

Playing Alone? Why the Best Gift You Could Give Your Child is a Brother or Sister

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2023 calls to mind the crossing of a statistical Rubicon, a 50th anniversary that slipped by unnoticed in the United Kingdom. In 1973, the country's fertility rate, which is the average number of children each female has over her lifetime, dipped below the critical number needed for the population to replenish itself. The "replacement rate" is 2.1: two children to replace each parent in the next generation, and 0.1 to counteract children who do not survive into adulthood. In the half-century since 1973, the United Kingdom has remained demographically in debt, producing too few children to sustain population levels. The country's population has risen to record highs—a rise of nearly 10 million since 2000—but only due to unprecedented levels of immigration.

Other countries face similar struggles. China not only has a sub-replacement fertility rate, but in 2023 it experienced its first population dip since the 1960s. 2023 was also the year China stopped being the world's most populous nation. With the exception of sub-Saharan Africa, the majority of nations are either facing the same challenges as the United Kingdom or China. The British model of demographic decline is the more common. Globally, two-thirds of all states now have sub-replacement fertility rates. In other words, child-bearing couples in those countries do not—on average—have the 2.1 children required to keep a population steady.

And many of these nations are now, inexorably, heading in the same direction as China. Only immigration, or what is known as "demographic momentum" (the phenomenon of rising overall population caused when births are in freefall, but older people are living longer) saves them from absolute population loss. Eight countries of more than ten million people have seen that happen over the past decade. Yet, not all nations have experienced similar results: Japan's population shrank by more than three million people between 2011 and 2021.⁴

Yet what unites many of these countries, whether their populations are shrinking already or soon will be, is the hope that their fertility rates will rise once more, at least to sustainable levels. Nations which fail to increase their fertility rates face a range of long-term difficulties, which include significant economic implications and national security concerns. And on a micro level, reduced fertility rates are having a profound impact on children, particularly the increasing number who grow up without siblings. This paper examines these challenges in more detail.

The focus of this paper is those countries whose leaders believe the demographic trend can turn, at least a little. Their number has been rising steadily in recent years. Almost one-third of all countries now have explicitly pro-natalist policies designed to raise the fertility rate. They include democracies such as France and South Korea (but not the United Kingdom), as well as autocracies such as Russia and even China. The list of pro-natal nations includes those of a theocratic nature (Iran), as well as those inclined to technocratic solutions (such as Singapore's use of Artificial Intelligence to matchmake couples).

Each of these countries is pulling slightly different levers to raise fertility rates. But most rely on a combination of appeals to financial, theological, and national incentives. Will rising concerns provoke

extreme reactions from autocratic regimes? Is there a "progressive" or "procreative" alternative that the West can adopt? One that preferences freedom for couples to choose the family size they desire?

Finding answers to those questions may well become one of the most pressing pursuits of the 21st century. Policymakers will likely consider best practices when choosing pro-natalist models appropriate for their economy, polity, and culture. Long-term benefits require upfront investments. In Hungary, for example, Budapest spends 5% of its Gross Domestic Product ("GDP") to encourage couples to have more children, and these efforts are bearing fruit with higher fertility rates. Yet, not every government is willing or able to make comparable allocations from public funds. At the same time, it is difficult for governments to ignore the considerable benefits—economic, cultural, political—of sustainable replacement rates.

This paper endeavours to make the case for why couples should have more children. Reversing the trend of declining fertility rates is in the interest of individuals, children, families, communities, businesses, governments, and the environment. The myth that having children is "anti-choice" does not stand up to scrutiny. Freedom of choice means that couples must be free to choose to have the number of children they would like to have, and to contribute to a society where every individual can flourish and prosper.

Why are Fertility Rates Falling?

Before delving into why declining fertility rates are significant, and how to reverse this problematic trend, it is important to first understand the cause of such widespread decline around the world. There are many reasons for this phenomenon. This paper examines four such factors: economic uncertainty, credentialism, a desire to emulate popular culture, and the shifting role of religion in contemporary society.

"Should auld acquaintance be forgot and never brought to mind." Auld Lang Syne (1788)

Economic Uncertainty

Across the world, Scots celebrate Robert Burns, their national poet, on the evening of 25th January. In 2023, Burns Night coincided with news that the birth rate in Scotland had slumped to a record low of 1.29. This data is in stark contrast to the 1970s when Scotland had the highest birth rate in the United Kingdom.

Assessing the implications of this data, *The Times* published the view of an academic from St Andrew's University, who concluded that: "Events such as the war in Ukraine, economic uncertainty and the cost of living crisis, as well as climate change, are all factors which influence people's decisions whether or not to have children." ⁶

Is the decision of whether to have children dictated by "economic uncertainty"?

Two hundred miles from the northern-most tip of Scotland sit the Faroe Islands. The Islands are home to 50,000 people and—at 2.3 children per mother—Europe's highest fertility rate. The Islands have relatively generous childcare and parental leave policies, but these are shared by the neighbouring Scandinavian countries, which still have seen their fertility rates plummet. So, although economic factors may be a factor involved in declining fertility rates, there must be other reasons for this downturn as well.

In Scotland, another alarming demographic trend is the emergence of a statistical cliff-edge. The figures published on 25 January 2023 showed that Scotland's birth rate had fallen by one-fifth in a decade. Leaving aside outliers like the Faroe Islands, parts of Scandinavia have seen similarly dramatic recent declines. Finland's fertility rate, like Scotland's, has fallen 20% in 10 years. Yet these precipitous drops are far from being exclusively European phenomena. For example, South Korea's fertility rate has fallen by 25% in a mere 5 years.

As Britain's Paul Morland outlined in his 2019 book, *The Human Tide*, fertility rates have repeatedly dipped—and recovered—throughout recorded history. We call these cycles demographic transitions. But continuous downward trends are materialising now which have never occurred before. The dependency ratio (the ratio of working age adults to those of retirement age) is drastically off course. Rising median ages are reversing the primary duty of care from the old raising the young, to the young supporting the old. As the Japanese Prime Minister said in January 2023, his country's lack of new births has brought Japan to the brink of "social dysfunction".

The real cause of anxiety in government bodies around the world is the fear of impotence, the belief that once a country has reached ultra-low fertility rates (below 1.3 to 1.5 children per woman), it enters an irreversible "fertility trap", from which there is no escape and for which there is no floor. If people grow up in societies geared around small families, the idea of a larger family never occurs to them. In China, for example, 27% of men asked to identify the number of children they would like to father respond with the answer: one or none. Not having children begets a culture of not having children.

The Fertility Trap: Credentialism

This cultural cycle is one reason South Korea faces a severe demographic decline. In the 1960s, the South Korean government encouraged its predominantly rural population to have fewer children. Government policy was overtly anti-natal, with financial support for sterilisation. Couples were encouraged to have no more than two children. The fertility rate fell from 6 births per woman to 4.5 in a decade and kept on falling. The number of births in the country fell by 4.4% in 2022 alone, and the population has been declining in absolute terms since 2021. If current trends continue, the number of Korean citizens will fall from 51 million today, to 38 million by 2070. In February 2023, the country announced a new record-low fertility rate of 0.78. In the capital—home to half of all South Koreans—the rate is under 0.6.

This is where demography breaks new ground. Populations have fallen drastically before—war, famine, and plague have been the cause. But never in human history will a country have had such an aged population. By 2070, South Korea is projected to become the only country in the world with more elderly than working age citizens. According to current trends, by 2070—less than 50 years from now—the median age of South Koreans will have jumped by almost 20 years, to an astonishing 62.2.8

This data has existential implications. Even before one estimates the impact of a never-before-seen dependency ratio on welfare provision, tax receipts, loneliness, and social atomisation, consider this predicament. South Korea's northern border is the 38th parallel, also known as the Demilitarized Zone. In 2019, Seoul announced it could no longer sustain its conscript army of national servicemen, which thereafter would be reduced by 100,000. With the ever-present security threat of the North of the Peninsula, a loss of military presence and capacity should give policymakers serious pause.⁹

Why has South Korea found itself trapped in a demographic downwards spiral? Other countries, most notably India, pursued two-child policies, encouraging (sometimes enforcing) sterilisations in the late 20thcentury, without creating a legacy of ultra-low fertility in the early 21st century. Perhaps the answer is that South Korea is very much like other developed nations which face shrinking families—just a little further along the road. For example, the rise of credentialism (the determination of social status by

educational attainment) in South Korea has been drastic and rapid, and is closely correlated with falling fertility rates. This phenomenon is not unique to South Korea, with Germany also witnessing a simultaneous rise in young people striving for higher qualifications, and a simultaneous fall in fertility rates. ¹⁰ The supposed "dichotomy" of choosing career or family has polarized these two options falsely. Nowhere is this more heightened than in South Korea, where the cultural prizing of credentials has led to its becoming—according to the OECD—the most highly educated nation in the world. ¹¹

Those who do have children in South Korea find that there is a sort of "educational arms race" in the country. Not only is a college education increasingly ubiquitous, but also it is highly prized and the object of fierce competition. Securing a place at a prestigious university is a Darwinian process, particularly as this achievement is seen as the only pathway into employment in one of the country's dominant *chaebol* conglomerate firms (such as Samsung). University entrance is seen as so critical to young people's future that on the day they sit the eight-hour Scholastic Aptitude Test ("SAT") entrance exam, roads are closed and workers encouraged to remain home to aid students who need to travel to exam halls.

