adjustment and for changes of context and constraints. While migrants and nonmigrants are caught in a relation of dependence, their relation is thus not fixed but subject to constant negotiation.

The conflicts surrounding emigration rarely emerge in the public arena, and the community merely acknowledges cases of emigration without condemning them. The ethnologist Jacky Bouju interpreted international migration in another Dogon group as a rite of initiation, a modern substitute for a largely obsolete practice. In the areas examined by Bouju, the local population had been entirely Islamised and the community organised the emigration of young people on a collective basis. Bouju's hypothesis hardly applies in the case of the Dogons of Sanga. Departures and returns are anarchic and are not determined by age groups. Migration is not an initiation that has never been generalised to the entire male population and never observed among women. In addition, while animism is in decline in Sanga, Islamisation is far from universal, with religious conversions split between Islam (50%) and Christianity (50%). Migration is not organised or structured by society, which would presuppose a form of unanimity. Subjects of discord have proliferated in Sanga villages. Besides intense competition to secure the income from tourism, competition between the NGOs active in the field and fights for elections, climate hazards should not be overlooked. If rains are a long time coming, the animists accuse the Christian and the Muslim Dogons for not having watered the fetishes and for not having performed fertility rites to ensure a good harvest.

New economic and political opportunities have weakened the efficiency of the institutional instruments of conflict regulation (palaver huts, the role of the blacksmith as mediator). Not unlike ethnologists, demographers must be careful not to be deceived by the smooth appearance of the discourse of local informants, who are prone to seeking refuge in silence, ellipses and deliberate omissions. While the point is not to view accounts and discourses with suspicion, an analysis that considers the context of enunciation and participant observation is useful for refining the eye of the observer.

6.3.3 *Djibouti: A Break in the Practice of FGM*

This suggests that only anthropology could possibly improve research on population issues by highlighting the limits or incoherence of a purely quantitative approach. However, there are also cases where anthropology is peculiarly blind – not because of a lack of theories or concepts but because of a certain narrow-mindedness in dealing with specific research questions or issues. The consideration of socio-demographic change can sometimes represent a major blind spot. 'More sensitive to the permanence and traditionality of value systems and symbolic structures than to the conditions of their production and reproduction, traditional ethnology has only ever seen history in the making as a threat of disintegration of the "always already there"' (Olivier de Sardan 1995: 30). Demographic data may therefore provide an illuminating perspective by uncovering fundamental socio-demographic structures and trends. Censuses and surveys represent an irreplaceable foundation for all social science disciplines because of the wide range of socio-demographic and economic variables they generate. Despite the issues of categorisation often raised by demographic data collections especially when defining households, the quantitative approach has the chief merit of establishing a break with the prejudices and preconceptions of researchers. Socio-demographic data may represent powerful indicators of cultural, economic and political transformations since they record both phenomena of inertia and breaks at a macro-level. These transformations may be denied or underestimated by ethnologists because of a wide range of factors, including ideological resistances, specific theoretical positions or an excessive focus on observations made at a community level. In addition, change is difficult to perceive among actors, who have a necessarily partial viewpoint linked, for example, to their specific social position, their level of education, their institutional and political role or their position in the life cycle. The case of female genital mutilation (FGM) provides an interesting example of this issue.

According to the definition given by the World Health Organization, female genital mutilation (FGM) includes 'interventions that deliberately alter or harm the external genital organs of women for non-medical reasons'. The production of statistical data about these practices, the struggles of feminist associations, the emergence of the concept of reproductive health and the evolution of international law aimed at protecting women and children have contributed to establishing FGM as a key population 'issue' in a significant number of countries. A practice that was acceptable at a family or community level for generations has thus become unacceptable at a national level in view of international standards. The practice of FGM is a major issue in East Africa since more than three quarters of the female population are affected in the Horn of Africa. In Djibouti, 98% of women aged 15–49 (PAPFAM survey) stated in 2002 that they had suffered some form of genital mutilation (infibulation in three quarters of all cases). The generalisation of FGM, including in its most severe form, the perception of the practice as an ancestral custom, and its close association with Islam in the Djiboutian context have meant that any change in this area is highly unlikely. Until recently, the general view among national and foreign researchers, but also among development partners, was that it

would take several generations to put an end to the practice. Two cumulative studies conducted by CEPED, my research centre at Paris Descartes University, showed that this view is in fact incorrect since a quantitative break was found in the behaviour of Djiboutian families. In qualitative terms, the mechanisms that account for decisions determining the continuation or abandonment of the practice are far more complex than anything suggested by the simplistic statement 'it's a woman's business'.

An innovative clinical study on child health was launched in 2005 to measure the prevalence of different types of FGM based on a clinical examination of children attending school in order to depart from common measurements made in studies on samples (the PAPFAM survey in Djibouti, DHS elsewhere) based on the statements of female respondents. The health study, which was carried out in a school context, was conducted among boys and girls in CM2[8] (a sample of schools and classes of districts throughout Djibouti, i.e. 80% of the national population). A clinical examination of their reproductive organs was carried out as part of a medical visit covering all of the traditional components of child health monitoring. The examination aimed at determining whether girls had suffered a mutilation was carried out as part of a more general examination to ensure that it did not appear to be the specific purpose of the medical visit. This also explains why the medical visit concerned both girls and boys. The visit was conducted by Djiboutian school doctors with the consent of parents. The study highlighted two main results. First, it revealed a very recent shifts away from the most severe practice (infibulation) towards less severe ones (excision, *Sunnah*), with excision (as opposed to infibulation) now serving as the norm among the new generation. Second, it was found that in urban areas (80% of the population), nearly a fifth of all girls at the end of primary education (17.7%) had suffered no mutilation, providing evidence of a major break. Because of the age of the young girls involved in the study, these figures may be viewed as definitive since the practice of FGM after 12 is very rare (Belbéoch 2006: 9–10).

From a methodological point of view, the results of the study challenge the validity of DHS-type surveys based on statements made by individuals about their own behaviours when the alternative normality-deviance is in question in the examined society. Inaccurate statements cannot be excluded in traditional surveys. Women responding to an interviewer who belongs to their own community are unlikely to admit to a behaviour perceived as deviant by their circle. Mothers with daughters who have not been infibulated may refer to a type of mutilation that is not an accurate reflection of reality (excision instead of *Sunnah* or no intervention). There may also be minor differences between what a woman describes as *Sunnah* or an excision and the typologies established by doctors.

At the same time, I conducted an anthropological survey of the lived experience of recent changes in genital mutilation among succeeding generations of women. In addition to measuring change, interviews are useful for examining the conditions and nature of social changes. To refuse all form of mutilation implies a social, economic and intellectual position of power that can be used by individuals to resist

[8] CM2: final year of primary school education. CM2 pupils are aged 12.

social pressures that foster internal doubts. Several women stated that young girls within their circle had asked their mother or their aunt to 'be cut' when they became aware that they did not look like their fellow pupils. Similarly, mothers who were unable to protect their daughter against the recommendations of their family or family-in-law admitted doubting the relevance of their choice when their daughter grew up. They admitted that they had considered the possibility of having their daughter excised before she was too old since they feared that they would struggle to find a husband for her and that they would invite gossip. In a society in which honour and shame act as powerful social pressures, to expose a transgression outside the family remains a very risky behaviour. Observations and interviews suggest that the men and women involved in such practices and traditions are prone to periods of doubt and procrastination. For example, sisters within the same family had not necessarily undergone the same type of mutilation. The differences in the treatment of young girls show that a significant statistical change at a macro-level is in fact a chaotic and non-linear process at a meso-sociological level.

What is true of the sociology of industrial organisations also applies in this context. Change is never a distinct stage or linear progress but implies the transformation of the system as a whole, both at a collective level (the national policy of fight against FGM and even international pressure) and at the level of individual actors, who apply new behaviours. Since these conditions are seldom met, Djiboutian families involved in the dynamics of change refer explicitly to a new model of social organisation (evolution of the status of women, gender relations, the choice of partner among the new generations), although there is still much hesitation, including among leaders heavily involved in activist movements in the fight against FGM, since behaviours tend to be adjusted according to the perception of the new rules of the game. Change has also resulted in the emergence and construction of new social roles. Many women underline the role of men as fathers. While commonsense discourse mediated by institutions views FGM as 'a woman's business', women note that they need their partner to impose their choice on their family and circle. The word of men has significant social weight, and yet the only men targeted by awareness policies belong to the sphere of political power or the religious sphere. They are sensitive to this issue because of their perceived influence on society, but are not appealed to as individuals representing their gender, that is, as fathers or partners. Individual responsibility is not invoked since FGM are claimed to be a matter of custom in order to comply with the weight of tradition, community and the family circle. Some fathers seek refuge behind the social and family pressures embodied by women in seeking to justify their inability to protect their daughter. Discourse analysis also suggests the need to deconstruct how the statement that FGM is 'a woman's business' was initially endorsed by researchers and subsequently by international agencies (UNFPA, UNICEF, WHO). The absence of critical perspective has focused awareness campaigns and research on women, who represent the 'natural' target population of national and international institutions. This particular population policy illustrates the difficulty of extracting the reproductive health issue from a strictly feminist-oriented framework of thought and action.

At the time of the survey (2006), the national policy for the fight against FGM was under development, and different positions and rhetorics were in conflict. The

national strategy for the total abandonment of all forms of FGM was developed to suppress excision and infibulation. The policy is based on the notions of respect for the physical integrity of women and the promotion of women's health (Petit and Carillon 2007: 7–8). UNICEF used the acronym 'E/FGM' (excision/female genital mutilation) to distinguish excision by removing it from the category of genital mutilations. UNICEF was unable to enforce a total abandonment of FGM but defended the idea of change in accordance with the cultural specificities of the targeted communities. The assumption was that any innovation in practices needs to become the object of a social convention. I question the ideology underlying the theoretical position adopted by UNICEF, which tends to underestimate the violence of gender relations. To speak of a convention as if it were a freely consented social contract in the Hobbesian or Rousseauist sense is a distinctly Western vision. The best proof of this is that the women leading the National Union of Djiboutian Women (*Union Nationale des Femmes Djiboutiennes* or UNFD) acknowledged that they had wasted 10 years as a result of seeking a compromise with the practice of *Sunnah* conducted under medical supervision (personal correspondence of the author). According to UNICEF, the shift from infibulation to excision was a first step or preliminary stage before the shift from excision to a lighter practice or a definitive end to the practice. UNFPA referred to 'FGM' without distinguishing between different types of female genital mutilation. With its slogan 'the cause of women', UNFPA adopted a radical position by defending a strategy devoid of ambiguity: the eradication of all forms of mutilation. Finally, key national institutions (Ministry of Health, Ministry for the Promotion of Women, Ministry of Religious Affairs, National Committee for the Fight against Harmful Practices) referred to 'harmful practices', but without ever explicitly defining the behaviours or practices covered by the term. The proliferation of names and definitions has only served to create confusion among the general population about what is legally banned and what a mutilation actually is. In 1995, the state modified the Civil Code by introducing article 333, which defines FGM as a form of violence against women punishable by law. The article also refers to article 16 of the constitution, which condemns 'all forms of torture, abuse and inhuman, cruel or humiliating treatment against human beings'. No suit has ever been filed and no sentence ever pronounced. The category 'FGM' has never been explicitly defined. The general state of confusion is explained in part by the relations between religion and politics in Islamic states. The various actors involved in the fight against FGM have clearly opted to dissociate religion and FGM. Conferences have been organised at national and regional levels by UNICEF and WHO to promote the view that FGM is not a religious act. In 1988, UNFD, WHO and UNICEF organised a national conference on the subject: 'Female circumcision is not a religious obligation'. In 2005, a subregional conference was held on the topic 'Towards a Political and Religious Consensus against FGM'. The following year, Al Azhar University in Cairo declared a fatwa condemning FGM, describing it as 'a crime against the human mankind'. FGM was deemed to be detrimental to the values of Islam. Al Azhar University represented a key religious landmark since the Djiboutian population is heavily influenced and attracted by the Arab-Muslim world. Since the

mid-2000s, the Sunni religious authorities in Djibouti, under the pressure of the state, have officially declared that FGM is not a religious act.

However, the message was anything but clear among the general population. Besides the fact that local Imams were more or less willing to mediate the discourse, the practice of *Sunnah* has also contributed to maintaining ambiguity. The most moderate type of FGM, an incision designed only to cause blood to flow, is known as *Sunnah*. The term refers explicitly to the wider religious context since *Sunnah* is a central reference in the Muslim universe, representing (after the Koran) the second legislative source of Islam. *Sunnah* means 'rule of conduct' in Arabic and refers to the practices, teachings and examples followed and given by the prophet. The *Sunnah* is transmitted in the form of *hadith* and *khabar*. Djibouti is of Sunni confession. The Sunnis believe that 'all of the knowledge that is necessary to believers (…) is contained in the Koran and the *Sunna*, where they must seek and find through constant effort (*ijtihad*) the solutions to all of the constantly renewed problems encountered by human societies. Muslims have an obligation to add faith to the collections of *hadith* recognised as being authentic in the tradition to which they belong (Arnaldez 1992: 830–832). The Sunnis are referred to in Arabic as the men of *Sunnah* and the community (*ahl al-sunna wa'l-djama'a*). Further, Sunni Islam has been analysed not as a system or doctrine but 'according to circumstances, [as] an attitude of permanent compromise', an attitude that allows for 'dogmatic flexibility and political realism' (Arnaldez 1992: 830–832). While compromise is an attitude that can be interpreted positively from the perspective of social change, it is important not to over-interpret it since it also involves a significant pressure to avoid excessive deviation (*ikhtilafat*) within the community. *Ikhtilafat* is the 'radical evil' that must be opposed.

