# Title: The male breadwinner nuclear family is not the 'traditional' human family, and promotion of this myth may have adverse health consequences

### Rebecca Sear, London School of Hygiene and Tropical Medicine

Published in 'Multidisciplinary perspectives on social support and maternal-child health' issue of Philosophical Transactions of the Royal Society, Series B, May 2021

doi: 10.1098/rstb.2020-0020

### Abstract

The importance of social support for parental and child health and wellbeing is not yet sufficiently widely recognised. The widespread myth in Western contexts that the male breadwinner-female homemaker nuclear family is the 'traditional' family structure leads to a focus on mothers alone as the individuals with responsibility for child wellbeing. Inaccurate perceptions about the family have the potential to distort academic research and public perceptions, and hamper attempts to improve parental and child health. These perceptions may have arisen partly from academic research in disciplines which focus on the Western middle classes, where this particular family form was idealised in the mid 20<sup>th</sup> century, when many of these disciplines were developing their foundational research. In contrast, evidence from disciplines which take a cross-cultural or historical perspective shows that, in most human societies, multiple individuals beyond the mother are involved in raising children: in evolutionary anthropology, it's now widely accepted that we have evolved a strategy of cooperative reproduction. Expecting mothers to care for children with little support, while expecting fathers to provide for their families with little support, is therefore likely to lead to adverse health consequences for mothers, fathers and children. Incorporating evidence-based evolutionary, and anthropological, perspectives into research on health is vital if we are to ensure the wellbeing of individuals across a wide range of contexts.

#### Introduction

To misquote John Donne 'no woman is an island', able to raise children alone. In evolutionary anthropology, it is now widely accepted that we are a species which practices cooperative reproduction: throughout human history, children have been raised by cooperative networks of individuals [1,2]. In Western contexts, this idea does not yet appear to be particularly widespread much beyond anthropology, either in academia, in popular culture or among policy-makers. Instead, the 'traditional' family is widely regarded to be a nuclear family, where the husband-wife unit is assumed to be economically autonomous and responsible for raising children with little help, with an extreme sexual division of labour in which men are solely responsible for 'breadwinning' and women 'homemaking'. In reality, across most societies, the husband-wife unit is rarely autonomous, but is instead engaged in extensive cooperative relationships with other individuals, particularly other family members. These include extensive help with raising children. The male breadwinner-female homemaker division of labour is also unusual. While there is often a sexual division of labour, such that women and men do not have exactly the same roles (for example, women do typically spend more time in childcare), childcare is not the exclusive preserve of women in most societies and, even more so, productive labour is not the exclusive preserve of men.

Inaccurate assumptions about the 'traditional' human family matter because they are reflected in academic research, policy and health interventions, and popular discussions, meaning they have the potential to distort research, hamper attempts to improve health and wellbeing, and feed into problematic political narratives. These assumptions also spread into research and public health interventions in the Global South, given the loudness of the Global North's voice in these arenas. Such assumptions are particularly problematic because of the ease with which 'traditional' becomes 'natural' and 'good', despite endless repetition of the dangers of the naturalistic and is/ought fallacies. Behaviour which is 'natural' or which is typically performed is not necessarily always the 'right' behaviour, but moral judgements are frequently made about family form, likely because of the importance of family in human lives. To avoid hampering research, public health and policy, and misinforming popular culture, it is important therefore to promote an accurate picture of what the human family actually looks like worldwide, emphasising the diversity of family forms in which children can be successfully raised.

# Where does the idea that the 'traditional' human family is a male breadwinner nuclear family come from?

If the male breadwinner nuclear family is a relatively unusual family form, then where does the idea that it's the 'traditional' family come from? Evolutionary researchers need to bear some responsibility for promoting this view. Social norms surrounding the family and gender roles undoubtedly have complex origins, but in popular discourse in the West they are often given an evolutionary justification; for example, the male breadwinner-female homemaker family may be considered the 'natural' way of things because of the assumption that women are biologically designed to bear and raise children, while men provide for them. This view unfortunately does appear in some evolutionary research, particularly from the mid-to-late 20<sup>th</sup> century. For example, 'Man the Hunter' was an influential conference and subsequent book in the 1960s which promoted a vision of an evolutionary past in which hunting by men and provisioning of women and children was of key importance in human evolution [3]. Lovejoy's aptly titled 1981 paper "The origin of man" extrapolated this vision beyond male provisioning into the claim that female home-making also had a long history: "the nuclear family ...may have [its] ultimate origin long before the dawn of the Pleistocene" [4]. There were always some voices in evolutionary social science emphasising the importance of the extended family, and recent decades have seen an explosion of evolutionary anthropological literature providing evidence that male breadwinner nuclear families are far from 'traditional' (see next section), but even in 2020, some evolutionary psychologists are still publishing papers which explicitly refer to this family form as 'traditional'. Given that this idea is still being (inaccurately) promoted in some areas of the evolutionary behavioural sciences, it is not too surprising that there should still be a popular perception that the male breadwinner family is 'traditional'.

Some social sciences also need to shoulder responsibility for promoting the view that the male breadwinner nuclear family is 'traditional'. Research on the family by the economist Gary Becker, which has been highly influential far beyond economics, assumes the male breadwinner nuclear family is the organisational unit on which economic production is focused. In his widely read 'A Treatise on the Family', he explicitly attributed household specialisation to biological differences between the sexes: *"The most pervasive division [of labour] is between married women, who traditionally have devoted most of their time to childbearing and other domestic activities, and married men, who have hunted, soldiered, farmed, and engaged in other "market" activities" [5]. He even referred to men in the household and women in the labour market as a <i>"deviant division of labour" (p40)*, though he backtracked on biological differences as the cause of household specialisation in domestic or market work in other writings [6]. Despite acknowledging the important economic contributions of children to the household in some societies, he also did not appear to be aware of the considerable support

that mothers receive for childrearing: *"over the years most households in Western and Eastern societies have been headed by married men and women who raise their own children"* [5].