This heightened sense of credentialism filters down to younger students. The majority of children attend expensive *hagwons*— for-profit after-school educational facilities, or "cram schools"—where they receive extra tuition in Maths and English. The costs and number of hours spent in these institutions are enormous, with many school-aged children spending up to 16 hours per day in a formal school setting. The fact that state contribution to education is relatively low by OECD standards in South Korea also increases the financial burden on parents, further entrenching the sentiment that many "cannot afford" to have children.¹²

Again, this scenario will be familiar to many parents in developed countries, which are highly educated, and credentialed societies where college certificates are the entry-codes to a more affluent existence. The response of many—in South Korea as elsewhere—is to curtail family size. A decade ago, *The Financial Times* asked South Korean mothers how they managed their personal resources. A then 47-year-old insurance saleswoman, Hong Sung-ok, spoke for many when she said: "I cannot afford not to send my child to private tuition, because everyone else does. I spend more than half my income on tutors and childcare expenses—it is really expensive... That is why I decided to have only one child." South Korea, therefore, shows the negative effects an overemphasis of credentialism can produce on fertility rates.

Emulating Popular Culture

There is evidence that role models, who are neither friends nor family, have an impact on the decision to have any or several children. In Brazil, for instance, the sharp fall in family size amongst some of the favela's poorest residents was attributed to the popularity of 'telenovelas' — Brazilian soap operas which present small, often one-child families, as the *sine quo non* of a desirable domestic life. Research from Germany in 2015 showed that television programs and advertisements which seemed to show no-child or one-child families in a favourable light, did indeed have a measurable effect on fertility.¹⁴

If television can have this impact, how about the celebrities who populate its output? If influencers like Kim Kardashian and David Beckham have four children, does that in any way make larger families more attractive to the general public? Or might it simply tell us that celebrities can afford more flexible childcare and lifestyle choices, including greater paid help? There is certainly evidence to suggest that some fertility decisions are shaped by celebrity culture. A leading British fertility clinician has claimed that many would-be parents wrongly assume they can have children later in life, because of the large number of celebrity mothers who do so, but those celebrities often have the help of expensive medical interventions. ¹⁵

Could the state harness such influencers to help persuade wavering parents to have children in their fertile years? According to an analysis of Getty Images, Catherine Middleton, the Princess of Wales, is the most photographed woman alive today. ¹⁶ The future Queen of England is often pictured alongside her three young children. As the glamorous wife of the United Kingdom's future head of state, and with a growing global profile, the Princess of Wales is an increasingly visible check on the fashion for one-child families.

One cannot know with certainty whether Catherine believes that the British public would benefit from following her example. Royal protocol precludes controversial statements. And the decision to have a supra-replacement-level family is certainly contested even within the royal family. In 2019, Prince Harry told *Vogue* magazine that he wanted "two (children) maximum" in the interests of the environment.¹⁷

The Princess of Wales emulates the approach of her late mother-in-law, Princess Diana, who circumvented royal convention by allowing pictures to tell a story. Princess Diana embraced AIDS patients, rather than criticising anyone unsympathetic to their suffering. The current Princess of Wales—with her beautiful family—sends a subliminal signal (with regal divinity) that children can multiply joy.

I labour this point to make a broader one. In developed nations, civic society has a role to play in shaping a culture that celebrates new life. For believers like me, this role includes advocacy from faith leaders. For the godless majority, it might mean a role for other trusted figures, especially those who cut across preconceptions and stereotypes. In an age of online "influencers" constantly shaping the perceptions and desires of young people, role models are more readily emulated, and culture more readily shifted than ever before. Hence, positive examples of the joys of raising multiple children have the potential to begin reshaping the narrative around childbearing in contemporary society.

The Changing Role of Religion

For more than a decade now, the leader of the Orthodox Church in Tbilisi has personally christened tens of thousands of Georgian babies. Four times a year, Patriarch Ilia (Elijah) the Third spends many hours standing alongside a large (inflatable) font. Hundreds of parents come forward to present their children for baptism by the Patriarch himself. The only qualification is that the infant must be a couple's third or subsequent child. Since this mass participation ritual began in 2007, 6% of all Georgian newborns and 34% of all third or subsequent children regard Ilia as their Godfather. 18

His hands-on intervention saw Georgia's fertility rate quadruple in 2008, rising by almost 20% to its highest level in a decade. Although, that initial boost has not been repeated, nor has the fertility rate declined since. Yet, demographers calculate that, even accounting for the "tempo effect" (which sees a fertility rate spike when women bring forward pregnancies), Georgia's fertility is significantly higher than it would have been without the Patriarch's initiative. In a small country of fewer than four million, tens of thousands of extra citizens are the quantifiable result of the urgings of a non-state actor and positive role model. No extra money. No scare-mongering. No coercion.

In Georgia, the Orthodox Church led by Patriarch Ilia remains influential. How easy would it be for comparable figures to follow suit? Georgians enjoy a vigorous sense of national identity and an adhesive level of social cohesion, partly moulded in the crucible of relatively recent conflict. The Patriarch is personally highly respected. It is hard to imagine other national religious leaders having a similar impact. Would Russians alter their plans for family formation if their Orthodox Patriarch, Kirill (Cyril), invited them to? Is it possible that Iranians would have more children if Ayatollah Ali Khamenei told them that doing so was their spiritual duty? Pope Francis has made many high-profile and evocative statements about the looming demographic winter. But there is no evidence that these addresses have had an

effect on Catholic families, not least in Italy, which continues to witness a seemingly unstoppable decline of fertility rates.

It is said that it takes a village to raise a child. In other words, child-rearing, done well, is the net result of many nurturing influences. But perhaps it also takes a village to want a child in the first place. In many developed countries, the "village elders" are no longer those of a clerical nature. Ministers and priests, imams and muftis, even (most) patriarchs and popes, have diminishing influence in secular societies, particularly when it comes to issues of individual autonomy. If the message is the medium, how effectively can any message be conveyed if the medium is the voice of an old, often childless man speaking to an audience of young couples? In a mature political culture, which is capable of separating the personal from the political and the message from the messenger, the carefully worded pronouncements of Pope Francis ought to receive a fair hearing. But in many developed nations, where the public square is governed by optics and characterised by hysterics, it is all too easy for bad ethical actors to misrepresent those who speak about important topics in good faith.

Who decides how many children a couple should have? The obvious answer is the couple in question. But it is not quite so simple. As the English poet John Donne might have said: no man—nor woman—is an island unto themselves. In free societies, attitudes are shaped by culture. And culture, in turn, is a mosaic; a composition drawn from multiple sources with numerous creators.

Historically, it surely must be true that organised religion has provided the most powerful cultural determinant. And faith retains a role in changing fertility rates. In countries where Islam is the dominant faith, for instance, the fertility rate remains higher (3.1) than in Christian countries (2.7). The recent fertility record of Buddhism, by contrast, suggests that there may be significant differences in a contemplative belief system's outlook regarding procreativity. Its adherents have an average of 1.6 children per mother.

One characteristic of developed countries is the extent to which faith no longer guides attitudes, particularly towards the decision to have children. In his 2010 book *Shall the Religious Inherit the Earth?*, Canadian professor Eric Kaufman asked whether secular societies faced long-term extinction due to their relatively low fertility rates. However, as the American author Jonathan Last has argued, what matters more than religion is religiosity. Salafist Muslims, Hasidic Jews, and Amish Christians all have much higher fertility than believers outside their respective denominations. It is also true that Christian-majority nations in Africa continue to have far higher fertility rates than their fellow believers in Europe. And while fertility rates in North Africa remain relatively high, they have declined sharply in other parts of the Muslim world. The theocrats in Tehran, who once successfully ordered Iranian families to produce "soldiers for Islam", now despair at a fertility rate that has fallen from a revolutionary heyday of 7 to today's 1.7.

Religious affiliation helps to explain why fertility rates differ across the world; but those differences within religions and regions remind us that faith is one of many cultural drivers. As observed already in relation to South Korea, levels of credentialism are another key factor, alongside its frequent counterpart, urbanisation. Leaving behind a rural home in search of work or education—or both—is characteristic of demographic transitions around the world.

Imagine a young professional woman, in London or Mumbai, in her mid-30s who has remained single and has not yet had children, surrounded by other similarly situated Millennial friends. Her parents, hundreds of miles away and longing for grandchildren, have limited opportunities to raise the topic. Urbanisation sees older family members supplanted by younger contemporaries, less inclined to encourage young people to have children. In the developed world, the age at which a woman's first child is born has been rising year on year. And, although the economic effects of labour market mobility,

expensive housing, and student debt have played a part, so has the cultural impact of an urban lifestyle shared with men and women who mutually reinforce the view that children can wait.²¹

The response of most Western governments to this problem is transactional. And there is a sense that the developed world's finances are too stretched to create more financial incentives—through benefit payments, childcare, and parental leave—to encourage couples to have more children. But this paper will highlight evidence which shows there is a cost to states not acting to encourage larger families, and that there are other options available to change the culture that do not rely on government expenditure.

Without these "pull" factors in place, another alternative would be for the state to "push" couples into having—or expanding—their families. But such an approach prevents freedom of choice, and this is contrary to the West's tradition of individual liberty. The state's role in encouraging more couples to have children should be constrained to proposing options beneficial to families and society, rather than imposing specific plans that do not account for the multitude of each couple's unique circumstances.

A cultural shift that involves couples understanding the importance of having children, and parents receiving sufficient encouragement and support from all levels of society to create and sustain functional families, should lead to lasting change. An enduring solution will respect personal freedoms and responsibilities and instil a new confidence in the value of life to individuals and societies.

Why do Falling Fertility Rates Matter?

Explaining the negative effects of declining fertility rates will demonstrate why this trend matters, and why pro-natal policies are important. There are two aspects to this discussion: the societal impact of falling fertility, which is well documented, and the developmental effect of shrinking families on children.