According to commentators, excision was defined either as a recommendation for women, in which case it was viewed as an honour, a noble gesture or a worthy action (*makrumah*) or as an obligation. To refer to a form of FGM as *Sunnah* in a Sunni population is not without consequences. Both male and female respondents refer frequently to the Koran or *Sunnah* to justify the practice of FGM. Two *haditha* are invoked to explain the position of the prophet. The prophet is thought to have believed that excision 'is the merit of girls'. On seeing a circumciser performing an operation, the prophet is also thought to have said that 'when you perform an excision, be careful not to remove everything. The women will thus remain fulfilled and the husband will derive greater pleasure'. It is important to note the shift between religion and tradition: although the religious justification applies to excision, the most widespread practice in the generations of women interviewed is infibulation (75%). In-depth interviews revealed that interviewees think in religious terms and seek to comply with the recommendations of Islam and to be 'good believers'. Based on interviews, the general population tends to view *Sunnah* as a legitimate form of mutilation. *Sunnah* should therefore not be included in the category of FGM practices that must be eradicated. It is thus hardly surprising that excision has become the norm among young girls examined clinically. The other consequence is that by returning FGM to the religious sphere, Imams are able to intervene in the social and political debate, thereby acting as the sole representatives of the male

world. As the only men permitted to intervene in a debate viewed as a 'a woman's business', Imams are bearers of prescriptions and symbolise the moral authority, as suggested by an interview conducted with a young man: 'In social change, men have a role to play as religious figures, i.e. men who preach in mosques, who preach on television…'. As noted by Françoise Héritier in examining other contexts, 'symbolic discourse always legitimizes male power (…). In all cases, man is the natural measure of all things. He creates social order' (Héritier 1996: 224).

In 2008, a new stage was reached in the development of a policy aimed at fighting against FGM as a result of a consensus around the need to eradicate all FGM practices. The new development was not altogether unrelated to the results of both our clinical and anthropological surveys. By showing that families brought about a more radical change than anything predicted or anticipated by the institutional and political authorities, the study contributed to the evolution of the position of key institutions involved in the development of the national strategy by pointing out their incoherences. It showed that a part of the population was ahead of the decision-makers, indicating that a shift from infibulation or excision to abandonment was possible without the need for a symbolic stage (*Sunnah*). Since the rite is devoid of all meaning, it is easily abandoned. However, it was clear that the removal of the practice was impossible without the agreement of men since the role of excision was to make girls marriageable by guaranteeing their virginity and good morals. On the matrimonial market, the honour of the clan rests on the shoulders of girls.

6.4 Culture: Pandora's Box or Sesame?

The various examples examined in this chapter show that changes in behaviours relating to fertility, poverty or migration cannot be interpreted without invoking the cultural factor at some stage. The development of micro-demographic studies has contributed to embedding culture in the explanatory field of demography: 'The aim of gathering data on local culture through qualitative methods has been to improve the science of population by such means as improving the measurement of variables, discovering new causal factors, and deepening the understanding of survey results' (Greenhalgh 1997). The use of the notion of culture can also be explained by the widespread rejection of theoretical economic and demographic explanations with a universalising intent, that is, general principles aimed at accounting for particular cases. However, the cultural dimension has not been altogether ignored by demographers and socio-demographic studies. The intellectual genealogy of the culture variable begins in the nineteenth century when British administrators ran the empire by collecting data relating to the identity of the populations under their authority. After World War II, the development of family planning programmes implied a reflection on the rationality of different fertility regimes observed in different societies. At a later stage, the inability of the theory of demographic transition to account for variations in fertility models underlined the importance of cultural factors beyond explanations of changes in urbanisation, education, industrialisation and infant and child

mortality (Fricke 2003). Although demographers examine populations at a macro-sociological level, the use of cultural explanations is required to understand why individual actors modify their behaviours. The more general aim is to analyse the factors that impede or prevent social change, since the implicit purpose of demographic studies is to modify attitudes or practices in order to reach an expected fertility or mortality level (Hammel 2003: 54–59). Conversely, in seeking to describe a cultural system and to determine how it differs from other cultural systems, anthropologists are often more sensitive to permanence (traditions, institutions, values, norms) than to social change. However, irrespective of the prevailing perspective adopted in research, both disciplines (i.e. demography and anthropology) address cross-disciplinary questions: what are the processes or factors governing the transmission of culture? If culture is a dynamic and composite whole, what legacy do individuals receive in their childhood (primary socialisation)? What do individuals do with this legacy in the course of their life (secondary socialisation)? The question of the definition of culture and the question of its transmission at collective and individual levels are thus raised in both disciplines.

While it is central in the social sciences (conceiving humanity as a unity and humanity in its diversity), the notion of culture has evolved in its definition and uses (Cuche 2010: 5). Since the history of the concept is not the object of this book, I will only address two points: the contemporary definition of culture and the specific use of the concept in demography. The definition of culture has shifted from a conception of culture defined as a pre-existing external framework in which the individual is passive to a conception of culture that resists description and analysis because of the particular uses of the concept by actors. Anthropologists have developed the theoretical meaning of culture in a globalised world in which identities are more fluid and subject to constant negotiation (Addapurai 2001). Anthropology has therefore shifted towards 'the elucidation of local, culture-specific rationalities, in the building of which actors are important perceiving, interpreting, and constructing agents' (Hammel 1990). Culture is thus conceived in dynamic terms. The notion that cultures in the past were pure has been abandoned and rejected as illusory on the grounds that cultures have always been composite wholes (Amselle 2001). The idea is that culture is a complex collection or combination that is subject to constant change, a development that has resulted in the use of the notion of '*bricolage*' (Lévi-Strauss 1962)[9] in anthropology.

The two key characteristics of culture (dynamic and bricolage) are difficult to reconcile with the approach to reality that is generally adopted in demography – a discipline that requires variables that are both simple (in the sense of being easily perceptible) and concrete in order to carry out its measurements and calculations. Culture in demographic studies is often examined by using variables such as religion,

[9] The notion of '*bricolage*' was initially developed by Claude Lévi-Strauss in an examination of American Indian myths (Lévi-Strauss 1962) but has subsequently been used to describe the creative processes that are specific to popular or immigrant cultures and to explain phenomena of religious syncretism.

ethnic group, language, place of residence (region, urban area, rural area) and nationality. Independently of the criticisms levelled against the definition of the notion of ethnic group (Bouju 1995a, b; Poutignat and Streiff-Fenart 1995), the use of these variables tends to reify culture by fixing the identity of individuals. At any point in their life, individuals may convert to a new religion, choose to define their ethnic identity differently or learn a new language. However, these characteristics are viewed from a cross-sectional perspective in demographic analysis, while the reproductive life or trajectory is reconstructed from a diachronic perspective. A further criticism is the treatment of the notion of culture in demography, which tends to be used on a par with other independent variables in multivariate analyses (Kertzer and Fricke 1997a: 15). This particular use of the concept implies an outdated conception of culture and refers to attempts at conceptualisation outside the field of demography. According to Hammel, while the theory of culture has departed from the structural-functionalist approach in anthropology for over 40 years, it remains in use in other social science disciplines, particularly economics and demography (Hammel 1990).

To establish a link between a demographic phenomena (fertility) and a form of identification (to be French) represents a first degree or level of disaggregation and analysis of the examined phenomenon, since an inference is made that 'to be French is an explanation of a certain way of being and acting. However, this level of explanation says nothing about the nature and content of the link' (Hammel 1990). The assumption is that the label given to individuals or populations refers to a culture that has an implicit and unchallenged content but that largely reflects more or less developed representations and stereotypes (not to say prejudices) about this culture. A culture cannot be reduced to its essence since other cultures in addition to the national culture also define the identity of an individual (to be provincial, to be a protestant, to be of working-class origins, to be anticlerical, to be the descendant of a slave, to be of migrant origins). The assumption of an ahistorical and non-conflicting framework ignores the broader process governing the construction of national culture, especially in the context of nation states. It also forgets that certain cultural characteristics are imposed on groups that have been integrated in the dominant culture of reference. In addition, 'subcultures' are sometimes far more significant factors in shaping behaviours than the national ethos, but their specific use by individuals or communities needs to be considered in their interactions with the outside world (Lewis 1963, 1969; Ogien 1978; Sayad 1977, 1978). In this sense, culture is a marker of identity and needs to be interpreted as part of the dynamics of the processes of assignation and self-assignation.

This first level of explanation requires a deeper understanding of the broader context of the examined demographic phenomena, especially from a historical and anthropological perspective. While this task is far from obvious in the case of past societies, its complexity has become greater as a result of recent developments. For instance, what does it mean to be French in twenty-first century France? The question is hardly neutral since it implies a specific educational,

political and sociopolitical context rooted in an equally specific history and network of institutions. However, the context cannot be reduced to the historical dimension alone since history itself is subject to constant rewritings and reappropriations, particularly by populations in marginal positions. In a demographic study, to what extent is it possible to use key indicators to define a multiple identity developed in a social context? Furthermore, social contexts are increasingly complex in terms of sociological composition and increasingly open to external influences (fashions and trends, circulation of information, social networks, inscription of supranational groups or networks). It is now impossible to posit an identity defined as the cultural embodiment of the 'average man'. If we really want to test the cultural dimension quantitatively in a demographic study, a far deeper examination of the personal characteristics of individuals is required to reconstruct their frame of references, the structure of representations and the strength of social ties. An examination of this kind also presupposes the construction of hypotheses and the ability to transform them into variables and indicators in order to establish the statistical proof of the existence of a specific culture. In the first study of its kind using quantitative data (Kandel and Massey 2002; Massey 1987a) demonstrated the existence of a 'culture of migration' in Mexico. Based on several logistical regressions, Kandel and Massey tested the probability that Mexican teenagers living in the Zacatecas region will eventually migrate to the United States to live or work. All other things being equal, young Mexicans were found to be more likely to migrate to the United States if a member of their nuclear or extended family had already emigrated. The intergenerational transmission of the migration experience is not unrelated to gender since girls are generally keener to live in the United States than boys, who tend to see migration as a means of social promotion after returning to Mexico. This approach presupposes that demographers rely on a solid knowledge of the broader context in developing hypotheses based on an updated theory of culture. The same approach could be used in conjunction with current multidisciplinary studies conducted in West Africa on the construction of the representations of migration.[10] Research on representations in their collective and individual dimensions also fits into the extended explanatory framework of demography. While biographical and multilevel approaches have altered the state of the discipline by enabling a consideration of increasing complexity from a longitudinal perspective, data collection is merely one stage of the research process. Data can only be given meaning provided demographers use appropriate theoretical resources to provide an interpretive model. Culture is thus both a Pandora's box (since it all remains to be done) and a sesame.

[10] See for example an undergoing CEPED research project entitled *La migration prise aux mots* (MIPRIMO) led by Cécile Canut on the production and circulation of migration narratives in West Africa, involving French and African linguists, anthropologists, sociologists, demographers and historians.

Chapter 7
Some Unresolved Issues

7.1 Anthropology or Qualitative Research?

While it clearly involves a search for meaning and a rapprochement between different disciplines within the social sciences, the attempt to develop a comprehensive demography will inevitably encounter specific forms of resistance within each discipline. It also raises a number of methodological and epistemological problems. It is important to consider the interest of demographers in anthropology since the nature of their interest will partly determine the use of what is deemed to be derived from anthropology. Far from being specific to demographers, the attraction of anthropology needs to be seen as part of a broader trend within the social sciences. In the late 1980s, in his introduction to *Les idées de l'anthropologie*, Philippe Descola noted the growing success of anthropology in other disciplines, while regretting that it was not necessarily based on a genuine understanding of anthropological research (Descola 1988). Almost 20 years later, Descola revisited the idea in a paper on the nature of anthropological knowledge, reiterating his initial assessment and concluding that claiming to practice anthropology is not a guarantee that the approach will meet the standards of ethnology so much as the expression of an interest in developing a qualitative methodology: 'It is rather the case that so many different enterprises have now clustered under the banner of anthropology that the huge extension acquired by this label condemns it to mean almost nothing, save the desire of those who employ it to signal that they favour a qualitative approach to social facts' (Descola 2005: 65).

This diagnosis is the object of a consensus that transcends national boundaries in anthropology, since Descola's view is also shared by the Danish anthropologist Kirsten Hastrup (2005) and her British colleagues Ernestina Coast, Katherine Hampshire and Sara Randall (Coast et al. 2007). Hastrup reaffirms the specificity of the anthropological perspective as part of a defence of a unified and renewed

V. Petit, *Counting Populations, Understanding Societies: Towards an Interpretative Demography*, Demographic Transformation and Socio-Economic Development 1,
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contemporary anthropology. Like Descola, Hastrup draws a subtle but fundamental distinction between the importance given to anthropology and the lesser importance given to ethnography. Hastrup emphasises the gap between the high level of interest in the anthropological approach in disciplines that examine society and culture and ethnography, which involves fieldwork complying with the traditional standards of the discipline (Hastrup 2005: 133). Coast, Hampshire and Randall draw a clear distinction between 'doing' anthropology and 'seeking inspiration' from anthropology. Despite the proliferation of qualitative data relating to anthropology, they argue that it is significantly more difficult to view such data as being strictly anthropological (Coast et al. 2007: 504). The success of anthropology is thus something of a Pyrrhic victory since, despite the increasing number of researchers who refer to anthropology in their research strategy, their actual use of anthropology generally fails to comply with the basic criteria generally recognised by anthropologists. Having been praised as a source of inspiration for the social sciences generally, anthropologists are currently in the throes of a period of disenchantment caused by the abuse of the term 'anthropological' throughout the social sciences. To counter the ersatz produced by the dissolution of anthropology by researchers outside the discipline, anthropologists have repeatedly and forcefully argued that a genuine anthropological approach cannot afford to overlook the practice of ethnology, which requires long-term presence in the field, sustained observations, a good knowledge of the local language and a deep understanding of a particular society.

