

Gendering the Humanities and Social Sciences public lecture

Why Demography Needs (New) Theories

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Suggested hashtag for Twitter users: [#LSEtalksgender](#)

The logo for LSE events, with 'LSE' in white on a red square and 'events' in a red sans-serif font.



Why Demography Needs (New) Theories

Wendy Sigle

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Demography is....

- “une science sauvage”
- “a set of techniques by which data collected in censuses, surveys and vital registration systems about age, sex, births, deaths, migrations, marriages and so on are described, summarized and manipulated” (Newell, p.3)
- the multi- or interdisciplinary study of fertility, mortality and migration that includes an examination of the relationship between demographic phenomena and social, economic or political phenomena.
- “Mathematics and modernization” (Greenhalgh 1995)

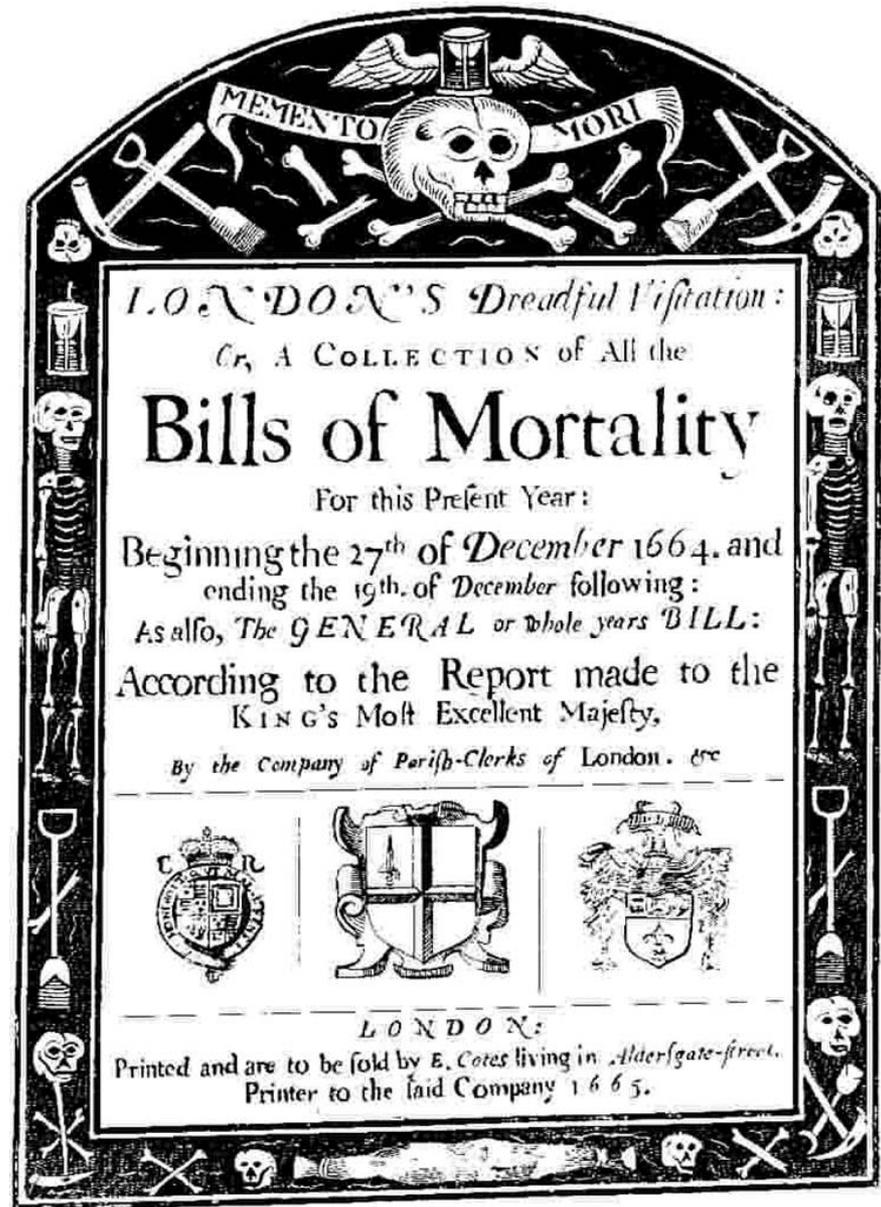
**"Natural and Political
Observations
Mentioned in a
Following Index, and
Made Upon the Bills
of Mortality."
(Graunt 1662)**

Common causes of death

Sex differences in death
rates

Seasonal variation in death
rates

Disease spikes



'An Essay on the Principle of Population' Thomas Malthus 1798

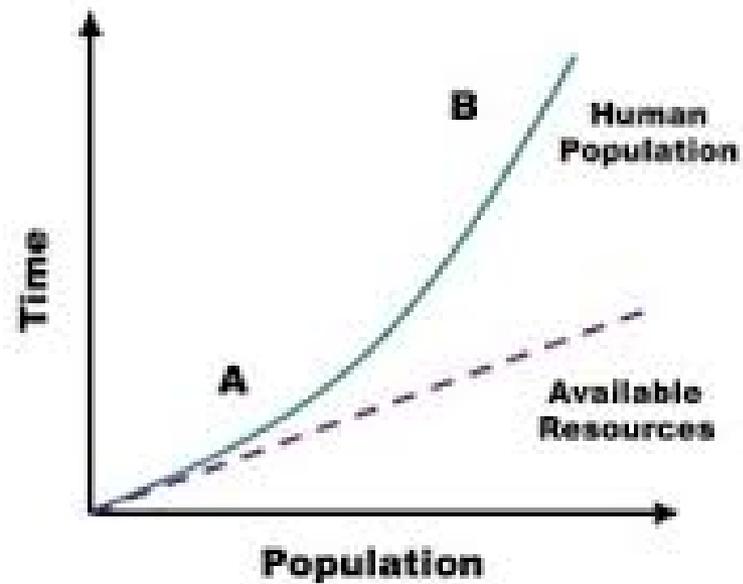
Linked population
growth with the
economy

“The power of the
population is so superior
to the power of the
earth to produce
subsistence for man,
that premature death
must in some shape or
other visit the human
race.”



'An Essay on the Principle of Population' Thomas Malthus 1798

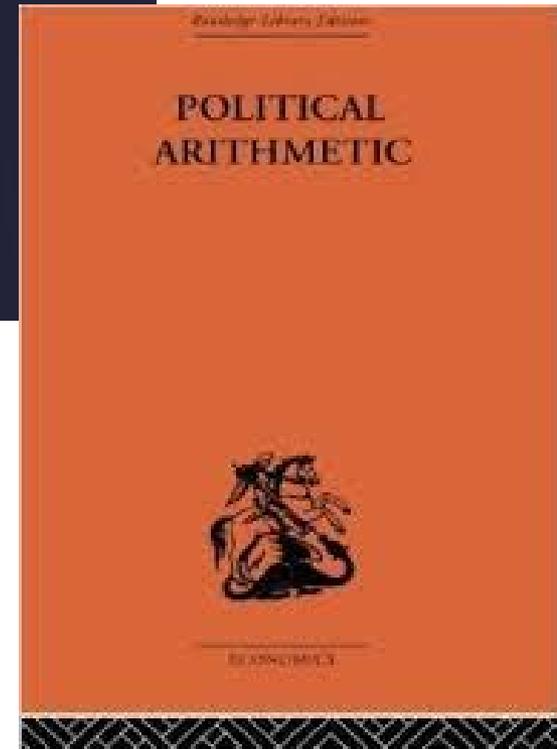
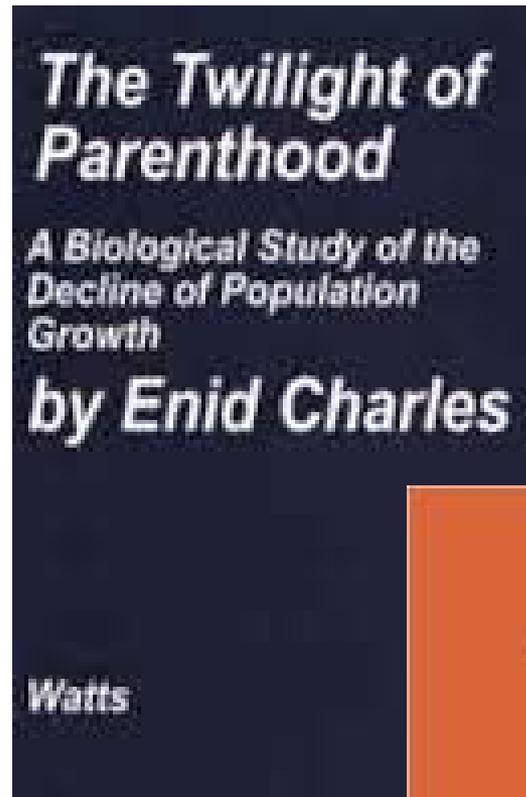
Linked population
growth with the
economy



