



Epilogue: Global Political Demography—A Depressing Outlook?

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1 INTRODUCTION

This book and its corresponding Global Political Demography database (Goerres et al., 2020) represent an ambitious attempt to survey the global state of political demography in a coherent and streamlined fashion. Between them, the country-level chapters cover more than half of the world's population, while the thematic chapters at the start draw linkages across ideas and issues which run through the book. Each chapter offers something new—or at least presents a novel spin or interpretation—on the familiar. And yet, when read in combination, a key question which emerges is whether we are nonetheless left with the same, rather bleak outlook of the future which has thus far seemed to be the ‘destiny’ of demography? From several angles, this may be hard to deny.

At first sight, the chapters seem to suggest that we are trapped in a ‘world of two demographies’. Western and Eastern Europe and the post-Soviet republics (Kazimov & Zakharov, this volume; Naumann & Hess,

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this volume; Vanhuyse & Perek-Bialas, this volume), Japan and South Korea (Klein & Mosler, this volume) are well known for being ‘hotspots’ of population ageing. We can also show that southeast Asia (Ziegenhain, this volume), China (Noesselt, this volume), Brazil and Argentina (Wachs et al., this volume), Australia and New Zealand (MacDonald & Markus, this volume) and the US and Canada (Sciubba, this volume) are struggling with this phenomenon. Whether there is an advanced welfare and pension system in place or only a residual one, the notion is that the process of ageing is proceeding too quickly. Meanwhile, in other parts of the world it could be said that the process of population ageing is not proceeding quickly enough. In the Maghreb (Bonci & Cavatorta, this volume), in India, Bangladesh and Pakistan (James & Balachandran, this volume), in sub-Saharan Africa (Biira & Hartmann, this volume), and in the other areas explored in the thematic chapters by Skeldon (this volume), Skirbekk and Navarro (this volume) and Cincotta and Weber (this volume), there is a perceived link between the persistence of (relatively) high fertility and negative policy and political consequences.

The political consequences of these different (albeit well-characterized) pathways of demographic change can be expected to be different in different places (Vanhuyse & Goerres 2012; this volume). In a significant advance on the extant literature, Cincotta and Weber (this volume) explore the relationship between the transition from a younger to an older society and particular types of conflict. Meanwhile, managing democratic systems with some kind of equity in extremely heterogeneous settings such as the ‘super-size democracies’ of India, Bangladesh and Pakistan (James & Balachandran, this volume) could be extremely challenging. The challenges associated with population ageing (and stagnation) are well known. Ageing can represent not only a threat to productivity, economic growth and the functioning of state institutions; but is also a potential threat to political legitimacy which must be carefully navigated. On the one hand, intergenerational injustice (Vanhuyse, 2012, 2013, 2014) can be a profound threat to the polity, and one which can lead to further political and demographic alienation among the young (Lutz et al., 2006; Sabbagh & Vanhuyse, 2010; Torres-Gil & Spencer-Suarez, 2014). Without doubt, courting older voters makes much political sense in many different settings. On the other hand, enacting reforms to extant systems (Russia) or not moving fast enough to develop institutional frameworks to cope with population ageing (Suwanrada, 2008) can be politically very damaging. In other words, politicians must walk a kind of

political tightrope to try to keep all competing parties in check in these times of demographic change.

2 DEMOGRAPHIC CHALLENGES; DEMOGRAPHIC RESPONSES

A natural response for a policymaker would be to move beyond this passive tightrope to an active approach of ‘stacking the cards’ of this particular demographic game in their favour. In this sense, we see the instinctive reaction would be to view the whole system in a two-dimensional manner—delivering demographic solutions to demographic problems. Perhaps the most well known are the various policies designed to spur fertility, often under the guise of family policy. Whether in Eastern Europe (Kazimov & Zakharov, this volume; Vanhuyse & Perek-Białas, this volume), Western Europe (Naumann & Hess, this volume), Japan or Korea (Klein & Mosler, this volume) or elsewhere (Frejka & Gietel-Basten, 2016; Gietel-Basten, 2019), these policies have represented an expensive, yet largely ineffective means of tackling the root cause of contemporary population ageing. In what would seem a truly remarkable development just a decade or so ago, China is moving into the field of promoting childbearing (Noesselt, this volume). While rather more under the radar, some south-east Asian countries recently highlighted pro-fertility policies as a means of demographic renewal (UNFPA, 2016). Even in areas previously considered almost immune to (very) low fertility such as the US (Sciubba, this volume) and the Nordic countries, (period) total fertility rates are moving towards levels not seen for many, many years (UNPD, 2019). This is already prompting discussion of how such governments should move to spur childbearing in an explicit manner (Green, 2017). Raising fertility as a means of offsetting population ageing is a very crude tool. Remembering that children do not work (and, indeed, divert resources away from the state and economy), any potential gain from increasing the fertility rate would take two decades to show itself—by which time we might assume the political, social, and economic landscapes may well have moved on anyway.

Clearly, migration is the other major ‘demographic lever’ to tackle perceived political travails derived from demographic change. Lutz (2007), for example, described migration as a kind of ‘mitigation’ policy for the challenges of population ageing in Europe. As an extreme example, the so-called European Migrant Crisis of the past decade

was perceived by some as offering an opportunity for ‘demographic revitalisation’ (Adam, 2015). Of course, it has been comprehensively demonstrated that the notion of ‘replacement migration’ as a means of holding stable support ratios is a fantasy (Bijak et al., 2007; Coleman, 2002; UNPD, 2001). Plus, as Skeldon (this volume) observes, while the economic and social benefits of migration are well known in certain circles, those voices are drowned out by those who focus on the (perception of) more negative aspects. In some settings, this narrative has become the central feature for discussions of population policy (Gietel-Basten, 2016). Indeed, as Peter MacDonald and Andrew Markus (this volume) argue, migration ‘is all about race and immigration’.