The societal problems caused by falling fertility rates are a topic of current discussion, and include too few people to fill jobs, pay taxes, fund welfare, populate communities, and even defend the nation. Societies with decreasing populations also dwindle in other ways. For example, the vibrant and creative spirit of enterprise dims as entrepreneurs age.²²

The developmental effects of smaller families have not received so much attention. There is a growing body of evidence outlining the negative impact shrinking family size has on children. I have written about these effects in my 2013 publication, *Sticking Up for Siblings: Who's Deciding the Size of Britain's Families?*, and will discuss my findings below.²³

Sibling Saviours

Children are missing from the current pro-natalism prospectus. At the macro level, we ask: what is the impact on the welfare state or economy of a falling fertility rate? But we persistently fail to question how this affects lives at the micro level.

There are many reasons why the impact of declining "sibship" (the relationship shared between siblings) on young people receives limited attention. A more cynical explanation is that those affected by these glacial changes cannot vote and are very rarely consulted in the polls. There also may be practical difficulties in discussing these challenges at a personal level, as people are deeply concerned about the welfare of their children. The number of single-child families has almost doubled in a generation. In the European Union, 49% of families with children have one child. In Canada, the figure stands at 45%, while

in the United Kingdom, 40% of married couples have only one child.²⁴ These findings touch on the personal experience of many and require care and sensitivity in how they are presented and discussed.

An inquiry into the benefits or disadvantages of sibship does not opine on the merits of single-parent families, or other arrangements. Rather, this analysis considers the effects of being raised with siblings on children themselves, in order to understand the role siblings play in aiding childhood development. Some studies show that only children have an advantage in life, and other research suggests that "only-child syndrome" has no evidentiary foundation. Yet, there is new and evolving research that confirms differences between a childhood (and subsequent adulthood) spent with or without siblings.

Almost 20 years ago, *Time* magazine published a piece entitled, "*The New Science of Siblings*".²⁵ The magazine presented the study of brothers and sisters as the culmination of a long chain of thinking from social scientists, psychologists, sociologists, and geneticists. Siblings represented a "temperamental dark matter" whose invisible gravitational pull was now, finally, getting the academic scrutiny it deserved. A decade ago, an international group of scholars produced a collection of papers assessing the rising importance of sibling research. They expressed bafflement that, for so long, the formative role of parents and peers was considered more important for children than that of siblings.

Within this growing body of research there is ample evidence that an increasingly one-child world will face problems in the future. In January 2013, the journal *Science* published a study which sought to show that China's one-child policy was backfiring by producing a generation of under-socialised children.²⁶ These sibling-free children grew up to be adults who were, as the press release announcing the findings put it, "Significantly less trusting, less trustworthy, more risk-averse, less competitive, more pessimistic and less conscientious." ²⁷

In their 2018 book, *The Coddling of the American Mind*, Jonathan Haidt and Greg Lukianoff detailed the crisis facing "Generation Z" (children born between 1996 and 2010) in the United States. The authors claim a new generation has arrived which believes in its own fragility, which is easily damaged. This generation's sensibilities have helped to create a culture in which young people believe that, for instance, words cause actual harm. Is there a link between childhood fragility and sibship? Can we demonstrate that siblings protect against such fragility by socialising children from an early age, inoculating them against a belief in their own unique vulnerability? What if we could show potential parents that a multi-child family fosters well-rounded, pro-social children, whose "corners" have been "knocked off" by—admittedly often abrasive—contact with brothers and/or sisters? What if we could demonstrate that siblings are, as the sociologist Katherine Conger puts it, "agents of socialisation"?²⁸

Several studies provide a clear answer. One of the most widely known came from Ohio State University at the turn of the Millennium. ²⁹ It assessed the impact of sibship on 20,000 children, and did so by collating information related to them as well as speaking with their teachers and parents. The authors of the study claimed to have established: "...a compelling case for the position that children hone social and interpersonal skills through sibling interactions at home, and that these skills then become useful outside the home." Specifically, the study found that children with siblings were:

- Empathetic and skilled at comforting and helping other children.
- Capable of making friends more quickly and keeping them for longer.
- More respectful of the property of other children.
- Prone to fewer fights, while being less disruptive and better at "soaking up pressure".
- More inclined to "get along with people who are different".
- Consistently more upbeat and optimistic.
- Easier to teach and manage than children without siblings.

The average family does not shrink in gradations from 2.1 to 1.7, but from 2 to 1. As more parents refrain from having multiple children, the absence of siblings is having a measurable impact. There is a strong, and rarely discussed correlation between declining sibship and increasing childhood obesity, depression, social fragility, and bullying. Some of these effects do not end with adolescence. A sibling is for life, not just for childhood, as is their developmental impact.

In April 2023, the United Kingdom's Labour Party leader Sir Keir Starmer announced plans to embed lessons in the school curriculum that would help to teach young boys how to "respect" girls. He advocated a system of lessons that would include victims of domestic violence coming into classrooms to discuss misogyny. This initiative stemmed from a desire to counter a culture of "toxic masculinity". Regardless of whether such a widespread culture exists, those who believe so should be very concerned about boys growing up without sisters, as there is evidence that a boy learns to empathise with the perspective and dignity of a girl by growing up with a sibling of the opposite sex.³⁰

Perhaps this evidence would fail to convince those who believe there is little difference between growing up as an only-child, or with siblings. But what about parental loss? Do we think that a child whose parent dies, or whose parents divorce, is better able to survive that experience with or without siblings? Parental loss at a young age is relatively rare, although adult only children eventually must cope with the death of a parent without practical and emotional sibling support. Far more common is the "loss" of a parent when a couple part company and parental access is reduced. Again, there is robust data showing that a child who has to cope with parental divorce or separation alone does so with more difficulty than a child with a sibling.³¹

In practical terms, how does a child impart to a sibling what we might broadly label "emotional intelligence"? The parent of an only child is entitled to ask: why am I unable to replicate the socialising effects of siblings by sending my child to kindergarten, or to school, or on playdates? The answer comes in two parts. Firstly, it is difficult to replicate the sheer volume of early-years interaction between young children. Between the ages of two and six in particular, the seeds of conflict resolution and anger management are sewn. As many parents will testify, this period of time is often challenging. One study estimated that siblings between three and seven years old engage in some kind of conflict three times an hour. This figure rises to more than six times an hour for toddlers going through the "terrible twos". That translates to some sort of dispute every ten minutes.³² Such regular and intense contact is difficult to recreate and maintain outside of a home setting. Secondly, if a child grows to dislike a friend at nursery, they can choose another, or decide against another playdate. After a squabble at bedtime, a sibling will wake up with their brother or sister still there at breakfast the next day, and for years to come. Furthermore, for anyone worried that helicopter parenting is producing a generation of cosseted children, it is worth entertaining the idea that nobody is better placed to stop a child being coddled than another child. A sibling's tolerance of rebarbative behaviour is likely to be lower than a parent's or childminder's. Compared to a grown-up, a child is less inclined to respond to a sibling's provocation moderately.

One of the United Kingdom's leading experts on child development is Professor Judy Dunn, formerly of Cambridge University and chair of The Children Society's Good Childhood Inquiry. Hundreds of hours of observation have confirmed her in the view that sibling rivalry is a force for good. It can be, "constructive, preparing [children] for important relationships when [they] are older", and it can "boost mental and emotional development, increase maturity and enhance social skills." 33

Moving on from the social benefits, there is also stronger evidence of tangible benefits that multi-child families offer against the epidemics of modern childhood: obesity, bullying, and depression.

Consider obesity. A paper from the *British Medical Journal ("BMJ") Global Health* last year estimated that by 2060, the economic impact of being overweight will rise from 2.19% of global GDP to 3.3%.³⁴ In cash terms, in just the United States alone, that amounts to a figure of \$2.2 trillion.³⁵ In May 2023, a study found that obesity cost the UK taxpayer £14 billion a year.³⁶

When sums are so colossal, and the impact on lives so injurious, even modest reductions ought to be of interest to policymakers, and to those who consider their politics "progressive". Surely helping those below the poverty line live longer, healthier lives should be a progressive cause?

But is that what having a sibling in childhood does? Consider a report delivered to the US Department of Health, in which two scientists from Pittsburgh University's Medical School, Sue Kimm and Nancy Glynn, delivered the findings of a 10-year-long study of 2,379 girls at schools in California and Ohio. The projection which they extrapolated from the data was very specific. "The odds for obesity", they said, "decreased by 14% for each additional sibling in the household." ³⁷

Or consider the work of Portuguese universities based on weight readings from thousands of primary school children, which concluded that not having siblings was, "Significantly associated with obesity". A Japanese investigation based on the medical records of 7,979 high school students established that, "Children without siblings are the ones most at risk [of being] overweight, especially girls." Another study, from University College London, noted that, "Smaller family size [was] associated with higher Body Mass Index ("BMI")". And a study from the Netherlands—explicitly seeking a link between family size and obesity, based on data from 280,000 19-year-old Dutch males—concluded thus: "Individuals from one-child families [only children] were uniquely at risk of obesity".

What is the reason for this link? There is evidence to suggest that an only child is fed more, with portions more akin to those given to adults. But whatever the calorific intake, siblings appear less sedentary and have more opportunities to burn off energy than children who grow up alone. These opportunities apply within the home and without. Thelma S. Horn, an associate professor at Michigan State University, wrote in a 2008 book, *Advances in Sport Psychology*: "Siblings clearly appear to be agents of physical activity [and] socialisation," offering "... instruction, advice and support." Most parents in a multi-child household will testify to the existence of such informal and spontaneous tutelage. It might simply be an older child helping a younger sibling to climb the stairs, throwing a ball for them to retrieve, or chasing them around the kitchen as they scold them into completing a task.