In much of sociology and demography too, there seems to be a pervasive assumption that the male breadwinner nuclear family is the norm: changes in family structure which have happened in (some sections of) Western populations since the Second World War, such as increasing female labour force participation, childbearing outside of marriage, and decreasing marriage rates, have been described as the "decline" of the family [7] and "the earthquake that shuddered through the American family in the past 20 years" [8]. While these ideas may have been partly influenced by Becker's views on the 'traditional' nature of the male breadwinner nuclear family, they may also arise from work by sociologists such as Talcott Parsons. Parsons, while acknowledging that other family forms existed, concluded that the 'isolated' male breadwinner nuclear family was best suited to (the most 'natural' in?) industrialised societies [e.g. 9]. These ideas about late 20<sup>th</sup> century 'declines' in the family led to concerns about mothers "abandoning" their children by going out to work, though subsequently demographers were "perplexed" that this did not seem to have the expected catastrophic consequences for child wellbeing [10]. McLanahan's widely cited "diverging destinies" framework in demography, however, does argue that a shift away from 'traditional' marriages - of which the mainstay is "gender-role specialization" – is having adverse effects on children. Similar assumptions about the importance of mothers dedicating themselves exclusively to childrearing, influenced by Bowlby's mid 20<sup>th</sup> century evolutionary work on 'attachment', are made in psychology, where the responsibility for children's development and success is typically placed squarely in mothers' laps (see Budds this issue).

What all of these lines of research which emphasise the male breadwinner nuclear family have in common is that they arose shortly after the Second World War, as many academic disciplines burgeoned. It was during this time period that the idealisation of the male breadwinner nuclear family reached its zenith in the West. This family form seems to have been deliberately promoted by some governments as a way to get women out of the labour force immediately after the Second World War in order to ensure jobs were available for returning servicemen (Budds, this issue). Promotion which was made easier by the rise of new forms of mass media such as television, and the rise of powerful media corporations, which allowed this family form to be stamped on the consciousness of academics and the general public alike [11,12]. Academic researchers responsible for some foundational work in various disciplines during this period may have drawn conclusions about what is the 'traditional' or 'natural' human family from the family arrangements in which they grew up, raised their own children

and saw represented in the media. These ideas have since been influential in the development of these academic disciplines. Further, the perverse incentives in academia which encourage academics to stay within their disciplinary lanes mean that there may be little interaction between disciplines which draw conclusions about the 'traditional' family from a particular context and time period, and those which might have different perspectives on the family, such as anthropology or history. The next sections review research from these latter disciplines to show that the male breadwinner nuclear family, to the extent that it exists at all, is likely relatively novel in human history.

#### What does the 'traditional' human family actually look like?

A more accurate picture of the human family is one of flexibility. Anthropology, including evolutionary anthropology, has produced a large body of work on family structure and the division of labour within families from cultures worldwide. There are some features of the male breadwinner nuclear family which are common worldwide: the tendency to form pair-bonds between individuals who work together to raise children, and the tendency for women to devote more time to childrearing than men. But these pair-bonds are not always lifelong, exclusive or co-residential, and don't necessarily involve only the parents of the children [13]; nor are children always raised by their own parents [14,15]. Greater emphasis on childrearing among women also does not mean that exclusive female domesticity automatically follows. For mothers across species and in most human societies, 'childrearing' involves making sure children are fed, which, for our species, means women typically work in productive labour to produce food, alongside other family members. What is particularly missing from the 'traditional' view of the family is acknowledgement of cooperative relationships beyond the parents: the food that men and women produce is not necessarily used to feed their own children, but shared more widely both with extended family and other group members. The extended family and other group members also share other tasks needed to raise children successfully, such as direct childcare.

It is now widely accepted in evolutionary anthropology that humans have evolved a cooperative strategy of reproduction. In comparison with other apes, we humans bear a relatively large number of children in quick succession, and our children are dependent on adult provisioning for an unusually long time. This creates a heavy burden of care since mothers simultaneously have multiple dependent children; a burden mothers can't manage alone, as other ape mothers tend to do. We are also a species which relies heavily on social learning, and other family and group members provide support for children to develop the skills necessary in adulthood, both for productive work and for raising

children. These characteristics of our species mean that we adopt a reproductive strategy which involves an unusually high degree of investment from fathers, compared to other mammals. But paternal investment is not universal nor necessarily sufficient [16], so that typically multiple other individuals are also involved in raising children, though exactly who is involved in childraising varies between societies [1,17–20].

Evidence both for the significant contributions of women to the family diet and of a cooperative reproduction strategy come from data on production patterns across the life course, i.e. how much individuals of different sex and age contribute to the diet, in terms of number of calories produced. Across subsistence societies – those which are entirely or very largely self-sufficient in producing food – women typically contribute a substantial proportion of calories to the diet. On average, female contributions hover slightly below 50% [21,22], though these patterns do vary between populations: there are some societies in which women produce few calories, but there are also some in which women contribute the majority of food produced [23–26]. Analyses of how both production, and consumption, patterns vary across the life course also demonstrate that both sexes tend to remain net producers, producing more calories than they consume, until late in life [27–29]. The excess food they produce is then used to help support their existing children and grandchildren.

Such intergenerational support from the grandparental generation is common worldwide, and not just in terms of providing children with food. Grandparents provide a range of other types of support to their adult children and grandchildren, including direct childcare, help with domestic work, as well as emotional support and advice. Aubel's reviews of the literature in lower and middle income countries illustrate the influential role that grandmothers and older women have as advisors and caregivers around the perinatal period and in child feeding [30,31]. Another recent literature review assessed the evidence for the impact of grandparental investment (measured by coresidence, caregiving, financial and other support) on grandchild outcomes (including physical health, socio-emotional wellbeing and cognitive development)[32]. These associations were quite heterogeneous, with the exception that studies on cognitive development tended to show beneficial associations between grandparental investment and child outcomes. An earlier literature review suggested that the presence of grandmothers, particularly maternal grandmothers, was associated with higher child survival in some settings [33,34].

These reviews on grandparents and child outcomes do need to be interpreted cautiously, as few studies on the topic have used methods which provide evidence for a causal association between

grandparental presence or investment and grandchild outcomes [but see 35,36]. Associations are also not always positive, at least when public health metrics are used. For example, some studies have found that grandparental involvement tends to be positively associated with child BMI in high or middle income contexts, meaning that higher rates of 'over-nutrition' may be seen in such children. These findings could be interpreted as grandparents trying to support their children and grandchildren, even if these attempts don't jive with public health recommendations [see also 37,38]. A further difficulty is that the non-maternal childcare literature often takes a narrow perspective, with a heavy focus on the grandmother – possibly influenced by the abundance of grandparents in the West, because of higher longevity (though grandparents are not a novel phenomenon: [39]). But our cooperative reproduction strategy is a flexible one, with mothers seeking help where available. If grandmothers are not available, mothers may turn to other carers instead, meaning that children without grandmothers may not appear to be any worse off than those with grandmothers [40,41](see also Vasquez-Vasquez, this issue). Nevertheless, these reviews do present clear evidence that grandparents provide many different types of support to their children and grandchildren across a wide range of contexts worldwide, supporting the hypothesis that childraising requires cooperation in our species.