These specific challenges related to migration are usually associated with immediate policies or actions in the context of much longer histories. Here, we might take Japan/Korea and the US as some paradoxical, provocative comparators. In terms of ethnic heterogeneity, the two settings could hardly be further apart. Japan and Korea have, for many centuries now, been characterized by an inward-looking, monocultural focus. The US, meanwhile, has been the archetypal cultural and ethnic melting pot of the world. In Japan and Korea, against this backdrop of a monocultural society, it is hardly surprising that politicians are struggling to convince their electorates that immigration is a viable (even necessary) way of shoring weaknesses in their labour force and the economy in general. But, the US hardly show that five or so centuries of immigration (forced or voluntary) has all of the answers. To be sure, race, ethnicity, and, by extension, migration was egregiously weaponized by President Trump. The issues surrounding questions relating to citizenship (Wines, 2019) and ethnicity in the latest US Census show the depth of the challenge and distrust on all sides (PRB, 2020). Yet this is just the end point of centuries of extreme inequalities and the use and manipulation of ethnicity as a factor in shaping domestic politics by all parties.

This ‘weaponization of the population’ is, as we know, not just associated with migration and ethnicity. Gerrymandering is as old as the hills (Erikson, 1972; Issacharoff, 2002). The manipulation of boundaries and populations in India, the world’s biggest democracy, is well known (Shashidhar, 2019). As Biira and Hartman (this volume: 244) show, not only was the ‘youth bulge’ “weaponized” as part of an “elite-instigated and controlled mobilization, with violence being one instrument among

others in the political competition” but the very process of migration itself was politicized.

Of course, the weaponization of fertility—or ‘wombfare’ (Toft, 2012)—for political or other ideological purposes has a long history. Examples from the past of both coercive and non-coercive pro-natalist drives in Europe (Pendleton, 1978; Rossy, 2011); the Middle East (Cetorelli, 2014); and East Asia (Gietel-Basten, 2017) segway neatly into the recent pro-natalism of Turkey and Iran (Karamouzian et al., 2014) which link into nationalistic discourses. While the policies in Turkey (Yilmaz, 2015) and Iran catch the headlines, pro-fertility messaging around the world has equally nationalistic overtones. Whether it is the ‘Give Birth to a Patriot’ scheme in one Russian city (Weaver, 2007); Italy’s ‘Fertility Day’ (which was called ‘sexist, ageist, and anachronistic’ and ‘echoing a fascist past’; Coppolaro-Nowell, 2016: n.p.; Payton, 2016: n.p.); or the reference to low fertility rates in Taiwan as a ‘national security threat’ (Focus Taiwan, 2011), there is an indelible link between ‘fixing’ birth rates and some appeal to national renewal—even mentioned in the chapter by Noesselt on China (this volume). Indeed, the recent policy in Italy to ‘reward’ parents who bear three children with a small plot of land has been termed ‘neo-medieval’ by opposition politicians (Wyatt, 2018). Within the context of such policies, a eugenicist angle was/is often to be found lurking in the midst (Palen, 1986). At the very least, it is clear that a conservative worldview of the family frequently prevails. Many of the family policies enacted in Central and Eastern Europe, for example, have some root of supporting childbearing explicitly within the maintenance of a ‘traditional’ family unit (Frejka & Gietel-Basten, 2016; Vanhuysse & Perek-Bialas, this volume). In Hungary, pro-natalist policies are undoubtedly part of a broader suite of policies designed to spur national strength and identity, while imposing a more rigid, conservative notion of the family (Hašková & Saxonberg, 2016), including curtailing the rights of sexual minorities (Haynes, 2020).

More broadly, the responsibility for the various population crises seems to be placed on the shoulders of particular groups of society. Migrants are told that they do not integrate enough, or that they are seeking a ‘free ride’, or at least an ‘easy life’ at the expense of the good, honest taxpayer. Younger people in some countries are told that they are feckless and individualistic and are foregoing their ‘responsibility to reproduce’ their nation. Women predominantly bear the brunt of this. In other countries, meanwhile, the same young people are labelled a security threat—in

this case, though, the main burden lies on the shoulders of men. Meanwhile, older people are simultaneously cast as a drain on society, intent on hoarding power and resources at the expense of younger (and future) generations.

These ‘blame games’ seem to be interpreted in different ways by different people. Baby boomers, for example, might see the phrase ‘OK Boomer’ as one of ageism and entitlement on the part of the young. On the other hand, it can be argued that for the Gen-Zers and Millennials who use the phrase, it is as much about “economic anxiety, the threat of environmental collapse, and people resisting change” (Romano, 2019: n.p.). In South Korea, younger people are often referred to as the *sampo* generation—who have ‘given up’ on marriage, children and dating (Gietel-Basten, 2019; KJD, 2016). From an intergenerational perspective, this is presented by some as further evidence of a weak, feckless youth culture, ‘infected’ with ‘western’ notions of individualism and self-actualisation. For younger people themselves, however, it is just a rational rejection of a life which they feel is either outside of their scope of possibility, or would require so many personal sacrifices as to be existentially very difficult.

The political use of demography appears to have become toxic, then. A constant, never-ending battle between groups who believe (or have been convinced) that somehow their interests are not just misaligned, but either at odds with each other or, worse still, threaten their own. This battle is carefully choreographed by the people who rarely (if ever) are implicated in the blame game: leaders (political, business, religious and otherwise). In this ‘demographic race to the bottom’, people—especially in democratic societies—are commodified. They are votes, not voters; producers or receivers of economic goods and services, rather than active citizens contributing to the commonweal.

3 INTO THE 2020S: GOING FROM BAD TO WORSE?

As I write this in June 2020, the US is in the midst of the most significant protest and mass racial violence seen since the 1960s. The immediate catalyst, this time, being the death of George Floyd on the streets of Minneapolis. At this very moment, crowds are surrounding the White House and more than 40 cities across the country have implemented a curfew or other lockdown policy (Bungard et al., 2020). Without doubt, the roots of this conflict can be traced back to both the legacy of inequalities within American society, coupled with the ‘weaponization of race and

ethnicity’ which has gained ground under President Trump. Joe Biden’s comment that “if you have a problem figuring out whether you’re for me or Trump, then you ain’t black” (BBC, 2020a: n.p.) epitomizes both the polarisation of race and politics in the US, as well as the level of discourse to which it has stooped. It has been widely argued that the ‘demographic power’ of the core Trump base (white, working class) has further eroded since 2016 (Zitner & Chinni, 2020). This may well lead to even more extreme measures being taken to consolidate the ‘base’ in order to win in 2021.

