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BOOK REVIEW

Empty planet: the shock of global population decline
Darell Bricker and John Ibbitson
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David Samways – Editor

Unless written by academics or leading figures in their field, books aimed squarely at the popular market are usually not considered for academic review. However, *Empty Planet* by Darell Bricker and John Ibbitson certainly warrants critical examination as it articulates many of the discourses of population disavowal (Coole, 2013). In particular, Bricker and Ibbitson's use of demographic transition theory to further a sanguine view of population growth, especially in relation to environmental impact, is notable.

Demographic transition theory (DTT) will be familiar to the majority of readers of this review, but it is worth giving a brief summary. According to classical DTT, prior to economic development (Stage 1) a country's demographic structure will be characterised by high, and roughly equal, mortality and fertility rates leading to largely stable populations. As economic development takes place, improvements in the food supply, sanitation, etc. produce DTT's second stage of rapid population growth as mortality rates fall while fertility rates remain unchanged. DTT's third stage is characterised by a fall in fertility rates due to factors including: urbanisation and the decline of subsistence agriculture; increases in wages; increases in the general level of education, and in particular the education of women; increasing social and economic participation of women; the use of contraception, and so on. During this stage population continues to grow due to demographic momentum due to its age structure. However, stage 3 eventually gives way to Stage 4: as the demographic structure shifts, births once again equal deaths, and population stabilises – albeit a higher level.

Bricker and Ibbitson's take on DTT places an emphasis on the role of urbanisation leading to greater levels of female education. They argue that due to the unrecognised accelerating pace of urbanisation, the UN's projection of continuing global population growth peaking at 11 billion by the end of the century is a massive overestimate. While Bricker and Ibbitson are right to point out that there is debate and discussion concerning the accuracy of UN's population projections, they fail to adequately explore this issue or the reasons why the UN has consistently revised the figures in an upward direction. Their argument is inadequately supported and researched, with the authors preferring to draw on interviews, newspaper reports and a Youtube TedX talk rather than conduct a review of the demographic literature. The figure at which Bricker and Ibbitson believe population is likely to peak is unstated, but figures of between 8 and 9 billion by mid century are mentioned.

The book's title, *Empty Planet: The Shock of Global Population Decline* is obviously deliberately sensationalist and provocative. Yet it's worth pointing out that even the most optimistic sources drawn upon by Bricker and Ibbitson forecast that global population will not cease growing until the middle of this century at the earliest. While only indirectly citing their research, Bricker and Ibbitson's thesis has clearly been influenced by the work of the World Population Programme at International Institute for Applied Systems Analysis (IIASA) who have produced perhaps the most well respected alternative to the UN projections. Working in collaboration with the Wittgenstein Centre for Demography and Global Human Capital (WCDGHC) the IIASA's 2014 population projections differ from the UN's in that they model the effect of education on fertility rates. While indeed lower than the UN's figures, the IIASA/WCDGHC medium projection still gives a peak of 9.4 billion in 2070 (Lutz et al., 2014). However, more importantly for the titular claim of *Empty Planet*, research from contributors to the IIASA/WCDGHC project showed that at a world average total fertility rate (TFR) of just 1.5, somewhat below the current European average of 1.58, it would take around 200 years for the population to fall back to around 3 billion (Basten et al., 2013). A population of 3 billion was last seen in the 1960s and is believed by many to be the level compatible with ecological sustainability (see Daily et al. 1994). Neither of these population projections is suggestive of a very much emptier planet any time soon!

The most problematic aspect of Bricker and Ibbitson's use of DTT is their tendency to present the outcome of transition, driven by a logic of convergent modernisation toward a cultural and demographic homogeneity, as autonomous and inevitable. Indeed, Bricker and Ibbitson lament this inevitable loss of cultural diversity. DTT is frequently mobilised as a critique by those sceptical about population growth as a problem, the argument being that once the transition is completed growth will cease (Coole, 2013). However, while Bricker and Ibbitson are clearly aligned with such a position, they go further in arguing that a fifth stage of transition, where fertility rates fall below replacement levels and population declines, is also an inevitable outcome of the same forces. Indeed, such trends have been observed in most of the developed world (Myrskylä, et al., 2009).

However, as Coole (2018) has noted, the question for those concerned with population growth has never pivoted around whether or not the rate of growth is declining (or even becoming negative), but whether the pace of decline is fast enough to keep us within ecological boundaries. It is Bricker and Ibbitson's apparent environmental ignorance that is most problematic here. Notwithstanding the fact that little mention of the environment is made before page 227, they seem unaware that humanity has already breached sustainable ecological boundaries (McBain et al. 2017). Moreover, they fail to acknowledge that, without a change from business-as-usual economics coupled with a reduction of total resource consumption along with a shift from north to south in their distribution, irreversible ecological damage could result (Hickel, 2018). Like other forms of population disavowal, Bricker and Ibbitson's faith in the autonomous forces of DTT to bring about population reduction risks contributing to a climate of complacency and inaction that may find its way into the policies of governments and NGOs. As Bricker and Ibbitson themselves acknowledge, in many parts of the world it has been active government policy that has achieved huge and rapid reductions in fertility. Iran, Bangladesh, South Korea and China have all successfully reduced fertility in pursuit of improved welfare. However, changes in government policy and the priorities of NGOs have already been shown as a cause of stalling fertility decline (see Sinding, 2009; Kebede et al. 2019). Reducing population as part of tackling ecological overshoot requires more than a reliance on the supposedly autonomous logic of demographic transition. If we fail to address this challenge the only kind of empty planet we will experience is one empty of ever-greater numbers of species crushed beneath the juggernaut of the Anthropocene.

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