Despite the idealisation of the nuclear family and emphasis on mother-as-caregiver in the West, cooperative reproduction is also seen in these societies. Recent research has shown that high proportions of grandparents in Europe provide childcare for their grandchildren [42], as well as emotional support, advice and transfers of financial resources [43]; support which has been shown to be sufficient to increase women's labour force participation [44]. Even in 1959, around the height of the idealisation of the male breadwinner family, research which explored intergenerational relations concluded: "*The answer to the question 'The isolated nuclear family, 1959: fact or fiction?' is mostly fiction. Kin ties, esp intergenerational ones, have far more significance than we have been led to believe in the life processes of the urban [US] family"* [45].

If the extended family has been so consistently important, then again this begs the question of why is there so much idealisation of the nuclear family in the West? Part of the answer may lie in some differences in how cooperative reproduction is practiced in higher income, market-integrated populations compared with the subsistence societies humans have lived in for most of our history. In high income populations, an important component of cooperative childraising involves state-provided or private childcare and schooling (Hughes et al, this issue, highlights how the paid childcare sector is also rapidly growing in lower and middle income countries). Formal education may not typically be perceived as 'childcare' but it provides parents with a safe and socially acceptable place to leave children, where they develop skills needed for adulthood, while parents can engage in productive work. Failure to recognise paid childcare or formal schooling as one plank in our strategy of cooperative reproduction may feed into the perception that parents are solely responsible for raising children. The COVID pandemic may shift these perceptions, as it has clearly highlighted, in their absence, the reliance of parents on schools and childcare facilities.

Intergenerational transfers are also somewhat different between contemporary high income and subsistence societies. In the former, older individuals support their families in many ways and private financial transfers still flow down generations, but older individuals often become economically inactive relatively early in life. The provision of state-provided pensions and healthcare means that net financial transfers flow up generations, once these public transfers are taken into account. This contrasts with subsistence societies, where older individuals remain net producers until near the end of their lives, meaning net transfers of resources flow down generations [28]. Another notable difference between cooperative reproduction as practiced throughout most of human history and in contemporary high income societies is the role of children. In high income populations, children are expected to attend school rather than work, but in subsistence societies children make substantial contributions to the family economy by engaging in a range of subsistence and domestic work, including caring for younger siblings or relatives [46–49] (Page et al, this issue). The economic inactivity of both children and the older generation in high income populations may reinforce ideals about the married couple as the foundational family unit, responsible for caring for both children and their parents even if – in reality – the grandparental generation, at least, is still providing substantial support of various kinds for raising children.

Before moving on to the next section, it's worth noting that there may be some unexpected side effects to our cooperative strategy of reproduction. Sarah Hrdy has suggested that the reason that humans and callitrichids (marmosets and tamarins) share the relatively unusual characteristic among primates of maternal infanticide is because both are cooperative breeders [50]. In the absence of helpers, it may be better for mothers to end investment in a particular offspring and wait for a time when help is available to attempt to raise a child. Our cooperative strategy of reproduction might therefore help explain the contingent nature of mother love, as described by Hrdy [51], by anthropologists such as Nancy Scheper-Hughes [52] and by historians such as Elisabeth Badinter [53], whereby mothers do not always lavish unconditional love on their children, but might withdraw or reduce investment under some circumstances. Our cooperative strategy of reproduction also opens

up the possibility of conflict within the family. If family members cooperate to raise children then this means that family resources are shared between family members, who may then compete over access to these resources [54–56]. It is important to remember that our cooperative reproductive strategy, though it does suggest supportive relationships are often seen between mothers and other family, does not paint an entirely rosy picture of unconditional love and devotion between all family members.

#### Male breadwinning appears to be relatively novel in human history

So research in anthropology has presented clear evidence that the male breadwinner nuclear family is not the 'traditional' family form, in that, across societies, women mostly work and parents typically receive considerable support for childrearing. Nevertheless, there is variation between societies in exactly what the human family looks like, with some conforming a little more closely to the male breadwinner nuclear family model than others – though, as described above, even those that look more like isolated nuclear families typically receive a lot of 'hidden' support for raising children. Historical disciplines have contributed to this discussion by demonstrating that male breadwinning appears to be relatively novel in our history; the rise of male breadwinning seems to be associated with industrialisation in Western Europe [57-60]. In most subsistence economies, economic contributions of women and children are vital to family success; the exceptions, where women contribute relatively few calories to the diet, typically involve cooperation between men to produce food [61]. Male breadwinning is a strategy which is often inefficient – wasting the potential economic contributions of women and children – and risky – given that death, incapacity or desertion of the breadwinner endangers the mother and children left behind, if they have no means to support themselves. In Europe in recent centuries, a combination of increasing agricultural productivity, wealth extracted from colonies and the industrial revolution meant that market economies grew and standards of living rose. This made a male breadwinning strategy more feasible, since it relies on the breadwinner being able to bring in a sufficiently high and reliable flow of resources to support an entire family.

This broad brush overview does hide considerable variation in family structure in the industrialising West, though: in more economically disadvantaged regions and groups, male breadwinning may never have gained a strong foothold, because it requires a certain level of resources and security [62]. The tendency of academics to come from the kind of affluent families in which male breadwinning is feasible, incidentally, is likely another reason why some academic research is particularly fixated on

this family form. Once established in those economically advantaged regions and families, historians have suggested that the male breadwinner norm was then exported to other parts of the world from the West [59]. In parts of Africa for example, there is evidence that the male breadwinner norm was introduced by colonial authorities and by the Christian missionaries who accompanied colonisation during the 19<sup>th</sup> and early 20<sup>th</sup> centuries [63]. Elsewhere, in South Asia for example, industrialisation may also have led to the emergence of a male breadwinner norm, but through a slightly different trajectory to that in Europe, with a progressive differentiation of men's and women's work and devaluation of women's work [64].