“The effect of present trends in fertility and mortality upon the future population of Great Britain and upon its age composition”

Provided two projections for the total population of England & Wales in the year 2000:

approximately 17.5 and 28.5 millions

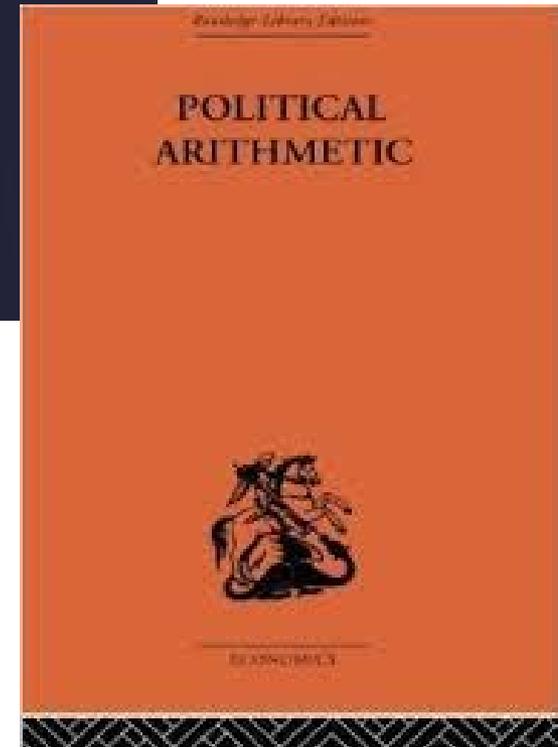
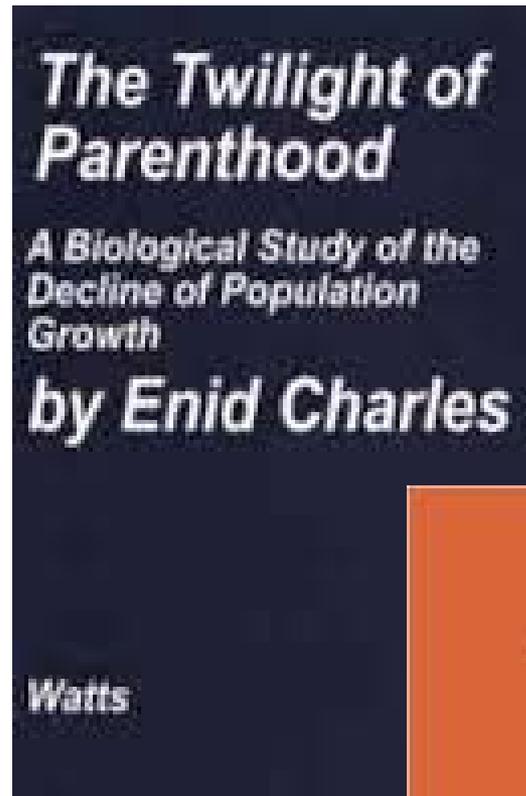


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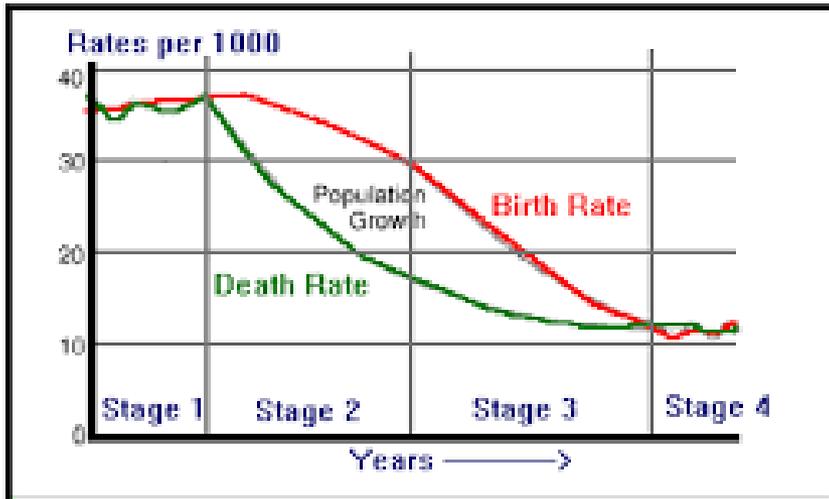
approximately 17.5 and 28.5 millions

2001 census: 52 millions



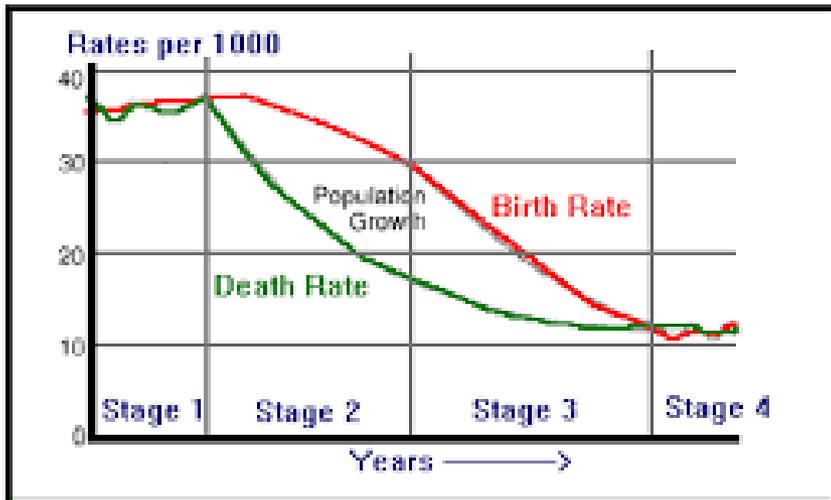
The First Demographic Transition

The Demographic Transition



The First Demographic Transition

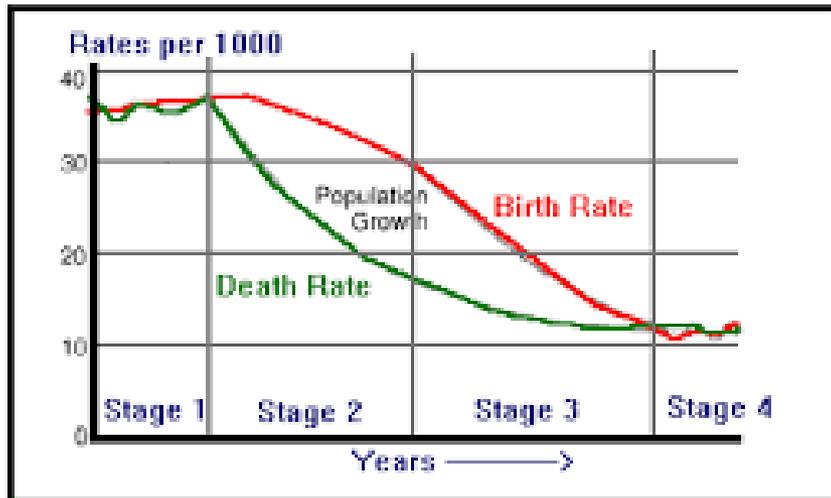
The Demographic Transition



Stripped to essentials it states that societies that experience modernization progress from a pre-modern regime of high fertility and high mortality to a post-modern one in which both are low. The term 'modernization', is not defined, nor does it include the crucial questions about causation that form the subject of much modern demographic literature.

