

An open-access
journal
of population
research



Volume 12 /1
2024

Critical Demography and Paradigm Shift Migration and Intersectionality in the Theoretical Debate on Demography

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DEMO Centre de recherche
en démographie

IACCHOS Institut d'anàlisi del canvi
en l'història i les societats contemporànies

UCLouvain

DOI.org/10.14428/rqj2024.12.01.01 • ©2026 Andreu Domingo

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Abstract – Résumé

Abstract

This article argues for the development of a “Critical Demography” by revisiting the theoretical debates that have shaped the discipline since the 1994 Cairo International Conference on Population and Development. It contends that concerns about the abandonment of demography’s core coincide with a broader paradigm shift, marked by growing interdisciplinarity and by the fragmentation of explanatory frameworks. Drawing on debates around Critical Theory and paradigms, the paper underscores the continuing relevance of analysing relations of domination, scientific worldviews and the conditions of knowledge production. The emergence of a “demographic common sense” and the political positioning of the discipline are consequences of its limited critical theoretical production. Against both macro-transition grand narratives and narrow micro-causal approaches, the article proposes a systemic perspective linking demographic reproduction to strategies of social reproduction and social stratification. By placing migration at the centre and adopting an intersectional perspective, critical demography can reconnect macro-structural analysis with micro-level experiences and renew its theoretical and methodological foundations.

Keywords: Demography, theory, paradigm, social reproduction, migration, intersectionality

Résumé

Cet article plaide en faveur du développement d’une « démographie critique » en revisitant les débats théoriques qui ont façonné la discipline depuis la Conférence internationale sur la population et le développement du Caire en 1994. Il soutient que les inquiétudes relatives à l’abandon du cœur disciplinaire de la démographie coïncident avec un changement de paradigme plus large, marqué par une interdisciplinarité croissante et par la fragmentation des cadres explicatifs. En s’appuyant sur les débats autour de la Théorie critique et de la notion de paradigme, l’article souligne la pertinence persistante de l’analyse des rapports de domination, des visions du monde scientifiques et des conditions de production des connaissances. L’émergence d’un « sens commun démographique » ainsi que le positionnement politique de la discipline apparaissent comme les conséquences d’une production théorique critique insuffisante. Contre les grands récits macro de la transition démographique comme contre les approches micro-causales étroites, l’article propose une perspective systémique reliant la reproduction démographique aux stratégies de reproduction sociale et à la stratification sociale. En plaçant la migration au centre et en adoptant une perspective intersectionnelle, la démographie critique peut réarticuler l’analyse macro-structurelle et les expériences au niveau micro, et renouveler ainsi ses fondements théoriques et méthodologiques.

Mots-clés : Démographie, théorie, paradigme, reproduction sociale, migration, intersectionnalité

1. Introduction

In 2021, on the occasion of the 75th anniversary of the journal *Population Studies*, Ronald Skeldon (2021), reviewing the evolution of migration studies over the previous quarter of a century, wondered whether they were moving towards the centre or to the exit of the corpus of demography. He identified three starting points for reflection on the development of migration studies in both the framework of the journal and in the field of population studies in general: the outlying position of migrations in the demographic transition theory; the traditional theoretical paucity of a discipline which, in attempts at formalisation, has always emphasised its positivism; and, finally, the increasing importance of migrations in the wake of economic globalisation in a context of low fertility and ageing populations.

The thirty plus years since the 1994 International Conference on Population and Development in Cairo have witnessed remarkable progress in the formalisation of demography as a discipline but also a thus far fruitless effort to construct a theoretical framework that might come under the heading of “critical demography”, as Hayward Derrick Horton (1998, 1999) termed it. This demand, emerging from the field of critical studies on race and ethnicity, aligns with the longstanding tension between formal and social demography (Hodgson, 1983; Loriaux, 2005). Without acknowledging this, neither the evolution of the discipline nor the theoretical development of population studies can be fully understood. Moreover, it was during this same period that, from the standpoint of formal demography—understood as the mathematical study and measurement of demographic patterns—Ronald Lee (2001) warned that demography was losing its very core: the concept of population itself and the macro-level framework that had traditionally been central to the discipline. This concern was reaffirmed two decades later by Wolfgang Lutz, who referred to demography’s “loss of identity” (Lutz, 2021). What is more, Leo Van Wissen (2024) underscores the difficulty of translating micro-level results into societal trends.

For demographers, these developments were a paradigm shift in the sense described by Thomas S. Kuhn (1962): a consensual vision within a scientific community—in this case, demographers—regarding basic ontological commitments, explanatory principles, general methodology, research priorities, and areas of inquiry to be pursued, either consciously embraced or accepted but left unacknowledged (Orman, 2016). In demography, this shift entailed replacing the macro-level with the micro-level at the centre of the discipline, which coincided with the increasing significance of migration in population growth amid declining fertility and rising life expectancy (which was presented as a new theoretical puzzle), and the emergence of neoliberal doctrine as a hegemonic discourse. Paradoxically, however, as population change has become central to political debate and attracted heightened media attention, it appears that, despite significant simultaneous advances in the formalisation of the discipline, demographic expertise is increasingly being sidelined in favour of other specialists, even when addressing so-called “demographic challenges”. Within academia too, demography is often overshadowed by other fields. Furthermore, arguments framed as demographic have been appropriated by narratives advocating a return to past values, particularly in debates on migration but also in discussions of fertility and population ageing.

The appearance of the perspective of intersectionality contributed by Black feminism (Crenshaw, 1989 and 1991), which moved from the domain of law to the social sciences in general and, in recent years, to demography in particular, holds out the opportunity, first, to trace this three-way evolution—paradigm shift, theoretical production, and political usage—in which the future of demography is being settled. What I propose here, then, is not an analysis of the evolution of migration

studies from the intersectional standpoint. Rather, I would take intersectionality as an example when rethinking the relationship between the theoretical production of demography and interdisciplinarity, and would propose the possibility of a “critical demography” to give new impetus to “social demography” (Szreter, Sholkamy, and Dharmalingam, 2004).