Changing economic conditions may well have been the catalyst for a shift towards male breadwinning in Western Europe, but there has been a long-standing debate as to whether some elements of the nuclear family form – notably residence patterns which involve nuclear families residing apart from extended family members – may have predated industrialisation in this part of the world [65–67]. Henrich has recently contributed to this debate by arguing that the Christian church was responsible for unusual European marriage patterns which extend back several centuries, where couples tended to marry late and formed independent households after marriage. In particular, the Church banned polygyny and discouraged extended families and strong kinship networks ([68] but see [69]). This may have resulted in a shift towards nuclear families, and away from coresidence with extended family members, but these nuclear families were not 'isolated' in the sense that mothers and fathers provided, and cared, entirely for their own children. Domestic servants ('hired helpers at the nest') were commonly employed in households in historical Europe, suggesting that support for childrearing from non-kin may have a relatively long history in Europe [70].

Returning to the catalyst of industrialisation, this allowed not only sufficient income for a male breadwinner strategy to become more feasible, but also a clear public/private divide, as work increasingly took place outside the home. This meant a separation of 'breadwinner' and 'homemaker' roles, whereas in subsistence economies work and home lives are typically more blurred [64]. This illustrates an important point about the 'traditional male breadwinner nuclear family' norm: it is associated not just with a particular division of labour within the household, but also with rigid gender roles [71,72]. This vision of the family is a patriarchal model, in which men's roles are firmly in the public sphere, and they have authority over wives and children; women's roles lie firmly in the private sphere. This model is also associated with idealisation of a particular kind of childhood and of motherhood. Children in most societies contributed productively to the family economy [73,74], both because their help was a necessary part of our cooperative reproduction strategy, but also because

children's work both in raising younger children and in subsistence tasks allowed them to learn the skills needed for adulthood [75,76]. Perceptions of childhood changed during and after the industrial revolution, likely influenced by declining child mortality and the rise of formal education, associated with changing patterns of productive labour. The former meant that raising children successfully became a less stochastic process and so intensive investment in children may have had more of an impact in determining child success. The latter meant children were educated away from the home, meaning that they may have had less opportunity for contributing to the family economy.

As children's roles in the family changed with industrialisation, so did women's. The emergence of the male breadwinner model pushed women into the home, where childhood was being re-interpreted as a period of consumption rather than production. Women's roles therefore became focused on being 'good mothers' who devoted their energies to caring for husbands and children [77]. Basu [77] considers that these new ideals of maternal self-sacrifice – which could be measured, for example, in reduced leisure time for women – also shifted power relations within the family, by 'clamping down' on women's autonomy. This is not to suggest that pre-industrial societies were paradises of female empowerment. Patriarchal families existed long before the industrial revolution. But some elements of women's status do seem to track their contributions to subsistence; various lines of evidence suggest that in those subsistence societies where women contribute more productive labour, they have higher status [78]; for example, higher nutritional status [79]. The male breadwinner nuclear family represents a family form in which women have little economic power and, potentially, reduced access to support from their families, suggesting the status of women may not be high in societies which idealise this family form.

# What are the implications of a male breadwinner isolated nuclear family norm for health and wellbeing?

So there is considerable evidence that the idea that the 'traditional' human family is an isolated nuclear family, in which mothers are solely responsible for childcare and fathers solely responsible for providing for their families, is a myth. Isolated nuclear families, who raise children without help beyond the parental unit, barely seem to exist at all, even in 20<sup>th</sup> or 21<sup>st</sup> century Western societies, and male breadwinning is both rare and novel in our history. Myths about the 'traditional' family, and what 'traditional' maternal and paternal roles should look like, are likely to have real world implications. The assumption that mothers are primarily responsible for children, may put considerable

pressure on women to behave in ways compatible with this difficult-to-attain, and novel, ideal of motherhood (Budds, this issue). Particularly damaging may be the idea that mothers should be able to cope with relatively little support. Research has shown that new mothers in the UK spend a significant proportion of their time alone with their infants (one study found 38% of mothers spent >8 hours a day alone, and 34% between 4-8 hours [80]). This is a situation which appears to be less than desirable in a social species which relies on cooperation to raise children, and on social learning for developing skills in a wide range of behaviours including parenting. Such isolation and the expectation that mothers should cope with little support is not likely to provide ideal childrearing conditions for either mother or child; for example, prompting maternal guilt where mothers feel they are not living up to this ideal [81,82], increased rates of postnatal depression [83] and decreased breastfeeding [84] in the absence of support, and other negative effects on mother's wellbeing [85].

Assumptions about the adverse effect of the 'breakdown' of marriages, which idealise the nuclear family as the best way to raise children, and blame adverse child outcomes on the absence of such a family structure, have also led to government interventions aimed at persuading couples to marry rather than cohabit in the US [86]. These interventions tend to focus on socioeconomically disadvantaged groups because such groups have lower rates of marriage than more advantaged groups. A belief underlying these interventions appears to be that if disadvantaged groups can be made to form marital relationships which mirror the family structure of advantaged groups, then their disadvantage will melt away. Such interventions have attracted criticism, because a more effective way of reducing "bad family outcomes" is likely to be to tackle economic disadvantage itself, rather than a marker of disadvantage such as cohabitation [87]. These marriage interventions also don't work.

Public health initiatives around maternal and child health in lower and middle income countries typically also assume a default nuclear family structure in which mothers are largely responsible for the health of their children – this excludes vital support structures such as grandmothers (see Daniele, this issue). There are even some perceptions in global health that grandmothers are the 'guardians of tradition' [88] and that, if they have a role at all, it is a role which has the potential for *negative* maternal and health outcomes given that the advice of older women may contradict that of public health professionals. This echoes some of the findings from the literature on grandparental investment which suggests that input from grandparents may not always result in child outcomes which would be approved of by a public health professional. But even if older women's advice does contradict that of public health professionals, they are typically very influential in decisions around

maternal and child health, which suggests it is even more important to incorporate older women into public health interventions [30]. The positive results in the handful of studies which have incorporated grandmothers and older women in public health initiatives suggest this would be a fruitful avenue for improving maternal and child health [88–91], and mental health (Dixon Chibanda's 'Friendship Bench' is perhaps the best known example of a successful intervention employing 'grandmothers' [92,93]).