In India, despite growing unemployment, the problems associated with demonetization and agricultural woes, the Bharatiya Janata Party (BJP) roared to a second election victory. Of course, the nationalist discourses of the BJP were already familiar by 2019, but they were arguably even stronger in their second election win—for example, the 2014 policies concerning “equal opportunity”, “empowering the Waqf Boasts, promotion of Urdu, a permanent Inter-faith Consultative mechanism to promote harmony and trust” were notably absent this time around (Kim, 2019: n.p.). Illegal immigrants were explicitly targeted, with the manifesto stating that they represent “a huge change in the cultural and linguistic identity of some areas” and “result [...] in an adverse impact on local people’s livelihood and employment” (Kim, 2019: n.p.). In parts of India (such as Assam), measures associated with the Citizenship Amendment Bill were claimed to be tools to affect the demographic make-up of certain areas and to tip the balance of power (further) in favour of a Hindu nationalist agenda (Sharma, 2019). This issue over citizenship was the immediate catalyst to the Delhi Riots which began in February 2020, which resulted in the 53 deaths and thousands of arrests—but, again, the roots lie in much deeper systemic inequalities.

In Britain, the process of Brexit continues apace. The narrative of such a major convulsion in the economy, society and body politic being foisted upon the young by the (English) old still prevails (Schuster, 2016). In that fateful referendum, of course, the narrative of uncontrolled migration placing an unbearable strain on public services (as well as the British ‘way of life’) was central (Gietel-Basten, 2016). Boris Johnson’s mandate to lead the Conservative Party (and hence become Prime Minister in 2019) was decided by a party membership of 160,000, of which 71% were male, 97% were white, 86% were middle class and 44% were over 65 years old (*The Economist*, 2019). Suffice it to say, this is hardly representative of the country as a whole.

Of course, these are just a few of the ways in which demography is at the forefront of political wrangling around the world. The plight

of displaced Rohingya (Zarni & Cowley, 2014), Venezuelans (Tobon-Giraldo et al., 2019; Wachs et al., this volume), Syrians (Newsham & Rowe, 2019) and Afghans, to name but a few, periodically feature in the news cycle. Populist leaders and politicians around the world may hit the headlines for some especially outlandish remark. Consider the new Brazilian Minister of Women, Family and Human Resources proclaiming a ‘new era in Brazil: boys wear blue and girls wear pink’ (Watson, 2020). Elsewhere, in the past year we saw the imposition of death by stoning for gay sex and adultery (Westcott, 2019) in Indonesia; the adaption of its Criminal Code to impose a ban on sex outside of marriage (punishable by a one-year prison term) and a maximum of four years in prison for women who have an abortion (unless there were circumstances of medical emergency or rape) (BBC, 2019). In both of the latter cases, an international outcry led to a partial walking back on these promulgations. What we do see, however, is a common thread whereby socio-demographic issues are ‘weaponized’ for either political gain, or at least, consolidation.

At the time of writing in June 2020, however, there is one particular issue which seems to be all-encompassing in many parts of the world: the COVID-19 pandemic. At the moment, it is impossible to foresee the entire consequences of the pandemic and how this might impact the landscape of political demography in different parts of the world. Despite this, I might dare to suggest that there may be some lessons which can come out of it. The pandemic has brutally exposed and brought to the fore many of the inequalities and multiple vulnerabilities which are so often ‘swept under the carpet’. Firstly, there is clear evidence that the older population around the world has been disproportionately hit by the virus—both in terms of infection and fatality (cf. Cruz et al., 2020; Dowd et al., 2020). In particular, mortality among care homes has been especially high in many settings (Holt & Butcher, 2020). There may be a sense that the vulnerabilities of older persons have been brutally exposed in the pandemic and, in certain countries, it may be the case that this could be punished at the ballot box. A second group for whom multiple vulnerabilities have been exposed is migrants. Whether in the dormitories of Singapore (BBC, 2020b; Han, 2020), performing “dirty, dangerous and demanding” (Dempster & Smith, 2020: n.p.) work in essential services, as refugees (Daniels, 2020) or stuck in limbo trying to return to their home villages in India (Adhikari et al., 2020: 37)—the physical, social and economic well-being of migrants has been ‘neglected’ (Daniels, 2020). International (labour) migration has been ‘throttled’. According to the

World Economic Forum, “everyone from a migrant agricultural worker relying on a paycheck in Portugal to a foreign healthcare worker living in Sweden is potentially impacted by a dramatic tightening of borders” (WEF, 2020: n.p.). This will likely have a profound effect not only on the global Gross Domestic Product (MGI, 2016; WEF, 2020), but also on remittances affecting families, communities and economies at the national level (Abel & Gietel-Basten, 2020). Meanwhile, given that the spread of COVID-19 around the world is still ongoing, it has even been suggested that migrants fleeing the disease could well be the next vector of migration flows (Karim, 2020). Of course, the likely economic depression caused by COVID-19 will bring its own challenges.

4 A MULTIDIMENSIONAL, INTERSECTIONAL APPROACH

Taking the themes from the first section, and coupling them with the global news stories from the past couple of years discussed above, there is perhaps a temptation to just give up; to write off political demography as a doom-laden misery-fest which only masochistic scholars and nationalistic ideologues wish to inhabit. Yet, I think this completely misses the point. Bonci and Cavatorta (this volume) really capture my own sentiment in thinking about the real power of not just political demography, but demography as a whole (Dorling & Gietel-Basten, 2017). For Bonci and Cavatorta (this volume: 269), “instead of focusing on supposed ‘youth bulges’ or youth extremism or youth apathy” to explain, in their case, the “crisis of the Arab world”, they argue that “it is more fruitful to analyse the structural problems – political and economic – that have led to uprisings and demands for change”. If I interpret them correctly, this is essentially arguing that the issue is not the youth bulge itself, but rather everything else that led to it and operates along with it. This accords with how I see the very low fertility rates in east and southeast Asia. It has been commonplace to see these low rates as the ‘problem’ that needs to be ‘fixed’. As is well known, such efforts to ‘fix’ the problem have been met with little success. Rather, what we should do is consider such low fertility as the downstream outcome of various other processes or institutional malfunctions. Low fertility is not the problem itself; rather it is one symptom of bigger, broader problems in society, economics and politics.