Descola's assessment applies to the position commonly adopted by demographers since demographers generally emphasise the *methodological* contribution of anthropology to demographic research. A shift of meaning (or a semantic equivalence) is thus implied between anthropology and qualitative methods. Yet it is worth recalling that the aim of anthropological demography is to extend beyond a *simple transfer* of research methods from one discipline to another. The reference to the qualitative approach also conceals a second form of reductionism: when demographers use a qualitative methodology, their aim is generally to use in-depth interviews or focus groups. Sara Randall and Todd Koppenhaver carried out an analysis of the JSTOR database. They aimed at assessing trends in studies using qualitative methodologies published in journals specialized in demography (*Demography*, *Family Planning Perspectives*, *International Family Planning Perspectives*, *Population – An English Selection*, *Population Studies*, *Population and Development Review*, *Studies in Family Planning*). Randall and Koppenhaver singled out papers that contain the following keywords: anthropology-anthropological-anthropologist, ethnography-ethnographic-ethnographer, qualitative, focus group, in-depth/semi-structured interviews and participant observation (Randall and Koppenhaver 2004). Participant observation was found to be rarely used by demographers, despite the fact that it has been viewed as the 'distinctive mark' (Copans 2008) of anthropology since Bronislaw Malinowski.

7.2 A Persistent Gap

The failure to apply the distinctive method of anthropological research in demographic studies is symbolic of the gap between the two disciplines, which, according to Randall and Koppenhaver, is highly regrettable 'because sometimes only participant observation, with its necessary long-term immersion in a community, might really allow an understanding of the social complexities surrounding birth, marriage, reproduction and death, as well as society deviant demographic behaviour' (Randall and Koppenhaver 2004: 58–59). Randall and Koppenhaver account for this absence by underlining the incompatibility of participant observation and the epistemology of demography. In their view, the latter gives primacy to representativity and reproducibility, that is, objectives linked to the need for quick results. The epistemological explanation is central since it concerns the identity of each discipline and the way in which every discipline conceives and demarcates itself, that is, the way in which it construes and understands reality.

Theoretical and methodological discussions opposing demographers and anthropologists are subtented by ways of doing research and ways of relating to the world. Epistemology shapes the development of a distinct professional habitus and ethos in each discipline through particular methodological practices. Because it implies a specific practice of data production (i.e. fieldwork), observation serves as an important dividing line. Conducting ethnographic observations does not merely involve quantitatively spending time *in* the field but above all implies spending time *with* people in a specific frame of mind. Fieldwork requires a capacity and a desire to develop human relations with people or groups and amounts to engaging personally in (and fostering) real social relations. It is, in short, a way of exposing oneself by the decentring imposed by the field (Saigne as quoted by Copans 2008: 16) and is both a scientific and a social behaviour.

While a taste for and an engagement in fieldwork are not absolute prerequisites in demographic training, the 'field' is generally considered to be a rite of initiation in ethnology or a basic requirement of ethnological training. No one can ever claim to be an ethnologist without having demonstrated his capacity for sharing and understanding the social life of a group other than his own over an extended period of time. The phrases 'going into the field' and 'being in the field' are indicative of the extent to which ethnologists tend to be identified with their practice. Students often claim to choose ethnology specifically in order to 'do fieldwork'. The movement towards the other is expressed in its most extreme form by the appropriation of an ethnic group or community rarely observed among demographers. It is thus not uncommon to hear an ethnologist referring to 'his/her tribe', 'his/her informants' or 'his/her village', thereby using a possessive shortcut not altogether devoid of ambiguity to express a privileged relation with the group and the reification of the studied population as an object of study, conceived as a (private) research territory. However, it is important to note that the very notion of 'field' and the status of the resulting text (monograph) changed significantly between the original experience

(and experiment) of *Argonauts of the Western Pacific* (1922) and the critical reinterpretations of anthropology at a theoretical, ideological and political level since the 1960s (Copans 2008: 16–20). For example, extending beyond the idea of a field conceived as a territory, Marc Augé developed the concept of 'non-place' '*non-lieux*'(Augé 1992), while young anthropologists are beginning to turn towards a form of 'multi-situated ethnology' (Dia 2009; Hazard 2008) to account for new practices in the production of ethnological data. While the notion of field is not consubstantial with demography (unlike the notion of survey), the development of original research and micro-demography have fostered the emergence of new generations of demographers keener to develop a real proximity with their studied population to achieve a greater understanding. In France, IRD has made a significant contribution to the development of contextualised demographic research (Quesnel and Vimard 1988) by encouraging the expatriation of its researchers and funding long-term research projects.[1]

7.3 Time and Status

Secondly, there is a key difference between the temporal frameworks of demographic research and ethnological research. Especially when taking a census or a sample survey, demographers generally reduce the period of fieldwork to a minimum. By contrast, ethnologists are generally quite willing to spend as much time as possible in the field and to make full use of all fieldwork opportunities for fostering social relations and shared experiences. This difference can be explained by the practice of observation. While interviews can be conducted alongside questionnaire surveys, observations require a continued presence over an extended period of time and a form of reciprocal exchange between the researchers and the studied population. Ethnologists must be able to while away their time in endless discussions, in greetings in fields or during festivities, in drinking sessions on markets and in conversations on public transport. Traditionally, ethnologists have been required to commit medium or long-term periods of time to research among a studied population and are not prone to devoting brief periods of time to data collection. An ethnologist working in the field may thus become a friend, a brother, an initiate, a witness, a confidant or an adviser among the studied population. In short, while the group that 'incorporates' the researchers never forgets their original status (i.e. as a researcher), researchers are granted a position of their own and will often be viewed as having all his own qualities and flaws. They are also likely to be given a new identity (i.e. a new name) and will often be manipulated in local power games. In this sense, the practice of fieldwork is a purely individual experience. Ethnologists tend to develop privileged acquaintanceships that are fostered and reactivated over the course of the many years of research spent in the field among a given community.

[1] Besides its own researchers, IRD enables delegated researchers of other research institutions or university academics to benefit from its research opportunities and resources.

To simplify, we might say that in demography, the studied population is required to fit into the temporal framework of research, while in the case of ethnology, progress is not determined solely by researchers but is also governed by their capacity to develop social relations and to engage in social interactions in another sociocultural system. Although there have been demographers working in the field for decades – that is, demographers involved in collecting data which they subsequently analyse – it is clear that the two disciplines involve a different relation to the field. Fieldwork is linked fundamentally to anthropology, as a founding practice that is distinct, inherited and transmitted, a fundamental source of knowledge and recognition, and an incomparable human experience. For 'traditional' demographers, data collection in the field is one of the stages of the research process and needs to be conducted rigorously to ensure that the collected data are of the highest quality. However, the heart and nobility of the demographic profession is demographic analysis, rather than data collection in the field. It is not absolutely necessary to have spent time in the field in order to analyse a database and many demographers see no need for any direct contact with their object of study. The point is not to promote a romantic and humanist vision of anthropology and to present demography as a heartless and soulless discipline but to emphasise the extent to which the relation to social reality and modes of data production are historically linked to widely different intellectual and human experiences.

7.4 Epistemological Tensions: Incompatible Tempers?

The crucial issue noted by Randall and Koppenhaver appears to be the epistemological incompatibility between the mode of knowledge production in demography and the mode of knowledge production in anthropology. This is a central issue since the definition of the epistemological framework of a discipline has repercussions at all levels of the definition of a research project – that is, on the elaboration of theories and concepts and the debates surrounding them, on their mode of validation, on the mode of data production, on the nature of analysis and on the presentation of research findings or results. Though located at the boundaries or margins of two disciplines, the development of anthropological demography cannot involve a mere juxtaposition of two largely conflicting epistemological frameworks. The issue for the demographers and anthropologists involved in anthropological demography is to determine how far the merger can be pushed while remaining legitimate and coherent from an internal and an external point of view (i.e. the point of view of the mother disciplines).

7.4.1 Nesting

This fundamental question can be illustrated by the case of mixed methods or nesting. Qualitative methods are used to improve the construction of data collection tools, the development of samples and the choice of data to record, for example, to

facilitate the interpretation of results.[2] The use or inclusion of qualitative methods in a quantitative approach should not be allowed to weaken one approach at the expense of another, which would amount to a form of confusion or bastardisation.

Susan Greenhalgh has argued that the use of the same methods in demography and anthropology should not be taken to imply that the methods refer precisely to the same thing (Greenhalgh 1997). The qualitative methods used in demography and anthropology – for example, semi-structured interviews, informal discussions and focus groups – need to be seen as part of distinct and specific disciplinary histories and cultures. These methods are also applied in qualitatively different ways in particular fields. According to Greenhalgh, this apparent similarity implies abandoning the use of the terms 'anthropological methods' and 'quasi anthropological methods' in referring to the qualitative methods used in demography. After all, these methodologies have different objectives and meanings and are anthropological and not demographic. The difference is crucial and is not merely a semantic issue but an 'ontological point' involving the intellectual heart of each discipline.

This key difference in the epistemological framework and conception of knowledge production also raises the issue of the power relations between the two disciplines. In addition to the use of qualitative methods, a number of key issues have recently emerged in demography, including the evaluation of the quality of qualitative data, the evaluation and publication of papers based on qualitative data and the storage of qualitative data. These questions are indicative of the pressure to bring the anthropological approach into line with the demographic approach. However, the injunction to produce high-quality qualitative data is somewhat dubious insofar as it is based on questionable presuppositions. The first presupposition is that demography is assumed to be more scientific than anthropology because it represents the epistemological framework of reference. The second presupposition is that the demand for quality is an altogether absent or at least a secondary concern in anthropology (ethnologists are assumed to 'fiddle' with their data but nobody would ever bother to check what they are actually up to). Some data are deemed to bear the mark of suspicion, while other data are assumed to be scientifically irreproachable.

Regardless of the inevitable ethical issues, the storage of interview transcripts needs to be seen as part of an attempt at a rapprochement between demography and anthropology but is not altogether devoid of ambiguity. In the same way that we are now able to download research or census data, some demographers have recently considered publishing interview transcripts online. While this initiative is clearly driven by a desire for greater transparency, more shared information and increased scientificity (i.e. verification of results), the idea of a standardisation of qualitative data is also implied. Another implicit assumption is that anyone is competent to analyse the texts generated by fieldwork (discourses and narratives). This suggestion goes against the idea that such texts are the result of a particular interaction and that they cannot be dissociated from

[2] See, for example, Enid Schatz, 'Qualitative data collection alongside survey and censuses: more the sum of the parts', paper delivered at the 26th International Population Conference, IUSSP, Marrakech, September 27–October 2, 2009.

their original context of production and utterance. It also implies that the qualitative approach must comply with the standards of the quantitative approach and that it can be generalised and repeated. Yet, while it is perfectly legitimate to question the quality of the data produced by research (whether based on qualitative, quantitative or mixed methods), it seems important to ask just what is meant by quality – since there appears to be a tacit consensus – and what the procedures and criteria of evaluation might be. Can the same evaluation criteria be applied to data involving different epistemological frameworks? Two demographers working on the same database ought in principle to produce the same results, that is, the same demographic indicators. Yet there is no guarantee that the conclusions drawn from the same numerical data will bear any similarity. If two anthropologists analyse the same corpus of transcribed interviews, their analyses are likely to differ according to the level of knowledge of the society in which interviewees live, their greater or lesser awareness of a given issue (e.g. the effect of gender or age), their personal experience, their status within their society (i.e. member or outsider), etc.[3] Even if it is predetermined by a precise theoretical framework developed on the basis of a clearly defined research objective, the process of interpretation will be determined by the researchers' relation to the object and particularly their capacity to be critically detached and objective. To summarise, we may infer that the use of qualitative methods in demography does not imply a commitment to the epistemological framework upon which such methods are based and more generally that it is up to anthropology to adapt to the demographic model. More generally, the issue of methodological borrowings raises the question of interdisciplinarity and the conditions for transferring a disciplinary apparatus to a different disciplinary context, particularly when the disciplines involved have no common heritage or shared epistemological framework. Methodologies and concepts are intimately connected to a specific disciplinary culture and practice produced by a specific tradition of learning and education, personal experience and professional socialisation. Therefore, a methodology cannot be isolated from its underlying epistemological framework without causing irreparable damage. The formatting of qualitative data with a view to incorporating them or bringing them together in the epistemological framework of demography entails a weakening and bastardisation of the anthropological approach since the coherence of a tried and tested approach is thereby undermined.

7.4.2 Defending Territories

In addition to the methodological issues raised above, there is also the question of the perspective of external disciplines on the object 'population'. According to the Caldwells, the message explicitly sent to anthropologists is to remain outside the

[3] See the experiments conducted by Inge Hutter, Ajay Baileyet and Monique Hennink, 'The quality of qualitative data analysis; experiments with grounded theory', at the 26th International Population Conference, Marrakech, September 27–October 2, 2009.

field of the theorisation of population dynamics at the heart of the discipline. Anthropologists are advised that their role is to provide demographers with the ethnographic data they need to illustrate or contextualise their demonstrations (Caldwell et al. 1987). Anthropologists must remain confined to their 'menial' position and must avoid encroaching on the preserve of demographers. The analyses conducted by Poirier and Piché (1999) echoes the bitter assessment of the Caldwells. They note that 'the level of penetration of critical perspectives is in proportion to the extent of the monopoly of the discipline over these objects of research. In the case of migration, an area long confined to the margins of demography, critical approaches played a role long before they had any impact on the question of fertility, an issue at the heart of the discipline'. Demographers feel the subversive power of anthropology, the most radical version of which has no hesitation in attacking the very project of scientific inquiry, beginning with the deconstruction of anthropology itself: 'The more critical wing of the field has sought to reveal the problematic nature of science – especially anthropological science – which claims as universal ideas those that are in fact specific to particular times, places, classes, races, and gender. The goal of this work is not to dismantle science (leastwise anthropology) but to illuminate its implicit biases and to weaken its claims to exclusive authority to represent the world' (Greenhalgh 1997).

By carefully selecting the various contributions of anthropology to certain methods and by assigning them a specific function, demographers have developed a strong line of defence, even a withdrawal strategy. While they are keen to benefit from the resources provided by methods originally developed in anthropology, demographers often fear that anthropology may contaminate their discipline with its postmodern ideas and deconstructionist perspectives. They fear an attack on the very foundations of demography and a subversion of the close relation between their field and the state (and therefore political power). They also fear an attack on the idea of demography as a science and on the particular epistemological framework defended within the demographic field. Most demographers are relatively far from the position defended (for example) by Nancy Sheper-Hughes: 'In critical interpretive anthropology, what matters most are the means through which research data are required, the various and complex meanings these findings might have, and the relations between the kinds of knowledge generated and the maintenance of powerful ideologies and forms of dominance, both social/political and biomedical/scientific' (Sheper-Hughes 1997: 203). In short, demographers have no desire to stop believing in demography, which is regarded as and must remain a science in the strong sense of the term. Today, it is difficult to imagine that demography might experience a crisis anything like those suffered by anthropology in the 1970s and 1980s.