Ideologies around the family and 'traditional' gender roles feed into political ideologies which promote hierarchies of male dominance over women. Online fora have facilitated the spread of misogynistic movements, including Mens' Rights Activist groups and Incels ("involuntary celibates"), which are collectively referred to as the 'manosphere'. These movements use and misuse evolutionary psychology as their theoretical justification, and draw on supposedly biological arguments that women are 'designed' to bear and raise children while men are 'designed' to do pretty much everything else in society [94,95]. These movements have led to fatal terrorist attacks [96,97]. These ideologies not only present a terrorist threat, but also do not seem to benefit the men who adopt them, given such ideologies sometimes promote 'men going their own way' and removing themselves from (female) society [98]. The cooperative nature of our species suggests that such isolationism may not suit our evolved preferences [99]. At a less extreme level, the male breadwinner norm promotes ideals of male independence and isolation from others, since it assumes that men should have the ability to entirely provision a wife and children without support, which may feed into gender norms and socialisation which have been popularly referred to as 'toxic masculinity'. These include emphasis on male dominance and self-reliance, and are considered to be detrimental to men, women and children [100].

Finally, despite the belief in some circles that intensive mothering, and lengthy, dependent childhoods, is optimal for children, the little research on the impact of intensive mothering does not find clear and conclusive evidence that such parenting has substantial positive effects on children [101]. Such childhoods may even fail to allow children to develop some of the skills they need to succeed in adult life [102]. Children and adolescents typically lack opportunities to develop parenting skills in Western societies, for example, as they are no longer involved in caring for younger children. Hrdy [1] also cautions us that, if we are a species adapted to a strategy of cooperative reproduction, then mothers raising children with little support from others, and keeping children dependent on mothers for lengthy periods, may hamper children's abilities to develop the social, cognitive and emotional skills they need to succeed in adult society:

"If empathy and understanding develop only under particular rearing conditions, and if an everincreasing proportion of the species fails to encounter those conditions but nevertheless survives to reproduce, it won't matter how valuable the underpinnings for collaboration were in the past. Compassion and the quest for emotional connection will fade away as surely as sight in cave-dwelling fish"

#### Conclusion

Humans are a social species, and our success, our ability to thrive in almost all environments across the globe, is likely related to our cooperative nature [103]. Hrdy suggests that our strategy of cooperative reproduction may even have led to cooperation in other spheres and affected our cognitive evolution, thereby underpinning our success as a species [1,104]. Contemporary Western society seems in danger of forgetting this, however, and perhaps of encouraging such memory loss in other contexts. Or at least, there is significant idealisation of the isolated nuclear family as the 'traditional' family in the West, even when mothers do in fact receive support with childcare. It may be the rigid gender roles and stereotypes which are associated with this idealisation of the nuclear family which are particularly problematic. Gender roles that expect mothers to be very largely responsible for childcare and men to be able to support families without help may lead to beliefs about what the household division of labour and parenting strategies 'should' be and discourage mothers and fathers from adopting strategies which are best suited to their own situations, and from fully accessing all the support they need. A vision of parenting, family life and childhood which both recognises the cliché that 'it takes a village to raise a child' and also recognises that this 'village' can encompass considerable diversity may be necessary in order for women, men and children to thrive.

## References

- Hrdy SB. 2009 Mothers and Others: The Evolutionary Origins of Mutual Understanding. Cambridge, Massachusetts: Belknap Press.
- Emmott EH, Page AE. 2019 Alloparenting. In *Encyclopedia of Evolutionary Psychological Science* (eds TK Shackelford, V Weekes-Shackelford), pp. 1–14. Springer International Publishing. (doi:10.1007/978-3-319-16999-6\_2253-1)
- 3. Lee RB, DeVore I. 1968 *Man the Hunter*. Chicago: Aldine Publishing Company.
- 4. Lovejoy CO. 1981 The origin of man. *Science (80-. ).* **211**, 341–350.
- Becker GS. 2009 A Treatise on the Family, Enlarged Edition. Harvard University Press. See http://books.google.com/books?hl=en&lr=&id=Vnr8w6HwiAAC&pgis=1.
- Becker GS. 1985 Human Capital, Effort, and the Sexual Division of Labor. J. Labor Econ. 3, S33–S58. (doi:10.1086/298075)
- Popenoe D. 1993 American Family Decline, 1960-1990: A Review and Appraisal. J. Marriage Fam. 55, 527. (doi:10.2307/353333)
- Preston SH. 1984 Children and the elderly: Divergent paths for America's dependents.
   Demography 21, 435–457. (doi:10.2307/2060909)
- 9. Parsons T, Bales RF. 1956 Family Socialization and Interaction Process. Abingdon: Routledge.
- 10. Bianchi SM. 2000 Maternal employment and time with children: Dramatic change or surprising continuity? *Demography* **37**, 401–414.
- Robinson JD, Skill T. 2001 Five decades of families on television: from the 1950s through to the 1990s. In *Television and the American Family* (eds J Bryant, A Bryant), pp. 139–150. Lawrence Earlbaum Associates.
- 12. Myers S, Langsdale S. 2018 The evolution of reproductive fantasies: an interdisciplinary feminist analysis of Disney's Tangled (2010). In *Fantasy/Animation: Connections Between Media, Mediums and Genre* (eds C Holliday, A Sergeant), New York: Routledge.
- Fortunato L. 2015 Evolution of marriage systems. In *International Encyclopedia of the Social & Behavioral Sciences, 2nd ed., vol. 14* (ed JD Wright), pp. 611–619. Oxford: Elsevier. (doi:https://doi.org/10.1016/B978-0-08-097086-8.81059-4.)
- 14. Scelza BA, Silk JB. 2014 Fosterage as a system of dispersed cooperative breeding: evidence from the Himba. *Hum. Nat.* **25**, 448–64. (doi:10.1007/s12110-014-9211-6)
- Hedges S, Sear R, Todd J, Urassa M, Lawson D. 2019 Earning their keep? Fostering, children's education, and work in north-western Tanzania. *Demogr. Res.* 41, 263–292.
   (doi:10.4054/DemRes.2019.41.10)
- 16. Hrdy SB. 2000 The optimal number of fathers: evolution, demography, and history in the

shaping of female mate preferences. Ann. N. Y. Acad. Sci. 907, 75–96.