The First Demographic Transition (Theory)

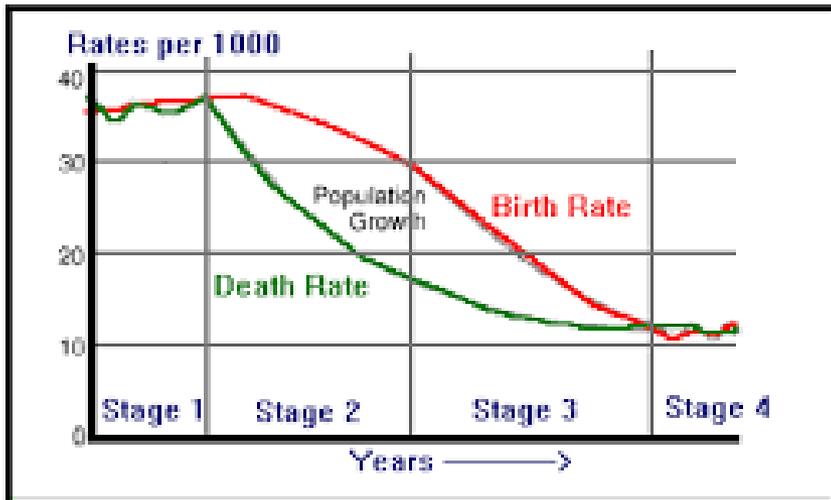
The Demographic Transition



“Demography is a science short on theory, but rich in quantification.” (Kirk, 1996)

The First Demographic Transition (Theory)

The Demographic Transition

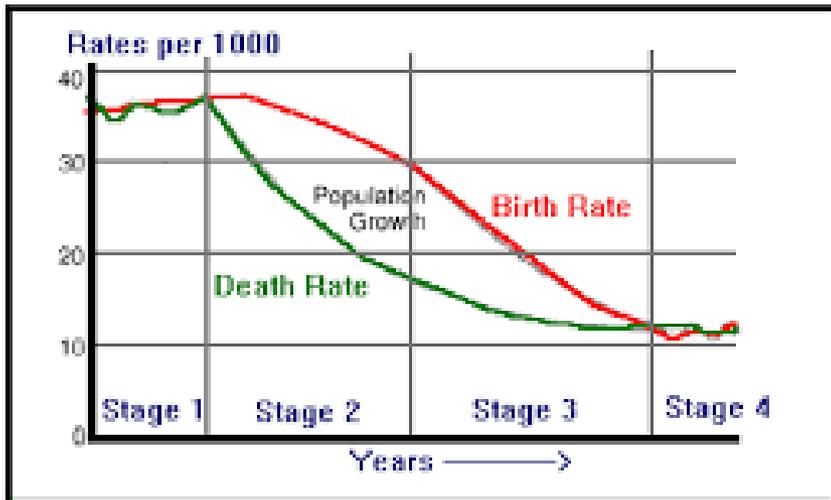


“Non-demographers dipping into the demographic literature for the first time are often struck by the pervasiveness of modernization theory, a perspective that was heavily criticized and abandoned by much of mainstream social science two decades ago”

(Greenhalgh 1995)

The First Demographic Transition (Theory)

The Demographic Transition

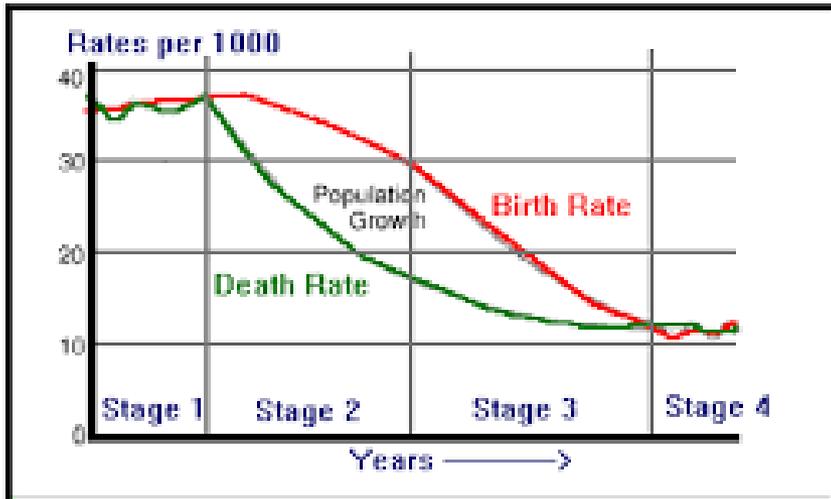


“the construction of a theory of demographic transition tailored to the needs of postwar economic planners....”

(Greenhalgh 1995)

The First Demographic Transition (Theory)

The Demographic Transition

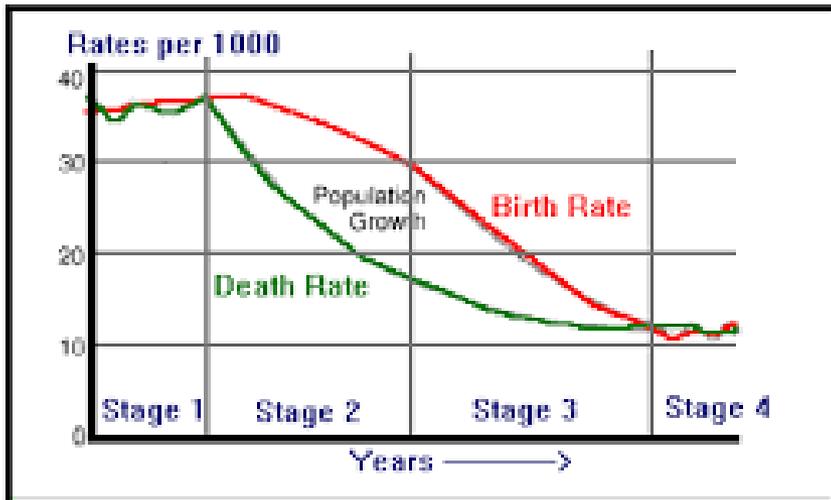


An evolutionary and determinist view of societal development built around a whole series of unstated assumptions:

- All countries follow unilinear, predetermined path which
- The unique social and political histories of individual societies have limited roles in reproductive change.
- Fertility transition is caused by and in turn causes further *Westernization*
- The “developed” world is superior
(Greenhalgh 1995)

The First Demographic Transition (Theory)