The first presupposition noted above concerns the nature and degree of scientificity of the social and human sciences in general compared to the hard sciences, with demography standing as the hardest of the former. It tends to view itself as the standard of what is a social science, without any concern for the

legitimacy as such a claim. The position of denial adopted by demographers has historical roots. Jack Caldwell is right to assert that present-day demographers are the inheritors of nineteenth-century positivism, merely following in the footsteps of Auguste Comte and Emile Durkheim in France, Charles Booth in England and the Chicago school in the United States (Caldwell 1996: 306). Demography invariably balks at having to depart from a form of positivism that 'emphasises the factual position against the speculative, the idle, the certain as against the indecisive, the precise against the vague, the positive against the negative or critical'. Ernestina Coast, Katherine Hampshire and Sara Randall note that 'demography has been singled out as a discipline that has been slow to react to critiques of the positivist approach that have been debated in other social sciences for considerably longer' (Coast et al. 2007: 503). The fact that demographic research is largely governed by social and political demands has tended to generate research questions expressed as demographic 'issues'. For example, the aim of demographic research is often to evaluate population policies, to develop indicators or to propose programmatic applications to resolve a current issue. However, the definition of what might constitute a demographic 'issue' (according to whom and for whom) is rarely debated and deconstructed. Yet it is precisely on this basis (an ideological and institutional basis) that research is conducted. Given the configuration of late twentieth-century demography, where power and politics are such crucial dimensions of research, it will be difficult to achieve a more self-critical attitude (Greenhalgh 1997). At the risk of generalising or essentialising the two disciplinary fields, Greenhalgh argues that while anthropology developed a critical tradition and rose up against the ideas of political neutrality and objective distance after having served the interests of colonial authorities, demography has been content to stand as the most technically sophisticated social science from a technical perspective and has steadfastly refused to give up on its target of improving itself as a science rather than questioning its frequently blind belief in science. In discussing demography, Greenhalgh has no hesitation in describing it as 'pro-science'. The conscious or unconscious reluctance of demographers to depart from positivism is not a minor issue since the attachment of demographers to positivism has been and continues to be a significant source of tension between demographers and anthropologists. The rebellious spirit of anthropologists is well illustrated by the subversive question raised by Sheper-Hughes (1997) concerning the very possibility of a demography without numbers. Sheper-Hughes's suggestion aimed at demographers is particularly provocative since it represents an intentional and direct challenge to the historical and essentialist presupposition that there can be no demography without numbers. The point is not to abandon quantitative demography so much as to legitimise another form of demography which is characteristic of its evolution since the 1980s, and however not yet fully recognized. It also implicitly suggests a form of dispossession of the object 'population' from the exclusive and expert grasp of demographers.

Chapter 8
Appendix: The Contemporary Actors of French Demography

The history of French demography in the second half of the twentieth century is marked by an increased diversity of institutional actors operating within the field. Because of the nature of the specific roles assigned to them and the human and financial resources made available to them, research institutes, *Ecoles supérieures* and universities have had a very different impact on the development of teaching and research in demography. The current French institutional actors are presented in this appendix, which will not discuss the national and international networks in which French demographers are actively involved (IUSSP, UEPA, AIDELF, CUDEP, etc.). Let us briefly evoke major characteristics of the French institutional context. Two key institutions – INED and INSEE – have had during several decades and still have a significant and long-term structural impact on the landscape of French demography. This is because both institutions operate at a national level and have benefited from significant human and financial resources throughout their history. After World War II, both institutes were primarily required to produce figures, forecasts and analyses on behalf of the state to inform public policies, with INSEE focusing only partly and INED totally on the measurement and analysis of demographic behaviours. The reports and studies produced by the two institutes also played a key role in governing the process of national modernisation. Two other institutions, CNRS and IRD, have had a very different impact on demography since they were not originally founded to promote it. In both institutions, demography has largely been required to fit into activities and programmes to which it is only partly suited. Another key factor is that demography has generally been viewed as an applied discipline, whereas the main focus of CNRS is fundamental research. In the early days of IRD (known originally as ORSTOM), the field of research of the institute covered overseas territories and the colonial empire at a time when the demography of development was still in its infancy. The marginalisation of the discipline was thus further compounded by its status as a sub-discipline.

Demography has also tended to have a marginal status in universities. In the secular and multidisciplinary world of the French university system, demography has generally struggled to establish itself and to stake out a territory of its own, whereas

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outside higher education, INED and INSEE represent powerful symbols of the political recognition that has traditionally been granted to the legitimacy and seriousness of demography. However, within higher education, demography has generally suffered from a lack of legitimacy and prestige compared to other disciplines (such as history and law). By comparison with their colleagues in the other social sciences, demographers have often bitterly complained that they belong to a minor discipline compared to the legions of sociologists and anthropologists in humanities and social sciences departments. In fact, research in demography was almost non-existent in French universities until the introduction of the Bologna process[1] in 1999. It has also been a marginal field at the *Ecole des Hautes Etudes en Sciences Sociales.*[2] Although EHESS was founded in 1979, demography has never been recognised as a discipline on a par with the other social sciences. Only one EHESS research centre (dedicated to historical demography) has provided the discipline with some degree of recognition both within and outside the school.

8.1 Research Institutes

8.1.1 The National Institute for Demographic Studies

8.1.1.1 A Highly Political Foundation

INED was established by ordinance no. 45-2499 on October 24, 1945. The main purpose of the institute is to study demographic questions from all research perspectives. In the somewhat dated language of the late 1940s, the ordinance states that INED collects relevant demographic research and information, conducts surveys and experiments, is cognizant with international experiments, examines the moral and material resources that are likely to contribute to the quantitative increase and qualitative improvement of the population and promotes the dissemination of demographic knowledge.[3] From the outset, INED demographers have been required to study national birth rate trends and the question of immigration. In the 1945 ordinance, immigration was defined not only as a temporary settlement of labour, as in

[1] Official website of the European Union; accessed on 27/01/2011. (http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11088_fr.html)

The Bologna Declaration is designed to implement the Bologna process, which aims to introduce a comparable and easily recognisable academic grading system, to promote the mobility of students, teachers and researchers, to monitor the quality of teaching and to incorporate the European dimension in higher education. The Bologna Declaration of June 19, 1999 was signed by 30 European countries.

[2] The sixth section of the Ecole Pratique des Hautes Etudes (EPHE), founded in 1868, became the Ecole des Hautes Etudes en Sciences Sociales (EHESS) in 1975. (EHESS website; accessed on 30/01/2011: http://www.ehess.fr/archives/document.php?id=4722)

[3] INED website; accessed on 07/07/2011: http://www.ined.fr/fichier/t_telechargement/10284/telechargement_fichier_fr_histoire.institut1.pdf

Germany (*Gastarbeiter* policy), but also as a factor contributing to the demographic growth of France. The French immigration policy was designed more specifically to ensure the replacement of the population following the collapse of fertility in the interwar period and to meet the significant needs of the labour market in a period of national reconstruction followed by a return to growth. During this period, the distinction between population dynamics and economic dynamics was difficult to make given the importance of the economy variable in explanations of demographic trends based on the theory of demographic transition. An INED department specifically dedicated to the links between demography and economics was a short-lived experience, lasting only a few years.[4] This can be explained by the roles assigned to INED and INSEE and by the more specific role played by Alfred Sauvy, who made the field a personal preserve.[5]

Sauvy was the first director of INED, remaining in the position until 1962. Keen to promote demography, he was also appointed chair of social demography at the *Collège de France* in 1959 – and not, crucially, at a university. Training in demography was delivered to statisticians at the Paris Statistics Institute (ISUP) and at INSEE as part of the courses offered at *Ecole nationale de la Statistique et de l'Administration Économique* (ENSAE). A *Centre européen de formation des statisticiens-économistes des pays en voie de développement*[6] (CESD) was also founded in 1962. An economist, statistician and demographer but also a journalist and a remarkable populariser, Sauvy was keen to promote multidisciplinarity at the institute and to recruit researchers from varied backgrounds in order to promote the study of 'demographic issues from every angle'. However, Sauvy's objective was largely impeded by the recruitment policy gradually developed by the institute. As noted in *Orientations stratégiques de l'INED 2006–2009,*[7] 'appointments in the last twenty-five years have tended to favor former students of the *Ecole Polytechnique*, who soon ensured the international influence of INED and its flagship journal, *Population*. Under the leadership of Gérard Calot (1972–1992), staff numbers increased, with the majority of new recruits coming from ENSAE (*Ecole Nationale*

[4] The department later gained complete autonomy as the *Centre d'études de l'emploi* in 1971 – a predictable move.

[5] It is important to note that Alfred Sauvy was a former student of the *Ecole Polytechnique,* and the INSEE was largely controlled by *Ecole Polytechnique* alumni. A combination of factors thus prevented the INED from entering the economic field. More recently, the INED has developed stronger links with the Paris School of Economics under the impulse of François Héran.

[6] Alfred Sauvy created the Paris Demography Institute (IDUP) based on the model of the *Ecole nationale de la statistique et de l'administration publique* (ENSAE) to ensure the provision of specialist training to demographic experts with a view to ensuring the recruitment needs of INED.

[7] Written in 2006, the document is presented as having been 'coordinated and written by senior management; this document is the product of consultation with internal research units and services, supplemented by the comments of the supervisory authorities. It incorporates the comments made by the *Conseil scientifique* on May 10 2006 and the final comments of the *Conseil d'administration*, which gave its unanimous approval on June 15 2006. The INED thus presents its carefully planned multi-year program to all those who, internally or externally, rely on the institute to conduct population studies and to put them to good use'.

de la Statistique et de l'Administration Economique, linked to INSEE) or from the University of Paris I' (INED 2006). The institute mainly recruited demographers and statisticians – that is, technicians with a particular interest in the methods of demographic analysis and not particularly open to the social sciences, which generally require non-quantitative methods. In the above quotation, the recruitment of university academics is barely alluded to, almost as an afterthought, with reference being made only to the University of Paris I, where the Paris Demography Institute (IDUP) served as the exclusive recruiting ground. As we will see in due course, this privileged link has been maintained over the years and has become an integral part of the new organisational structures of French research in this area.[8] In recent years, there has been an increased willingness to open the institute to other disciplines (such as geography, history, sociology, anthropology, medicine and economics), as shown by a number of recent appointments.[9] Inevitably, this created an internal tension between the advocates of an institute firmly rooted in its original identity as a centre for demographic research devoted to producing analyses of short-term demographic changes, modelling and forecasts and the advocates of a more open form of demography. The challenge was to strike a balance that reflects both the experience of the institute in demographic research and its ability to change. In order to maintain its international status and to ensure that it can compete with European and American institutions, the institute will need to follow the most recent developments in the field.

Following a decree of March 12, 1986 (no. 86-382), INED became an *Etablissement public à caractère scientifique et technologique* (EPST or Public Research and Scientific Establishment) under the joint authority of the Ministry of Social Affairs and Employment (with several changes in its denomination under successive governments) and the Ministry of Research and Higher Education. Implemented over several years, the reform had a significant impact on the traditional policy of appointing former Ecole Polytechnique and ENSAE students. For instance, all prospective applicants to the institute are now required to hold a doctorate, a move that has introduced a degree of disciplinary openness that has resulted in the appointment of historians, sociologists, geographers, doctors and anthropologists. The various duties of the institute are defined in article 3 of the decree of March 12, 1986: 'The institute is committed to initiating, developing and promoting research that examines all aspects of population issues on its own initiative or at the request of the public authorities. The institute aims to assess, conduct and commission research that will be of use to the science of demography and the contribution of demography to the economic, social and cultural development of the country. Its purpose is also to collect, centralize and promote national and international research relevant to its field of activity. The institute is committed in particular to informing the government and the public authorities

[8] The Campus Condorcet Foundation was created by a ministerial decree on December 4, 2009, to promote scientific cooperation. The foundation incorporates the EHESS, the EPHE, the University of Paris I Panthéon- Sorbonne, Paris 13 University, the Ecole nationale des chartes, the INED and the CNRS.

[9] Before 1986, the INED recruited doctors, geographers, sociologists and economists, though almost all of them had specialised in demographic analysis or had studied demography at the IDUP.

of the most recent advances in the field. The institute is also committed to providing information to the general public on population issues. It also promotes the dissemination of French demographic research at an international level by promoting the use of the French language'. To some extent, this profession of faith reaffirms the close links between INED and the French state since the purpose of INED is to respond to the needs and demands of the state, to inform the state and the general public, to contribute to 'the economic, social and cultural development of the country' and to serve the interests of the global French-speaking community by promoting the use of French within the international research community.

In 2010, INED employed roughly 60 research staff shared across its research units.[10] The vast field of research areas covered by INED researchers includes both strictly demographic phenomena (nuptiality, fertility, mortality, population mobility, i.e. research areas generally referred to as pure demography) and demography applied to social life, economics, public health, human geography and history. INED is the leading reference in the field of French demographic research and enjoys a unique institutional, political and intellectual visibility. To ensure its continued existence, INED has had to 'sell itself' (Rosental 2003a, b: 123–146) and has developed a very active policy for promoting the dissemination of demographic knowledge. The institute has the largest library and resource centre in demography in France. It also publishes the main journal of French demographic research (*Population*). Other activities in this area include the publication of research books through its series *Les Cahiers de l'INED*. The institute is also involved in promoting the founding texts of the discipline as part of a historical series devoted to demography. It also publishes an annual *Rapport sur la situation démographique en France* (*Report on the demographic situation in France*) presented to parliament. Last, the publication of demography textbooks is a significant indication of the institute's commitment to education. No other French institutional actor in the field (i.e. a university research centre or a single academic acting as chief editor of a scientific series) can boast a similar level of publishing efficiency. Two series illustrating the institute's commitment to education merit particular emphasis. Firstly, a series of textbooks 'aimed more specifically at higher education and learning techniques for demographers (historical demography, mortality, biographical analysis, etc.)' includes more than 15 volumes, from *L'analyse démographique: concepts, méthodes, résultats* by Roland Pressat (first published in 1969) to the vast eight-volume research project entitled *Démographie, analyse et synthèse* edited by Graziella Caselli, Jacques Vallin and Guillaume Wunsch. The titles of these books are a good indication of the kinds of demographic analysis (historical, longitudinal, biographical, multilevel, etc.) developed by INED at different times in its history. In 1997, the institute created a new series entitled *Méthodes et* savoirs, which includes practical textbooks on the key instruments and methods used in demography.