The Dutch demographer Nico van Nimwegen said that “states get the fertility rates they deserve” (quoted in Gietel-Basten, 2019: 162). We could expand upon this to say that states get not only the demography

they deserve, but also the interaction between politics and demography. When we look at political demography in this way, we can go beyond the superficial, dismal perspective and embrace a more complex, more multifaceted story. This view forces us to stop and think carefully about just why some countries have such profound problems with race, ethnicity and migration. We can think really carefully about why women (and men) in some places want to have fewer children than they end up having; and, at the same time, why women (and men) in other countries consistently state a preference to have more children than they do.

Thinking deeply about these questions forces us to confront some of the deepest, darkest, most uncomfortable aspects of the societies in which we live and the things which are taken for granted. How can we just accept that migrants are treated worse than ‘native’ citizens? How can we accept that black lives seemingly ‘don’t matter’? How can we accept that a Democratic nominee can take black votes for granted, and demonise anyone who dares to think otherwise? It can force us to realize that simply handing women a few hundred dollars to have another child, with the aim of propping up a pension system or making a country a little bit more populous is not only a fool’s errand, but actually adds insult an affront to dignity.

As the chapters in this book show, there are as many solutions as there are challenges. Cincotta and Weber (this volume: 88) recognize that the promotion of a “transition to a more mature age structure” will only come about through the “lengthen[ing] of girls’ educational attainment, provid[ing] access to modern contraception and information, and secur[ing] equal rights for women”. Of course, these aspirations should be ends in their own right. Skeldon (this volume) consistently talks about the notion of inclusion for migrants, majestically showing how over longer periods of history, a more inclusionary approach yields rewards for one and all. Skirbekk and Navarro (this volume) point out that religion can be a mechanism by which transfers could be elucidated and poverty relieved. Biira and Hartmann (this volume) note the well-known maxim that a young population can just as well be an economic boon as a factor in a security risk. Vanhuyse and Perek-Bialas (this volume) rightly observe that active ageing programmes in Central and Eastern Europe are ranked pretty much rock bottom in the world. But, still, these programmes have been shown in other parts of the world to make a real difference to both the lives of older persons themselves, and the macro-level impact of population ageing.

Recent crises have revealed areas where we really must do better if we stand a hope of a sustainable demographic social future. Foresti (2020), for example, remarks that rather than gratitude for the work of migrants during the COVID-19 pandemic, what is really needed is more reform. Yet, we need to be realistic. Despite the obvious macroeconomic challenges caused by the potential throttling of migration in the immediate post-COVID world, Foresti (2020) anticipates that we can “expect even more of an ‘us first’ approach in politics: ‘our’ vaccines, ‘our’ PPE [personal protective equipment], ‘our’ health, ‘our’ borders, ‘our’ people first” (Foresti, 2020: n.p.). This jars with the celebration of key workers as heroes; with the ‘clapping’ and accolades. So what will it take to turn this gratitude into policy and practice change?

Of course, all of these changes require a choice. This, to me, shows the true power of studying and understanding political demography. A common definition of the sub-discipline is that it is the study of “the size, composition, and distribution of population in relation to both government and politics” (Goldstone et al., 2012: 3; Goerres & Vanhuysse, 2012; Vanhuysse & Goerres, this volume). Clearly, governments (and other stakeholders) go beyond a passive acceptance of the ‘size, composition, and distribution of the population’, and desire to either manipulate it, weaponize it, or at the very least harness it. In order to understand how they do this, we must therefore clearly study the manner in which these demographic characteristics materialize, and the broader universe in which they operate. On the flip side, however, if we are thinking about government and politics, we must also deconstruct how this is built and operates. At an abstract level, it could be argued that government and politics is inseparable from power and a desire or need to control and manage. The kinds of changes set out above will, inevitably, require some kind of compromise. This might be a ceding of real political power, or ‘sailing against the wind’ by pushing through unpopular changes. It may require lending a megaphone to voices which are often ignored. It may require standing up to vested interests in business, and even religion.

This real-world approach shows us the real power of political demography. ‘Standard demography’ (if you will) can often descend into a kind of “spreadsheet” exercise (Wang et al., 2018: 694) which can have a tendency to extrapolate from observational and regression analyses of relationships between x and y to produce a ‘perfect (demographic) world’. From my office on the ninth floor of a white-tiled university (a literal ivory tower), the answer to the world’s demographic problems are clear:

investment in education, health and infrastructure; completion of the gender and contraceptive revolutions; improved governance, transparency and accountability; tackling inequality in all its forms; developing and reforming institutions to meet the needs of our ageing populations in the twenty-first century; and so on. But, how on earth do we get there—especially when our studies show us that there is not only little appetite to change ‘for the better’, but that there appears to be a desire to exploit the present travails for political gain? In other words, ‘thinking politically’ about demography forces us to be realistic about not only what changes we would like to see, but also what the pathways would be to actualize them. Given the state of the world today, though, it is reasonable to withdraw back into our shells and see the futility of hoping for the kind of world which we might aspire to.

On this note we might return to Bonci and Cavatorta (this volume), who use an important study by Inayatullah (2016) to project a possible way forward. Inayatullah’s (2016) study mapped out four possible future scenarios for the MENA region to 2050. Some of these ‘storylines’ were hopeful—of a system of peer-to-peer sharing economies and cyber cooperatives which bring governments and economies together to work on shared challenges. Others, however, are bleak—unabated automation further delivers an unemployed and disempowered youth, stuck in a broken economic system in which social links, especially intergenerational ones, are fractured. In response to these (and other) scenarios, Bonci and Cavatorta (this volume: 270) take a more typical, pragmatic approach, suggesting that “without a fundamental rethink of the role of the state in the economy [...] and in fostering citizen’s rights, the Tunisian and Moroccan economies are destined to muddle through”. “In this case”, they continue, “demographic change might indeed coincide with greater public liberties and even full democratization, but from an economic perspective not much would change for the vast majority of the young citizens”.

From a future studies perspective, the ‘prosaic’ approach taken by Bonci and Cavatorta is entirely to be expected. Yet, the approach of painting scenarios where political, economic, social and cultural storylines interweave with each other to create better (or worse) futures—normatively speaking—is still extremely powerful. In the same way that looking back into history (and across into other spaces) can help us understand where we are today, so too can looking at various different futures help us to see where we might be going. More importantly, it can show us that

demography is not destiny, but rather some factors in a multidimensional set of parameters which we need to negotiate. For this reason, the use of scenarios in considering population futures is becoming more widespread, being adopted in the Wittgenstein Centre forecasts (Lutz et al., 2017) as well as in the IPCC shared socio-economic pathways (Kc & Lutz, 2017). By explicitly including a political/security/international relations dimension, these scenarios (or shared pathways) allow for a more holistic (and realistic) view of how the future might pan out, rather than the more hopeful, theory of change approach which we might more naturally favour.