- Hrdy SB. 2005 Cooperative breeders with an ace in the hole. In *Grandmotherhood: the Evolutionary Significance of the Second Half of Female Life* (eds E Voland, A Chasiotis, W Schiefenhoevel), pp. 295–317. New Brunswick: Rutgers University Press.
- Kramer KL, Ellison PT. 2010 Pooled energy budgets: Resituating human energy -allocation trade-offs. *Evol. Anthropol. Issues, News, Rev.* 19, 136–147. (doi:10.1002/evan.20265)
- 19. Reiches MW, Ellison PT, Lipson S, Sharrock K, Gardiner E, Duncan LG. 2009 Pooled energy budget and human life history. *Am. J. Hum. Biol.* **21**, 421–429.
- 20. Hawkes K, O'Connell JF, Blurton Jones NG, Alvarez H, Charnov EL. 1998 Grandmothering, menopause and the evolution of human life histories. *Proc. Natl. Acad. Sci. USA* **95**, 1336– 1339.
- 21. Hewlett BS. 2000 Culture, history and sex: anthropological contributions to conceptualizing father involvement. *Marriage Fam. Rev.* **29**, 59–73.
- Robinson RS, Lee RD, Kramer KL. 2008 Counting women's labour: A reanalysis of children's net production using Cain's data from a Bangladeshi village. *Popul. Stud. A J. Demogr.* 62, 25–38.
- Panter-Brick C. 2002 Sexual division of labor: Energetic and evolutionary scenarios. Am. J. Hum. Biol. 14, 627–640.
- Bird R. 1999 Cooperation and conflict: The behavioral ecology of the sexual division of labor.
   *Evol. Anthropol.* 8, 65–75.
- Bird RB, Codding BF. 2015 The Sexual Division of Labor. In *Emerging Trends in the Social and Behavioral Sciences* (eds S Kosslyn, RA Scott), pp. 1–16. Wiley.
   (doi:10.1002/9781118900772.etrds0300)
- 26. Hadfield GK. 1999 A coordination model of the sexual division of labor. *J. Econ. Behav. Organ.*40, 125–153. (doi:10.1016/s0167-2681(99)00053-0)
- Hooper PL, Gurven M, Winking J, Kaplan HS. 2015 Inclusive fitness and differential productivity across the life course determine intergenerational transfers in a small-scale human society. *Proc. Biol. Sci.* 282, 20142808. (doi:10.1098/rspb.2014.2808)
- 28. Lee RD, Boe C. In press. Sociality, Food Sharing, and the Evolution of Life Histories. In *Human Evolutionary Demography* (eds O Burger, RD Lee, R Sear),
- 29. Kaplan H. 1994 Evolutionary and wealth flows theories of fertility: empirical tests and new models. *Popul. Dev. Rev.* **20**, 753–791.
- 30. Aubel J. 2012 The role and influence of grandmothers on child nutrition: Culturally designated advisors and caregivers. *Matern. Child Nutr.* **8**, 19–35. (doi:10.1111/j.1740-

8709.2011.00333.x)

- Aubel J. 2021 Grandmothers a neglected family resource for saving newborn lives. *BMJ Glob. Heal.* 6, e003808. (doi:10.1136/bmjgh-2020-003808)
- Sadruddin AFA, Ponguta LA, Zonderman AL, Wiley KS, Grimshaw A, Panter-Brick C. 2019 How do grandparents influence child health and development? A systematic review. *Soc. Sci. Med.* 239, 112476. (doi:10.1016/j.socscimed.2019.112476)
- 33. Sear R, Mace R. 2008 Who keeps children alive? A review of the effects of kin on child survival. *Evol. Hum. Behav.* **29**, 1–18. (doi:10.1016/j.evolhumbehav.2007.10.001)
- Sear R, Coall DA. 2011 How much does family matter? Cooperative breeding and the demographic transition. *Popul. Dev. Rev.* 37, 81–112. (doi:10.1111/j.1728-4457.2011.00379.x)
- Tanskanen AO, Danielsbacka M. 2018 Multigenerational Effects on Children's Cognitive and Socioemotional Outcomes: A Within-Child Investigation. *Child Dev.* 89, 1856–1870. (doi:10.1111/cdev.12968)
- Snopkowski K, Sear R. 2016 Does Grandparental Help Mediate the Relationship between Kin Presence and Fertility? *Demogr. Res.* 34, 467–498. (doi:10.4054/DemRes.2016.34.17)
- Emmott EH, Mace R. 2015 Practical Support from Fathers and Grandmothers Is Associated with Lower Levels of Breastfeeding in the UK Millennium Cohort Study. *PLoS One* 10, e0133547. (doi:10.1371/journal.pone.0133547)
- Wrottesley S V., Prioreschi A, Slemming W, Cohen E, Dennis CL, Norris SA. 2020 Maternal perspectives on infant feeding practices in Soweto, South Africa. *Public Health Nutr.* Aug 10, 1–13. (doi:10.1017/S1368980020002451)
- Gurven M, Kaplan H. 2006 Longevity among hunter-gatherers: a cross-cultural examination.
   *Popul. Dev. Rev.* 33, 321–365.
- 40. Meehan CL, Helfrecht C, Quinlan RJ. 2014 Cooperative breeding and Aka children's nutritional status: is flexibility key? *Am. J. Phys. Anthropol.* **153**, 513–25. (doi:10.1002/ajpa.22415)
- Schaffnit SB, Sear R. 2017 Support for new mothers and fertility in the United Kingdom: not all support is equal in the decision to have a second child. *Popul. Stud. (NY).* **71**, 345–361. (doi:10.1080/00324728.2017.1349924)
- 42. Glaser K, Price D, Di Gessa G, Ribe E, Stuchbury R, Tinker A. 2013 Grandparenting in Europe: Family Policy and Grandparents' Role in Providing Childcare. (doi:ISBN 978-0-9573281-6-7)
- Coall DA, Hertwig R. 2010 Grandparental investment: past, present and future. *Behav. Brain Sci.* 33, 1–19.
- 44. Kanji S. 2017 Grandparent Care: A Key Factor in Mothers' Labour Force Participation in the

UK. J. Soc. Policy 47, 1–20. (doi:10.1017/S004727941700071X)