[10] INED employs approximately 200 staff, including 60 permanent researchers, 110 technical and office staff, roughly 20 doctoral students and a number of research associates. Since January 2000, INED is divided into 11 research units and a range of service divisions (surveys, library and resource centre, publishing, IT). A statistical methods service was created in January 2007. INED has a much higher researcher/TOS (technical and office staff) ratio than any other French social science research body.

While the commitment of the institute to producing data on behalf of the public authorities has largely governed its research on French demographic trends, increasing numbers of researchers have also become involved in research on foreign countries in the developed and developing worlds. An official document published by INED in 2006 provides a useful definition of the institute: 'INED differs from a national statistics institute or a government research department. It also differs from foreign demographic institutes by virtue of its capacity to conduct research beyond the confines of France, covering Europe and much of the rest of the world […] Through its research on southern countries, INED makes a significant contribution to the influence of French demography in the international research community' (INED 2006: 4). The document is careful to situate the institute internationally, drawing comparisons (for instance) with the Max Planck Institute for Demographic Research, the *Technische Universtaet Wien* and the Netherlands Interdisciplinary Demographic Institute. Significantly, no comparison is drawn between INED and other French research centres in demography – an attitude that is perhaps indicative of the sense of superiority felt by INED researchers and management over other institutional actors involved in the field of French demography (particularly universities). While their feeling of superiority may seem legitimate from a historical perspective, it is significantly more debatable in other respects. There is little doubt that French demography developed around INED. Desrosières underlined the quasi-monopoly of INED over French demography by emphasising one of the direct consequences of its influence: a methodological approach 'made in INED' described as 'the quest for purity' in the analysis of demographic phenomena, developed in an organisation self-proclaimed as the reference model of French demography (Desrosières 1997: 13). The centrality of the methodological approach has been a permanent feature of the history of the institute and can be seen in the development of a survey department in recent years and the main research objectives defined for the period 2007–2010. The aim is to implement 'a longitudinal approach to demographic behaviors, based on an approach that is more explanatory than descriptive' (Héran and Cases 2009a, b).

However, in the demography of development, it is clear that IRD demographers have a far deeper and richer experience and expertise than their INED counterparts. The geographical expansion of the field of activity of INED researchers is fully justified when the objective is to compare French population dynamics to other member states of the OECD, the EU and Eastern Europe. However, the same can hardly be said for research on developing countries in Africa and Asia, since for many years, IRD has been active in the field in several countries. As we will see in due course, another research institution (IRD) has a specific mandate in this area. While a number of research issues, such as the analysis of the effects of international migration flows, can easily be made to fit into the original founding mandate of the institute via the issue of integration and its contribution to the national fertility rate, other areas (such as the HIV/AIDS virus in Thailand or nuptiality in West Africa) are perhaps more surprising and raise a number of questions concerning the coherence of the institute's internal research policy and the more general organisation of demographic research in France. The point is not to doubt the scientific interest and quality of its research but to emphasise that no research area or theme in demography has ever

escaped the remit of the INED.[11] In recent years, the continued expansion of the institute has caused some friction insofar as the INED has often encroached on research areas that have traditionally been the preserve of other institutions. To emphasise the hold of the INED over the field of French demography is to raise the issue of the relative weakness and lack of visibility of other actors within the field.

8.1.1.2 A Strong Involvement in Education and Training

The expansion of the research activities has also been significant in education and training. INED researchers have always been involved in higher education institutions, and the institute has often welcomed interns and doctoral students. The introduction of postgraduate research scholarships offered by the institute and its involvement in the European Doctoral School of Demography have served to herald a new era. The European Doctoral School was founded in 2005 by the European Association for Population Studies as the result of an agreement between a number of research centres (INED, Max Planck Institute for Demographic Research, Technische Universtaet Wien, Netherlands Interdisciplinary Demographic Institute) and various European universities (Università degli Studi di Roma-La Sapienza, the universities of Groningen, Helsinki, Lund, and Rostock and the Vienna Institute of Demography). Despite playing a major role in the creation of the school, the institute opted not to enter into an association with any of the five French universities that offer a specifically dedicated demography course or qualification. The European Doctoral School provides training worth 60 European credits, but it is not recognised by all of the above universities. The courses offered by the school focus on 'the development of quantitative techniques', but 'also address a number of issues in social and historical demography'.

According to the *Document d'orientations stratégiques de l'INED 2006–2009*, 'the future of European demography as a discipline depends on the success of this course' (INED 2006: 86) – a disarming statement in more ways than one and a claim that requires closer examination. Firstly, it appears to imply that demography has yet to establish itself as a discipline (an uncertainty that is indicative of a degree of internal insecurity in a discipline still in search of legitimacy). Secondly, it appears to suggest that the fate of the discipline will be solely governed by the doctoral programme of the European Doctoral School. However, since it is not recognised by the French Ministry of Education, the diploma awarded by the school

[11] The position of INED on population issues in developing countries is reflected in its institutional history: in the 1970s by the reception of *Comité international de coopération sur les recherches nationales en démographie* (CICRED) within its premises and by an internal research unit focused on population and development. After its dissolution in 2009, POPDEV was replaced by a more informal cross-disciplinary body, *Pôle Suds*. In 1988, INED also became involved in the Centre Population et Développement (CEPED), organised initially as a *Groupement d'Intérêt Scientifique* (GIS) before subsequently becoming in 2008 a UMR (*Unité Mixte de Recherche)*, associating Paris Descartes University, IRD and INED.

cannot be recognised as an official qualification in France. Finally, the statement fails to take account of the wide range of courses in demography (masters, doctoral programmes) already on offer in French universities. The claim is thus somewhat puzzling, particularly at a time when increasingly mobile cohorts of European students are willing to cross the Atlantic to study in North American universities and increasing numbers of students and professionals from developing countries are enrolling or working in European universities. A 1-year course attended by very small numbers of students is unlikely to determine the future of the discipline. The language of INED document is thus highly revealing: the position of the institute involves a denial of the role of universities in the development of demography as an academic discipline. Its discourse contradicts the emphasis on the rapprochement with universities aimed at ensuring that the institute '[participates] actively in university education and doctoral training by closing the gap between research organizations and universities' (Héran and Cases 2009b: 7). This apparent tension may be explained by the attempt to remain distinct (i.e. to remain the reference in the field) and by a far more pragmatic attitude developed in response to the pressures exerted on the institute to align itself with a government policy aimed at reflecting recent changes in the sphere of research, especially the revaluation and promotion of universities.

To conclude, INED occupies a unique and central position in French demography and is a key player in demographic research, dissemination and education. If the emphasis on multidisciplinarity has always been a key feature of the institute and is actively advocated and promoted in current INED research, it is because it is part of a broader international trend. The multidisciplinary emphasis of the institute was initially built around research issues that required the use of quantitative methods, in fields such as historical demography, sociology, geography and population genetics. It is only in more recent years that the introduction of qualitative methods and the use of an anthropological approach, particularly through the demography of development, have been explicitly proclaimed and advocated. Multidisciplinarity is always a delicate matter of dosage. Although INED has always proclaimed its commitment to multidisciplinary research, it has continually asserted itself as a specifically dedicated demography institute[12] – a somewhat paradoxical emphasis since demography remains the backbone, the founding culture and the trademark of the institute. After all, the legitimacy and reputation of the institute is largely rooted in demography.[13]

[12] 'While demography is the central discipline of the INED and while it must remain central, it is important for it to be capable of mobilizing a wide range of disciplines around it…' (Héran and Cases 2009b: 11).

[13] The document presenting the *Orientations Stratégiques de l'INED* re-examines the fundamentals of the discipline and clearly emphasises the centrality of demography at INED: 'Life trajectories: a return to the basics of demography'. Further on: 'In methodological terms, demography is not a "familialist" but an individualist, in the sense that its first unit of observation is the individual lifeline, represented on the Lexis diagram' (INED 2006: 1). The triangles and rhombuses in INED logo are designed as a direct reference to the Lexis diagram.

8.1.2 The National Institute of Statistics and Economic Studies

INSEE was founded by the finance law of April 27, 1946 (articles 32 and 33) as a part of the Ministry of Finance. Today, the institute remains one of the key subdivisions of the French Ministry of the Economy, Industry and Employment and currently employs almost 6,000 staff throughout France. INSEE was designed to continue the long tradition of public statistical studies that had been produced without interruption since 1833. The institute is responsible for conducting population censuses and for producing vital records. It has a vast mandate of economic analysis. INSEE is symbolic of the marriage of economic theory and statistical practice. To ensure that it is able to perform its statistical duties effectively, INSEE has often imported survey techniques from the United States to conduct research on family budgets, housing, health and wage costs (among other issues).[14] At the end of the reconstruction era, INSEE reached its full dimension in the 1960s, producing the statistical forecasts that were required for economic planning and policymaking.

From the outset, INSEE was entrusted with the responsibility of producing administrative records, nomenclatures and statistical data. According to INSEE website, 'by virtue of the specific nature of the mission that has been entrusted to INSEE, the institute has a unique status in the Ministry of the Economy, Finance and Industry. […] The central role of the institute is to provide key statistical information and to conduct studies on economic agents within the private sector and public authorities. INSEE is also a largely technical organization. The distribution of responsibilities between other government statistics divisions and INSEE has been largely shaped by history. The main objective of the institute is to contribute to the social and economic debate'. A closer examination of the various responsibilities of INSEE reveals that while the collection and analysis of demographic data represent significant duties (particularly the organisation of the national census and the monitoring of demographic trends based on vital records), these activities are carried out alongside other surveys that have a more distinct economic (income, poverty, living conditions, employment and unemployment) and social purpose (health, housing, education, training). The main role of INSEE is to produce key indicators of the state of the national economy based on national accounts and specific surveys of households and of businesses. In addition to its traditional role of producting data and indicators designed to inform government, regional and local policies, INSEE also coordinates the work of the various government divisions involved in conducting statistical studies within their particular area of competence. The remit of the institute was redefined by the French Data Protection Act of January 6, 1978, and by the Act of December 23, 1986, granting the institute the right to access administrative data for statistical purposes. INSEE has thus tended increasingly to resort to administrative data sources.

[14] INSEE website; accessed on 07/07/2009: http://www.insee.fr/fr/insee-statistique-publique/default.asp?page=connaitre/histoire.html

The technical competence of INSEE is reflected in the introduction of training and research activities in economic modelling and statistical methodology. The institute provides training to statisticians and economists within a network of *Ecoles Nationales* specialising in economics and statistics and also supports national institutes in developing countries and countries applying for membership of the European Union. INSEE is also involved in developing 'a field of international statistics' through collaborations with the EUROSTAT, the UN, the IMF and the OECD. While a detailed history of INSEE is beyond the scope of this book, it is important to note that in recent years, it has significantly diversified its surveys, promoted its research ever more widely through a range of publications (*Economie et Statistique*, *Tendances de la conjoncture*, *Annales*, *Informations rapides*, *Données sociales*), modernised its regional institutes and strengthened its partnerships, particularly through technical cooperation with countries in Africa and Latin America.

Unlike INED, the research conducted by INSEE is far from being exclusively focused on demography. Although INSEE concentrates on economics, it remains a major actor in French demography since it produces crucial statistics for the state (especially the national censuses and vital records) and is involved in conducting large-scale surveys in partnership with other research institutes. Because its duties place it at the service of the state, the institute's main concerns are directly related to the production of data at the national, regional and local levels; the incorporation of national statistics in the databases produced by international authorities; the provision of technical support; and the support and assistance to other national or regional organisations (such as AFRISTAT in the area of statistics). INSEE is not a forum of interdisciplinary exchange on population issues, particularly in southern countries. The main focus of its commitment to innovation is the development of survey methods and statistics. The institute has constantly sought to (re)assert its autonomy from the state. This is because successive governments have often been tempted to explain their poor results by emphasizing measurement issues and by highlighting problems with the indicators used to analyse the social and economic situation (rate of unemployment, consumer price index), especially in periods of crisis or recession. While the nature of the relations between the state and research institutions raises a number of ethical issues (particularly in terms of research, good governance and political effectiveness), it would be naive to think that research institutes could ever be completely autonomous. Because of the practical applications of the discipline and the methodological nationalism[15] subtending the definition of demographic categories, the boundaries between politics and research in demography have tended to be relatively porous.

[15] This methodological nationalism has been highlighted by the German sociologist Ulrich Beck in *Power in the Global Age* (2005) and the American sociologist Saskia Sassen in *Globalization and its Discontents* (1998). Analyses of globalisation and international migrations have served to deconstruct this framework of thought and analysis, deeply rooted in the paucity of methodological and conceptual reflection exhibited by researchers in the social sciences.

Finally, despite some tensions about the leadership over a few joint undertakings (especially large-scale sample surveys), INSEE appears not a counterweight to INED. As a matter of fact, both institutes have collaborated in common research programmes, and a number of researchers have even transferred from one institute to the other. In addition, INSEE does not primarily conceive itself as a research institute since it defines itself as an organisation dedicated to data production. The combined effect of these factors has meant that INED has largely tended to set the tone of French demography. While it is clear that INED and INSEE are the two giants of French demography, other research institutions also employ demographers, though without the staff numbers or organisation to rival the two major players. Two institutions – IRD and CNRS – are of particular interest since the demographers who work in these institutions are required to operate in a multidisciplinary context in which they are in a minority position (not unlike university academics).