This would mean considering the possibility of critical theoretical production along the lines of Max Horkheimer’s project (1937) of constructing knowledge capable of unmasking and subverting the process of social reproduction, and thus contributing to social transformation. Since this would entail analysis of power relations, the links between demographic reproduction and strategies of social reproduction would need to be explored, and also reflexivity. Social reproduction is understood as the processes that enable the maintenance and perpetuation of social relations in a particular type of social formation and, as a result, the resulting forms of domination and stratification (Bourdieu and Passeron, 1970). Reflexivity can be defined as the need to examine and make explicit the social position from which demographic research is presented (Bourdieu, 2001).

Second, critical demography can raise the question of how this deficit of theoretical production and reflexivity explains the ease with which demography is instrumentalised by the political discourse of involution. It also points out that the spirit of what is presented as “critical thought” can end up being betrayed and falsified. This is a danger that can distort the spirit of intersectionality which, since it means analysing inequalities on the basis of the social positions of individuals and possible intersections among them, could lead to a drift towards identity politics because of reification of the category.

I start with three hypotheses: 1) that during these last thirty years, what has occurred in formal demography, as in other social sciences, is a paradigm shift in the sense that Kuhn gives to the term, which means a change to prioritising individual choices and individual variability as constituting the bedrock of society and moving the main focus from the macro to the micro; 2) that the oscillation between the macro and the micro, historically a constitutive element in the evolution of the discipline itself (Kreager, 2015a and 2015b), and the renewed interest in individuals and subpopulations explain the mature point at which interest in intersectionality appears; and, 3) that instrumentalisation of demography has been possible because of the construction of a “demographic common sense” which mixes key notions of older paradigms in demography with popularised elements promoted by neoliberalism as a hegemonic political and ideological doctrine. This combination would form part of what Michel Foucault (1969) called “discursive formations” when referring to the set of statements about an object of knowledge, in this case, population.

To examine these hypotheses, I divide the article into three sections. The first aims to demonstrate that concern over the abandonment of demography’s core, as lamented by Ronald Lee, coincides with a paradigm shift in the discipline. In the second, the formulation “critical demography” is examined together with demography’s relationship with interdisciplinarity as propitiated by the triumph of the new paradigm. The third analyses the formation of a “demographic common sense” and the political situation of demography as a result of the absence of its own critical theoretical production. Finally, to conclude, I present what I believe is an opportunity for constructing critical thought in demography wherein migration would be included at the heart of the theoretical corpus, and adoption of the perspective of intersectionality would provide an example of synthesis between the macro and the micro.

2. Loss of identity and paradigm shift

2.1. Loss of identity”

At a meeting of the Population Association of America in the early years of the new millennium, Ronald Lee warned of the progressive erosion of demography’s core. He was voicing the growing concern affecting an entire generation of demographers in the United States, the heartland of the discipline since the mid-twentieth century. Two decades later, Wolfgang Lutz would describe this as a loss of identity. Lee identified five main factors underlying what he regarded as the centrifugal forces pushing demographers towards the margins of their own discipline (Lee, 2001). The first was proliferation of increasingly disaggregated data; the second, expansion of statistical and econometric methods that enabled analysis of such data, particularly from longitudinal perspectives and with ever-greater sophistication in establishing causal inferences; and the third, an enhanced capacity to retrieve, store, and process these data thanks to advances in computing. To these three factors—relating to the growth of microdata, their accessibility, and the methodological progress in analysing them—Lee added two further considerations. One was the coincidence of these developments with the influential work of Gary Becker and his colleagues, whose application of rational choice theory afforded the micro level renewed prominence in economic research. However, as Dennis Hodgson (1983) observes, advances in demographic research on declining fertility during the 1940s to 1960s had already contributed to a shift from macro- to micro-level frameworks. In this shift, structural factors increasingly yielded precedence to utilitarian interpretations of individual behaviour as the primary driver of fertility change, promoting an atomised view of individuals rather than an understanding rooted in cohesive social systems. From this perspective, the technological and conceptual developments highlighted by Lee at the beginning of the twenty-first century merely consolidated an already well-established transition from a macro-oriented to a micro-oriented paradigm. Although similar patterns were evident elsewhere at the time, the second of Lee’s two final considerations was the institutional configuration of demography in the United States where specialisation in demography typically required entry through other disciplines, principally Sociology, Economics, Human Geography, Public Health, or Political Science. This structure fostered both theoretical and institutional dependence on these neighbouring fields.

Neither should it be forgotten that, at the very time when the university and the various disciplines were being pushed into increasing competition for scarce resources and progressive subordination to private enterprise for their development (Lave, Mirowski, and Randalls, 2010), a growing interest in micro factors at the expense of macro analysis of demographic phenomena meant that historical, social, and demographic contexts were sidelined. While acknowledging the huge leap forward in technical and methodological progress held out by the digital revolution, Ronald Lee’s report also emphasised the great contribution that formal demography could make as a link between the macro and the micro. This led him to highlight phenomena that, in his view, could clearly not be reduced to micro analysis: the relationship between economic growth and demographic growth that had been a key concern in the development of demographic transition theory in the second half of the twentieth century; the interest stemming from growth, size, and characteristics of the population with regard to sustainability and the environment; the impact of migrations which were then occurring at an accelerating rate owing to economic globalisation; and ageing and intergenerational exchanges which, Lee said, were undisputable examples of why the macro level should not be abandoned. Indeed, this was where the core of formal demography was located. In addition to all this, he called attention to the predictive capacity of demography when solidly backed by population projection techniques based on the components of the population.

Just a year later, in 2002, Daniel Courgeau suggested a more optimistic understanding of the situation. In his view, demography, as a quantitative study of human populations, would have moved through several paradigms since its remote origins in political arithmetic through to the most recent one which, at the time, coincided with the application of multivariate analysis as a synthesis of the earlier approaches. Hence, for Courgeau, each paradigm or each stage represents moving on from unknowns that had not been settled by the immediately preceding paradigm. From transversal analysis the shift was to the longitudinal approach which, in turn, meant reconsidering time, from the concept as a whole to the time of generations. All of this was still within the framework of aggregates. The second shift would have been that from longitudinal to biographical analysis, necessarily entailing the introduction of methodological individualism and, with that, heterogeneity. The final paradigm then, which corresponded to multilevel analysis, was presented as a synthesis of the earlier approximations, thus putting an end to the apparent opposition between holism and individualism. Shortly after this, Thomas K. Burch (2003) suggested that knowledge of the population accumulated by formal demography should be recovered as a restructuring of the field under the rubric of the agent-based model. He thereby solved two problems at once. First, he rid demography of its old millstone of being accused of lack of theory and, second, he connected the discipline with the new paradigm. A third and essential point is that with the embrace of this understanding, as had happened earlier with Courgeau, theory became almost indistinguishable from the advance in methodology which, in turn, was identified with the notion of paradigm.