The Demographic Transition

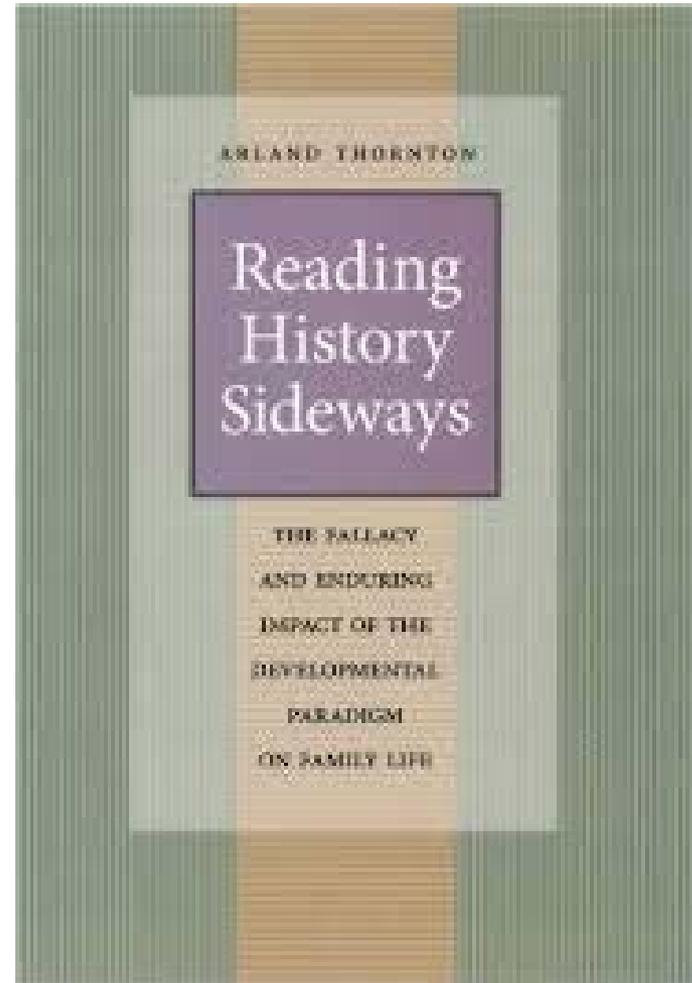


“....even as [it] legitimize[s] a political project of reproductive Westernization— making the demographic Other more like us—[it] remains silent about the historically created relations of unequal power between first world and third that permit this project to go forward. Reflexivity about the politics of demographic praxis is notably lacking in the field”.

(Greenhalgh 1995)

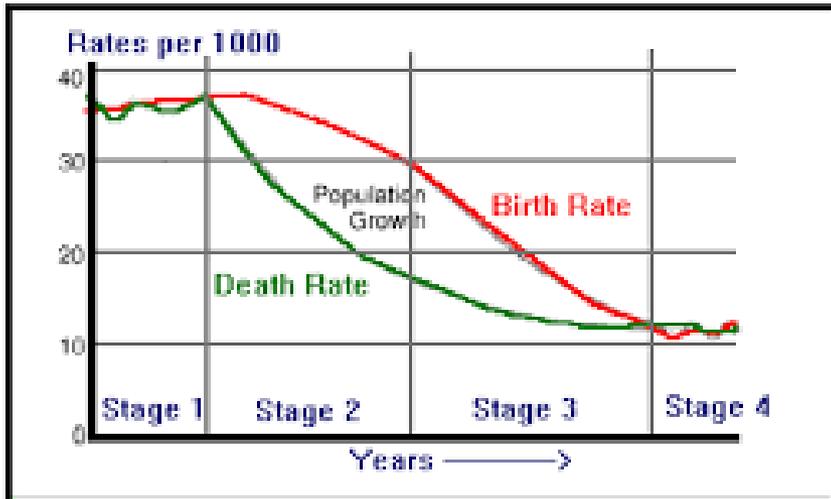
Reading History Sideways: The Fallacy and Enduring Impact of the Developmental Paradigm on Family Life.

Implicit in this developmental paradigm—one that has affected generations of thought on societal development—was the assumption that one could "read history sideways." That is, one could see what the earlier stages of a modern Western society looked like by examining contemporaneous so-called primitive societies in other parts of the world.



The First Demographic Transition (Theory Adaptation)

The Demographic Transition

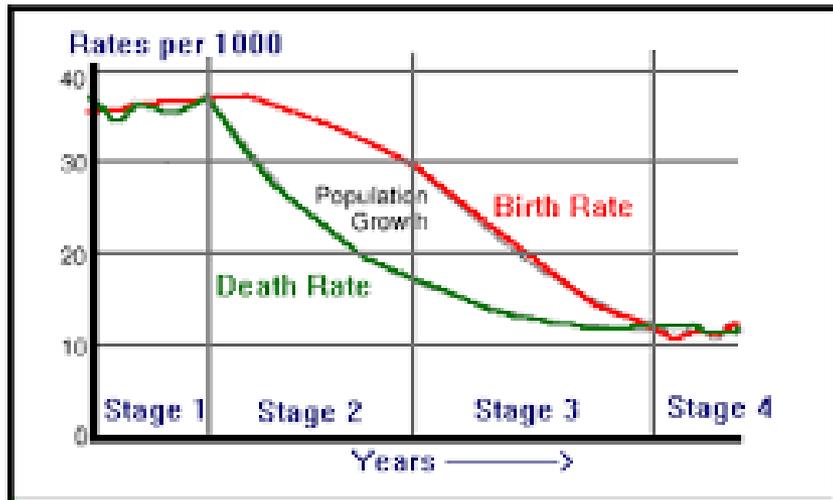


“...and the reconstruction of that theory in response to the growing threat of Communist expansionism that loomed large in the early years of the Cold War....”

(Greenhalgh 1995)

The First Demographic Transition (Theory Adaptation)

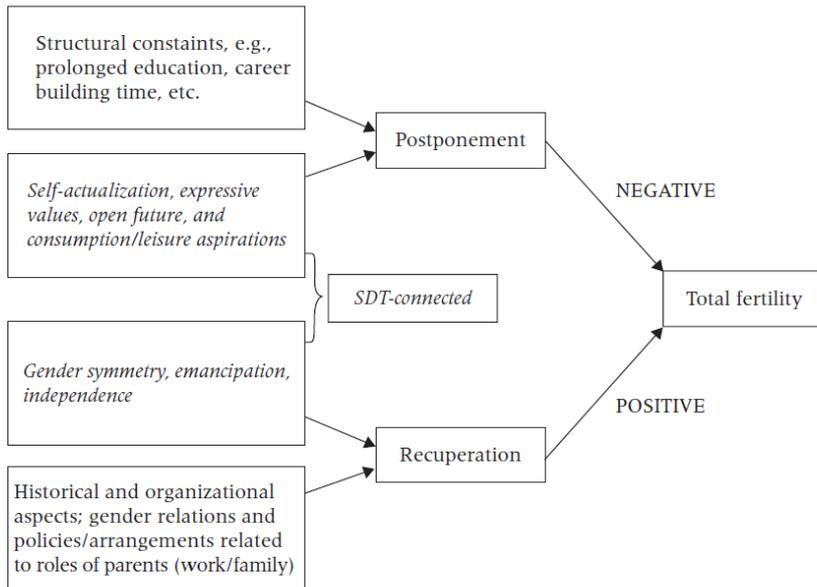
The Demographic Transition



“.... In adapting its theory to the policy needs of the post-War era, then, the policy-oriented branch of American demography, a sizable segment of the field, largely lost its interest in broad theory, history, social structure, and macro-level forces for demographic change.”

(Greenhalgh 1995)

The Second Demographic Transition



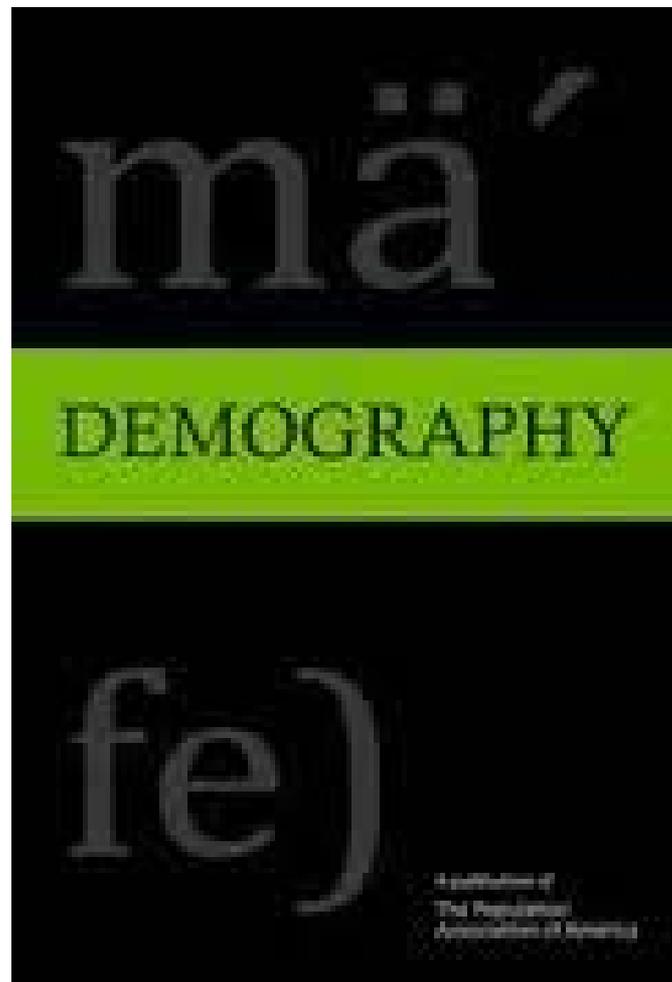
- sustained sub-replacement fertility
- a multitude of living arrangements other than marriage
- the disconnection between marriage and procreation,
- no stationary population.