8.1.3 The Institute for Research on Development: Applied Demography and Development

Like INED, the institutional and academic history of IRD is closely connected to the political history of France and in particular to France's colonial past. The history of the institute begins in 1937 with the creation of the *Comité consultatif des recherches scientifiques de la France d'outre-mer* and the *Conseil supérieur de la recherche scientifique pour la coordination de la recherche nationale*. Both institutions were designed to coordinate the field of 'colonial research' that had developed after World War I. The *Office de la recherche scientifique coloniale* (ORSC) was founded by the act of October 11, 1943. It was an entity with a legal personality and financial autonomy, a status subsequently confirmed by an ordinance of November 22, 1944, signed by General de Gaulle. ORSC was under the authority of the Secretary of State for the Navy and Colonies, with the director of CNRS serving as chair of the board of governors. Its duties were clearly defined: to develop a body of researchers, to develop high-level scientific and academic training specialising in the tropical world and to create a network of research centres throughout overseas France. Between 1944 and 1953, ORSC was initially renamed the O*ffice de recherche scientifique d'outre-mer* (ORSOM or Overseas Office of Scientific Research) before becoming the *Office de la recherche scientifique et technique d'outre-mer* (ORSTOM or Overseas Office of Scientific and Technical Research). The institution was attached to the Ministry of Overseas France, and its *Conseil d'administration* was chaired by the Secretary of State for Research.

In the following decades, the gradual dissolution of the French colonial empire resulted in a radical redefinition of the main duties of ORSTOM. According to the decree of August 9, 1960, its new purpose was to 'conduct fundamental research in order to promote the development of tropical countries'.[16] This redirection was

[16] Source: www.ird.fr/fr/institut/presentation/carte_identite.html; accessed on 20/07/2009.

considered to be 'the premise of a policy of scientific and technical cooperation with Third-World countries'. In the two following decades, ORSTOM 'consolidated its scientific organization, strengthened its infrastructures in Africa, and developed cooperation with the South American and South East Asian countries and a number of Arab countries'. The strategic evolution of ORSTOM was later confirmed in 1982 by an act entitled '*Loi d'orientation et de programmation pour la recherche et le développement technologique de la France*', which served to entrench one of its key programmes devoted 'to research and technological innovation at the service of developing countries'. Like many other institutions created during this period, IRD was meant to dedicate itself to the cause of progress and of development.

In 1984, ORSTOM entered a third phase of its history, operating under the joint authority of the Ministry of Research and the Ministry of Cooperation and later absorbed by the Ministry of Foreign Affairs. The decree of June 5, 1984, established ORSTOM as a Public Research and Scientific Establishment. The organisation was renamed the *Institut français de recherche scientifique et technique pour le développement en coopération*, usually referred to as IRD. Its new objectives were to 'promote and conduct scientific and technical research that will make an enduring contribution to the economic, social and cultural development of developing countries'. IRD is assigned four major duties: research, expertise and promotion, support and training and the dissemination of scientific knowledge and information.

The specific geopolitical remit of IRD has varied in different periods in line with France's changing political role (i.e. as a colonial power, then as a former colonial power). The institute was originally set up to conduct research on overseas France, before eventually shifting its emphasis to Third-World, tropical, developing and southern countries. While the two notions of development and the South are ever shifting – in the sense that they are never clearly defined – and cover very different realities, IRD researchers are currently involved in research programmes in Africa, Asia, the Indian Ocean and Latin America. In a similar way to INED, IRD has extended beyond its traditional field of research for reasons that are as political as they are strictly scientific. For example, the study of issues relating to international migrations (illegal immigration, remittances, pauperization, integration, etc.) and the globalisation of health issues (HIV/AIDS, obesity, access to healthcare) have increasingly required the use of multisite methods and population monitoring methods. French Guiana (both a French overseas department and a European ultra-peripheral region) has become a key focus of IRD research in recent years.[17] Like Mayotte, it is an important entry point for immigrants seeking to gain access to jobs but also to the almost free health and education services provided by the French state.

[17] Consider the case of the research programme '*Dynamique des circulations migratoires et mobilités transfrontalières entre Guyana, Surinam, Brésil, Guyane et Haïti*' (Dynamics of migration, circulations and cross-border mobility between Guyana, Surinam, Brazil, French Guiana and Haiti), an ANR-IRD project under the direction of Luc Cambrézy, a former CEPED researcher.

The point is not to question the legitimacy of these attempts to extend beyond the confines of a field with notoriously unclear boundaries[18] but to emphasise that demographic and social changes imply a redefinition of the organisation of research on population issues. The criterion of political-geographical division has lost its effectiveness as a result of the new forms of human mobility and identity formation borne of globalisation. While it is to some extent comforting to see research prevailing over rigid administrative compartmentalising, the increase in the number of actors competing over the same object also suggests the need to reconsider the organisation of French public-funded research. In social demography, INED, INSEE, IRD and universities often work in the same research areas and examine the same issues. While it is clear that the plurality of research perspectives needs to be defended, the question of the financial and logistical costs incurred as a result of the duplication of institutions remains open. The issue is the rationality of French research policy. The very existence of IRD has been questioned on a number of occasions in recent years based on a combination of political, economic and scientific arguments. The policy of openness and rapprochement between IRD and French universities (generalisation of 'mixed research units', recruitment of academics, funding of research positions for academics in foreign countries, etc.) can be interpreted as a realistic strategy of protection (or self-protection). By becoming more open and by enabling university researchers and researchers from other institutes to use its logistical and technical resources, IRD is no longer the only institute or higher education organisation to benefit from key privileges that have come under increasing fire in recent years. In short, is it really necessary to have such a large research infrastructure with a network of centres and branches throughout the world, hosting its own researchers and support staff over a period of several years at considerable cost in order to conduct high-quality research on development issues? As far as I can judge, North American and other European academics produce solid overseas field research without such luxury. Besides the number of peer-reviewed articles, the uniqueness of organisation of research should be taken into account when assessing the results of public-funded research.

Furthermore, what is required is a serious re-examination of the general faith in progress that has been rooted in the Western intellectual tradition since the sixteenth century and that has shaped the relations between the West and the rest of the world. Although Robert Nisbet claimed in 1985 that 'no other idea has been more important in Western civilization than the idea of progress' (Nisbet 1980), the ideology underlying 'progress' has come under increasing fire since the 1970s. The contestation of progress has sometimes been radical, denouncing it as an illusion or as an imposture (Taguieff 2004; Latouche 1986). Scientific knowledge and technical progress are not necessarily conductive to or synonymous with progress and development (Lash 2002). Strikingly enough, a close examination of the definition of the

[18] The field covers developing or southern countries but is not explicitly defined based (for example) on a specific list of countries. By contrast, some countries or regions are sometimes the object of priority research programmes.

institute on its website reveals that IRD does not provide a precise definition of its conception of development, a label that is likely to become increasingly difficult to use in a globalised post-colonial world. The main point of this aside is that research perspectives at IRD have never developed independently of the political decisions and allegiances of successive governments, all the more so since the emphasis of the institute has been on applied research.

The history of INED, INSEE and IRD illustrates an important point made by Bourdieu: 'in historical reality, there is no academic field, however "pure" it may be, that does not imply a "political" dimension…' (Bourdieu 2002b: 9–12). Bourdieu defined the most purely scientific form of scientific fields as the field 'which, in its most advanced states, knows and recognizes only the "intrinsic force of the true idea" of which Spinoza spoke, […] how well propositions and procedures conform to the rules of logical coherence and compatibility with evidence'. Far from taking a dim view of the close links between science and politics, Bourdieu argued that the clash between the political and scientific fields has a particular virtue – the virtue 'of highlighting, in both fields, many questions that need to be converted into scientific questions that can be given empirical answers'. Insofar as their ambition is to produce a scientific representation of the social world, social scientists compete *de facto* with other 'professionals of symbolic production, and in particular journalists and politicians, and more widely all those who seek to impose their particular vision of the social world, with very unequal strengths and varying degrees of success'. A struggle to provide information, forecasts, predictions and projections that represent instruments for securing power is played out as part of a more general fight to establish the truth about social phenomena. The capacity to produce synthetic data and indicators and forecasts that can be used by institutional, administrative and political authorities represents an important survival strategy for research institutions. Ultimately, the aim is to become indispensable by producing a specific body of knowledge that bears a distinct scientific mark or academic seal of approval. It is perhaps no coincidence that in recent years, French research institutes have increasingly encouraged their research staff to communicate and promote the results of their research in the media, to popularise their work, and to develop summary sheets ready for use.

The place of the demography of development at IRD merits particular attention. IRD research focuses on the relations between man and his environment and covers six main areas[19]: natural risks, climates and nonrenewable resources; impact on the environment and southern populations; sustainable management of southern ecosystems; continental and coastal waters; resources and uses in the South; food security in the South; health security, health policies and access to healthcare; development and globalisation and socio-economics, identity and spatial dynamics. The various research areas covered by IRD are not explicitly rooted in on one or several disciplines since the assumption is that research issues transcend disciplinary boundaries. It is also important to note that the social and human sciences are in a

[19] Source: http://www.ird.fr/fr/institut/champs/; accessed on 21/07/2009.

minority position at IRD and that demography is therefore doubly marginal. Apart from a few specific research programmes focused on demography, population is no more than a cross-disciplinary variable in almost all research areas of IRD. The theme or issue-based approach adopted in recent years by IRD researchers has favoured the emergence of multidisciplinary research groups, whereas previously there had been a tendency to encourage discipline-specific research groups or research groups focusing on a specific theme and covering several disciplines. In demography, the emphasis on applied research and multidisciplinary research programmes has served to foster a more open form of demography or 'contextual demography', to use the phrase coined by André Quesnel and Patrice Vimard (Quesnel 1985: 321–245; Quesnel and Vimard 1987: 483–503).

Because of the limited number of demographers working at IRD and their geographical and institutional dispersion in foreign-based research groups, IRD demographers have been relatively discreet in the field of French demography despite the thematic and methodological originality of their work. IRD demographers have made (and continue to make) a significant contribution to the provision of training to French and foreign doctoral students. However, their contribution has never had a significant impact on French demography because of the specific nature of their sources and methods and in particular because the findings of their research have generally been far less widely disseminated by academics than those produced by their colleagues at INED. Operating frequently in countries with defective vital records or poor-quality censuses, IRD researchers are often required to use demographic data that suffer by comparison with the more precise and more elaborate data produced in developed countries. They have also often been forced to resort to specific techniques of statistical analysis. While the contribution of IRD research, particularly through demography textbooks (Clairin et al. 1988; Gendreau 1993) is far from insignificant, by its very nature, it is primarily directed at students who have already attained a certain level of expertise or are already heavily specialised. If demography is a marginal discipline, the demography of development is even more marginal. In a post-colonial world, the legitimacy of the field is more difficult to defend since its purpose is no longer to describe and to analyse the behaviours of the populations making up the French empire but to analyse them as part of a globalised world. For example, this shift has meant an increased focus on migration and the environment and on climate change.

8.1.4 The National Centre for Scientific Research: The Shadow of Demography

The National Centre for Scientific Research (CNRS) was founded by President Albert Lebrun on October 19, 1939, when France was already at war. The original purpose of the CNRS was to bring together all non-specialist state organisations dedicated to fundamental and applied research and to coordinate research at a

national level. The early years of CNRS under the occupation severely limited the ambitions of the new institution, and the centre only truly began to develop after 1945. The main focus of its work was fundamental research since applied research was the responsibility of other specifically dedicated organisations, such as ORSTOM (see above), CNET (*Centre national d'études des télécommunications* or National Center for Telecommunication Studies) and CEA (Commissariat à l'énergie atomique or Atomic Energy Commission). One of the most significant stages in the early history of CNRS was the introduction in 1966 of an important structural reform designed to establish associated centres. The purpose of the reform was to use the human and financial resources of CNRS to support the activities of university research groups. Close links have been developed between CNRS and university-based research units in various disciplines. As part of the policy of rapprochement between CNRS and French universities, provision has also been made for the creation of 'mixed' research units. CNRS presents itself as an organisation that aims to develop 'privileged collaborations between specialists in different disciplines, particularly with universities, with a view to opening new fields of investigation related to the needs of the economy and society'.[20] Since the 1980s, multidisciplinary has been a permanent feature of its research policy, which aims to provide scientific answers to societal problems. Today, CNRS is a Public Research and Scientific Establishment under the authority of the French Ministry of Research. Employing over 11,000 researchers and more than 14,000 engineers, technicians and office staff, the CNRS is active in all fields of knowledge and has over 1,200 research and service units.

CNRS is divided into nine institutes, with only one devoted explicitly to the social sciences (the institute of humanities and social sciences), and demography is not at the forefront of CNRS research in the social sciences. It is important to determine whether demography is explicitly referred to and to identify the research areas or programmes behind which demography is likely to be concealed. The institute of humanities and social sciences includes ten divisions.[21] Among the keywords used to describe the various divisions, 'demography' is used just once (in 'Sociology: Norms and Rules').[22] The terms 'Populating and populations: structures, spatial distributions, flows, dynamics, vulnerabilities' are used in 'Space, territory, society',[23] while the phrase 'human populations' is referred to in 'Man and his environment: evolution, interactions'.[24] Only one reference is made to demography, while no reference is made to fields such as historical demography and the demography of development. In another institute (ecology and environment), a number of research areas (such as

[20] Source: http://www.cnrs.fr/fr/organisme/presentation.html; accessed on 23/07/2009.

[21] Source: http://www.cnrs.fr/inshs/presentation/sections.html; accessed on 23/07/2009.

[22] Source: http://www.cnrs.fr/inshs/presentation/sections.html; accessed on 23/07/2009.

[23] Source: http://www.cnrs.fr/comitenational/sections/section39.html; accessed on 23/07/2009.

[24] Source: http://www.cnrs.fr/comitenational/sections/section31.html; accessed on 23/07/2009.

globalisation, the use of land, the interactions between man, the environment and territories, socio-economic systems, the relation between health and the environment and the implementation of sustainable development) may involve demographers. Last, various interdisciplinary research programmes such as 'longevity and ageing' associate INED and INSERM because they require quantitative demographic and epidemiological approaches.