Notwithstanding the responses of Courgeau and Burch, the defence of formal demography rooted at the macro level, in Ronald Lee's terms, soon turned into a discussion about causality, which could have led to an entrenching effect in demonstrating irreducibility at the micro level. This entailed two dangers. The first was confusion about causal factors, or taking effects for causes, a common error in lineal analyses (Smith, 2003). This was aggravated by the historical and spatial decontextualisation that was frequently the case with models using micro simulation, which tended to lead to arbitrary extrapolations in terms of both time and territory. The second pitfall was that the growing prominence of regression analysis had led demographers into another conceptual trap, namely a tendency to skew research towards outcomes that vary, and away from those that are uniform (Ní Bhrolcháin and Dyson, 2007). This influential turn to regression analysis has become almost hegemonic in the social sciences, and especially in population studies, to such an extent that it has been possible to label it as an example of "methodological monotheism" (Castro-Torres and Akbaritabar, 2022).

Appearing at the onset of the global financial crisis of 2008–2009, Hervé Le Bras's (2008) guide to demography, *The Nature of Demography*, got to the heart of the matter when he stated that, in terms of its underlying intention, the discipline had been constructed around a theory of stable populations. This manual strategically opened with a section devoted to different kinds of demographic behaviour or, in other words, to individuals, whereupon it proceeded to address, in the second part, the matter that, for Le Bras, constituted the core issue that defines demography, which is to say how the structure and size of the population influences or is related to fertility and mortality. In other words, he suggested that top-down causality is one of the defining characteristics of a population. In methodological terms this meant, he said, asking how the simple mortality table model underlying the theory of stable populations could incorporate marriage and migration and how, in return, these two factors could be associated with fertility and mortality. In 2007, Daniel Courgeau and Robert Franck, suggested that it was not so much a lack of theories as a lack of axiomatic approaches that characterised a discipline in the process of development. However, this did not mean abandoning the guiding principle of explaining population change by means of a combination of demography's three classical parameters: fertility, mortality, and migration. An axiom is understood

as the principle resulting from empirical observation that defines the general conditions required for this change to come about.

Nevertheless, these early warnings about the demographic drift seemed to be going against the flow. With the new millennium, acceleration and diversification of migration (Castles, 2002) eroded the predictive capacity of population projections, or at least as they had been produced up to that point. Meanwhile, the new trends of digitalisation that have come with the emergence of big data and their commercialisation through systematisation of algorithms seemed to test the status of demography in three senses. First they challenged the exclusive status of census, surveys and administrative records as the main statistical tools of state governance, and this implied the transformation of population data into private assets as a result of the extractive logic and commercial goals of private companies that contest the monopoly of public management of statistics (Darin, 2025). Second, they shift the emphasis from causation to correlation. Third and finally, they blur sociodemographic characteristics in data collection with apps whose huge quantities of information are then pressed into service as a source of demographic information. Yet it is precisely the intrinsic relationship between data and method in the shaping of paradigms in demography that has led several authors to argue the possibility that what some observers see as a threat is actually a harbinger of the advent of a new paradigm. In this regard, Francesco Billari and Emilio Zagheni (2017) identified big data as a fourth paradigm, representing the culmination of a broader process. The first step was increasing exploitation of censuses and administrative records at the macro level, which they identified as the first paradigm. The second paradigm emerged after the Second World War with the rise of specialised sample surveys. The third involved efforts to link censuses and administrative population records with other data sources, while also connecting macro- and micro-level perspectives. These developments were facilitated in particular by the introduction of agent-based models.

Despite Daniel Courgeau's positive conclusions, the controversy is still alive because, although the paradigm shift has been consummated, the synthesis is not very clear. In this context, consideration of generations and Wolfgang Lutz's revival of the theory of demographic metabolism presented by Norman Ryder (1965) seemed to be an elegant way of giving back to the macro what belongs to the macro, and of reestablishing social change at the centre of demography. Conversely, Francesco Billari came out clearly in favour of methodological individualism (Billari, 2015), relating macro and micro as proposed by James Coleman (1994) who, summing it up with his boat diagram suggests that structure seems to emerge from individual decisions. In a more recent work, Billari (2022), when explaining the increasing influence of migrations in population renewal, applied the dialectical play of the "fast and slow" thinking metaphor presented by Daniel Kahneman (2012) one of the fathers of "prospect theory". With this, he brought cognitive psychology into the paradigm that "rational choice theory" has become.

The approach outlined by Courgeau, Bijak, Franck, and Silverman (2017), which is proposed on the basis of agent-based models as a synthesis and culmination of demographic paradigms, implies, as the authors themselves acknowledge, a departure from Kuhn's concept of paradigm. It also entails reopening the debate on the centrality of formal demography and its peripheral intersection with other disciplines. In the first respect and contrary to Thomas Kuhn's (1962) more disruptive interpretation and broader meaning extending beyond method, they understand the succession of paradigms as an accumulation crystallised in different methods, which they treat as the primary perspective. Hence, the paradigms preceding the agent-based model correspond to methods in which macro- and micro-level approaches alternate or combine. These include cross-sectional analysis, cohort analysis, event-history analysis, and multilevel approaches. As for demography's relationship with other disciplinary fields, the authors call for a return to the inductive principles of scientific inquiry, expressing scepticism towards the adoption of "theories" from

neighbouring disciplines, which they view as indicative of an overly deductive mode of reasoning. From a similar standpoint, Frans Willekens (2020) proposed an evolutionary reading of the paradigm shift, which entails tracing the development of agent-based analysis back to its origins in the work of the sociologist Talcott Parsons (and functionalism). This is then positioned as a catalyst within a long intellectual tradition that can be taken all the way back to Adam Smith, his direct influence on Malthus, and their intellectual heirs.