The clearest evidence of the physical advantages conferred by sibship come from studies which show that younger siblings learn to walk and crawl sooner than only children. Again, it is difficult to replicate this level of activity outside of a family home. Siblings spend a huge amount of time in each other's company. A crucial caveat is proximity: the closer siblings are in age, the more time they spend together. A piece of US research has found that, on average, one-third of a child's free time is shared with siblings by the age of 11. That exceeds the amount of time spent alone, with parents, friends, or teachers, according to the findings by Penn State University in 1996.⁴²

Even adolescents, fond of ploughing their own furrow, were found to spend at least ten hours a week sharing activities with siblings. The sheer tempo of activity among younger children is revelatory. One study showed that there were on average 85 interactions between siblings each hour.⁴³ An interaction is characterised as an initiation which gets a response from a sibling; an initiation which could be as trivial as the offer of a toy. All interactions, however small, entailed some form of kinetic activity.

Outside the home, it is highly probable that siblings, and the availability of an ever-present playmate, make outdoor physical activity more likely. Research suggests that children would like to have more opportunities to enjoy unsupervised play outside and to learn how to manage risk and escape, however

briefly, home environments that are increasingly academically focused. Parents are more likely to trust a child to play outside, or walk to school for that matter, if an older sibling is there to act *in loco parentis*.

Not Just Healthier, Happier Too

If having a brother or a sister confers physical benefits to a child, can the same claim be made for his or her mental well-being? Newspaper front pages this year continue to proclaim that children face an "epidemic of bullying". ⁴⁴ Of course, children with a brother or a sister can also become the victims of bullying, although, on average, they are better placed to handle the threat. A British study from the Economic and Social Research Council on children aged 7 to 13 found that siblings were an important and invisible source of support for children who were bullied in everyday life, including at school. ⁴⁵

Another report, from the Joseph Rowntree Foundation, revealed that: "Children often said that having brothers or sisters mean[t] there was always 'someone there' for them, and gave an emotional sense of protection from being alone." Siblings can act as an early-warning system, notifying parents when a brother or sister is being victimised.

What about mental health more generally? Rates of depression have rocketed throughout Western societies in recent decades, with children notably impacted. Do siblings protect against depression? There is a link between having someone to care for and better mental health. In his 2005 best-seller about happiness, Professor Richard Layard observed that people who care about other people are happier than those who are more pre-occupied with themselves. Arguably, siblings encourage a worldview more rooted in empathy. A study by Laura Padilla Walker revealed that having a brother or a sister makes siblings more inclined to perform "good works": charitable acts like helping a neighbour or looking out for other children at school. ⁴⁷ Several child psychologists have sought to demonstrate that the act of caring for a sibling gives children a sense of perspective they would not have otherwise.

Meanwhile, research from Northern Ireland suggests that siblings encourage the clear expression of emotions.⁴⁸ Another piece of research from the United States showed that "sibling support" resulted in better self-esteem and "life satisfaction".⁴⁹ Higher sibship was found to lead to less loneliness and depression, as measured by an eight-point scale, listing symptoms like poor appetite and a propensity to cry often.⁵⁰ It is worth noting that many of those benefits persist through an individual's lifespan. One-third of participants in a 1992 survey of 7,000 American adults responded with "sibling", when asked: "Who is the one person you would call if you had an emergency in the night; needed to borrow \$200 in an emergency; or were depressed and confused and needed advice." Two-thirds of respondents considered at least one sibling to be among their closest friends.⁵¹

A reasonable case can be made for the assertion that having a sibling protects against negative mental and physical outcomes in childhood and during adulthood. Some of those principles feed back to parents. For example, a parent who has two children is naturally more likely to enjoy better eldercare in their old age than the parent of one or none. Given statistical trends, this evidence should not be discounted. Eldercare now rivals childcare as the major work-life balance issue of our times. Carers UK, for instance, estimates that the value of unpaid support in the United Kingdom amounts to £87 billion per year. The bulk of that figure will be support given by children to parents.

However, some effects of multi-child parenting are less obvious or measurable. I once interviewed the brilliant Yale law professor Amy Chua. We discussed her best-selling book, *Battle Hymn of the Tiger Mother*, in which she is clear about two things in relation to sibship and the nature of self-confessed "pushy parents" like her. Firstly, she acknowledges that the pressure such parents exert would be dangerously oppressive if focused on a solitary child. Secondly, in the face of such overpowering parental expectation, siblings can form an alternative, and comforting, reality. Or, as Chua herself puts

it: "One nice by-product of my extreme parenting was Sophia and Lulu [her daughters] were very close: comrades-in-arms against their overbearing, fanatic mother. 'She's insane,' I'd hear them whispering to each other, giggling." ⁵²

The benefits of having a brother or a sister through one's lifespan mean more than just help with eldercare or childhood traumas. There is something truth-giving about siblings, and everyone reading this, who has one, will recognise the sense of it. Additionally, there is something uniquely "grounding" about the relationship enjoyed, or sometimes endured, by siblings. In a world of ever greater fluidity, where reinvention is easier than ever, siblings hold us to account (whether we like it or not). Over the course of an entire lifespan, nobody stands a better chance of highlighting our contradictions and identifying our hypocrisies than our own sibling. Where introspection fails, siblings stand a good chance of being the true custodians of conscience.

What Can Be Done to Address Falling Fertility Rates?

Given the clear benefit higher fertility rates would have for society and especially for children themselves, how do we begin to address the rapid decline in fertility rates around the world?

To Coerce or Encourage?

Past and present attempts at forming pro-natal policy demonstrate a clear choice faced by decision-makers: whether to take the democratic route and incentivise pro-natal choice, or to use authoritarian measures to enforce the raising of the fertility rate.

The Authoritarian Option

Just before Christmas 2022, Afghan girls were banned from attending primary school classes. A year earlier, the Taliban had swept to power and immediately began restricting female access to education. University and high school came first. Then younger girls. Women were also barred from teaching. Did the Taliban see a connection between curbing opportunities for schooling, and restoring Afghanistan's hitherto high levels of fertility? Or was their decision simply theological? It is difficult to say. What is clear, however, is that when the Taliban fell in 2001, so did fertility rates; virtually halving from almost 8 children per woman in 2001 to 4.75 two decades later.

Whatever the Taliban's motivation we can say with conviction that, historically, despots have resorted to the use of authoritarian measures when panicked by falling fertility rates. And while the Taliban have simply defaulted to medievalism, Communism has often proved no kinder. In the 1960s, for instance, the Communist Politburo in Bucharest grew alarmed at declining fertility rates, which had fallen below replacement level and, in 1966, stood at 1.9 children per woman. At a stroke, the Romanian leader, Nicolae Ceausescu, introduced Decree 770, which outlawed birth control. Briefly, the fertility rate rocketed to 3.7, but not for long. Birth control was widely obtained through illegal means, with authorities frequently turning a blind eye. One unforeseen consequence of the policy was the number of children given up for adoption. Up to half a million children were sent to Romania's state-run orphanages, where neglect and abuse were rife.

It is easy to say the past is another country where things were done differently. But can we be sure that the authoritarian regimes of today will not resort to the suite of desperate measures seen in Romania

in the face of a demographic squeeze? Bucharest swept away established freedoms when faced with a fertility rate which would now be considered among the highest in the developed world. What lengths, for example, might the contemporary Communist leadership cadre in Beijing be prepared to take when faced with far bleaker population projections? Would such a hardline policy be destined to fail, just as Romania's did? Ceausescu's police state, army of informers, and culture of denunciation could not make despotic pro-natalism work. But that was 60 years ago; before the emergence of Artificial Intelligence, facial recognition, and the entire apparatus of Xi Jingping's surveillance state. A regime which has deployed the panoply of modern repressive technology to stop the Uyghurs from having children would surely have little compunction in imposing similar measures on its majority population. That is an extreme scenario. In reality, many regimes working outside of the realm of meaningful democratic scrutiny would be reluctant to use measures that coerce couples to have children. International reputations matter.

For world leaders, pro-natalism poses two dilemmas. The substantive one: to raise the birth rate sustainably. But also, an ethical challenge. Can a state maintain its commitment to human rights (even if they are only performative) without sacrificing what exists of its liberal conscience? The latter matters not to the leaders of China, Russia, and Iran. But in many contexts the case is more complicated. Autocracy is a spectrum. At one end may be the morality police of Iran and the text-book-burning of the Taliban in Afghanistan. But where should we place the pro-natalism of a more moderate Islamist such as President Erdogan, who says birth control is a secret plot to halt Turkey's restoration to great-power status?⁵³

As a pro-natalist who believes that modern society is better for more, not fewer, children, I am compelled to ask: is there a progressive prospectus for pro-natalism? One that is compatible with the values of equality and personal freedom? Is it possible to de-politicise pro-natalism or, at least, allow those on both sides of the political spectrum to view it as a cause to support? Perhaps, most of all, we might ask: is it possible to persuade without prohibiting?

The Democratic Option

Of course, at the policy level, the vast majority of pro-natal measures are not coercive. They rely on an appeal to enlightened financial self-interest, not a 3am knock on the door from the secret police. Internationally, more than 50 nations now have policies in place to raise their failing fertility rates, and the most common policy sees the transfer of money or benefits (including benefits in kind, such as statefunded childcare) to citizens who have, or would like to have, children.

However, the truth remains that encouraging the rise of fertility rates in a modern democratic context poses a great challenge—regardless of how concerned we might be by declining fertility rates. Any policy, no matter how much it can be shown to be in the national interest, risks ridicule should it appear to curb lifestyle choices in any way. In a free society, any plan that actively disadvantages those who do not, or cannot have children, will face opposition.