Instead, Western populations face declining sizes, and if it were not for immigration, that decline would already have started in many European countries

(Lesthaeghe 2010)

Surveying three decades of research in *Demography*

“We have moved from descriptive methods and data to analysis that is based largely on the application of causal models. The availability of certain types of data and the power to easily apply complex statistical techniques have encouraged the development of methods appropriate to this emphasis on causal models.”
(Crimmins 1993: 585).



Surveying three decades of research in *Demography*

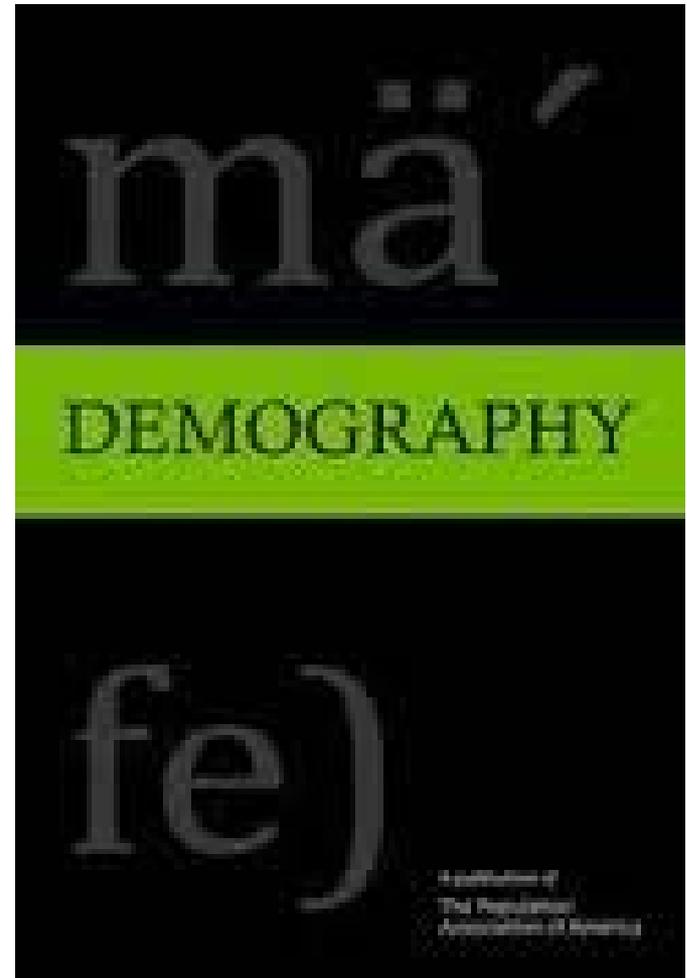
“the era of the independent variable.... the rapid increase in the number of studies making use of multivariate regression techniques, with a trend towards increasingly long lists of control variables.” (Crimmins 1993: 585).

$$\textit{observed data} \rightarrow y = b_0 + b_1x_1 + b_2x_2 + \dots + b_px_p + \varepsilon$$

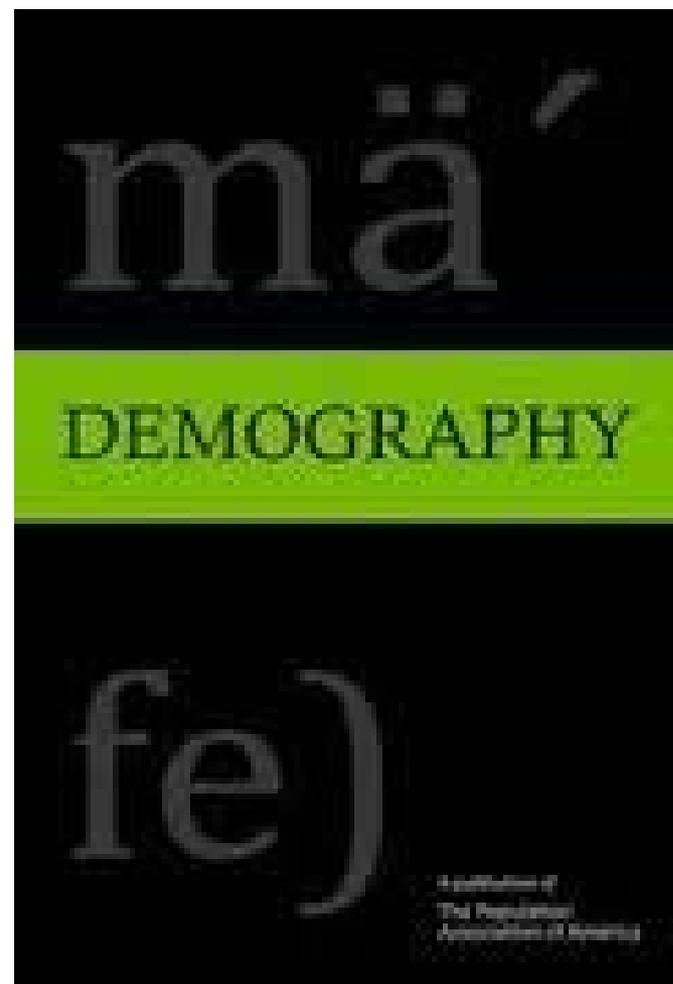
$$\textit{predicted data} \rightarrow y' = b_0 + b_1x_1 + b_2x_2 + \dots + b_px_p$$

$$\textit{error} \rightarrow \varepsilon = y - y'$$

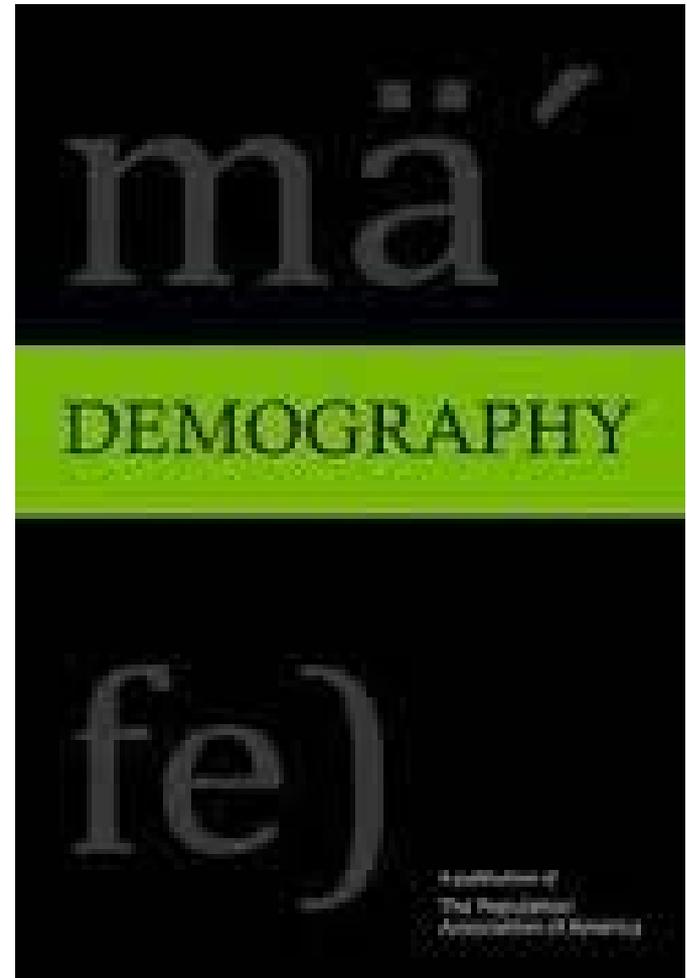
- Methods and methodological preoccupations of economics gained precedence