In short, while demography is incorporated into CNRS research, it is far less conspicuous than other disciplines such as sociology, economics or anthropology. Several factors may explain the apparent dissolution of demography. The primary mission of CNRS (fundamental research) may largely account for the relative absence or marginality of demographic research. Unlike other research institutes (such as INED, INSEE or IRD), CNRS is not required to produce data and indicators designed to inform public policies. Secondly, because of its main characteristics (the specificity of its analytical methods and its relative theoretical weakness, linked with the emphasis on data production and statistical description; these issues will be examined in greater depth in later chapters), demography makes a very limited contribution to fundamental research on man and man in society within the sphere of the social sciences. Ethical debates and issues related to the position of the researcher in the process of inquiry (for example) have only arisen in demography through other disciplines (chiefly anthropology and biomedicine). Historically, demography has rarely engaged in sustained examinations of human nature, the integration of individuals in a community and individualization. If demography plays a part in these debates today, it is only because of the influence of other disciplines and the expansion of its field of research to include population issues. The major debates in French demography have tended mostly to focus on methodological questions and political positions, as shown by the ongoing debates over the introduction of questions on the ethnic origin of respondents in socio-demographic survey. In addition to the problems of definition and measurement, these questions also raise the issue of the position granted or owed to communities in France and (therefore) the willingness to depart from the model of republican integration. But apart from this recent and hot debate, French demography has never been driven by great controversies between competing schools – in contrast, say, to French sociology. Instead, demographers have generally sought to define their academic and scientific identity by emphasizing a particular type of demographic analysis.

To conclude, in an organisation with a scientific policy aimed at promoting disciplinary redefinitions and opposing disciplinary confinement or closure – it was predictable that demography would only to be called to the bar to document the quantitative dynamics of social changes. In the research areas presented above, demographic concepts and data (migration flows, population, population ageing) tend to be linked to a specific research topic or concept of a more sociological nature (dependence, integration, vulnerability); demographic data are generally used in areas that are not primarily demographic. This particular use of demography (at least such as it is presented on the CNRS website) suggests that demography can in

no way serve as an object of sustained reflection. This is a direct consequence of the strong emphasis laid on the common ground shared by the humanities and social sciences.[25] CNRS is not a very influential player in French demography. Yet given the specific nature of its research areas and interests, the absence of restrictions in time (these research areas are characterised by their historical depth) and space (no society or culture found at the surface of the earth is excluded) and its stated disciplinary openness (disciplines and subdisciplines with ever-changing boundaries), CNRS might have served as a creative space for redefining demography. Demography and its main areas of expertise (historical demography, the demography of development, genetic demography) are also marginal in the leading research institution that is usually at the forefront of French esearch in all fields – CNRS. In short, compared to the other human and social sciences, demography appears to be governed by highly specific forms of institutionalisation.

8.2 The Place of Demography in French Universities

Unlike sociology (a discipline introduced into universities through Emile Durkheim), French demography originally developed outside universities. The effect of its peculiar status was that demography made a late entry into universities and has secured only a marginal (and even minor) position compared to the other human sciences. It has generally been viewed as one of the 'small' disciplines, a perception demonstrated by the fact that it has never been allocated a specific, autonomous 'section' (unlike anthropology) at the *Conseil National des Universités* (National University Council).[26] Demography is affiliated with the nineteenth section of the CNU (along with sociology). How is it then that demography was gradually integrated into French universities?

[25] This is true of all the disciplines covered by CNRS: 'Each discipline distinguishes itself by virtue of a specific method and scientificity. However, they also share a common object: human beings in their many dimensions (…). The human and social sciences share the common aim of contextualizing human beings to improve our understanding of them: to re-establish human beings in their interrelations with others, to reposition human beings within a context that shapes and changes them, to resituate human beings in the context of the large-scale technical and cultural changes experienced by humanity since its origins'. Source: http://www.cnrs.fr/inshs/presentation/declaration-politique.html; accessed on 23/07/2009.

[26] The *Conseil National des Universités* (CNU, National University Council) is a national commission of 36 full professors and senior lecturers (*maîtres de conférences).* Two thirds of its members are elected, and the remaining third are appointed by the Ministry of Research and Higher Education. The CNU determines the admissibility of applications of doctors wishing to apply for *maître de conférences* positions and is responsible for promoting maître de conférences and professors. Once their applications have been examined and validated by the CNU, candidates may apply for positions and attend interviews for positions in universities.

8.2.1 The Incorporation of Demography at University

After World War II, demography became an optional subject at BA level and an area of specialisation at doctoral level. However, in the 1950s and 1960s, the discipline was also gradually introduced into university courses and curricula. In 1948, two universities in Lille – a Catholic university and a state university – and the *Alliance nationale pour la vitalité française* founded a Regional Institute for Demographic Research and Action. Until the reforms that were introduced as a result of the events of May 1968, provision was made for the development of specialised and high-level demographic training in university institutes, with teaching staff drawn from various departments and non-university researchers, and for the delivery of specifically dedicated qualifications.

In France, demography was introduced in universities through the unusual medium of institutes. Various institutes in Paris and the provinces followed in the wake of the *Institut régional d'études et d'action démographique du Nord de la France*.[27] The *Institut de démographie universitaire de Paris* (IDUP) was founded in 1957 and was incorporated into the faculty of law and economics (and not the faculty of arts and humanities). Alfred Sauvy was appointed director of IDUP in 1957, where he remained until 1968, while heading INED. This is after all not surprising, since INED aims (as part of its statutes) 'to promote the dissemination of demographic knowledge, especially in universities' (Dittgen 1992). Sauvy was careful to draw a distinction between 'pure demography or demographic analysis' and 'general demography' in demography courses (Sauvy 1976). While the two dimensions of demography are not mutually exclusive, Sauvy clearly had a preference for demographic analysis (Pressat 1992). He presented himself as an innovator keen to depart from a university system that he viewed as having become fossilised as a result of the corporatism of university academics and the archaism of university regulations. Roland Pressat reports the following observation made by Sauvy: 'Universities were unable to offer a combination of the separate subjects they already offered: economics, sociology, human geography, etc. [Moreover] The main subject remained largely overlooked, i.e. demographic analysis' (from IDUP

[27] The *Institut d'études démographiques de l'université de Bordeaux* (IEDUB or Bordeaux Institute for Demographic Studies) was founded in 1951 at the initiative of Jean Stoetzel. The *Institut de démographie de l'Université de Nancy* (Nancy Demography Institute), the *Institut de Démographie de l'Université de Caen* (IDUC or Caen Demography Institute) and the *Institut d'études de la population et des relations internationales de l'Université de Lyon* (Lyon Institute for Research on Population Issues and International Relations) were founded in 1954. The *Institut de démographie de Paris* (IDUP) and the *Centre régional d'études démographiques de Toulouse* (CREDT or Toulouse Regional Center for Demographic Studies) were founded in 1959, while the Institut de Démographie de l'Université de Strasbourg (IDUS or Strasbourg Demography Institute) was founded in 1960. The *Centre universitaire des hautes études européennes* in Strasbourg (University Center for European Research) directed by Félix Ponteil (IEP) introduced a research programme on population issues in 1955.

brochure quoted by Pressat 1992: 1468–1469). Not without irony, Pressat also notes that 'Sauvy, as director of the IDUP, was not the statutory president of the board of examiners, the cause of events bordering on disasters' (Pressat 1992: 1469). In short, teaching and academic duties are deemed to represent a separate and distinct profession. While he played a vital role in the dissemination of demography in universities (admittedly based on his own specific conception of academic matters), Sauvy's vision of the university was thus from the very outset a potential source of tensions between the INED and the university.

INED researchers such as Louis Henry and Roland Pressat taught and lectured at the IDUP and trained generations of budding demographers in the art of demographic analysis. Their demographic analysis lectures were published in INED series of textbooks (Henry 1972, 1973; Henry and Fleury 1985; Pressat 1969). As a result, strong and enduring links were forged between the two institutions, which have tended to work in synergy, combining their interests to ensure their mutual reproduction. Alain Girard notes that IDUP 'has close and multiple links with INED in terms of teaching, job opportunities and research'. He also notes that 'a degree of tension or misunderstandings may sometimes arise. INED is not a university organization, and the fact that some of its members are required to teach in a university is not enough to confer upon them the title and role of a Professor' (Girard 1958: 211–212). Not everyone can be a mandarin, noted Professor Alain Girard bluntly, thus setting the record straight on one important point: the mere fact of being a researcher at INED was not enough (at the time) to be conferred the prestigious title of university professor. Roland Pressat was perhaps Girard's main target, since Pressat was originally a primary school teacher before becoming a secondary mathematics teacher. In March 1969, IDUP was granted a specific status within the university, with the mandate of teaching demography and conducting demographic research. More than a third of all students who had successfully passed the first-year exam went on to obtain the 2-year diploma qualifying them as 'expert demographers'. In 1959, the new graduates founded an association of alumni. IDUP thus contributed to ensuring the social reproduction of their profession and the consolidation of their chosen discipline. Equally revealing was the fact that *Population*, the prestigious journal published by INED, published the newsletter of this association (Blayo et al. 1969). One of the 1969 issues provided an estimate of the number of diplomas delivered by IDUP between 1959 and 1968: 132 diplomas in general demography and 56 expert demographer diplomas. Nearly 80% of these graduates subsequently worked in Europe (mainly France), while 4% worked in North America and 16% in developing countries. The involvement of INED in training and education was thus not an act of pure philanthropy. Every year between 1949 and 1956, INED researchers held a series of 10 or 12 conferences at the Sorbonne with the support of the rector of the University of Paris and the deans of the faculty of arts. Combining the roles of professor at the Sorbonne and director of the department of psychosociology at INED, Alain Girard played a key role in this rapprochement.

Alongside the development of courses specifically devoted to demographic expertise, demography was also gradually introduced into social science curricula. The academic year 1957–1958 saw the introduction of a higher education certificate

in demography in the faculty of arts and humanities,[28] which could be taken as part of any degree (history, geography, sociology from 1958, economics from 1959) and was optional (like ethnology). In 1966, the introduction of the certificate resulted in the creation of the Sorbonne chair of demography, held successively by Alain Girard (1966–1986), Louis Roussel (1986–1988) and Yves Charbit since 1988 (himself trained by Girard). It is worth noting that all three professors also worked as research directors at INED. Following the reform of university teaching (1966–1967) in arts and humanities faculties, demography is taught at BA level under the format of optional credits. At postgraduate level, dissertations on demographic topics may be undertaken as part of the prestigious *Doctorat d'Etat.* This doctorate was later replaced by a new doctoral degree comparable to a standard PhD

Professor, senior lecturer and assistant positions in demography were also created in a number of Parisian and provincial universities. Confirming the definition given by Jean-Louis Fabiani, the introduction of courses or specialisations in demography was a necessary stage in the development of demography as an autonomous discipline. Fabiani defines an academic discipline as 'a body of knowledge inscribed in texts, paradigmatic examples and forms of instrumentation that is the object of a process of educational transmission […] from the simple to the complex' (Fabiani 2006: 24).

The expansion of the field continued with the introduction of demography at the *Ecole pratique des hautes études*, an organisation that remained autonomous from universities for many years. Two research divisions were opened in 1964: the first, in the fourth section of CNU (historical and philological sciences), was devoted to historical demography, while the second, in the sixth section of CNU, was related to development issues. Supervision and teaching duties were gradually entrusted to INED, CNRS and IRD researchers. Finally, since 1947, the Paris Institute of Political Studies ('*Sciences Po'*) has delivered a course every other year on population issues in the second and third years of its political and social course. A masters degree in economic demography was subsequently (1967) introduced under the supervision of Professor Georges Tapinos.

8.2.2 The Ambivalent Relationships Between Universities and INED

As noted above, the involvement of higher education researchers appears to have been a strategy specifically designed to promote the institutional and scientific consolidation of INED. Universities (which had not yet become mass universities) still retained a certain aura and represented an external source of legitimacy. By controlling university teaching, INED ensured its recruitment needs and was able to incorporate demographic training in a format that suited it. The point is not to criticise the

[28] It is worth noting that this occurred at the same time as the foundation of the IDUP (as a matter of pure university logic), thus confirming my analysis of the implicit rivalry between the INED and universities.

intrinsic value of the type of demographic analysis and methods that were effectively taught and transmitted (since their value is beyond doubt) but to underline how an institution not specifically dedicated to higher education came to have a decisive influence on higher education.

This history is not anecdotal since it has had a deep and lasting impact on the relations between INED and French universities. A symbolic and real reversal as silent as it was effective is clearly in evidence: whereas university courses served as a form of recognition for INED, the pole of reference[29] was progressively inverted, with INED becoming the sun around which the galaxy of French demography was made to orbit. This fundamental shift can be explained by the fact that university demographers operating outside demography institutes have often been, as was said, in a marginal position within their own institution. They have generally been affiliated with departments in the humanities and social sciences and are members of research groups in which demography remains a marginal discipline. This situation has served to push university demographers towards INED, an institute operating as a powerful source of legitimation by virtue of its capacity to assert itself on the national and international scene. INED has also been able to provide isolated university demographers with highly attractive working conditions, thereby limiting the potential emergence of university research centres specifically dedicated to demography. The other consequence of this was the dissemination of a form of *pensée unique*. The weight of INED on demography has resulted in a reification of the discipline around demographic analysis *per se*.

This is not to say that there have never been any internal debates or conflicts among INED researchers, but merely that debates have tended to be conducted within a confined universe governed by a corporate culture, with the journal *Population* echoing them only partly. Unlike other disciplinary fields (such as sociology and anthropology), demography appears to have been comparatively less conflict-ridden and less explosive. The debates within the field have largely centred on the defence of a particular type of demographic analysis or of competing categorizations, while theoretical debates have seldom arisen. Debates within the field have also often involved quarrels between individuals rather than large-scale debates between competing schools of thought.