In 2018, for instance, a German health minister, himself childless, asked if it was fair that people such as himself should benefit from a pension system funded by a younger generation to which he had not made the quintessential contribution (by having a child). He proposed that, in the interests of intergenerational justice, adults who did not have children should pay more towards their future eldercare. Fellow ministers dismissed his idea as "weird". More recently still, a British demographer who suggested a tax on the childless to cross-subsidise those who wanted children was mocked and compared to the Nazis. ⁵⁴

When it comes to arresting population decline, democracies encounter a conundrum. The rights of individuals in a pluralistic society often seem rooted in a zero-sum game. To privilege one group is to risk the charge of discriminating against another. This is pro-natalism's Catch-22. For example, there is—at least theoretically—a mechanism that would offset the relentless upward skew of the dependency ratio. Enfranchising parents with proxy votes on behalf of their children would help redress the slow power shift caused by an ageing electorate. Although the idea has been discussed in Japan and on the floor of Germany's Bundestag, it has not gained traction. Some older voters would probably be content to surrender democratic influence, but their numbers might dwindle once the consequences of such a dilution became clear. Giving extra votes to parents might change spending priorities as—to borrow a vivid phrase from American politics—the "squeaky wheel gets the oil". More money for childcare, less for pensions. We can see why a political party would struggle to secure a mandate for such revolutionary reform of the voting system.

The other disadvantage that democracies face, which autocracies do not, is more obvious. Elected governments get removed from office, often before they have had a real chance to introduce important changes. And, where they do succeed in introducing such changes (or try to), in a free society these reforms are often met with resistance. It is sometimes said that there are only two institutions which have the luxury of being able to plan and think ahead in terms of decades, or even centuries: the Vatican and the Chinese Communist Party. Neither is a democracy.

Consider the attempts by Canberra in the early parts of this century to hold to a long-term pro-natal plan; a scheme memorably encapsulated in the words of former Treasurer Peter Costello, who invited his fellow Australians to have "one for Mum, one for Dad, and one for the country." For a decade the mothers of all newborns received a lump-sum and a non-means-tested maternity payment. The policy's efficacy became a major point of debate at elections, and, following a succession of revisions, the government revoked the "baby bonus" altogether in 2013.

But what if a pro-natal policy managed to defy the vicissitudes of the electoral cycle? What if a government offered assistance on a sufficiently grand scale that a new cohort of dependents was created? A parental block-vote filing into polling booths for politicians who promised to maintain this newfound cashflow. The re-election of Viktor Orbán's Fidesz party in Hungary's 2022 elections may have been—in part—a function of such clientelism. If so, it poses a question that cannot yet be answered. If a democratic party committed to a long-term policy of pro-natalism can stay in power long enough, will that policy eventually become self- sustaining?

Why is Change Such a Challenge?

Challenges from the Current Narrative

American novelist Lionel Shriver joined me for a podcast in 2022 in which we discussed demography and the importance of siblings. ⁵⁵ Shriver, who is now in her sixties, grew up with two brothers, but has no children of her own. Not having a child has not hindered her ability to describe motherhood. Her 2003 novel *We Need to Talk About Kevin* became a best-seller. The plot (later turned into a Golden Globe-nominated film) revolves around the eponymous Kevin; a difficult child who, as a teenager, goes on to commit a school massacre. Shriver has subsequently written about how anti-natalists distorted the story on the basis of their belief that to have children at all is to introduce potential pain into the world. This deeply pessimistic and misanthropic creed warps the beauty and value of human life. Shriver says she once felt that the decision not to have children was the right one, but now has strong doubts about such an irrevocable step. She has written candidly about this deeply personal uncertainty.

Influencers like Shriver have the potential to be spokeswomen for a generation which understands the complicated reality of allowing fertility to expire.

Another brief, but slightly different example is found in the public face of Channel 4 News, Dorothy Byrne, who was one of Britain's most influential television executives. Her tenure involved having to defend controversial commissioning decisions, such as the invitation of former Iranian president Mahmoud Ahmadinejad to deliver an "alternative Christmas message". I interviewed her in 2022 after Byrne became the master of an all-female Cambridge University college. She had recently scandalised some feminist colleagues by telling her students that she planned to give them seminars in fertility. Byrne had her only child—a daughter—in her 40s with the help of a sperm donor. The experience of struggling to conceive convinced her that younger woman are not told clearly, or frequently enough, about the dangers of waiting too long to have children. Any reference to the transience of fertility was, she said, missing from a curriculum which spends much time teaching students about sex and contraception. She told London's *Evening Standard* newspaper: "I wish I had been told, for example, that if I had started trying just two or three years earlier, I could have doubled my chances of success. In the end, I had a baby when I was nearly 45. I think more information is always a good thing." ⁵⁶

Byrne and Shriver are now both in their sixties. They are part of that first wave of women for whom the decision to have, or not to have children, formed part of a lifestyle or career choice. There are now women with similar experiences in every developed nation facing the doubts about having waited too long. They may not have the global celebrity of a role model like the Princess of Wales, but they are opinion formers capable of initiating a public debate.

Will these women get a fair hearing? That may partly depend on their politics. Shriver writes for conservative publications, where her clear thinking finds favour. But Byrne seems more naturally to belong to the progressive Establishment, prevalent in the sectors where she has made a living: media and academia.

As such, the response to her intervention was telling. A columnist in one left-leaning newspaper accused Byrne of "dystopian" pro-natalism. A television executive whose career was characterised by heretical broadcasts is now viewed by her own tribe as a peddler of heresies. The strength of that reaction reminds us that, within the scope of the West's culture wars, natalism is an increasingly contested front line on the ideological battlefield. And one on which progressives have shifted their position. Just as militant British trades unions campaigned in the 1970s for a "living wage" (that would allow a working man to support his stay-at-home wife), so too the idea of encouraging or preferencing family formation was once a core belief of socialism. In 1946, for instance, when Britain embraced Labour policies after the Second World War, the Labour government introduced the pro-natalist family allowance. There are still many progressives who want to channel financial support to poor families. But few of them would endorse the idea of actively incentivising couples to have children.

Why is that? There are two clear reasons. The first is the red/green consensus that has formed around climate anxiety. A global poll published in the *Lancet* medical journal found that 39% of young people were "hesitant to have children." In a recent research note, Morgan Stanley informed clients that the, "...movement to not have children owing to fears over climate change is growing and impacting fertility rates quicker than any preceding trend". Another study suggested that a quarter of all childless adults in the United States cited climate change as the reason they were not having children.

However precisely expressed, the idea that the planet is in imminent peril because of human population growth is not remotely novel. Moral panics about over-population did not commence with Dr Thomas Malthus and his Essay on the *Principle of Population* (1798), nor did they stop with Professor Paul Ehrlich and his *Population Bomb* (1968).

Arguably, what has changed is a societal shift that established the primacy of feelings over analysis, especially online. This youth culture is sometimes happier to emote than to reason; to performatively signal virtue, rather than dispassionately weigh evidence.

Couple that with a digital revolution that transforms the content of hitherto niche academic papers into social media click-bait, and we can see how, for a generation that has turned the word "boomer" into a slur, posing as a "baby doomer" may earn online cachet. This mixture of social media reach, science without nuance, and sense of personal jeopardy is perfectly encapsulated in an Instagram post from Alexandria Ocasio-Cortez. The New York Democratic Congresswoman in her thirties told her 1.5 million Instagram followers: "Basically, there's a scientific consensus that the lives of children are going to be very difficult. And it does lead, I think, young people to have a legitimate question: Is it okay to still have children?" ⁵⁹

Providing a clear answer to that "legitimate" question is one of the great challenges faced by the procreative movement. "Baby doomers" insist that the future of the planet is inexorably threatened by a rising fertility rate. When I presented a documentary in 2019 for the BBC World Service about family size, my content included interviews with campaigners who felt that environmental catastrophe could only be avoided by reductions in fertility. One woman had kept her family deliberately small to avoid producing too many "emitters". It mattered not that she lived in a developed country with sub-replacement fertility. She felt that the West, having industrialised first, had a particular responsibility to initiate population decline. It would, she said, be colonialist to lecture sub-Saharan African nations, where fertility rates remain high, to curb their reproductive habits.

Beneath these arguments we can see the most damaging implication of environmentalism. This narrative reinforces the notion that the planet is of greater worth than human life, and the latter can readily be sacrificed for the former. Once belief in the invaluable worth of individuals is lost, it is the most vulnerable and voiceless who society first begins to marginalise. Hence, it is no surprise that as the environment becomes a new supreme good in our society's shifting worldviews, children are the first to be pushed aside.

A frequent response of some pro-natalists to the environmental case for fewer children is to argue that the planet's salvation will rely on advances in engineering and technology. Generating such innovative and new ideas will be far easier if we can bring more, not fewer, bright new minds to bear on the problem. But might it also be possible to disprove some of the neo-Malthusian myths? For instance, there are those who argue that to introduce new life is to place an increasing burden on limited resources. As if this were a unique imposition. And yet, is not one of the greatest strains on energy—at least in the developed world—our growing preference for solitary living? When a young person strives for and achieves their ambition to purchase a place of their own. When a couple decide their differences are irreconcilable and they can no longer live together. When these things happen, as they increasingly do, a home that could be shared no longer is. Is that a wasteful allocation of resources? Certainly. But for an environmentalist, it might be easier to argue against a theoretical future person who—since they do not yet exist—cannot be offended, than it is to criticise the behaviour of a friend who has announced plans to divorce.

There is, however, a far more profound reality that is likely to halt momentum behind the active suppression of fertility for reasons of environmental "sustainability". These doubts concern the very statistical assumptions on which the environmental argument against more births is based. Elon Musk has been ridiculed for repeatedly suggesting that de-population represents a greater threat to global survival than over-population. But there is mounting evidence that projections for population growth are over-stated.