- Methods and methodological preoccupations of economics gained precedence
 - unobserved heterogeneity, self-selection, and reverse causality masked the true and causal effect
 - Randomised control trial



- Methods and methodological preoccupations of economics gained precedence
 - Marriage promotion in the US

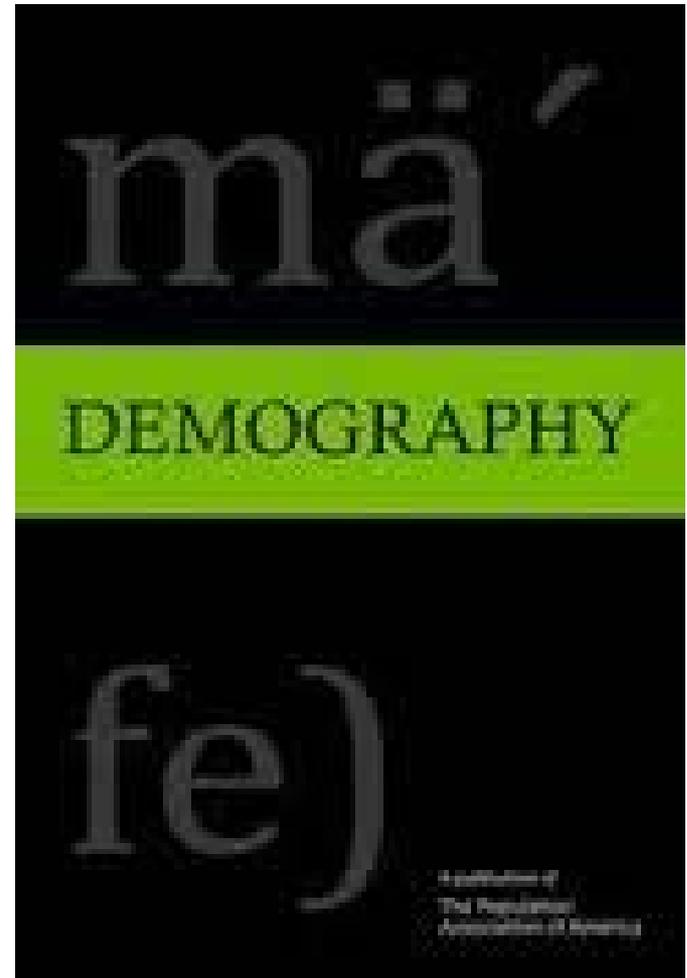


Marriage: America's Greatest Weapon Against Child Poverty

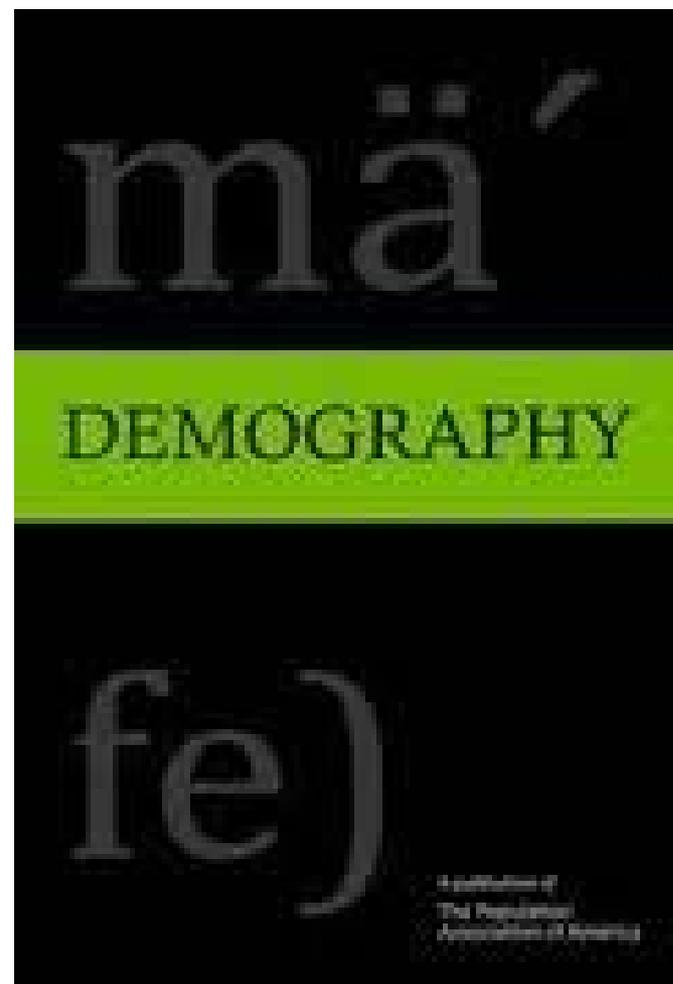
“Child poverty is an ongoing national concern, but few are aware of its principal cause: the absence of married fathers in the home. According to the U.S. Census, the poverty rate for single parents with children in the United States in 2009 was 37.1 percent. The rate for married couples with children was 6.8 percent. Being raised in a married family reduced a child’s probability of living in poverty by about 82 percent”

(Rector 2012)

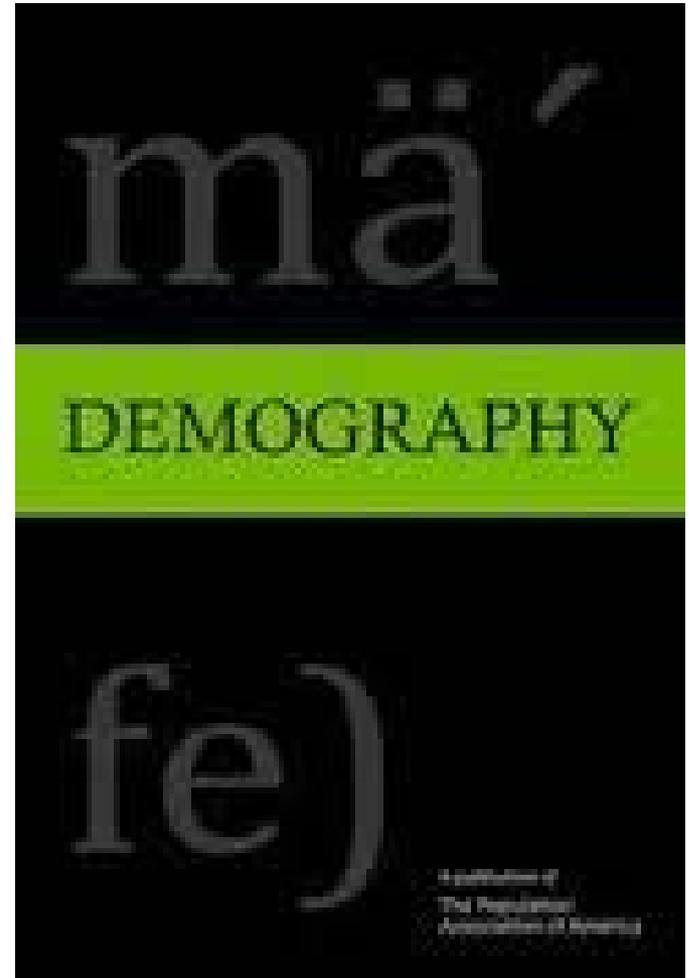
- Methods and methodological preoccupations of economics gained precedence
 - Marriage promotion in the US
 - Correlation between breastfeeding and child mortality in India
 - Early parenthood in the US



