An actor-based (mechanism-based, generative) theory for demography

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Abstract

Demography is the scientific study of population across time and space. Demography has been very successful in discovering patterns of change, including discontinuities, and the modelling of the emergence of population structures from fertility, mortality and migration regimes. Demographic change is embedded in a wider context of economic, social and cultural change. It is influenced by the context and influences the context. An actor-based theory identifies the mechanisms or processes that cause (generate, produce) changes in fertility, mortality and migration and consequently in population. Actors are individuals, groups of individuals (e.g. couples, households, families), institutions and organizations (structures). Three types of processes interact to generate change: behavioural processes at the individual level, social processes that emerge because actors are embedded in a social context, and random processes (chance). Actors have agency (capacity to act in a given situation, to anticipate outcomes of actions, and to adapt to changing environments). Theories of action identify factors and actors that explain individual actions. Recent theories acknowledge that decision making and transition from desire or intention to action takes time and may be challenged. Actors dynamically interact with other actors and influence processes and outcomes. The interaction may trigger a social diffusion mechanism resulting in the emergence of social networks with shared values, behavioural rules (norms), identities, and resources. A theory of diffusion considers the role of proximity, homophily and information channels, including media and internet. A theory of action (and associated decision theory) and a diffusion theory (and an associated theory of social transformation) are two pillars of an actor-based theory of population. Since agency and diffusion processes vary with age, cohort replacement (demographic metabolism) is an important demographic driver of change (Ryder).

The theory incorporates several elements of existing theories of fertility (e.g. agency [ready, willing and able; behavioural innovation] and diffusion [e.g. ideational change]), health and survival, and migration. The focus on explanation by identifying causal mechanisms follows the reasoning in complexity theory, the generative social science theory (Epstein), and analytical sociology (Hedström).

In the colloquium, I present the essentials of an actor-based theory of population.