The shift from macro to micro in historical demography during the 21st century, is not unlike that experienced by formal demography, starting from the seminal work of Louis Henry in the mid-twentieth century. However, it has also undergone changes which have appeared in the reconstruction of series of demographic phenomena (Fauve-Chamoux, Bolovan and Sogner, 2016), and in the predisposition to deal with “meso” and “macro” levels. The latter is especially visible in its interdisciplinary relations with social demography and in analysis of the role of social class membership in demographic behaviour (Szreter, 1996; Garret et al., 2001). Recently, interest in measuring inequality using long-term economic series has introduced a new production based on study of social structure and mobility (Brea-Martínez and Pujadas-Mora, 2019).

2.2. From macro to micro: method, theory, and paradigm

Confusion between method, theory, and paradigm has hindered theoretical development in demography precisely when the field was undergoing a paradigm shift. It has also constrained debate on critical theory. The confusion is understandable when one considers the difficulty of applying the concept of “paradigm”. Derived from the example of physics, the notion is easily generalised to the so-called hard sciences, which are characterised by greater stability in their overarching theories than in the social sciences, where theoretical pluralism and rapid turnover are the norm (Thomas and Suleiman, 2019).

The theoretical debate has tended to be framed primarily as a methodological discussion driven by the digital revolution, as happened in the early years of the new millennium with the development of agent-based models. These are understood as generative models which structure decision-making processes that influence demographic behaviour throughout the life course, although the notion of “individual” was expanded to encompass social agents, including groups and institutions, thus potentially incorporating what has traditionally been understood as the meso level. Meanwhile, the concept of “population” has been recovered from theoretical developments in other disciplines, despite an increasing distance from the Malthusian root of the concept cultivated by the discipline.

This has occurred with neo-Darwinian evolutionary biology and its definition of “population thinking”, cited by Willekens (2020) as an inducement for the paradigm shift in demography. Here, the variability of individuals is posited as the lynchpin of evolution, as opposed to “typological” or essentialist thinking, which is attributed to pre-Darwinist idealism (Mayr, 1959 and 1976) and understood as ultimately derived from Platonism (Xie, 2007). This is also the case with the analysis of stochastic models of population dynamics (Neyman and Scott, 1959) and, likewise, with the definition of sociology as a “population science” (Goldthorpe, 2015). This latter notion—starting from Jerzy Neyman’s assertion that the regularities observed in populations are yielded by individual-level processes or the variability of individuals or subpopulations of which they are constituted (Neyman, 1974)—would end up underpinning so-called analytical sociology and the notion that individual decision-making is the causal principle of all social reality (Coleman, 1987, 1993, and 1994). From here it was postulated that the macro level of society must be understood as an emanation of the social interactions of individuals, which basically result from the decisions they make.

In all cases of neo-Darwinian “population thinking”, non-deterministic models, and “methodological individualism”, what is at stake is the directionality of causalities, whether it is a matter of evolution or analysing social change. The primacy of the micro (in the sense of bottom-up) over the macro (in the sense of top-down) is then affirmed. An absence of reflexivity could cause demographers to disregard the theoretical framework of their analysis. It could also happen that even when certain theories have been found to be deficient, the methods associated with them continue to be used with the result that a particular standpoint or outdated conceptual baggage is inadvertently perpetuated (Sigle, 2021). As for the influence of analytical sociology in the development of theoretical renewal in demography in the 2000s, it seems clear that quotes based on the aforementioned “Coleman’s boat” diagram referring to the “micro” and “macro” relationship (Billari, 2015) have been deployed as a conceptual map to support the use of agent-based models. In other words, it is the shared methodological potential that has made it easier for demographers who use these kinds of models to move the founding of theory from analytical sociology into demography, even though analytical sociology has been criticised (Little, 2012) for its reductionism for more than a decade now. While it is recognised that all the actors in social situations constitute the basis of any social process, structure, and change, not all sociological theories (and, by extension, those of the social sciences and, with them, demography) can be reduced to unmediated interactions among individuals.

Finally, it should be recalled that the concept of paradigm as defined by Thomas Kuhn cannot be identified with either method or theory, and that it takes on a dual “sociological” and “philosophical” sense. The former sense refers to the “scientific paradigm” as the complete constellation of beliefs, values, and techniques shared by the members of a given community (in this case, demographers). The latter, the “philosophical sense”, specifically points to solutions of particular puzzles which, when used as models or examples, can replace explicit rules as a basis for resolving other enigmas of normal science. Here, “normal science” means fulfilment of the promise of the paradigm when it succeeds in accepting facts and predictions by constructing the paradigm itself. Thus defined, the paradigm determines a theory and methodology suitable for solving problems which are recognised as such.

3. Critical demography and adoption of the intersectional perspective

3.1 From the fringes: critical demography and interdisciplinarity

As late as 1986, in a volume titled *The State of Population Theory*, the periphery of the discipline of demography (whose core was occupied by formal demography concerned with the macro level) was portrayed as interference of social, economic or ecological phenomena which would pertain to the micro level. Nevertheless, the seed of discord was sown by none other than the editors in their Introduction when they warned that “a society’s demography is a formalization of the risks of its members” (Schofield and Coleman, 1986: 6). When, a decade later, Hayward Derrick Horton (1998) defined what “critical demography” should be, he did so with the aim of integrating the perspective of critical race studies into the corpus of demography and paying attention to an understanding of racism defined as “as a multi-level and multi-dimensioned system of dominant group oppression which scapegoats the race of one of the subordinate groups”. In terms of the discipline, he does this from the fringes, which are seen as a porous space of interdisciplinarity where the micro study *par excellence* would be located (Dykstra and Van Wissen, 1999). However, adopting what Horton calls the “population and structural change

thesis” rescales it at the macro level (if one is referring to structure) without neglecting subpopulations. The postulate of the thesis is, therefore, that “changes in the relative sizes of the minority and majority populations interact with changes in the social structure to exacerbate racial and ethnic inequality” (Horton, 1998).

The requirements for adopting a critical standpoint that reveals relations of domination as also belonging to the set of interests that constitute demography, and for producing an equally critical review of the theoretical assumptions formulated or assumed by the discipline have not been exclusive to race and ethnicity studies. Meanwhile, the feminist perspective was prominent in its explicit demand for political orientation, and also in denouncing the persistence of earlier frameworks like modernisation, and impermeability to conceptual developments embraced by other disciplines, among them postmodernism, postcolonial studies, and feminism itself (Greenhalgh 1996). It was thus pointed out how the feminist perspective, which had been absent in the development of the discipline and tended to come to it via such fields as anthropology, sociology, and history, allowed a broadening of theoretical and methodological treatment (Riley, 1999). While the heart of formal demography was convulsed by the revolution that was affecting data and theoretical bearings for approaching individual behaviour, unease at the fringes raised the question of whether demography was able to provide satisfactory answers about the major demographic changes that were occurring at the time, including very low fertility, rising migratory flows linked to economic globalisation, and the accompanying social transformations. Other social sciences had already approached these issues by adopting perspectives from emerging fields like critical race and ethnicity studies, gender studies, queer studies, and cultural studies (Riley and McCarthy, 2003).