According to the United Nations ("UN"), and amid some fanfare, the world reached eight billion people on 15 November 2022. The UN has produced a high-variant scenario, which estimates that the global population will reach 17 billion people by the end of this century. In light of this scenario, some environmentalists have warned that the earth cannot not sustain such population growth. But most predictions now suggest a far lower population peak. The UN now believes the global population will most likely reach a maximum of around 10.4 billion people in the 2080s, with much of that growth a function of demographic momentum. In other words, the population will continue to grow for a period of time, despite a decline in fertility rates, because younger people will continue to have children. It is only after several years that the effects of declining fertility rates will become evident with stabilised, but comparatively lower, rates of population growth. And the factor slowing population growth will—the evidence shows—most likely be a culture of low fertility rather than overstretched resources. Therefore, fears about overpopulation are not supported by the evidence.

But other reliable studies suggest these projections are an overestimation. A 2020 paper in the *Lancet* predicts a peak of 9.7 billion people in the 2060s, followed by sharp reductions. ⁶⁰ Authors such as Brink Lindsey, formerly of the Cato Institute, and Charles Jones from Stanford University, have written about the ruinous economic impact of these unexpectedly rapidly declining global fertility rates. But in the context of disproving green myths surrounding pro-natalism, it is sufficient to highlight that the idea of a planet straining under the weight of too many people is increasingly obsolete, if not demonstrable scaremongering. In their 2019 book *Empty Planet: The Shock of Global Population Decline*, Darrell Bricker and John Ibbitson argue that global population may well never rise above nine billion, with sharp decline to follow. In coming decades, it will become impossible for all but a handful of "demographic deniers" to claim that over-population remains a problem of global significance.

Consequently, we begin to see how climate anxiety has helped to discourage progressives from giving pro-creativity due consideration. The reverse of that antipathy is not so much environmentalism, as antinatalism. In its purest sense this is a coherent, if very small, movement. Extreme anti-natalists, like the philosopher David Benatar, present cogent arguments for managed extinction of the human species. But there is a far larger group who feel that to have children is to invite unnecessary responsibilities and limit opportunities for self-realisation. They have a strong media profile, often couched in the language of victimisation, with childless women castigating a culture which "expects" them to have children and allegedly persecutes them for not doing so.

These networks have organisational heft, with groups such as "Birth Strike" and "Childfree-By-Choice" enjoying a significant online presence. There is nothing new in their manifesto. In the 1960s, women's groups campaigned for recognition of "Non-Mother's Day" to rival Mothering Sunday. What is novel, is the extent of the penetration of the message. Surveys show far greater openness to the idea of never having children than at any time since such polling began.

It may be unscientific, but I recognise this trend, even among my own daughters. They are not antinatal but have been taught to be suspicious of anyone "ordering" them to have children. At school, all of them have been exposed to Margaret Atwood's 1985 novel *The Handmaid's Tale*, in which women are forced to bear the offspring of a ruling caste of men. One would hope that the prejudices inculcated by this, and other such works of seminal literature, could be offset elsewhere in the curriculum. However, I suspect ideological capture and inertia will determine that one will have to wait several decades before human geography lessons reflect what is actually happening in real places like Scotland and South Korea, rather than in fictional settings such as Atwood's *Gilead*.

If my own daughters are representative of their generation, pro-natalism's greatest challenge is its image. In time, the misgivings of opinion formers like Byrne and Shriver may begin to gain traction. Over coming decades, it is likely the real societal challenge will clarify, and it will not be one in which women are forced to have children, but a world in which falling fertility rates have created untold societal and

economic damage. But despite this possibility, the perception of policies encouraging couples to have more children are met with suspicion rather than serious contemplation.

Mind the "Baby-Gap"

There is a statistical gap that emerges from surveys, between the number of children people say they want, and the number they are actually having. In most developed countries, the number of children wanted remains above (often well above) replacement level, while the number being born is well below this level. Desired family size is an area of polling with a long-established reputation. Gallup began asking Americans to define their "ideal family size" in 1936. The most recent survey, in the summer of 2018, showed that American adults wanted, on average, 2.7 children. The actual fertility rate that year was 1.73. Data from other developed nations follows a similar pattern. According to the Eurobarometer Survey of 2011, the average British woman wanted 2.32 children, significantly ahead of the actual fertility rate. To put this in less abstract terms, the "baby-gap"—the number of babies wanted versus the number couples are having—is estimated at about 100,000 per year in the United Kingdom.

Why this discrepancy? What people desire, before the pressures of reality commence, clearly differs from their revealed preferences. Careers prove inflexible, partners unreliable, childcare unaffordable, and fertility far from inexhaustible. Evidence would suggest that some of the "gap" may be accounted for by women having one child, then experiencing the loss of fertility before being able to have another. It is no coincidence, as Jonathan V. Last makes clear in *What To Expect When No-one's Expecting*, that women who have their first child before the age of 24 are much more likely to hit their ideal family size.

From the perspective of political philosophy, this data represents a real opening for pro-natalism. The "baby-gap" takes the notion of choice and turns it on its head. For decades the only choice that mattered to progressive opinion was the choice *not* to have children. For women to reject the demands of the patriarchy and embrace the emancipation represented by birth control. But, in societies where those "freedoms" are now endemic, the truly unrealised choice is the choice to have, not to avoid having, a child. As Britain's Social Market Foundation suggested recently, ⁶³ this paradigm may allow pro-natalism to present itself as a liberal antidote to the distortions created for fertility aspirations by market forces. I agree with that. But to embrace this reformulated idea of choice requires a significant shift within public debate and consciousness. Consider, for instance, how many days of parliamentary debate, acres of newsprint, and hours of broadcast airtime are spent—discussing the iniquity of the gender pay gap. The baby gap, a tangible measure of thwarted ambition, does not, by contrast, receive any such attention. As David Goodhart, head of demography at Policy Exchange, has written, this inattention partly reflects who is shaping the socio-political discussion, particularly dual-income couples whose objectives focus on work.

Can wider recognition of the gap between the number of babies wanted and the number actually born offer pro-natalism a rallying point? And the chance to re-badge such policies as a "progressive" cause? There is, surely, some merit in finding a new paradigm for policymakers to consider demography as it actually impacts people. A re-framing of the argument that challenges stereotypes.

Appropriate terminology is not just about semantics, although language matters. In my experience "procreativity", for example, meets with a more positive reception than a word like "pro-natalism", which evokes greater ideological baggage. Might we also invoke concepts of "social justice" to define some of the harmful effects of falling fertility rates. For instance, the ubiquity of the one-child family may have an adverse effect on social mobility. The shrinking of family size is most prevalent among middle-class families, and therefore translates to rising asset concentration as the number of people in property owning classes shrinks. As noted previously, there are questions of intergenerational fairness raised by an increasing dependency ratio that compels a diminishing working age population to provide

for a growing number of retirees. For the young, the concentration of assets is often seen purely as a function of economics. Elderly people were able to buy inexpensive houses with greater ease when they were young, or enjoy higher education without the burden of student debt. But in countries where the dependency ratio is most out of calibration, it must be increasingly clear that "it's the demography, stupid". It is possible to imagine a Millennial in Sydney who does not blame the fertility rates as they struggle to afford a mortgage. Their counterpart in Seoul almost certainly registers, and laments, the connection. And in countries where the dependency ratio is a very serious problem, how long can society pretend there is no difference in utility between a childless adult and one who has made financial and other sacrifices to have children? Put bluntly, can it be equitable that a mother of four faces the same pensionable age as a childless man or woman, even though the former has created future potential taxpayers and care workers?

If pro-natalism is to fulfil its potential as a progressive cause, then the relationship between family size and "social justice" must be shown to matter. Can it be fair that so many women want children they are unable to have? Can it be fair that so much wealth is concentrated in a dwindling number of hands? Can it be fair that one generation is doing so well at the expense of another? These questions represent the growing concerns of young adults wishing to raise families, and governments grappling with the future economic viability and security of their nations. But there is one group whose interests are not accounted for, for the simple reason that, in policy debates and media discussions, they are voiceless. Children themselves. If the progressive case for pro-natalism is about fairness, how can it be fair that the state and adult individuals are heard, but the voices of children are marginalised?

Procreativity: A Better Story

This year China ceased to be the most populous nation on earth. In late April, the UN announced that India had overtaken its neighbour to become the world's demographic superpower. Less than a month after those figures were published, China gave a strong hint as to how it intends to fight depopulation—at least as an initial policy. The new program roughly translates as, "The New Era of Child-Bearing Culture". And it is worth noting that—however imperfect the translation—the word "culture" forms part of Beijing's approach to stabilising fertility rates. The program, announced in conjunction with new figures showing a fall in population in cities like Shanghai, suggests that—for now—the Communist Party of China will restrict itself to economic incentives and soft measures when it comes to fertility.

The program promises to create a new cadre of local government workers whose role it will be to persuade young people to start families, while encouraging fathers to be more active in child-rearing. The pace of this policy change is remarkable, from persecuting parents who had a multi-child family, to promoting them in just a few short years. Beijing also announced that doctors would be recruited to, "Explain the optimal childbearing ages from the perspective of reproductive science." In a country like Britain, educating young women about fertility timelines falls to individuals such as Dorothy Byrne. In China, it seems, the encouragement of reproduction is becoming a matter of public health policy.

No other country in the world is thinking more intently about fertility. Individual provinces in China are developing their own initiatives, and that diversity of approaches may increase the likelihood of establishing lasting change. In Guangdong, local officials are trying to create jobs tailored for mothers with young children. In Liaoning, rolling subsidies are being offered for a third child. In Zhejiang, the chosen strategy is a one-off payment. ⁶⁴ Unsurprisingly, given its link with declining fertility in countries like South Korea, credentialism is in Beijing's sights. To cool the education arms race that encourages parents to have one highly-educated child, Beijing has suggested lowering the number of points needed

to access higher education for second or third children. Those younger siblings would also pay lower tuition fees.