As we survey the future, it may well appear that the bleakest scenarios are the most likely to come to pass. Aside from the impact of COVID-19, the most ‘optimistic’ scenarios in the Wittgenstein Centre projections would require not only a tremendous investment in human capital but for this to occur in some of the countries with the least resources and the poorest infrastructure and governance systems (WiC, 2015). Meeting the Sustainable Development Goals at a universal level by 2030 seems a distant hope; and progress in other areas (such as the implementation of the Madrid International Plan of Action on Aging) has been weak.

Despite this, there is still room for optimism. Big changes can and do happen, whether deliberately or organically. A few decades ago it would have been very hard to predict that Thai people would have access to universal healthcare (Sumriddetchkajorn et al., 2019); that there would be a social pension in Myanmar (albeit accessible at a very high age) (Win, 2017) and that the link between marriage and childbearing would be effectively severed in the Catholic countries of southern Europe. Even in the past few, changes in the legal rights of sexual minorities, including the right to marry, have continued apace. Taiwan became the first Asian setting to permit such marriages (Cho & Kam, 2019), while in Switzerland voters approved a ban on anti-gay discrimination in February 2020 (Fitzsimmons, 2020). In Japan, the #KuToo movement shows how women are fighting back against regressive dress codes at work in a move which is prompting a national discussion on work culture (Rachelle, 2019). In South Korea, the government have shifted away from explicitly pro-natalist messaging towards offering more holistic support for families to more effectively combine work and family according to their own needs (Lee, 2018; Jang, 2019). China is on course to eliminate ‘absolute poverty’ (CGTN, 2019) and, through the implementation

of Healthy China 2030, aims to decrease “the health effects of second-hand smoking, reduc[ing]e obesity, increas[ing]e overall physical activity, and prevent[ing] chronic diseases” (Chen et al., 2019: e447). Finally, in response to COVID-19, Portugal has temporarily granted all migrants and asylum-seekers citizenship rights (Foresti, 2020).

In other words, changes which may well have been difficult to foresee in the recent past have happened—many negative but many of them also positive. Surveys increasingly tell us that the next generations have entirely different value systems, and wish to organize their lives, work and families in a completely different manner from ours (Gietel-Basten, 2020). Perhaps they will succeed in that. There is a strong temptation to look at the world today and have a bleak outlook of the future—where perhaps the best we can hope for is to ‘muddle through’. However, by better understanding how we have got to where we are (including our significant achievements); by seeing our demographic travails as symptoms of other challenges rather than ‘problems’ in themselves, we can keep a more open mind as to what the future might deliver, and grasp a better sense of what we need to do to craft a better one for us all.

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REFERENCES

- Abel, G. J., & Gietel-Basten, S. A. (2020, May 28). International remittance flows and the economic and social consequences of COVID-19. *EPA: Economy and Space*. <https://doi.org/10.1177/0308518X20931111>. Accessed 11 June 2021.
- Adam, N. (2015, September 11). Migrants offer hope for aging German workforce. *WSJ Online*. <https://www.wsj.com/articles/migrants-offer-hope-for-aging-german-workforce-1441928931>. Accessed 2 June 2020.
- Adhikari, A., Narayanan, R., Dhorajiwala, S., & Mundoli, S. (2020). 21 days and counting: COVID-19 lockdown, migrant workers, and the inadequacy of welfare measures in India. *Stranded Workers Action Network*. <http://publications.azimpremijifoundation.org/2272/>. Accessed 2 June 2020.
- BBC News. (2019, September 20). Indonesia rethinks ban on sex outside marriage. *BBC News*. <https://www.bbc.com/news/newsbeat-49768137>. Accessed 2 June 2020.

- BBC News. (2020a, May 23). Biden regrets ‘cavalier’ remark on black voters. *BBC News*. <https://www.bbc.com/news/world-us-canada-52773555>. Accessed 2 June 2020.
- BBC News. (2020b, April 22). Migrant workers ‘in fear’ in Singapore dorms. *BBC News*. <https://www.bbc.com/news/av/world-asia-52379552/coronavirus-singapore-s-migrant-workers-living-in-fear>. Accessed 29 April 2020.
- Bijak, J., Kupiszewska, D., Kupiszewski, M., Saczuk, K., & Kicing, A. (2007). Population and labour force projections for 27 European countries. 2002–052: Impact of international migration on population ageing. *European Journal of Population*, 23(1), 1–31.
- Bungard, M., Ward, M., & Levy, M. (2020, June 2). George Floyd protests LIVE updates: Donald Trump threatens US military intervention as autopsy reveals Floyd’s cause of death was ‘asphyxiation from applied pressure’. *The Sydney Morning Herald*. <https://www.smh.com.au/world/north-america/george-floyd-protests-live-updates-us-unrest-ensues-as-black-lives-matter-demonstrators-continue-to-clash-with-police-20200601-p54yfc.html>. Accessed 2 June 2020.
- Cetorelli, V. (2014). *War and the changing timing of fertility in Iraq*. <https://pdfs.semanticscholar.org/2be6/a0aee260adb655d4e8cf4334ff72d1dec6f.pdf>. Accessed 2 June 2020.
- CGTN. (2019, March 7). China has ability to eliminate ‘absolute poverty’ by 2020. *CGTN*. <https://news.cgtn.com/news/3d3d514f7a63544d33457a6333566d54/index.html>. Accessed 2 June 2020.
- Chen, P., Li, F., & Harmer, P. (2019). Healthy China 2030: Moving from blueprint to action with a new focus on public health. *The Lancet. Public Health*, 4(9), e447. [https://doi.org/10.1016/S2468-2667\(19\)30160-4](https://doi.org/10.1016/S2468-2667(19)30160-4).
- Cho, J. M. K., & Kam, L. Y. L. (2019). Same-sex marriage in China, Hong Kong and Taiwan: Ideologies, spaces and developments. In F.-L.-T. Yu and D. S. Kwan (eds.), *Contemporary issues in international political economy* (pp. 289–306). Springer.
- Coleman, D. A. (2002). Replacement migration, or why everyone is going to have to live in Korea: A fable for our times from the United Nations. *Philosophical transactions of the Royal Society of London. Series B, Biological Sciences*, 357(1420), 583–598.
- Coppolaro-Nowell, A. (2016, September 5). Italy’s Fertility Day posters aren’t just sexist—They’re echoes of a fascist past. *The Guardian*. <http://www.theguardian.com/commentisfree/2016/sep/05/italys-fertility-day-posters-sexist-echoes-of-fascist-past>. Accessed 2 June 2020.
- Cruz, C. J. P., Ganly, R., Li, Z., & Gietel-Basten, S. (2020). *Imported cases, community action, policy and institutional systems drive Hong Kong’s COVID-19 experience*. <https://doi.org/10.31235/osf.io/5zuv7>.