- 45. Sussman MB. 1958 The Isolated Nuclear Family: Fact or Fiction. Soc. Probl. 6, 333–340.
- Weisner TS, Gallimore R. 1977 My brother's keeper: child and sibling caretaking. *Curr. Anthropol.* 18, 169–190.
- 47. Mweru M. 2017 Sibling caregiving and its implications in Sub-Saharan Africa. In *Handbook of Applied Developmental Science in Sub-Saharan Africa* (eds A Abubakar, FJ van de Vijver), pp. 99–113. Springer International Publishing. (doi:10.1007/978-1-4939-7328-6\_6)
- 48. Kramer KL. 2005 Children's help and the pace of reproduction: cooperative breeding in humans. *Evol. Anthropol.* **14**, 224–237.
- 49. Kramer KL, Veile A. 2018 Infant allocare in traditional societies. *Physiol. Behav.* 193, 117–126.
  (doi:10.1016/j.physbeh.2018.02.054)
- Hrdy SB. 2006 Evolutionary context of human development: the cooperative breeding model. In Attachment and Bonding: A New Synthesis (eds CS Carter, L Ahnert, KE Grossman, SB Hrdy, ME Lamb), Harvard: MIT Press.
- 51. Hrdy SB. 2000 *Mother Nature: Maternal Instincts and the Shaping of the Species*. London: Vintage.
- 52. Scheper-Hughes N. 1992 *Death Without Weeping: the Violence of Everyday Life in Brazil.* Berkeley, CA: University of California Press.
- 53. Badinter E. 1981 *The Myth of Motherhood: An Historical View of the Maternal Instinct*.Translated. Flammerion: Paris.
- 54. Strassmann BI. 2011 Cooperation and competition in a cliff-dwelling people. *Proc. Natl. Acad. Sci.* (doi:10.1073/pnas.1100306108)
- 55. Borgerhoff Mulder M. 2007 Hamilton's rule and kin competition: the Kipsigis Case. *Evol. Hum. Behav.* **28**, 299–312.
- 56. Mace R, Alvergne A. 2012 Female reproductive competition within families in rural Gambia. *Proc. R. Soc. B Biol. Sci.* **279**, 2219–2227. (doi:10.1098/rspb.2011.2424)
- 57. Creighton C. 1996 The rise of the male breadwinner family: a reappraisal. *Comp. Stud. Soc. Hist.* **38**, 310–337.
- 58. Horrell S, Humphries J. 1997 The origins and expansion of the male breadwinner family: the case of nineteenth-century Britain. *Int. Rev. Soc. Hist.* **42**, 25–64.
- 59. Janssens A. 1997 The rise and decline of the male breadwinner family? An overview of the debate. *Int. Rev. Soc. Hist.* **42**, 1–23.
- Seccombe W. 1986 Patriarchy stabilized: The construction of the male breadwinner wage norm in nineteenth-century Britain\*. *Soc. Hist.* 11, 53–76. (doi:10.1080/03071028608567640)

- 61. Hill K, Hurtado AM. 2009 Cooperative breeding in South American hunter-gatherers. *Proc. R. Soc. B Biol. Sci.* **276**, 3863–3870. (doi:10.1098/rspb.2009.1061)
- Pfau-Effinger B. 2004 Socio-historical paths of the male breadwinner model An explanation of cross-national differences. *Br. J. Sociol.* 55, 377–399. (doi:10.1111/j.1468-4446.2004.00025.x)
- Evans A. 2015 History lessons for gender equality from the Zambian Copperbelt, 1900–1990.
   *Gender, Place Cult.* 22, 344–362. (doi:10.1080/0966369X.2013.855706)
- 64. Sen S. 1997 Gendered exclusion: domesticity and dependence in Bengal. *Int. Rev. Soc. Hist.*42, 65–86.
- Hajnal J. 1965 European marriage patterns in perspective. In *Population in History* (eds DV Glass, DEC Eversley), pp. 101–143. London: Edward Arnold.
- Smith DS. 1993 The Curious History of Theorizing about the History of the Western Nuclear Family. Soc. Sci. Hist. 17, 325–353. (doi:10.2307/1171429)
- 67. Stone L. 1975 The Rise of the Nuclear Family in Early Modern England: The Patriarchal Stage.
  In *The Family in History* (ed CE Rosenberg), Philadelphia: University of Pennsylvania Press.
  (doi:10.9783/9781512806328-002)
- 68. Henrich J. 2020 *The WEIRDest people in the world: How the West became psychologically peculiar and particularly prosperous.* New York: Farrar, Straus and Giroux.
- 69. Fortunato L. 2017 Insights From Evolutionary Anthropology on the (Pre)history of the Nuclear Family. *Cross-Cultural Res.*, 106939711769100. (doi:10.1177/1069397117691006)
- Jennings JA. 2020 Hired helpers at the nest: The association between life-cycle servants and net fertility in North Orkney, 1851–1911. *Am. J. Phys. Anthropol.* 172, 412–422. (doi:10.1002/ajpa.24040)
- 71. Raybould A, Sear R. 2020 Children of the (gender) revolution: a theoretical and empirical synthesis of how gendered division of labour influences fertility. *Popul. Stud. (NY).*
- Bielby DD. 2006 Gender and Family Relations. In *Handbook of the Sociology of Gender* (eds B Risman, C Froyum, WJ Scarborough), pp. 391–406. Springer US. (doi:10.1007/0-387-36218-5\_18)
- Froehle AW, Wells GK, Pollom TR, Mabulla AZP, Lew-Levy S, Crittenden AN. 2019 Physical activity and time budgets of Hadza forager children: Implications for self-provisioning and the ontogeny of the sexual division of labor. *Am. J. Hum. Biol.* **31**, e23209. (doi:10.1002/ajhb.23209)
- 74. Kramer KL. 2002 Variation in juvenile dependence: helping behavior among Maya children.*Hum. Nat.* 13, 299–325.