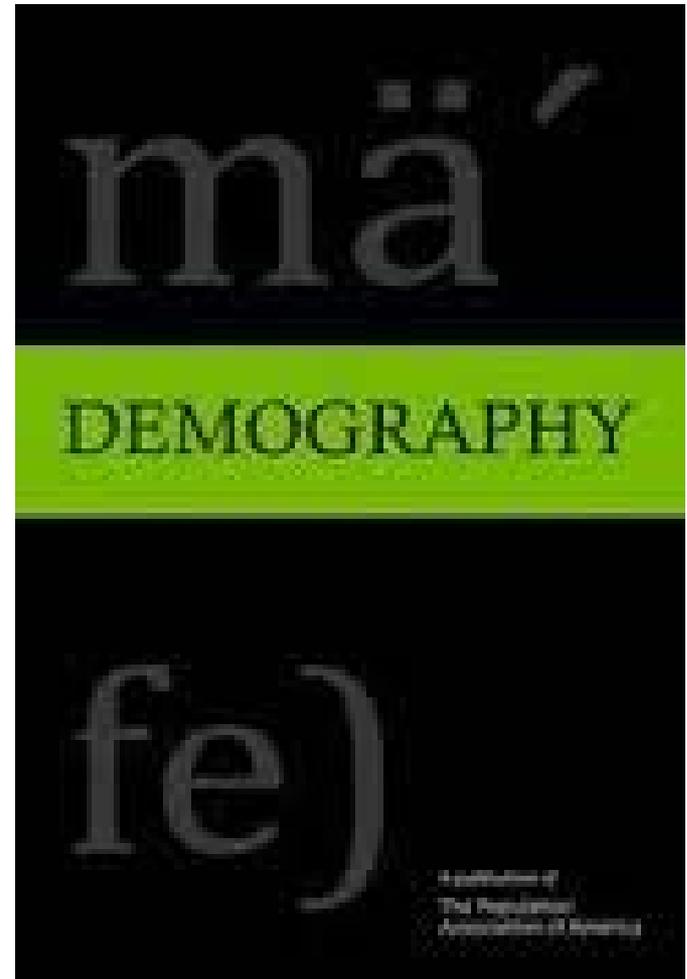
- Methods and methodological preoccupations of economics gained precedence
 - unobserved heterogeneity, self-selection, and reverse causality masked the true and causal effect
 - *whether* rather than why



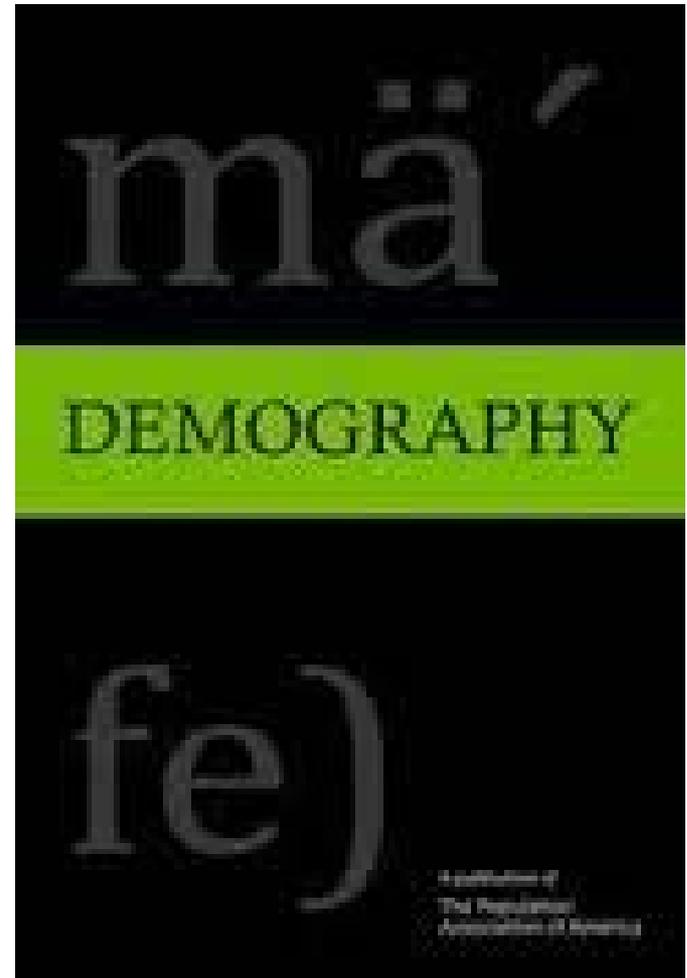
- Methods and methodological preoccupations of economics gained precedence
- But with a weak and limited embrace of economic theory

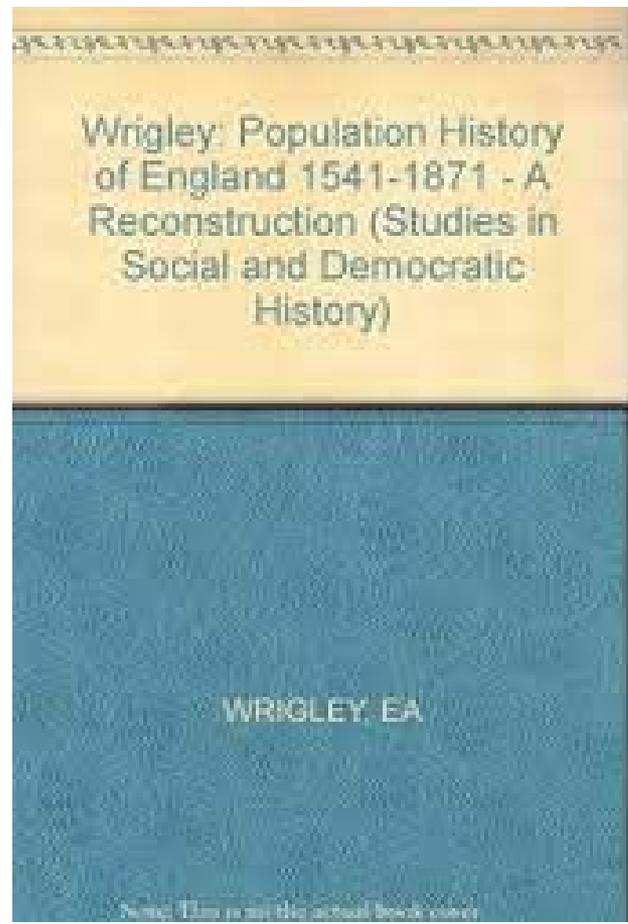
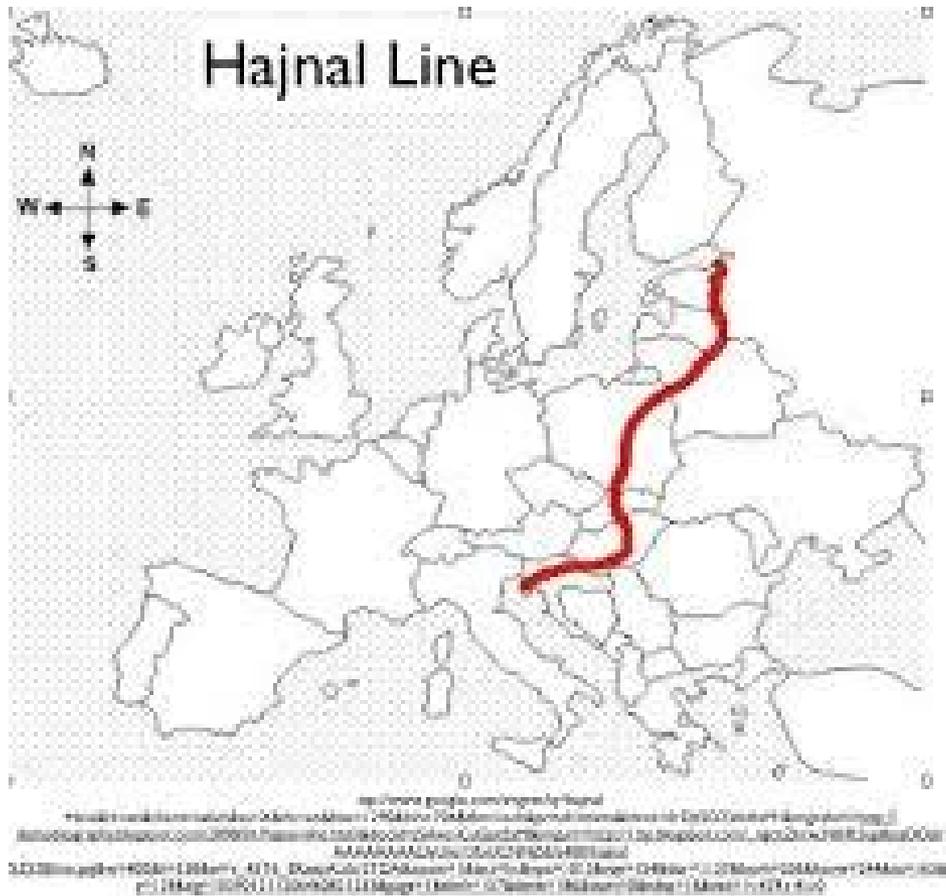