- Cruz, C. J. P., Ganly, R., Li, Z., & Gietel-Basten, S. (2021). Exploring the young demographic profile of COVID-19 cases in Hong Kong: Evidence from migration and travel history data. *PLoS ONE*, 15(6), e0235306. <https://doi.org/10.1371/journal.pone.0235306>
- Daniels, J. P. (2020). Venezuelan migrants “struggling to survive” amid COVID-19. *The Lancet*, 395(10229), 1023. [https://doi.org/10.1016/S0140-6736\(20\)30718-2](https://doi.org/10.1016/S0140-6736(20)30718-2)
- Dempster, H., & Smith, R. (2020). Migrant health workers are on the COVID-19 frontline. We need more of them. *Center For Global Development*. <https://www.cgdev.org/blog/migrant-health-workers-are-covid-19-frontline-we-need-more-them>. Accessed 2 June 2020.
- Dorling, D., & Gietel-Basten, S. (2017). *Why demography matters*. Polity Press.
- Dowd, J. B., Andriano, L., Brazel, D. M., Rotondi, V., Block, P., Ding, X., Liu, Y., & Mills, M. C. (2020). Demographic science aids in understanding the spread and fatality rates of COVID-19. *Proceedings of the National Academy of Sciences of the United States of America*. <https://doi.org/10.1073/pnas.2004911117>
- Erikson, R. S. (1972). Malapportionment, gerrymandering, and party fortunes in congressional elections. *The American Political Science Review*, 66(4), 1234–1245. <https://doi.org/10.2307/1957176>
- Fitzsimmons, T. (2020). Swiss voters approve ban on anti-gay discrimination. *NBC News*. <https://www.nbcnews.com/feature/nbc-out/swiss-voters-approve-ban-anti-gay-discrimination-n1134046>. Accessed 2 June 2020.
- Focus Taiwan. (2011). Low birth rate a national threat on many levels: scholars. *Focus Taiwan News Channel*. <https://newsroomformosa.blogspot.com/2011/01/low-birth-rate-national-threat-on-many.html>. Accessed 2 November 2020.
- Foresti, M. (2020, May 22). *Less gratitude, please. How COVID-19 reveals the need for migration reform*. Brookings. <https://www.brookings.edu/blog/future-development/2020/05/22/less-gratitude-please-how-covid-19-reveals-the-need-for-migration-reform/>. Accessed 2 June 2020.
- Frejka, T., & Gietel-Basten, S. (2016). Fertility and family policies in Central and Eastern Europe after 1990. *Comparative Population Studies*, 41(1), 3–56. <https://research-repository.st-andrews.ac.uk/handle/10023/10221>. Accessed 2 June 2020.
- Gietel-Basten, S. (2016). Why brexit? The toxic mix of immigration and austerity. *Population and Development Review*, 42(4), 673–680.
- Gietel-Basten, S. (2017). Family planning and fertility transition in China. In X. Zang & L. X. Zhao (Eds.), *Handbook on the family and marriage in China* (pp. 187–203). Edward Elgar Publishing.
- Gietel-Basten, S. A. (2019). *The ‘population problem’ in Pacific Asia*. Oxford University Press.

- Gietel-Basten, S. A. (2020). Catching up with ‘compressed modernity’—How the values of Millennials and Gen-Z’ers could reframe gender equity and demographic systems. *Vienna Yearbook of Population Research*, 18, 39–42.
- Goerres, A., & Vanhuysse, P. (2012). Mapping the field: Comparative generational politics and policies in ageing democracies. In P. Vanhuysse & A. Goerres (Eds.), *Ageing populations in postindustrial democracies* (pp. 1–22). Routledge.
- Goerres, A., Vanhuysse, P., Krause, S., & Elis, J. (2020, November). *Global Political Demography Database*, Version 1.4.1. <https://osf.io/xcvdh/>.
- Goldstone, J. A., Kaufmann, E. P., & Toft, M. D. (2012). *Political demography: How population changes are reshaping international security and national politics*. Oxford University Press USA.
- Green, E. (2017, December 6). The rebirth of America’s pro-Natalist movement. *The Atlantic*. <https://www.theatlantic.com/politics/archive/2017/12/pro-natalism/547493/>. Accessed 2 June 2020.
- Han, K. (2020, April 16). Singapore’s new covid-19 cases reveal the country’s two very different realities. *The Washington Post*. <https://www.washingtonpost.com/opinions/2020/04/16/singapores-new-covid-19-cases-reveal-countrys-two-very-different-realities/>. Accessed 27 April 2020.
- Hašková, H., & Saxonberg, S. (2016). The revenge of history—The institutional roots of post-communist family policy in the Czech Republic, Hungary and Poland. *Social Policy & Administration*, 559–579.
- Haynes, S. (2020, May 19). Hungary’s Parliament votes to end legal recognition of transgender people. Activists fear “Devastating” consequences. *Time*. <https://time.com/5838804/hungary-gender-recognition-vote-transgender/>. Accessed 2 June 2020.
- Holt, A., & Butcher, B. (2020, April 28). How big is the problem in care homes? *BBC*. <https://www.bbc.com/news/health-52284281>. Accessed 29 April 2020.
- Inayatullah, S. (2016). Youth bulge: Demographic dividend, time bomb, and other futures. *Journal of Futures Studies*, 21(2), 21–34. <https://jfsdigital.org/wp-content/uploads/2017/01/21-2-2.pdf>. Accessed 29 April 2020.
- Issacharoff, S. (2002). Gerrymandering and Political Cartels. *The Harvard Law Review Association*, 116(2), 593–648. <https://doi.org/10.2307/1342611>.
- Jang, J. (2019). South Korea: New enhancements to parental and family leaves. *Willis Towers Watson*. <https://www.willistowerswatson.com/en-US/Insights/2019/11/south-korea-new-enhancements-to-parental-and-family-leaves>. Accessed 2 June 2020.
- Karamouzian, M., Sharifi, H., & Haghdoost, A. A. (2014). Iran’s shift in family planning policies: Concerns and challenges. *International Journal of Health Policy and Management*, 3(5), 231–233. <https://doi.org/10.15171/ijhpm.2014.81>.