This approach meant being open to the field of postmodernism, while also upholding the plurality of perspectives coming from the interdisciplinary periphery. It undermined the idea of the macro as well as questioning totalising theories, in keeping with the example set by Lyotard when he announced the end of metanarratives (Lyotard, 1983). Criticism of the enduring presence of the modernisation viewpoint was noted with the formulation of the second demographic transition theory (Van de Kaa, 1986; and Lesthaeghe, 1991) with its evolutionary and diffusionist understanding of demographic changes. This perspective was indebted to both the model of the original demographic transition theory (Sigle, 2021) and, thanks to the contribution of Gary Becker, to conceptualisation of family changes resulting from the massive incorporation of women into the labour market.

The intersectional standpoint, based on the seminal work of Kimberlé Crenshaw (1989 and 1991) which—with her analysis of race and gender, includes social class as well as overlapping situations of discrimination that come together in individuals—succeeds in merging the viewpoints of studies in the fields of race and gender with a result going beyond a simple sum of the two traditions. Hence, adoption of an intersectional perspective within demography should prioritise examination of population heterogeneity based on the intersection of different social positions (Bauer et al., 2021). It would advance a critical perspective that both exposes intersecting forms of discrimination and social inequality, and also requires a theoretical reassessment of demography. This would then be more than a methodological tool of population statistics that enables identification of categories and individuals subjected to multiple forms of discrimination.

Tracing the history of the adoption of intersectionality makes it possible to follow two paths that tend to intersect. The first connects with the work of Hayward D. Horton from the tradition of struggle against racial discrimination with its criticism of the blindness to structural racism enabled by the absence of race and ethnicity records in population censuses and statistics in most European countries (Lentin, 2008). This line of thought has raised the need to introduce ethnic and racial categories in order to combat inequalities and poverty resulting from discrimination (Simon, 2017;

Hellgren and Bereményi, 2022). It also entails reviewing the debate that occurred around the adoption of ethnic and racial categories in the 1991 British census, replicating what was historically done in the United States (Thompson, 2015). The discussion along the lines of categorisation also refers to the bitter controversy in France when population projections by origin were being produced there (Le Bras, 1997 and 1998; Tribalat, 1998). This new approach in which increased international migration linked with economic globalisation was not excluded, soon extended to studies not only of sex and social class but to all categories that were considered under the rubric of what was called super-diversity (Vertovec, 2007; Crul, 2016). It also converged with work on sexual orientation and gender identity in the multiple measures of the LGBTI community, and the conditions of life and struggles of the individuals comprising them (Gates, 2012).

The second path considers the development of statistical measures which, from demography, would take population heterogeneity into account by means of a series of intersections with “anticategorical” approaches. Based on a methodology that deconstructs analytical categories, prioritising fluidity over stability (McCall, 2005), this approach considers that the categories, fluid and of equal relevance, relate to each other openly, and mutually constitute each other (Hancock, 2007). Nevertheless, from a theoretical point of view, some authors (Walby, Armstrong, and Strid, 2012) consider that it is more appropriate to conclude that, rather than mutually constituting each other at their point of intersection, inequalities mutually shape each other.

If the shift to the micro in the twenty-first century is manifested by the preeminent position occupied by individual and collective “demographic behaviour” as a privileged concern of demography (Tabutin, 2007), a longer historical perspective helps to situate the sense of this disruptive change. The demographer and anthropologist Philip Kreager suggests a historical reading of the relationship between the macro and the micro in which the orbits drawn by the conceptual spinning top revolve around two different ideas of population, namely the open and the closed. These would have coexisted during the formation of the modern concept of population in the seventeenth and eighteenth centuries (Kreager, 2015a), and their alternation could explain the different phases in which the paradigms occur, with a focus more on one than the other. In Kreager’s view, this is associated with the homogenous or heterogeneous nature of the composition of the populations (Kreager, 2015b). In brief, his dialectical model presents three approximate periods. The first, where the premodern concept of population appears in association with precapitalist regimes, is concerned with the relationship between heterogeneous populations that are envisioned as open. The second, epitomised by construction of the modern concept of population which, in fact, includes the appearance of demography as a scientific discipline, adopts the standpoint of closed, homogenous populations and is related with matters of governability pertaining to capitalism in its earliest days. The third describes the present shift to a new paradigm, presented as a synthetic solution to the growing tension between the ways of approaching population, namely open and closed, homogenous and heterogeneous, global and local. Each of these stages incorporates, then, an idea of population, the triumph of a different paradigm and, with it, a form of governance or, better said, the place occupied by the population in the project of governability.

To stay with Kreager’s argument, governability in terms of population prior to the appearance of demography—as a discipline bringing together modern knowledge of population and discursive statements concerning it—was basically understood as the connections between different groups. The composition of these groups, how they were formed and the balancing relations that could be established to uphold the social order were then at the heart of population issues. This approach, then, was equivalent to legitimation of the form of government (monarchy, republic, or tyranny). During this stage, from Plato and Aristotle to political arithmetic

between the seventeenth and eighteenth centuries, with John Graunt as a key figure, balancing and coordinating the components of subpopulations was more important than keeping account of the groups, which to say concern with their numbers and sizes. The quantitative properties of each one were a lesser concern. Hence, their formation and reproduction, their maintenance and change, were not as important as the relations between them. This standpoint foregrounded heterogeneity and the open nature of populations in the sense that they were defined as networks or sets of networks among subpopulations in which the patterns of association among the members were more determinant than consideration of the population as a whole.