There is a sense that, as yet, China is at the foothills. China only abandoned its one-child policy in 2016. Crucially, there seems to be a recognition that, while money talks, it cannot speak to everyone. To illustrate this point, Beijing has focused on effecting cultural changes, for instance through measures that enlist university students to act as "cheerleaders for the family". Here in the West, however, the idea that the state could employ students to foster a procreative culture on campus would be anathema to many liberals. But that is not to say the Chinese approach is flawed in principle. Beijing is surely correct in recognising the importance of winning hearts and minds in those institutions which foster the next generation of opinion formers and policymakers. The question is: have they found the right approach?

How you answer that question is terribly important. Those of us who believe in freedom cleave to the belief that right will always prevail in the long term; that people will always find their way to the truth without being told what the truth looks like by the state. And, surprising though this may be, we may be already closer to that position than we imagine. On the surface, it may seem like the cause of procreativity has never been more stranded in the West. Think of the recent hostile reception given to a series of demonstrable truths about demography presented by the British Conservative MP Miriam Cates, who was castigated for promoting "reactionary" pro-natal policies. ⁶⁵

Yet her observations, made in good faith, were so wilfully ignored and harshly rejected, that it is almost plausible that a tipping point is within reach. The causes associated with "choice" are losing salience. The United Kingdom made contraception readily available through the National Health Service 56 years ago. Then, "choice" meant the choice not to have a child. Now, the most pressing choice women face is whether they can have the child, or all the children, they wish to have. Far from being reactionary, procreativity is counter-cultural, even transgressive.

And therefore, we must foster that sense of pro-natalism as a liberating—not a stifling—movement. A "progressive" cause which empowers women who are being kept from their wish for children, and children who are denied the benefits of a sibling.

There is a better story to tell. It does not mean ignoring the lessons of economics. State actors must, of course, become alive to the realities of declining fertility rates. The fact that one-third of nations now have pro-natal policies, with more adopting them, tells us that the penny is dropping at a governmental level. Yet, at the individual level, it is important that couples do not make wholly utilitarian decisions surrounding family expansion. Tax breaks and free childcare help, but they risk making couples' decisions to have another child a purely transactional one.

Whichever perspective one takes, parenting requires sacrifices. Rightly, pro-natalists wish to soften the financial blow. These measures are important, but the decision to have a child is a much deeper matter. Better, happier, more joyful stories matter. Embracing what one writer described as the "parenting emergency" can require individual courage, and that leap comes more readily if the surrounding culture is supportive. If we work with the grain of existing sentiment, wrapped in a vocabulary that is recognisably "progressive", surely the transition into parenthood becomes easier for young adults.

In short, this is how we tell a better story. A story of choice, fairness, kindness, sustainability, and representation; headings that belong to the argot of progressivism, but which in truth represent the contemporary challenges to raising a family. To summarise:

1. Choice.

Choice now means the freedom to have children, in the face of economic and cultural pressures hindering families from bringing new life into the world. The gap between the number of children people want, and the (far smaller) number they are having, is the modern challenge to freedom of choice and economic sustainability.

2. Fairness.

Across Western countries, it is in the collective interest for couples to have more children, and individuals, parents, families, communities, and the state should support parents by helping to shoulder this responsibility. Fairness therefore requires the state to recognise the sacrifices of those who have chosen to create and raise the next generation. "Social justice" also requires an awareness that shrinking fertility rates concentrate hereditary wealth in one-child families, potentially reducing social mobility. Having more children makes everyone better off.

3. Kindness.

If we are to be kind to children, we must speak honestly about the difficulties of growing up without siblings. Generally speaking, having a brother or sister correlates with less social fragility, bullying, obesity, and depression. There is such a thing as "sibling poverty".

4. Sustainability.

The planet, or at least large swathes of it, now faces a sustainability crisis that is increasingly demographic. De-population, not over-population, is the emerging threat. Multi-child households have smaller per-capita carbon footprints than single-occupancy homes, for which there is a growing and often overlooked fashion given individual lifestyle preferences.

5. Representation.

When it comes to fertility, the public square is dominated by dual income couples and highly- credentialed parents. In spite of polling which shows that many low-paid mothers and fathers want to spend more time raising their children, policy debates rarely feature these voices. The experiences of underpaid individuals working in childcare, and what they perceive to be the deleterious impact of shrinking families, are repeatedly ignored.

Ultimately, in championing procreation, we are restoring the value given to the most underrepresented and yet vital members of our society—our children. The better story is one of thriving siblings and their ability to provide one another with lifelong support and emotional maturity. Our society's ability to flourish in years to come depends on our willingness to care for its future leaders in the midst of our modern, dynamic lives. It is in the gift of new life that we can place our confidence for a brighter future.

wal/#:~:text=As%20it%20stands%2C%20and%20in,size%20in%20the%20long%20term.

²YP Rajesh, "India to surpass China as world's most populous country in April, UN says," Reuters, April 24, 2023, https://www.reuters.com/world/india/india-surpass-china-worlds-most-populous-country-april-un-says-2023-04-24/. ³ United Nations Population Fund, "The Problem with 'Too Few'," accessed September 6, 2023,

https://www.unfpa.org/swp2023/too-few.

⁴ Kyodo News, "Japan's population falls under 125 mil., 12th year of decline," Kyodo News, April 12, 2023, https://english.kyodonews.net/news/2023/04/50abd3568677-japans-population-falls-under-125-mil-12th-year-of-decline.html#:~:text=Japan's%20population%20shrank%20by%20556%2C000,As%20of%20Oct

⁵ "World Population Policies 2021: Policies related to fertility," United Nations Department of Economic and Social Affairs, Population Division, 2021, https://www.un.org/development/desa/pd/content/world-population-policies-2021-highlights. ⁶ George Willoughby, "Scottish birth rate down by 20% in 'uncertain times'," The Times, January 25, 2023,

https://www.thetimes.co.uk/article/scottish-birth-rate-down-bv-20-in-uncertain-times-zgkhzxsgk.

⁷ Sui-Lee Wee & Elsie Chen, "China Wants More Babies. Some Men Choose Vasectomies.," New York Times, June 1, 2021, https://www.nytimes.com/2021/06/01/world/asia/china-vasectomies.html.

⁸ Jung Min-Kyung, "Envisioning Korea in 2070 in births, deaths, marriages and immigration," The Korea Herald, March 11, 2023.

https://www.koreaherald.com/view.php?ud=20230309000802#: ``:text=According%20to%20projections%20by%20the, the%20population%20will%20be%2062.2.

⁹ Strategic weakness is not just a function of absolute falls in population. One American demographer describes the 'Saving Private Ryan' effect, caused by the growing number of sibling-free children who make it harder for developed nations to go to war. A parent would be more reluctant to let their only son or daughter go off to fight, die and, at a stroke, leave them childless. Phillip Longman, "The Global Baby Bust," Foreign Affairs, May 1, 2004, https://www.foreignaffairs.com/world/global-baby-bust.

¹⁰ Hildegard Schaeper, Michael Grotheer, and Gesche Brandt, "Childlessness and Fertility Dynamics of Female Higher Education Graduates in Germany," in Childlessness in Europe: Contexts, Causes and Consequences, ed. Michaela Kreyenfeld and Dirk Konietzka (Cham: Springer Nature, 2017), 209-232.

¹¹ "Education at a Glance 2020: OECD Indicators," OECD iLibrary, accessed September 6, 2023, https://www.oecd-ilibrary.org/sites/69096873-en/index.html?itemId=/content/publication/69096873-en.

¹² Koh Ewe, "Why S. Korea's Crackdown on Private Tutoring Is Just a 'Band-Aid' on a Much Larger Problem," Time Magazine, https://time.com/6292773/south-korea-crackdown-hagwons-cram-schools-competition/.

¹³ Simon Mundy, "Low South Korean birth rate raises fears," Financial Times, January 2, 2013, https://www.ft.com/content/3be6ec40-4dd4-11e2-9e71-00144feab49a.

¹⁴ Peter Bönisch and Walter Hyll, "TV Role Models and Fertility," The German Socio-Economic Panel 752, (2015).

¹⁵ Emma Dunkley and Stephen Adams, "Rise of celebrities having children in their mid-40s is 'causing a fertility crisis': Older mothers are misleading women into thinking they can conceive naturally well into their fifth decade, says IVF expert," Mail Online, March 14, 2021, https://www.dailymail.co.uk/news/article-9359503/Rise-celebrities-having-children-mid-40scausing-fertility-crisis.html.

¹⁶ Kain Jones, "The World's Most Photographed Celebrities," Pixsy, May 27, 2022, https://www.pixsy.com/the-worlds-most-photographed-celebrities/.

¹⁷ British Vogue, "From The Archive: When The Duke Of Sussex Interviewed Dr Jane Goodall About The Future Of Sustainability," British Vogue, 21 October, 2021, https://www.vogue.co.uk/article/prince-harry-jane-goodall-september-2019-issue.

¹⁸ Lyman Stone, "In Georgia, a Religiously-Inspired Baby Boom?," Institute for Family Studies, October 11, 2017, https://ifstudies.org/blog/in-georgia-a-religiously-inspired-baby-boom.

¹⁹ Eric Kaufmann, Shall the Religious Inherit the Earth?: Demography and Politics in the Twenty-First Century (London: Profile Books, 2010).

 20 As told to me for a BBC World Service documentary: "My faith and my large family", BBC, August 2, 2019, https://www.bbc.co.uk/sounds/play/w3csz8mb.