- Karim, M. (2020, March 31). Without continued aid, the next migrant crisis will be people fleeing coronavirus not war. View, *Euronews*. <https://www.euronews.com/2020/03/31/without-continued-aid-next-migrant-crisis-will-be-people-fleeing-coronavirus-not-war-view>. Accessed 2 June 2020.
- Kc, S., & Lutz, W. (2017). The human core of the shared socioeconomic pathways: Population scenarios by age, sex and level of education for all countries to 2100. *Global Environmental Change: Human and Policy Dimensions*, 42, 181–192. <https://doi.org/10.1016/j.gloenvcha.2014.06.004>.
- Kim, A. (2019). The New Nationalism in Modi's India. *The Diplomat*. <https://thediplomat.com/2019/12/the-new-nationalism-in-modis-india/>. Accessed 2 June 2020.
- KJD. (2016). 'Sampo Generation' suffers employment stress, study finds. *Korea JoongAng Daily*. <http://koreajoongangdaily.joins.com/news/article/Article.aspx?aid=3017250>. Accessed 2 June 2020.
- Lee, D. (2018). The evolution of family policy in South Korea: From Confucian familism to Neo-familism. *Asian Social Work and Policy Review*, (12), 46–53. <https://onlinelibrary.wiley.com/doi/abs/10.1111/aswp.12137>. Accessed 2 June 2020.
- Lutz, W. (2007). Adaptation versus mitigation policies on demographic change in Europe. In *Vienna Yearbook of Population Research/Vienna Institute of Demography* (pp. 19–25). Austrian Academy of Sciences. Austrian Academy of Sciences Press. <http://pure.iiasa.ac.at/id/eprint/13418/1/Adaptation%20versus%20mitigation%20policies%20on%20demographic%20change%20in%20Europe.pdf>. Accessed 2 June 2020.
- Lutz, W., Butz, W. P., & Samir, K. C. (2017). *World population & human capital in the twenty-first century: An overview*. Oxford University Press. <https://market.android.com/details?id=book-Hx86DwAAQBAJ>. Accessed 2 June 2020.
- Lutz, W., Skirbekk, V., & Testa, M. R. (2006). The low-fertility trap hypothesis: Forces that may lead to further postponement and fewer births in Europe. In *Vienna yearbook of population research / Vienna Institute of Demography* (pp. 167–192). Austrian Academy of Sciences.
- MGI. (2016). *Global migration's impact and opportunity*. McKinsey Global Institute. <https://www.mckinsey.com/featured-insights/employment-and-growth/global-migrations-impact-and-opportunity>. Accessed 27 April 2020.
- Newsham, N., & Rowe, F. (2019). Projecting the demographic impact of Syrian migration in a rapidly ageing society, Germany. *Journal of Geographical Systems*. <https://doi.org/10.1007/s10109-018-00290-y>.
- Palen, J. J. (1986). Fertility and eugenics: Singapore's population policies. *Population Research and Policy Review*, 5(1), 3–14.
- Payton, M. (2016, September 2). Italy's creepy baby-making campaign has backfired. *The Independent*. <http://www.independent.co.uk/news/world/>

- europe/italys-baby-making-campaign-fertility-day-birth-rate-an-angry-response-fertility-a7221321.html. Accessed 31 October 2019.
- Pendleton, B. F. (1978). An historical description and analysis of pronatalist policies in Italy, Germany and Sweden. *Policy Sciences*, 9(1), 45–70. <https://doi.org/10.1007/BF00137978>
- PRB. (2020). Changing race and ethnicity questions on the U.S. Census form reflect evolving views—Population Reference Bureau. *Population Reference Bureau*. <https://www.prb.org/changing-race-and-ethnicity-questions-on-the-u-s-census-form-reflect-evolving-views/>. Accessed 2 June 2020.
- Rachelle, V. (2019). Japan’s #KuToo movement rejects mandatory high heels for women. *Quartz*. <https://qz.com/1697589/japans-kutoo-movement-rejects-mandatory-high-heels-for-women/> Accessed 2 June 2020.
- Romano, A. (2019). ‘OK boomer’ isn’t just about the past. It’s about our apocalyptic future. *Vox*. <https://www.vox.com/2019/11/19/20963757/what-is-ok-boomer-meme-about-meaning-gen-z-millennials>. Accessed 2 June 2020.
- Rossy, K. M. (2011). Politicizing Pronatalism: Exploring the Nazi Ideology of Women through the Lens of Visual Propaganda, 1933–1939. *The Graduate History Review*, 3(1). <http://journals.uvic.ca/index.php/ghr/article/view/6478>. Accessed 2 June 2020.
- Sabbagh, C., & Vanhuyse, P. (2010). Intergenerational justice perceptions and the role of welfare regimes: A comparative analysis of university students. *Administration & Society*, 42(6), 638–667.
- Schuster, S. (2016). The U.K.’s Old Decided for the Young in the Brexit Vote. *TIME Magazine*. <http://time.com/4381878/brexit-generation-gap-older-younger-voters/>. Accessed 2 June 2020.
- Sharma, A. (2019). *As Govt Pushes Non-Muslim Citizenship Bill Again, BJP Risks a Divide in Northeast and Angst of Allies*. News18. <https://www.news18.com/news/politics/as-govt-resurrects-non-muslim-citizenship-bill-bjp-risks-a-divide-in-northeast-and-angst-of-allies-2390295.html>. Accessed 2 June 2020.
- Shashidhar, K. (2019). *Forbes India investigation: India’s most Gerrymandered Constituencies*. ForbesIndia. <https://www.forbesindia.com/article/special/forbes-india-investigation-indias-most-gerrymandered-constituencies/53011/1>. Accessed 2 June 2020.
- Sumriddetchkajorn, K., Shimazaki, K., Ono, T., Kusabe, T., Sato, K., & Kobayashi, N. (2019). Universal health coverage and primary care, Thailand. *Bulletin of the World Health Organization*, 97(6), 415–422. <https://doi.org/10.2471/BLT.18.223693>.
- Suwanrada, W. (2008). Poverty and financial security of the elderly in Thailand. *Ageing International*, 50–61. <https://doi.org/10.1007/s12126-009-9030-y>.