Political arithmetic becomes crucial for the emergence of the modern concept of population, in a leap from concern about subpopulations to the aggregate, which then led to the conception of a closed population. If, as Kreager argues, Graunt's work was still operative within the conceptual framework of the Ancien Régime, the mortality table he systematised was a tool that paved the way to consideration of the closed population (Dûpaquier, 1996) and, even more significant, to the idea of foresight and intervention in health, the economy, and society. It has been emphasised that this revolution could have been propelled, first, by the development of calculation of possibilities in response to the rise of maritime trade and the need to be sure that the merchandise was secure (Hacking, 1990), second, by the struggle against plagues and, third and definitively, the transformation of the census into an essential instrument of governance. This would coincide with a multiplication of data that culminated with the birth of statistics and, with it, the formulation of demography as the scientific method for tackling what Michel Foucault called biopolitics. By this he meant a way of rationalising, after the eighteenth century, the problems arising from the practice of governing the phenomena inherent to a set of living beings constituted as a population (Foucault, 2001). The biopolitical regime of the nineteenth century is inseparable from the constitution of the nation-state where the turn to consideration of the population as closed is single-mindedly fixed on homogeneity. Groups then deemed to be subpopulations were either blurred out or subjected to the general situation faced by a population as a system of available resources, in keeping with Malthus's model. The quest for a "population law" was closely linked with this concern for "social cohesion" as the result of unifying disparate groups seen as entropic (in terms of both class and ethnic origin). The formulation of the demographic transition theory by the 1930s, coinciding with the end of this transition in the more developed countries, and recognised as an absolute paradigm after the Second World War with Notestein (1945), represents the rise of the closed population model with primacy of the macro model. Driven by population growth itself in the second half of the twentieth century, the relationship between economic development and demographic evolution became the focus of discussion, and explanatory factors were then subordinated under the heading of the process of modernisation (and Talcott Parsons' functionalism).

According to Kreager's optimistic, synthetic reading (which partially coincides with Daniel Courgeau's view), the final twist with the recovery of "population thinking", as Mayr describes it in Darwin, far from representing a gloomy threat of demography's loss of identity, has made it possible to combine the two ways of conceiving population. This would restore a relevance to subpopulations and manifestations of the local that never entirely disappeared. Indeed, in the last few decades, interest in these two factors has kept growing, among other reasons because of increased international migration, a phenomenon that was neglected in the typical formulation of the demographic transition theory. According to Kreager, the shift is largely attributable to the revival of evolutionary demography (Kreager, 2024), a field in which Ronald Lee has played a significant role (Sear, Burger and Lee, 2024). This development, Kreager argues, offers a means of reinterpreting what, under the earlier paradigm, had appeared as exceptional factors for which no adequate explanation existed. These include counterintuitive patterns in the regional topography of the classical demographic transition identified by

Ansley J. Coale (1969), as well as the apparent misalignment between the European model and its diffusion to other geographical and social contexts across different historical periods.

4. On “demographic common sense” and the political place of demography

4.1 Change of paradigm and “demographic common sense”

It is necessary to understand that the demographic perpetuation, composition, and behaviour of individuals and groups that comprise a population have been at the very heart of political organisation of all human societies (Harris and Ross, 1987). In addition to this, one of the arguments on which critical demography should be based is that demography arose as a discipline linked to the state, and what this dependence has meant in determining its political place. This is related with the appearance of the concept of biopolitics, which is to say with the emergence of population as a political concern as well as a scientific and policy challenge, a biological issue, a question of power and its development driven by the will to intervene, either at the initiative of the state itself or by private pressure groups. The demographic transition theory is often cited here with regard to fertility and mortality but also migrations and ethnic selection of immigrants (Hodgson, 1993; Greenhalgh, 1996; and Teitelbaum, 2006).

The struggle for recognition of demography as a scientific discipline in its desire for formalisation (taking mathematics as a model) explains its institutional resistance to recognising the role of ideology in the formation, rise, or fall of a paradigm. This, or what Kuhn calls “metaphysics”, would permeate the worldview shared by the scientific community. Fear of ideological contamination in the project of preserving scientific objectivity, presented as an indispensable condition for the possibility of demography being a science (Riley and McCarthy, 2003), resembles what one finds in the discourse of Thomas Malthus when he upheld and reified mathematics as the constituent centre of a new autonomous discipline that aimed to study population in terms of what anthropologist Charles Briggs (2004), described as “anti-rhetorical rhetoric”. Needless to say, this was in opposition to the ideas of the utopians Condorcet and Godwin (Ross, 1998). Only retrospectively has it been possible to identify this relationship and always through paradigms that have been left behind.

A notable aspect of the 1994 International Conference on Population and Development was an ideological fracture. On the one hand was the view that population growth and development should be replaced as one of the main concerns of political demography by a conservative view anchored in the macro standpoint *par excellence*. On the other—thanks to pressure coming from feminism—was the introduction of a gender perspective citing reproductive health as an aim, which upheld the micro standpoint and institutional mediation (Presser, 1997). However, it is also true that the macro/micro division cannot be simplified to an ideological scission. If the more conservative position was what dominated the macro approach from 1945 to 1954, increasing attention to the micro view, which came with the paradigm shift, was driven by neoliberalism and neoconservatism as well as by ideological movements under the heading of critical thinking and these would include feminism, antiracism, and the queer movement.

I would argue that, at present, beyond the bounds of what might be identified as a discipline and thus institutionally recognised as a formally established branch of knowledge about population (Foucault, 1969), there also exist discursive formations

around the question of population. These are nourished by paradigms that have been surpassed in the discipline itself, and also by statements shaped by various versions of ideological discourse that are, in fact, related with the appearance of the new paradigm. The set of these statements, which are grouped into discursive formations of earlier paradigms (Malthusianism, positivism), discarded as scientific statements both by formal demography and population studies, and mixed with the postulates of neoliberalism as the hegemonic ideology, comprises what is called “demographic common sense”. These formations embrace the statements and propositions regarding population which, although they are not recognised as scientific, are widely accepted by the general public.