Developing over a period of 60 years, the relations between French universities and INED are highly complex and have been largely governed by the particular dynamics of each institution and by the influence of some prominent individuals. The fundamental issue has been the attempt by university demographers to stake out their own specific territory and identity independently of INED – notwithstanding the fact that the boundaries and contours of the discipline have been largely governed by INED. This is not an insignificant issue since, as a sharp institutional observer, Alain Girard, once noted, ‘some members of INED have sometimes given the impression

[29] Note however that in recent years, universities have been able to attract major researchers, since a number of INED researchers opted to leave the institute to become professors of demography in universities, including Chantal Blayo, Yves Charbit and Francisco Munoz-Perez.

to outsiders that there is no salvation outside INED, or at least that there can be no demography outside INED' (Girard 1958, 1986).[30] This observation, tinged with bitterness, has never ceased to be transmitted and to foster mutual resentment between institutions (beyond interpersonal conflicts) since it involves questions of a fundamentally existential nature. The issue is threefold: To what extent is it possible to conduct research in demography in France outside INED? To what extent is it possible to foster the emergence of forms of demography other than the specific type of demography promoted by INED? Is it possible to enjoy scientific and institutional recognition without the institutional support or membership of INED?

It was precisely this challenge that was addressed by a number of newly appointed demography professors in the late 1980s, including Maria Eugenia Cosio-Zavala and Yves Charbit, academics keen to perform their dual role as university teachers and researchers by founding university research centres. Despite the limited human and financial resources at their disposal, these university-based demographers have sought to challenge the intellectual hegemony of INED by developing their own academically autonomous niche. It is revealing that both Maria Eugenia Cosio-Zavala and Yves Charbit opted not to conduct research in the traditional research areas of the institution, preferring instead to focus on social demography and the demography of developing countries. While it may have been perceived as a rejection or as a decisive break, their attempt to depart from the established framework of the discipline was no easy feat given the significant opportunities provided by INED in terms of training courses, doctoral studies, recruitment of young graduates and access to data sources. Their point was not to sever all links but to reinvigorate research in demography within universities. This departure is indicative of the extent to which INED and universities need to be seen as mutually dependent and competing organisations despite their considerably different resources. Recruitment conditions at INED, IRD, CNRS, etc., have also significantly altered the order of things, since a Ph.D. is a prerequisite to apply for a research position. Researchers have also increasingly been required to devote some time to teaching. Some directors of research are also involved in supervising dissertations in demography in some doctoral schools, which provokes debates in academic senates. Researchers claim the right to supervise students, to whom they are able to provide research opportunities in the field, while university academics are keen to reassert their right to supervise students whom they have been training from their BA years.[31]

The area where these tensions have been most apparent is teaching (especially doctoral training) and not research. Alain Girard had already drawn attention to this

[30] Girard knew what he was talking about. In the 1960s and 1970s, Girard, who was an influential professor at the Sorbonne who had trained and appointed a large number of the following generation of professors of sociology and demography, was also the head of a very important unit at INED, the department of psychosociology.

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point by noting that postgraduate and doctoral training have traditionally been a symbolic prerogative of universities. It is partly this key distinguishing feature that has enabled universities to assert their presence within the field of French demography, particularly since they have been able in recent years to boast increasingly productive research centres. It is important to emphasise that there is much at stake in higher education research training since the training delivered to future researchers and teachers will inevitably serve to shape the future of the discipline. As a result, university research centres have always had to seek for external sources of funding – which explains the current state of university research. In addition to their limited financial resources, universities have also suffered from limited human and technical resources. This also explains why universities have been unable to compete with research institutes, particularly since French university academics, unlike their foreign colleagues, 'have a twofold responsibility – to ensure the development of fundamental and applied research and to transmit the resulting knowledge to students'[32] (not to mention the various administrative and teaching duties that encroach on the time that is theoretically allocated to research).

8.2.3 Towards a Closer Collaboration Between Research Institutes and Universities

The relations between universities and research institutes have entered a new phase in recent years as a result of the wider political context governing research and higher education in France. The French government (in line with other European and North American countries) is firmly committed to refocusing research on universities, while developing their capacity for autonomy and self-assessment and to strengthening the links between universities and research institutes. This has significantly enhanced the prestige of French universities. As a result, EPSTs (CNRS, INED, IRD and INSERM) have begun to voice concerns about their future status. The systematic creation of mixed research units associating academics and full-time researchers is largely dependent on the internal policy of each research institution and on their sense of security about their own future. IRD – the very existence of which has been challenged on a number of occasions in recent years – appears to be fully committed to this policy, and now all of its research centres are now mixed. INED has always been somewhat reluctant to engage with universities and until now has created only one mixed research units. It is only in the field of demography of development (a field that remains marginal and is not fundamentally part of its duties) that a number of INED researchers have recently become involved in developing a multidisciplinary UMR research centre on population and development (CEPED; see below). The current situation is particularly complex since, beyond the tensions and rivalries within the field, a number of recent initiatives have

[32] See decree no. 84-431 of June 6, 1984, concerning the status of university academics in the French higher education system (*Journal Officiel* of June 8, 1984).

aimed to foster a rapprochement between universities and research institutes. While some rapprochements have been established for several decades, major recent reforms of the French research and higher education system[33] have also resulted in a redistribution of alliances. A number of recent reforms have also been introduced as part of the alignment of France with European and international standards (e.g. creation of more visible and competing research centres and harmonisation of assessment methods).

8.2.3.1 CUDEP

The *Conférence universitaire de démographie et d'étude des populations* (CUDEP) is one of the oldest examples of institutional rapprochements and provides a striking illustration of the relations between INED and universities. CUDEP succeeded an association of the Directors of University Demography Institutes created[34] and aims to brings together individuals who, irrespective of their specific institutional affiliation, are (or have been) regularly involved in teaching demography in a French higher education institution. Its main purpose is to organise a national demography conference every 3 or 4 years. CUDEP provides an opportunity for French demographers to develop contacts and to foster the development of a research community independently of specific institutional affiliations. While they seldom result in more formal institutional developments, the contacts made during these events provide some visibility to French demography.

8.2.3.2 The French Network for Doctoral Training in Demography

More recently, the Universities of Bordeaux 4, Panthéon-Sorbonne, Paris Descartes, Paris Ouest formerly University of Nanterre, INED and IRD created a French network for doctoral research in demography,[35] specifically designed to provide specialised training in demography. This programme, subsidised by the Ministry of Research, is open to doctoral and post-doctoral students. In line with the 'LMD' reform (licence, master, doctorat), the assumption is that student training needs to extend beyond masters level and must be completed alongside a dissertation, which is

[33] LMD reform the law establishing the autonomy of universities (so-called LRU); the creation of large consortia of universities (so-called *Pôles de recherche et d'enseignement supérieur*, PRES); structural changes affecting INED, IRD, CNRS and several other research bodies (so-called EPST); the creation of a national agency for research (ANR); and of a national agency for the evaluation of research and higher education (AERES).

[34] It was created in 1958 in association with the INED. This initially informal group eventually became a real institution under the direction of Professors Stoetzel and later Mérigot. Roger Peltier, the secretary of INED, founded the *Bulletin de Liaison*, published by INED to disseminate information about the activities and research of the various institutes.

[35] Source: http://www.univ-paris1.fr/index.php?id=110645; accessed on 21/07/2009.

assumed to require further academic training sanctioned and recognised by the community of experts. Keen to respond to the demand for high-quality training, university academics and researchers providing support and supervision to doctoral students in demography therefore decided to join forces to provide appropriate doctoral training.

8.2.3.3 The Centre Population et Développement (CEPED)

CEPED merits attention since its history provides a good illustration of the various institutional issues addressed in this chapter. There are at least two UMRs specifically dedicated to research on the demography of development: the LPED[36] and the CEPED. As noted above, demographers specialised in development issues also work in other research centres, but because of their limited numbers, they generally play a supporting role for other disciplines, and as a matter of fact, they collaborate with CEPED through specific research projects.

CEPED was founded in 1988 at the initiative of the Ministry of Cooperation to ensure a better coordination of French research in the field.[37] Established as a *Groupement d'Intérêt Scientifique* (GIS or Scientific Interest Group), it was directed successively by Francis Gendreau (IRD), Jacques Vallin (INED), Alain Léry (INSEE) and André Quesnel (IRD). In partnership with several foreign institutional partners, mainly in developing countries, it performs a range of training, documentation, dissemination and expertise activities. It has also supported the development of international networks with representatives from several countries. The aim is to promote academic research, to support training, to provide professionals and policymakers with educational tools and scientific information and to develop databases and indicators in order to encourage research on emerging issues. CEPED has undergone several institutional transformations in recent years. The most recent convention was signed in 2003 and incorporated INED, IRD, Universities of Panthéon-Sorbonne, Paris Descartes and of Paris Ouest Nanterre La Défense over a 4-year period. At the time, the centre was focused on four main research areas: reproductive health; society, family and gender; population, urbanisation, mobility and environment; and methodologies, collection and analysis. In the lead-up to the renewal of the convention in October 2006, IRD made a proposal in April 2006 emphasizing the need to turn CEPED GIS into a research structure (i.e. a UMR) in line with its own policy. The idea was to maintain the specific duties of the GIS through a support research bureau while combining them with the research and training activities typically developed in a UMR. INED was also keen to see its research activities in the field of development studies contractualised within the framework of a UMR, while among the

[36] LPED: *Laboratoire population et environnement* (centre for population and the environment). The LPED is a UMR involving collaboration between IRD and University of Provence.

[37] Source: http://www.ceped.org/Historique-du-CEPED.html; accessed on 25/10/2009.

three universities, Paris Descartes was the only one to have established a research centre specifically dedicated to the demography of development since 1989.[38] This convergence has resulted in the transformation of the GIS into a UMR affiliated with the Doctoral School of Social Sciences at Paris Descartes University in association with IRD and INED. The new institutional framework reflected an observation made in 2003 during a meeting between the presidents of Paris Descartes University and IRD on the importance of developing a major Parisian research and education pole in population and development, which was badly missing, and in which demography would be given a central role, without neglecting the interdisciplinary dimension of these issues. Professor Yves Charbit was appointed by Paris Descartes University, IRD and INED as project leader before subsequently being appointed as director of CEPED. CEPED UMR was officially created retroactively by the ministry in January 2008.[39]

Since 2008, CEPED has become the largest research centre in Europe on development issues, promoting a broad approach to population issues. As of July 2011, it numbers 38 permanent academics coming from Paris Descartes and universities (15), IRD (19) and INED (4). Its 17 demographers, 10 sociologists and anthropologists, 5 geographers, 3 sociolinguists, 2 political scientists and 1 economist are supported by 6 technical and office staff. The research conducted by CEPED, most often in partnership with foreign centres, focuses primarily on three main areas: health and gender, international migrations and social dynamics, education and families. CEPED members (both institute researchers and university staff) run a masters degree in 'Population and Development Expertise' at Paris Descartes University. CEPED also supports the affiliation of southern universities to the LMD system, particularly through the creation of masters degrees. Within Paris Descartes University, CEPED is also one of the major members of a federal university institute, the *Institut pour le développement et la solidarité internationale* (IDSI), an initiative aimed at bringing together several research units from different faculties (medicine, law, human and social sciences, mathematics, pharmacy).

8.3 Beyond the Case of France

In France, demography has a particular position that ensures both security and durability, which has also served to define the frontiers and priorities of the discipline. The weight of one particular institution (INED) and the marginalisation (or relative discretion) of other actors has resulted in the emergence of a specific form of demography.

[38] *Population et Interdisciplinarité* (POPINTER) had been very active in Cambodia, Cameroun, Guinea, Mali, Madagascar, Mauritania, Mauritius, Senegal and Vietnam.

[39] The project of the CEPED UMR was assessed in September 2007 by an international committee of experts that included Gérard Salem (Paris West University Nanterre La Défense), Koffi Nguessan (ENSEA Abidjan), Alphonse MacDonald (UNFPA), Myriam Khlat (INED) and Nathalie Bajos (INSERM) and chaired by Richard Marcoux (Université de Montréal). The project was subsequently ratified by the competent authorities at Paris Descartes University, IRD and INED in late 2007.

The particular institutional context that has shaped the history of French demography should not be taken to mean that creativity, innovation and independence of spirit have no role to play in the disciplinary field and institutions discussed in this chapter. Improvements in data collection and analytical methods and increased openness to new research areas and issues clearly suggest the opposite. The point is that, as in other countries, the imagination of researchers often tends to be surreptitiously directed and guided by funding opportunities since innovations are encouraged and promoted in certain areas at the expense of others. The development of particular research areas tends to be legitimised internally through (for example) the promotion of researchers and university staff and the emphasis on area-specific appointments and recruitment but also through the development of demography curricula.

Demography has always had a range of practical applications in informing public policies. Its techniques are also used in other economic sectors (marketing, development planning, town planning and economic development programmes) or at other levels (private sector, local authorities) by demographers or non-demographers who may be required to use demographic data and methods in a professional role that is not primarily research-oriented. As a result, demography has generally been viewed as a technique of social engineering rather than a science (Hauser and Duncan 1964a: 117). The idea of demography as an area of professional expertise (an idea that can be traced back to political arithmetic) at the service of both public and private interests is hardly conducive to the development of a scientific discipline. This feature of demography has also served to imprison the discipline in a quantitative framework and a never-ending race for data production (demography has also been rather reluctant to use non-quantitative methodologies). The second consequence of this peculiarity is a deeply rooted attachment to positivism. While the quest for perfection in the area of measurements and measuring instruments appears to be a constant feature of the field, critical reflection on analytical and theoretical frameworks and the meaning of such quantification appears to be a secondary concern.

In the realm of development (a specific focus of this book), the case of France is the result of a more general model involving a high level of state intervention. The French model has ensured a permanence and durability that contrasts sharply with the instability of research institutions in a number of European and North American countries. It is perhaps useful to draw a comparison between the 38 permanent researchers and academics of CEPED and the very limited number of tenured academics, even in major research centres in Canadian and American universities. Given the permanent logistical resources of IRD posted throughout the world, research on population and development in France may reasonably be described as an exception resembling the often quoted ‘cultural exception’.

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