- The Economist*. (2019, June 28). Who are the members of the Conservative Party? *The Economist*. <https://www.economist.com/the-economist-explains/2019/06/28/who-are-the-members-of-the-conservative-party>. Accessed 2 June 2020.
- Tobon-Giraldo, M., Salazar, M. I., Flórez, M. A., & Montilla-Trejos, C. A. (2019). The dilemmas and care challenges of Venezuelan pregnant migrants presenting in Colombia. *Travel Medicine and Infectious Disease*. <https://doi.org/10.1016/j.tmaid.2019.04.009>.
- Toft, M. D. (2012). Wombfare: The religious basis of fertility politics. In M. D. Toft, J. Goldstone, & E. Kaufmann (Eds.), *Political demography: How population changes are reshaping international security and national politics*. Paradigm.
- Torres-Gil, F. M., & Spencer-Suarez, K. (2014). Aging electorates and gerontocracy: The politics of aging in a global world. In S. Harper & K. Hamblin (Eds.), *International handbook on ageing and public policy* (pp. 227–241). Edward Elgar Publishing.
- UNFPA. (2016). *The State of Thailand's Population Report 2015*. UNFPA. https://thailand.unfpa.org/sites/default/files/pub-pdf/State%20of%20Thailand%20Population%20report%202015-Thai%20Family_en.pdf. Accessed 2 June 2020.
- UNPD. (2001). *Replacement migration: Is it a solution to declining and ageing populations?* UNPD. <https://www.un.org/en/development/desa/population/publications/ageing/replacement-migration.asp>. Accessed 23 October 2019.
- UNPD. (2019). *World population prospects: The 2019 revision*. World Population Prospects 2019. UNDP. <https://population.un.org/wpp/Download/Standard/>. Accessed 10 July 2019.
- Vanhuyse, P. (2012). Does population aging drive up pro-elderly social spending? *European Social Observatory (OSE) Research Paper Series*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2404281. Accessed 2 June 2020.
- Vanhuyse, P. (2013). *Intergenerational justice in aging societies: A cross-national comparison of 29 OECD countries*. Bertelsmann Stiftung.
- Vanhuyse, P. (2014). Intergenerational justice and public policy in Europe. *European Social Observatory (OSE) Paper Series, Opinion Paper*, 16(16). <http://papers.ssrn.com/abstract=2416916>. Accessed 2 June 2020.
- Vanhuyse, P., & Goerres, A. (Eds.). (2012). *Ageing populations in post-industrial democracies: Comparative studies of policies and politics*. Routledge.
- Wang, F., Cai, Y., & Gietel-Basten, S. (2018). Is demography just a numerical exercise? Numbers, politics, and legacies of China's One-Child Policy. *Demography*, 55(2), 693–719. <https://doi.org/10.1007/s13524-018-0658-7>.

- Watson, K. (2020, February 15). Racism denier to defend black rights in Brazil. *BBC*. <https://www.bbc.com/news/world-latin-america-51501111>. Accessed 2 June 2020.
- Weaver, M. (2007, September 12). Russians given day off work to make babies. *The Guardian*. <http://www.theguardian.com/world/2007/sep/12/russia.matthewweaver>. Accessed 2 June 2020.
- WEF. (2020). How COVID-19 is throttling vital global migration flows. *World Economic Forum*. <https://www.weforum.org/agenda/2020/04/covid-19-is-throttling-vital-migration-flows/>. Accessed 27 April 2020.
- Westcott, B. (2019, March 28). Brunei to punish gay sex and adultery with death by stoning. *CNN*. <https://www.cnn.com/2019/03/27/asia/brunei-anti-lgbt-stoning-law-intl/index.html>. Accessed 2 June 2020.
- WiC. (2015). *Wittgenstein Centre Graphic Explorer*. Wittgenstein Centre for Demography and Global Human Capital. <http://www.ocaw.ac.at/vid/dataexplorer/>. Accessed 2 June 2020.
- Win, H. N. (2017). People 90 and older to start receiving pensions. *The Myanmar Times*. <https://www.mmtimes.com/national-news/yangon/26375-people-90-and-older-to-start-receiving-pensions.html>. Accessed 2 June 2020.
- Wines, M. (2019, July 2). 2020 census won't have citizenship question as Trump administration drops effort. *The New York Times*. <https://www.nytimes.com/2019/07/02/us/trump-census-citizenship-question.html>. Accessed 2 June 2020.
- Wyatt, T. (2018, November 4). Italy's far-right government offers free land to parents who have third child in "neo-medieval" policy. *The Independent*. <https://www.independent.co.uk/news/world/europe/italy-far-right-free-land-third-child-family-government-matteo-salvini-birth-rate-children-a8616781.html>. Accessed 2 June 2020.
- Yılmaz, Z. (2015). The AKP and its family policy in the re-establishment process of authoritarianism in Turkey. In J. Karakoç (Ed.), *Authoritarianism in the Middle East: Before and after the Arab uprisings* (pp. 150–171). Palgrave.
- Zarni, M., & Cowley, A. (2014). The slow-burning genocide of Myanmar's Rohingya. *Pacific Rim Law & Policy Journal*, 23, 683. https://heinonline.org/hol/cgi-bin/get_pdf.cgi?handle=hein.journals/pacrimlp23§ion=26. Accessed 2 June 2020.
- Zitner, A., & Chinni, D. (2020, January 3). Demographic Shift Poised to Test Trump's 2020 Strategy. *WSJ Online*. <https://www.wsj.com/articles/demographic-shift-poised-to-test-trumps-2020-strategy-11578047402>. Accessed 2 June 2020.

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