Chapter x: Marriage types

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Marriage

If we take a cross-cultural view of human societies, there are few institutions or systems which can be argued to be 'universal'. Marriage may be the exception. It is found in virtually all societies, and likely has a deep evolutionary history (Shenk, 2024). However, this universality only holds if we define marriage extremely loosely, as *the socially recognised union between two or more individuals* (Fortunato, 2015). Beyond this, we see significant variation. Given that a key function of marriage is the legalisation and regulation of sex and reproduction, it is easy to see marriage as the cultural analogy of mating systems (chapter 20). Certainly, marriage type often is used as a proxy for mating success. But sex and reproduction occurs outside of marriage and marriage is about much more than just reproduction. It is interwoven with concepts of family and kinship: influencing and being influenced by kin obligations, how descent and inheritance is traced and economic and subsistence systems (Shenk, 2024). We need to understand a lot more about human kinship, inheritance and cultural systems to understand marriage from an evolutionary perspective. In this chapter, we will focus on evolutionary perspective to marriage types in terms of spousal number, reflecting on the diverse forms regularised human partnerships take.

Marriage types

Worldwide the prevalence of different marriage systems varies following ecological, subsistence, historical and cultural pathways. It also depends on if we want to count what

is the cultural 'preference' versus what actually happens. Men may want multiple wives but not actually be able to achieve this and marry monogamously (*mono* meaning *one* spouse). If we first take what societies *prefer*, it is clear that polgyny (*poly* meaning multiple, and *gyny* from the Greek *gynē*, meaning women) is a clear winner. Around 85% of human societies have 'allowed or preferred' polgyny. In the majority of these populations (51.6%), however, only less than 20% of married men have multiple wives (Figure 1 from Shenk, 2024). Polygyny is common in the African 'polgyny belt' which spans Senegal to Tanzania. In rural regions in particular, up to one quarter of married women are in polygynous marriages, despite declining rates (Lawson & Gibson, 2018).

Polyandry (from the Greek *anēr*, meaning man) is the rarest, representing only 1.1% of marriages, primarily restricted to the Himalayan highlands, Southeast Asia and the Pacific. However, less strict definitions result in far more cases being counted as polyandrous (Starkweather & Hames, 2012). Polyandrogyny is when there are multiple men and women in the marriage, which can occur with polyandry (Starkweather, 2010). Polyamory stands slightly apart from the other hetero-centric systems, as in this system multiple men and women have same-sex sexual relationships (Box 1). At the individual-level, monogamy remains the most common marriage type when multiple marriage is not feasible, and it is enforced in 15-16% of societies. This is particularly the case in large, wealthy societies in Eurasia, the prevalence of which is related to both the expansion of intensive agriculture, the reach of the church and colonialism (Fortunato, 2015; Henrich et al., 2012; Shenk, 2024).