²¹ "...family members now constitute a smaller part of people's social interactions than any time in our evolutionary history.... this change is the critical factor in decreasing birth rates because family members encourage each other to have children, whereas non-kin don't. Without this pro-reproductive encouragement coming from family, people are less likely to have children."

Ilan Shrira, "History's mysteries: Why do birth rates decrease when societies modernize?," Psychology Today, March 15, 2009, https://www.psychologytoday.com/gb/blog/the-narcissus-in-all-us/200903/history-s-mysteries-why-do-birth-rates-decrease-when-societies.

²² There is evidence to suggest that an increasing median age blunts the creative forces of youthful enterprise. Older people are disinclined to risk capital. Eg Jonathan V Last, "What To Expect When No-One's Expecting," Encounter, 2013.

¹ Martin Armstrong, "Fertility rate hits record low in England and Wales," Statista, October 14, 2021, https://www.statista.com/chart/25975/fertility-rate-timeline-eng-

²³ Colin Brazier, Sticking Up for Siblings: Who's Deciding the Size of Britain's Families? (London: Civitas, 2013).

²⁴ "Portrait of Families and Living Arrangements in Canada," Statistics Canada, September 2012,

https://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-312-x/98-312-x2011001-eng.pdf.

²⁵ Jeffrey Kluger, "The New Science of Siblings," Time, July 10, 2006,

https://content.time.com/time/magazine/article/0,9171,1209949,00.html.

²⁶ Lisa Cameron, Nisvan Erkal, Lata Gangadharan, and Xin Meng, "Little Emperors: Behavioural Impacts of China's One Child Policy," Science 339, (January 2013).

²⁷ Rebecca Morelle, "China's one-child policy impact analysed," BBC News, January 10, 2013,

https://www.bbc.co.uk/news/science-environment-20976432.

²⁸ University of Illinois at Urbana-Champaign, "Siblings play formative, influential role as 'agents of socialization',"

ScienceDaily, January 20, 2010, https://www.sciencedaily.com/releases/2010/01/100115112104.htm.

²⁹ Douglas Downey and Dennis Condron, "Playing Well With Others in Kindergarten: The Benefits of Siblings At Home," Journal of Family and Marriage 66, no. 2 (May 2004).

³⁰ William Ickes, Everyday Mind Reading: Understanding What Other People Think and Feel, (New York: Prometheus, 2003).

³¹ Mary Eno, "Sibling Relationships In Families Of Divorce", Journal of Psychotherapy & The Family 1, no. 3 (1985): 139-156.

³² Laurie Kramer and Katherine Conger, "What We Learn From Our Sisters and Brothers: For Better Or Worse," New Directions for Child and Adolescent Development 126, (Winter 2009): 1-12.

³³ Amelia Hill, "Sibling Rivalry 'good for children'," The Guardian, April 7, 2011,

https://www.theguardian.com/society/2011/apr/07/sibling-rivalry-good-for-children.

³⁴Adeyemi Okunogbe et al., "Economic impacts of overweight and obesity: current and future estimates for 161 countries," BMJ Global Health 7, no. 9 (2022), https://gh.bmj.com/content/7/9/e009773.

³⁶ Laura Donnelly, "Massive cost of obesity to NHS revealed," The Telegraph, September 13, 2023,

https://www.telegraph.co.uk/news/2023/05/17/cost-of-obesity-twice-those-who-are-healthy-nhs/.

³⁷ S Kimm and N Glynn, "The Role Of Sociodemographic, Psychologic And Behavioral Predictors Of Weight Outcomes, Dietary Behaviors And Physical Activity," University of Pittsburgh, 2004.

³⁸ Cristina Padez et al. "Prevalence And Risk Factors For Overweight And Obesity In Portuguese Children," Acta Paediatrica 94 (2005): 1550-1557.

³⁹ Hongbing Wang et al, "Sib-Size, Birth Order And Risk Of Overweight In Junior High School Students In Japan," Preventative Medicine 44 (2007): 45-51.

⁴⁰ Anna Pearce et al., "Does Childcare Influence The Risk Of Overweight And Obesity In The Early Years? Findings From The UK Millennium Cohort Study," Journal of Epidemiology and Community Health 63 (2009).

⁴¹ G Ravelli and L Belmont, "Obesity In Nineteen-Year-Old Men: Family Size And Birth Order Associations," American Journal of Epidemiology 109 (1979): 66-70.

⁴² G Brody, "Sibling Relationship Quality," Annual Review of Psychology 49 (1996): 1-24.

⁴³ Rona Abramovitch, Debra Pepler, and Carl Corter, "Patterns Of Sibling Interaction Among Preschool-age Children," in Sibling Relationships, ed M E Lamb (New York: Psychology Press, 1982).

⁴⁴ "Scotland's papers: Stroke risk warning and plea over bullying epidemic," BBC News, January 25, 2023, https://www.bbc.co.uk/news/uk-scotland-64394879.

⁴⁵ L Hadfield, R Edwards, M Mauthner, "Brothers And Sisters: A Source Of Support For Children In School?," Education 34 (2006): 3-13

⁴⁶R Edwards, L Hadfield, and M Mauthner, "Children's Understanding Of Their Sibling Relationships," The National Children's Bureau for the Joseph Rowntree Foundation, 2005.

⁴⁷ Laura Padilla-Walker, JM Harper, and AC Jensen, "Self-regulation as a mediator between sibling relationship quality and early adolescents' positive and negative outcomes," Journal of the Division of Family Psychology of the American Psychological Association 24 (2010): 419-428.

⁴⁸ Professor Tony Cassidy from Ulster's School of Psychology presented his findings at the British Psychological Society Annual Conference in Brighton in April 2009.

⁴⁹ A Milevsky, "Compensatory Patters Of Sibling Support In Emerging Adulthood," Journal of Social and Personal Relationships (2005): 743-755.

⁵⁰ lbid: "Contrary to previous work on children and adolescents, the current study found that sibling support compensates for low levels of support from other relationships. Sibling support partially and completely compensated for low support from mothers for depression and self-esteem. Low support from fathers was partially and completely compensated for by siblings for loneliness, self-esteem and life satisfaction."

⁵¹ L White, A Riedmann, "Ties Among Adult Siblings," Social Forces 71 (1992): 85-102.

⁵² A Chua, Battle Hymn of the Tiger Mother, (London: Bloomsbury, 2011), 48.

⁵³ Reuters Staff, "Turkey's Erdogan says birth control 'treason' against Turkish lineage," Reuters, December 22, 2014, https://www.reuters.com/article/uk-turkey-birthcontrol-idUKKBN0K019520141222.

⁵⁴ Paul Morland, "Should we tax the childless?," The Times, July 3, 2022, https://www.thetimes.co.uk/article/should-we-tax-the-childless-j7h9c297r.

⁵⁵ "Lionel Shriver | Episode 7," The Colin Brazier Podcast, May 5, 2022, https://www.listennotes.com/podcasts/the-colin-brazier-podcast-gb-news-FkKpdo6OJLU/.

⁵⁹ Bob Fredericks, "Ocasio-Cortez asks if climate change means we should stop having kids," New York Post, February 25, 2019, https://nypost.com/2019/02/25/ocasio-cortez-asks-if-climate-change-means-we-should-stop-having-kids/.

⁶⁰The Lancet, "The Lancet: World population likely to shrink after mid-century, forecasting major shifts in global population and economic power", EurekAlert!, July 14, 2020, https://www.eurekalert.org/news-releases/913077.

⁶¹ Lydia Saad, "Americans, in Theory, Think Larger Families Are Ideal," Gallup, July 6, 2016,

https://news.gallup.com/poll/236696/americans-theory-think-larger-families-ideal.aspx.

⁶² Maria Testa, "Family Sizes in Europe: Evidence from the 2011 Eurobarometer Survey," Österreichische Akademie der Wissenschaften, February 2012,

https://www.oeaw.ac.at/fileadmin/subsites/Institute/VID/PDF/Publications/EDRP/edrp_2012_02.pdf.

⁶³ E Corfe, A Bhattacharya, "Baby-Bust and Baby-Boom: Examining the Liberal Case for Pronatalism," Social Market Foundation, 2021.

⁶⁴ Mandy Zuo, "China's population woes have state organs, demographers calling for drastic societal changes to boost birth rate," South China Morning Post, May 16, 2023, https://www.scmp.com/economy/china-economy/article/3220623/chinas-population-woes-have-state-organs-demographers-calling-drastic-societal-changes-boost-birth.

⁶⁵ Peter Walker and Pippa Crerar, "Low birthrate is UK's top priority, Tory MP tells rightwing conference," The Guardian, May 15, 2023, https://www.theguardian.com/politics/2023/may/15/low-birthrate-is-uk-top-priority-tory-mp-tells-rightwing-conference-miriam-

cates#: ``text = Cates%20 said%20 the%20 low%20 birth rate, climate%20 emergency%2C%20 Russia%20 or%20 China.

⁵⁶ Dorothy Bryne, "My fertility warning caused a stir but I have no regrets. I wish I'd been told to try for a baby earlier", Evening Standard, October 15, 2021, https://www.standard.co.uk/comment/comment/my-fertility-warning-caused-a-stir-but-no-regrets-wish-i-d-been-told-to-try-for-baby-earlier-b960715.html.

⁵⁷C Hickman, et al, "Climate Anxiety in Children and Young People and Their Beliefs About Government Responses to Climate Change," The Lancet Planetary Health 5, no. 12 (December 2021).

⁵⁸ Shannon Osaka, "Should you not have kids because of climate change? It's complicated.," The Washington Post, December 2, 2022, https://www.washingtonpost.com/climate-environment/2022/12/02/climate-kids/.



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