The notion of equilibrium as an axiom of population knowledge deserves mention. It first emerged with Malthus and was later reinforced when the physical sciences were adopted as models for the scientific development of demography, in a tradition that is traceable, for instance, to Adolphe Quetelet. In its popularised form, this axiom reduces demographic dynamics to a kind of “hydraulic mechanics”. A clear example is migration, where it is often assumed or, rather, treated as an immutable and self-evident truth, that migratory flows function as a balancing mechanism, whether compensating for differences in age structures between territories or for disparities in fertility. This cliché is often repeated in the mass media which also use the metaphorical term “demographic failure”. The collapse of the body of knowledge instituted as the beginning of the paradigm shift (one of Thomas Kuhn’s greatest contributions to the history of science), explains the adoption of the concept of “revolution” as a break rather than as displacement by accumulation (a view held by positivist interpretations of scientific evolution). The exclusive focus was then on science, but this overlooked the endurance of the postulates of the paradigm embedded in the set of discourses concerning the object of a particular science. Then again, in the case of ideology, Michel Foucault warned of the close relationship between the beginnings of biopolitics (and, with it, demography) and liberalism as a form of self-limitation of government (Foucault, 2001). However, it is also necessary to refer to the triumph of neoliberalism and habituation to the ideas postulated by this doctrine. These ideas have tended to do away with the importance of structure (the macro, if one prefers). Rather, the rational decisions of individuals (the micro, *par excellence*) for their own benefit in a situation of a competitive market (Stedman Jones, 2012) are presented as the base not only of the economy but also of society as a whole, as is also postulated by advocates of “analytical sociology”. “Demographic common sense” therefore explains the persistence of postulates of old paradigms and acceptance of the ideology which, as the hegemonic dogma, has also contributed to the formation of a new paradigm as a shared belief system on the functioning of the world and of society.

4.2 Instrumentalisation: from far-right discourse to neoliberal appropriation

The far right has found in “demographic common sense” one of its oft-used wellsprings for instrumentalising demography by coming up with the story of involution. Understood as conservative discourse, this is a synthetic expression referring to positions that have opposed recognition of the freedom and dignity of individuals since the French Revolution (Starobinski, 1999). Invoking a return to the past, it is not far from what Zygmunt Bauman (2016) defined as “retrotopias”. By this, he meant visions anchored in the past, seeking a utopia which, it is believed, should not have disappeared, and usually becoming a desire to impose a purified world which never actually existed.

Although the great majority of statements that instrumentalise demography originate from individuals outside the field, the active participation of demographers and population scholars in shaping some of these narratives is revealing. Metaphors

constructed or revived to describe a range of demographic phenomena, and widely adopted and disseminated by the far right, include “demographic suicide”, “demographic winter”, and “the great replacement”. “Demographic suicide”, used in relation to fertility and migration, has roots in the problematisation of population size or quantity in French nationalism of the late nineteenth century, in connection with the demographic transition (Raudot, 1850). It also appears in early twentieth-century eugenic discourse in the United States concerning the “quality” of the population, which became intertwined with nativist ideology (Dowling, 1916). “Demographic winter”, referring to declining fertility in ageing populations, emerged in the post-baby-boom period in countries that had completed the demographic transition, in a context of population ageing (Dumond, 1991). This metaphor also revived the language of “demographic suicide” (Laulan, 1998). The “great replacement”, invoked in debates on migration, reworks older conspiracy theories of ethnic substitution circulating since the early twentieth century (Stoddard, 1920) as well as more contemporary formulations (Ye’or, 2005). Its current form appropriates the concept of “replacement migration” as a rhetorical device (Camus, 2017).

Demographers including Jean Claude Chesnais (1995), Jacques Dûpaquier (1999), and Gerard François Dumond (1991), the latter of whom coined the expression “demographic winter”, are just three of the more conspicuous names, all of them linked to the most conservative thought, and some in the milieu of thinktanks like the “*Club de l’horloge*” in France. As demographer and historian Hervé Le Bras critically demonstrated in 1998, they inspired the involuted demographic narratives wielded by the National Front. Although to varying degrees distant from the discipline, Dûpaquier and Dumond claim to be demographers and share the logic of an out-of-date demographic paradigm based on the notion of equilibrium. In direct reaction to the early public airing of the concept of reproductive health at the 1994 International Conference on Population and Development, and the triumph of the feminist gender perspective at the World Conference on Women in Beijing in 1995, one finds responses by writers who present themselves as demographers. They include the Belgian priest Michel Schooyans, professor emeritus of the Catholic University of Louvain and prominent ideologist against liberation theology, whose book *Le crash démographique: De la fatalité à l’esperance* was published in 1999 (and in English as *The Demographic Crash: From Fatalism to Hope* in 2001).

In a separate category, it is also necessary to mention the idea of a “third demographic transition” presented by the well-known British demographer David Coleman (2006). This has been used to legitimate the “great replacement” conspiracy theory of ethnic substitution of nationals by foreigners aired by Brexit supporters who wielded “demographic evidence” from Coleman’s population projections. It is ironic and also instructive to note that Coleman himself was a harsh critic of the concept of “replacement migration” (Coleman, 2002) which appeared in the United Nations Population Division publication of 2000. This was then appropriated to name an old conspiracy theory which, modified over time, has recently been renamed the “great replacement” (Domingo, 2020). It should be understood that the success of these postulates in the media and among the general public is, to some extent, due to these metaphors. The story they convey is nourished by totalising explanations at the macro level, which formal demography seems to have disregarded in the last few decades. Meanwhile, it is owing to the shift in causal emphasis from economics to demography, and from structural factors to individual agency, that the discourse of involution promoted by neoconservatives and the far right has been able to locate the ultimate drivers of demographic behaviour in the realm of values. This, in turn, has facilitated the rise of political demography, particularly in relation to family formation and fertility, which are subsequently invoked to justify anti-immigration policies.

Finally, alongside the ideological infiltration associated with the predominance of the micro perspective, the combined effects of funding imperatives and the

discipline's lack of reflexivity have encouraged an uncritical adoption of neoliberal postulates on population. I refer here to the way in which the pursuit of material resources has reinforced the primacy of neoliberal framings in population matters. This perspective dominates in supranational organisations like the World Bank, the International Monetary Fund, and the European Union; at the national level through state-led research funding and evaluation; and in the agendas of private foundations and corporations, ranging from banking and major insurance companies to think tanks like the Centre for Policy Studies (a key influence on Margaret Thatcher's policies), the Heritage Foundation (which played a similar role under Ronald Reagan), and the World Economic Forum, which annually classifies demographic phenomena as global risks in its reports issued from Davos (Domingo, 2015). These frameworks have since been reformulated as cross-cutting elements in the implementation of the 2030 Agenda for Sustainable Development.