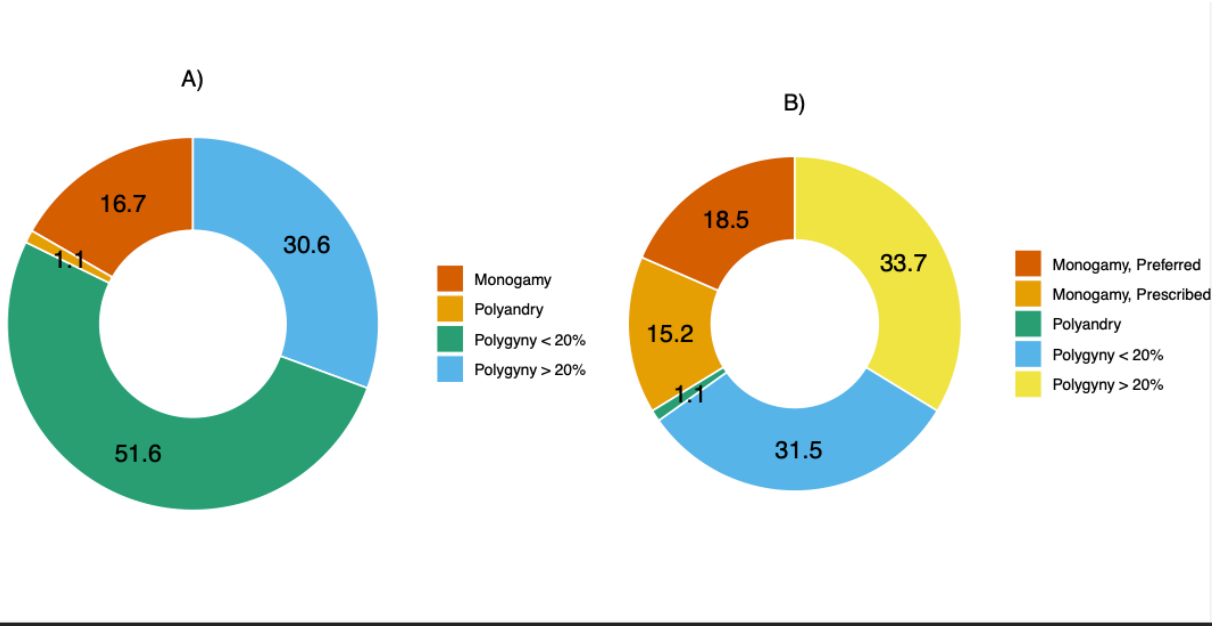

Figure 1: Prevalence of different marriage types using the Standard Cross-Cultural Sample based on (Kirby et al., 2016 and Shenk, 2024). A) subsumes all monogamy while B) separates out preferred from prescribed monogamy. Polygyny <20% represents instances when under 20% of married men have multiple wives, Polygygy >20% represents where more than 20% of married men have multiple wives.

Polygyny is often presented as the 'default' marriage system as it (arguably) increases males' mating success which is assumed to *necessarily increase* male reproductive success (Brown et al., 2009). It then follows, in the context of humans, that men will *always* pursue marriage with multiple women to increase reproductive success. However, the often-assumed linear relationship between mating and reproductive success is far from universally documented (chapter 20). This point is worth emphasising because this simple assumption influences how research was, and is, conducted on the evolution of marriage type. If we assume men's reproductive success benefits from polygyny, then the natural 'functional' question is 'why would men want to marry *only* one woman - or why did monogamy evolve?'. However, if relative fitness is not maximised under polygyny, then this is no longer a paradox that requires explanation. In the following sections we will discuss the evolutionary based arguments for 1) polygyny, 2) monogamy, 3) serial monogamy and 4) polyandry. We will do so, however, without the assumption of one being the 'default' to give

a recognition of how variable the relationship is between mating success (here proxied in marriage) and reproductive success (Chapter 20).

Polygyny

An evolutionary perspective can approach polygyny from either the men's or women's perspective since the costs and benefits differ. While, as discussed, it may be assumed there is little need to explain 'why men marry multiple women' from an evolutionary perspective this is incorrect and reflected in the diversity of cross-cultural evidence. Polygyny is not consistently positively associated with measures of reproductive success (Borgerhoff Mulder, 2024). Winkling and colleagues (Winking et al., 2013) research in Tsimane forager-horticulturalist from Bolivia makes an important point that much of the polygyny literature is biased to sub-Saharan Africa where pastoralism is an important form of subsistence. Pastoralism is labour-heavy, and productivity is dependent on human labour which is provided by women and children. Therefore, more wives and children are an asset to increase productivity and wealth (cattle and land) which is positively associated with reproductive success (Borgerhoff Mulder et al., 2011; Page et al., 2024). In contrast, while polygyny is permitted among the Tsamine, it is not preferred because men have far less economic control and horticulture requires extensive male labour, reducing men's ability to support multiple wives. This makes polygyny a far less favourable strategy to maximise wealth and prestige, which are associated with reproductive success in these contexts (Von Rueden & Jaeggi, 2016). Therefore, more research is required to explore why men marry polygynously in a diverse range of contexts.

What about women? Why do they want to marry men with existing wives? The concept of resource defence polgyny is important here. Resource defence polgygny is where men control the resources which women require for reproduction, influencing women's decision about who to marry. This can be things like territory quality, like in bird species, or wealth and political power. When women's reproduction is dependent on these resources, there will be a point that a wealthy man will have enough resources to support multiple women,

so women may do better (in terms of fitness) to pair with an already mated man than a poorer single man. This is referred to as the polgygny threshold model, represented in Figure 4 (Orians, 1969).