- Methods and methodological preoccupations of economics gained precedence
- But with a weak and limited embrace of economic theory
- Academic pursuits which do not find causes are “just descriptive”



- Methods and methodological preoccupations of economics gained precedence
- But with a weak and limited embrace of economic theory
- Academic pursuits which do not find causes are “just descriptive” = substandard





A demography

- “long on methods and short on theory” (Kirk 1996)
- “unwilling to accept and use feminist theoretical approaches” (Riley 1999)
- that attempts to reduce social life to a series of measurable variables
 - Without much self-reflection
- “highly invested in deflecting critical theories, including feminism, that highlight the political nature of science precisely because its theories, research questions, and applications are so very political” (Williams 2010).

Fertility and family policy in Europe

- Motivation
 - European countries: TFR fell from above to below replacement
 - Some more below than others
 - European Union
 - “Threat” of ageing populations
 - Sustainability of generous welfare state models
 - OMC

Should the Nordic model be a blueprint for reform?



Fertility and family policy in Europe

- More attention to economic theory would identify inconsistencies
 - Between theoretical and empirical models
 - Evidence and interpretation

Fertility and family policy in Europe

Theorizing decisionmaking

The very simple model

- Feasible choice sets
 - Childbearing
 - Allocation of time
 - Paid work
 - Unpaid work
 - Care
 - Leisure
 - Consumption 
- Forward looking
- Choice of top-ranked combination

The implicit model

- Feasible choice sets
 - Childbearing
 - Allocation of time 
 - Paid work
 - Unpaid work
 - Care
 - Leisure
- Consumption 
- Forward looking
- Choice of top-ranked combination 

Fertility and family policy in Europe

Empirical representation

The very simple model

- Empirically tractable

The implicit model

- Very difficult to represent
- Options:
 - Model diversity and difference
 - Model out diversity and difference
 - Econometric techniques
 - Identify causal effects
 - Very narrow comparison
 - E.g. “critical juncture”

Fertility and family policy in Europe

Empirical representation

The very simple model

- Very simple solution
- Isolates effect of P
- Easy to aggregate/measure
 - P = average expenditure = average benefit
 - aggregate P = aggregate expenditure

$$\Rightarrow TFR_j = \alpha_j + \beta P_j + \varepsilon_j$$

The implicit model

- Not so simple solution
- Cannot isolate effect of P
- Cannot aggregate in the same way

Fertility and family policy in Europe

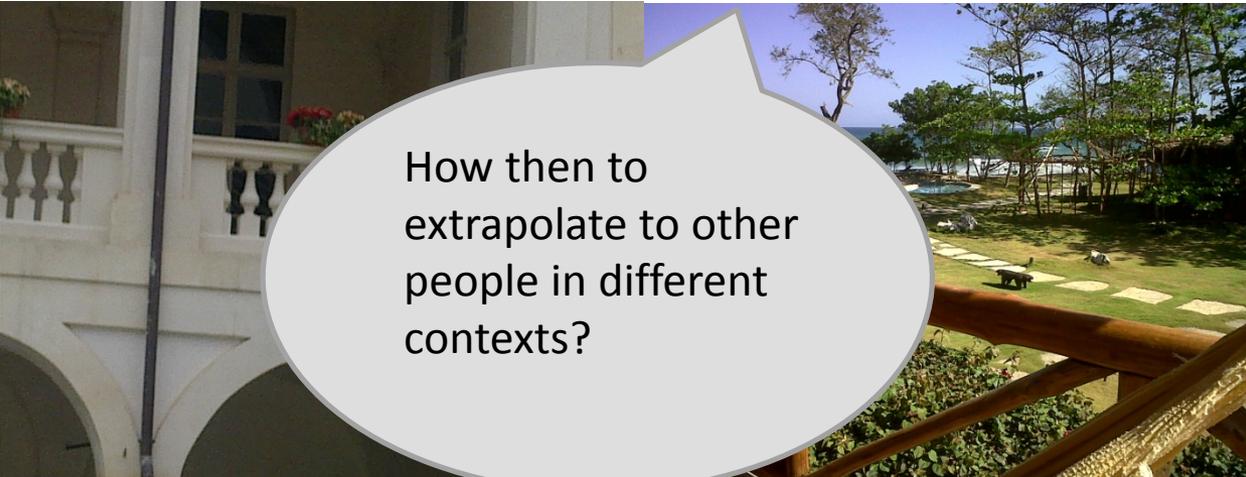
Empirical representation

The very simple model

- Empirically tractable

The implicit model

- Very difficult to represent
- Options:
 - Model diversity and difference
 - Model out diversity and difference



How then to extrapolate to other people in different contexts?



More attention to the implicit theory would encourage

- A more careful alignment of
 - motivation and research question
 - theoretical model
 - its empirical representation
 - the methodology



Fertility and family policy in Europe

- An openness to new theoretical perspectives would
 - Directs attention towards
 - Wider social and economic context

“A dynamic gender analysis treats institutions such as families, states, and markets as interconnected sites rather than separate spheres or even discrete system”

(Ferree 2010: 425)

Fertility and family policy in Europe

- An openness to new theoretical perspectives would
 - Directs attention towards
 - Individual-level heterogeneity
 - Wider social and economic context
 - Encourage self-reflection about decisions regarding
 - Measurement
 - Categorization
 - The interpretation of the findings
 - The question itself!

‘white solipsism’: the tendency to ‘think, imagine, and speak as if whiteness defined the world’. While solipsism is ‘not the consciously held belief that one race is inherently superior to all others, but a tunnel-vision which simply does not see non-white experience or existence as precious or significant, unless in spasmodic, impotent guilt-reflexes, which have little or no long-term continuing momentum or usefulness’.

(Adrienne Rich cited in Spelman 1988: 116)

“it is demographers, politicians, the media, or other groups of people or public institutions who produce the perception that fertility levels are too ‘low’ or too ‘high’ or ‘normal’. Likewise, it is they who construct the social, economic, and political consequences of fertility levels by transforming demographic measures into ostensibly negative outcomes for the future....”

(Neyer 2011: 237)

Fertility and family policy in Europe

- An openness to new theoretical perspectives would
 - Directs attention towards
 - Individual-level heterogeneity
 - Wider social and economic context
 - Encourage self-reflection about decisions regarding
 - Measurement
 - Categorization
 - The question itself!
 - Highlight the need to extrapolate cautiously and with great care

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