A clear outcome of this dynamic has been the progressive withdrawal of United States government support for the United Nations Population Fund since the 1986 Population Conference, which coincided with the Reagan Administration and its justification of what came to be termed "demographics of the market". The United Nations Population Division's attempts to achieve greater social impact as a strategy for securing funding have resulted in the adoption of neoliberal slogans and positions adapted for marketing purposes. These tendencies became particularly visible with its 2000 campaign and the accompanying report *Replacement Migration: Is It a Solution to Declining and Ageing Populations?* Similar concerns apply to uncritical use of concepts like "resilience" which are reshaped by neoliberal thought and transposed into the demographic domain, for example, in the United Nations Population Fund's "Demographic Resilience Programme", launched across different world regions.

In addition to these examples, other notable developments include the use of demographic arguments to construct catastrophist narratives about population ageing, thereby benefiting private retirement-plan providers as well as enabling banks and insurance companies to cast doubt on the sustainability of public social security systems.

5. Conclusions: for a critical demography

Max Horkheimer's concept of Critical Theory was criticised by fellow members of the Frankfurt School and especially Herbert Marcuse, who questioned its capacity to transform society (1964). Thomas Kuhn's notion of "paradigm" was also criticised and notably by Margaret Masterman (1970), who emphasised the difficulty of grasping the concept even in Kuhn's own work, and doubts were also expressed about its applicability to the social sciences (Percival, 1979). Nevertheless, interest in relations of domination and their perpetuation, and the influence of a particular worldview inseparably linked to criteria governing scientific production in which a science is embedded remains a valuable source of knowledge. This is especially true for understanding the transformation of most post-transitional countries into complex systems of demographic reproduction and their intersection with strategies of social reproduction, and therefore with social stratification. The centrality of migratory contributions to population evolution, now going beyond fertility and mortality, has fostered not only renewed interest in analysis of migration in demography as one of the phenomena marked by the greatest uncertainty, but it has also encouraged a systemic approach. This perspective conceives demographic reproduction and social reproduction as interconnected complex systems. This systemic vision is at the conceptual root of the agent based model.

What Horton (1998) called "population and structural change", when hypothesising that changes in the minority population and the social structure come together to

bring about further changes in the nature of racial inequality, could open the way to a much broader formulation for the theoretical development of critical demography. I would define this as the systematic study of demographic reproduction, including fertility and mortality and, most especially, migration and its intersection with “strategies of social reproduction” to use Pierre Bourdieu’s term (1994). These strategies are necessarily reflected in social stratification, and address race and ethno-cultural origin (in the case of immigrants and their descendants) as well as gender and social class. The answer to Ronald Skelton’s initial question would be that, as an essential part of demographic reproduction, migration is not headed for the exit but, rather, for the centre of demography. It would not be a fringe area of demographic studies but a core concern and therefore an objective of its methodological development. The difficult operationalising of theoretical concepts like “reproduction” and “gender” which Susan Greenhalgh (1996) posited as one of the reasons for the distancing of demography from galvanic concepts in other social sciences, would therefore become a theoretical and methodological requirement arising from within demography itself.

The change of paradigm and the debate about critical demography should be in the framework of a return to the need for holistic explanations after the shakeup that postmodernism represented at the epistemological level, or the end of big stories, as Lyotard (1983) put it. In terms of the paradigm, however, this return to the macro from the fertile field of the micro (enriched by interdisciplinarity and the contribution of critical demography in deconstructing concepts and approaches) brings with it the challenge of explaining the structure. The shift towards the micro (micro-causality) can also be understood as a reaction to the failure of the macro-narrative of the Demographic Transition, which focuses on modernisation and fertility function, as well as linearity and universal stages for all countries in the world. This was even more the case with the Second Transition Theory and it would suggest that the pre-eminence of macro-causality was not based on empirical foundations. The challenge, then, is not to build a critical demography from scratch but how to gather together the multiplicity of critical stances that are leading to a rethinking of methodological and epistemological approaches, and how to locate them at the heart of the discipline.

Gender studies from a feminist perspective were introduced into demography because of a political interest in the evolution of fertility and evaluation of family planning projects in both developed and developing countries with the suggestion of micro studies on gender roles (Presser, 1997). The concept of “gender system” with its significant concerns about inequality and its reproduction clearly thrust demography into the macro domain, starting with feminist theorisation of institutions. The same can be said of the latest consequences of embracing the research contributed by critical race studies. In this regard, the intersectional perspective has managed to unify the micro, as an individual’s or group’s social position in a specific space and time, and the macro, which grounds this position of gender, race or origin, and social class in a dependence on structural elements that nourish various kinds of discrimination and inequality. The challenge for demography, as in other social science disciplines, is to go beyond a subjective perception of race, gender, class, and the discrimination perceived by individuals. This entails the danger of being trapped in categorisation, which would then both facilitate appropriation by neoliberalism (with its demoscopic approach focused on the construction of subpopulations as resources to be mined by markets) and invigorate identity politics. To “go beyond” would mean developing tools to analyse the connection between structural factors and interpersonal relations, while bearing in mind the constructivism and mutability of categories (Hancock, 2007).

In any case, as Leo Van Wissen (2024) says, the loss of interest in demography as a discipline of politicians, and its waning influence in the social debate is largely due to fixation on the micro level. Moreover, its acritical stance surrenders to other

disciplines areas of theoretical production that pertain to its own domain of study, namely population and reproduction of populations understood as perpetuation over time thanks to the interplay of three main phenomena: fertility, mortality, and migration. It also lends itself to political instrumentalisation. Then again, reflexivity which, in the case of demography, includes a critical position on the production of data and the character of common or private good that is granted to them, cannot be excluded from professional practice. Excluding from the discipline the reflexivity that typifies other social sciences does not strengthen its own scientific stature. Rather, it is a weakness. As professionals in demography, we cannot lament the discipline's subordinate theoretical position or its marginal status in academic and public spheres if we, as demographic practitioners, shy away from undertaking critical analysis of our own scientific production.

Acknowledgement

The research was made under the project Migration and demographic and social reproduction strategies in Spain: gender, origin and class, Grant PID2023-148711OB-I00 funded by the Agencia Estatal de Investigación of the Ministerio de Ciencia, Innovación y Universidades (AEI/MICIU /10.13039/501100011033) and by the European Regional Development Fund (ERDF-EU).

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