- Lew-Levy S, Reckin R, Lavi N, Cristóbal-Azkarate J, Ellis-Davies K. 2017 How Do Hunter-Gatherer Children Learn Subsistence Skills?: A Meta-Ethnographic Review. *Hum. Nat.* 28, 367–394. (doi:10.1007/s12110-017-9302-2)
- Lew-Levy S, Boyette AH. 2018 Evidence for the Adaptive Learning Function of Work and Work-Themed Play among Aka Forager and Ngandu Farmer Children from the Congo Basin. *Hum. Nat.* 29, 157–185. (doi:10.1007/s12110-018-9314-6)
- Basu A. 2017 When women becaome good for families, did families become bad for women?
   Historical changes in women's leisure as one indicator of their 'status'. In *International Population Conference*, Cape Town.
- 78. Boserup E. 1970 Woman's Role in Economic Development Paperback. London.
- 79. Holden CJ, Mace R. 1999 The sexual division of labour and dimorphism in stature: a phylogenetic cross-cultural analysis. *Am. J. Phys. Anthropol.* **110**, 27–45.
- 80. Kitzinger S. 1990 *The crying baby*. Harmondsworth: Penguin Group USA.
- Rotkirch A, Janhunen K. 2010 Maternal Guilt. *Evol. Psychol.* 8, 147470491000800.
   (doi:10.1177/147470491000800108)
- 82. Constantinou G, Varela S, Buckby B. 2021 Reviewing the experiences of maternal guilt the "Motherhood Myth" influence. *Health Care Women Int.* Feb 18, 1–25. (doi:10.1080/07399332.2020.1835917)
- Myers S, Emmott EH. In press. Communication across maternal social networks during the UK's national lockdown and its association with postnatal depressive symptoms. (doi:10.31219/OSF.IO/CB85T)
- 84. Emmott EH, Page AE, Myers S. 2020 Typologies of postnatal support and breastfeeding at two months in the UK. *Soc. Sci. Med.* **246**, 112791. (doi:10.1016/j.socscimed.2020.112791)
- Calarco JM, Anderson E, Meanwell E, Knopf A. In press. "Let's Not Pretend It's Fun": How COVID-19-Related School and Childcare Closures are Damaging Mothers' Well-Being. (doi:10.31235/OSF.IO/JYVK4)
- 86. Wood RG, McConnell S, Moore Q, Clarkwest A, Hsueh JA. 2010 Strengthening unmarried parents' relationships: The early impacts of building strong families.
- Cohen PN. 2015 Divergent Responses to Family Inequality. pp. 25–33. Springer, Cham. (doi:10.1007/978-3-319-08308-7\_2)
- Aubel J, Toure I, Diagne M. 2004 Senegalese grandmothers promote improved maternal and child nutrition practices: the guardians of tradition are not averse to change. *Soc. Sci. Med.* 59, 945–959.
- 89. Limaye RJ, Rimal RN, Mkandawire G, Kamath V. 2015 Tapping into traditional norms for

preventing HIV and unintended pregnancy: Harnessing the influence of grandmothers (Agogos) in Malawi. *Int. Q. Community Health Educ.* **36**, 53–70. (doi:10.1177/0272684X15615446)

- MacDonald CA, Aubel J, Aidam BA, Girard AW. 2020 Grandmothers as Change Agents: Developing a Culturally Appropriate Program to Improve Maternal and Child Nutrition in Sierra Leone. *Curr. Dev. Nutr.* 4, nzz141. (doi:10.1093/cdn/nzz141)
- 91. Aidam BA, MacDonald CA, Wee R, Simba J, Aubel J, Reinsma KR, Girard AW. 2020 An Innovative Grandmother-Inclusive Approach for Addressing Suboptimal Infant and Young Child Feeding Practices in Sierra Leone. *Curr. Dev. Nutr.* 4, nzaa174. (doi:10.1093/cdn/nzaa174)
- 92. 2018 Dixon Chibanda: grandmothers help to scale up mental health care. *Bull. World Health Organ.* **96**, 376–377. (doi:10.2471/BLT.18.030618)
- Chibanda D *et al.* 2016 Effect of a primary care-based psychological intervention on symptoms of common mental disorders in Zimbabwe: A randomized clinical trial. *JAMA - J. Am. Med. Assoc.* 316, 2618–2626. (doi:10.1001/jama.2016.19102)
- 94. O'Malley RL, Holt K, Holt TJ. 2020 An Exploration of the Involuntary Celibate (Incel)
   Subculture Online. J. Interpers. Violence, 088626052095962.
   (doi:10.1177/0886260520959625)
- Ging D. 2019 Alphas, Betas, and Incels: Theorizing the Masculinities of the Manosphere. *Men Masc.* 22, 638–657. (doi:10.1177/1097184X17706401)
- 96. Witt T. 2020 'If i cannot have it, i will do everything i can to destroy it." the canonization of Elliot Rodger: "Incel" masculinities, secular sainthood, and justifications of ideological violence'. Soc. Identities 26, 675–689. (doi:10.1080/13504630.2020.1787132)
- 97. Jaki S, De Smedt T, Gwóźdź M, Panchal R, Rossa A, De Pauw G. 2019 Online hatred of women in the Incels.me forum. *J. Lang. Aggress. Confl.* **7**, 240–268. (doi:10.1075/jlac.00026.jak)
- Jones C, Trott V, Wright S. 2020 Sluts and soyboys: MGTOW and the production of misogynistic online harassment. *New Media Soc.* 22, 1903–1921.
   (doi:10.1177/1461444819887141)
- 99. Teo AR, Choi H, Valenstein M. 2013 Social Relationships and Depression: Ten-Year Follow-Up from a Nationally Representative Study. *PLoS One* 8, e62396.
   (doi:10.1371/journal.pone.0062396)
- 100. Connell RW. 2001 Understanding Men: Gender Sociology and the New International Research on Masculinities. *Soc. Thought Res.* **24**, 13–31.
- 101. Yerkes MA, Hopman M, Stok FM, De Wit J. 2019 In the best interests of children? The

paradox of intensive parenting and children's health. *Crit. Public Health*, 1–12. (doi:10.1080/09581596.2019.1690632)

- 102. Meehan CL, Hawks S. 2014 Maternal and allomaternal responsiveness: the significant of cooperative caregiving in attachment theory. In *Different Faces of Attachment: Cultural Variations on a Universal Human Need* (eds H Otto, H Keller), pp. 113–140. Cambridge: Cambridge University Press.
- 103. Kramer KL. 2010 Cooperative Breeding and its Significance to the Demographic Success of Humans. *Annu. Rev. Anthropol.* **39**, 417–436. (doi:10.1146/annurev.anthro.012809.105054)
- 104. Burkart JM, Hrdy SB, van Schaik CP. 2009 Cooperative breeding and human cognitive evolution. *Evol. Anthropol. Issues, News, Rev.* **18**, 175–186.