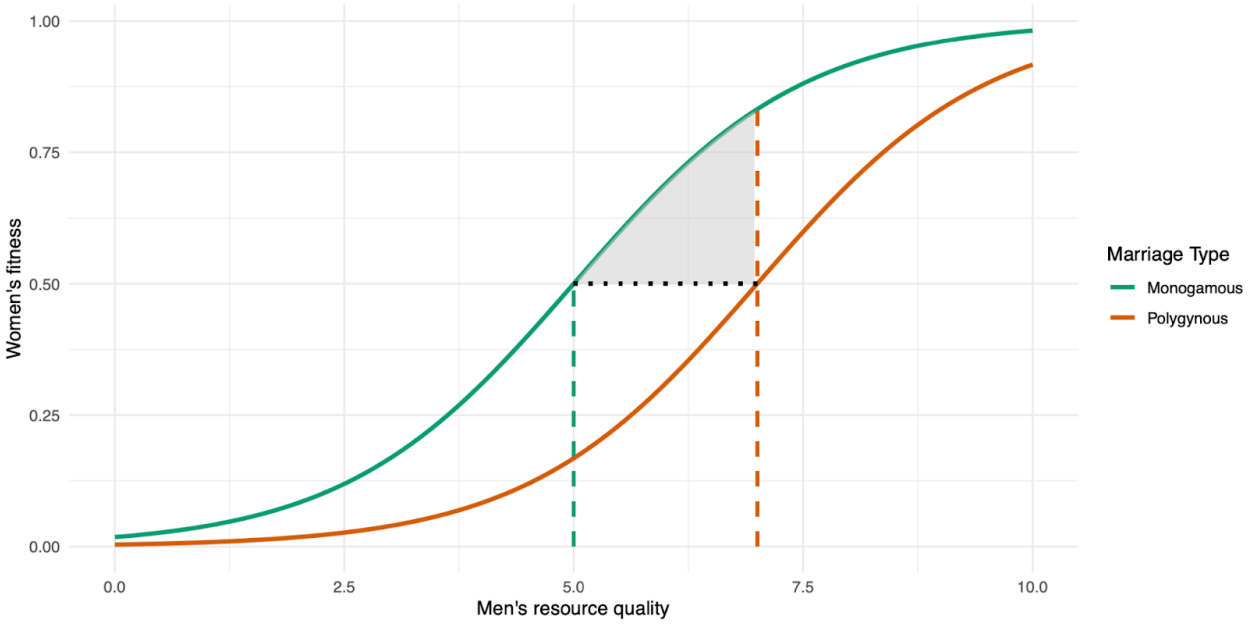

Figure 4: Visualisation of the polygyny threshold model with two sigmoidal curves showing the fitness functions of a woman who either married monogamously (green curve) or polygynously (orange curve) based on the men's resource quality (higher values imply better resources necessarily for women's reproductive success). The monogamous curve is always above the polygynous curve, reflecting reduced fitness due to resource sharing in a polygynous marriage. However, at higher resource qualities polygynous marriage is associated with a higher fitness pay-off - specifically an equal fitness return of 0.5 can be achieved monogamously at a resource quality of 5 (green dashed line) or polygynous at resource quality 7 (orange dashed line). This is the polygyny threshold represented by the black dotted line. The grey shaded area between the two curves above this line represents the fitness cost incurred by entering into a polygynous relationship - showing that polygyny is only beneficial when territory quality is sufficiently high.

One way of testing the polygyny threshold model is asking if women who marry polygynously have at least the same number, if not more, children than women who marry monogamously. Research among Kipsigis agro-pastoralist from Kenya found just this, that men with big herds and lots of land had more wives, and thus higher reproductive success and the women did not have lower fertility than monogamously married women (Borgerhoff

Mulder, 1988). Gibson and Mace (2007), however point out that there is no one 'uniform' polygynously married women, and fitness outcomes are dependent on rank (if they are the first, second or third wife). Based on research in the Arsi Oramo agro-pastoralist community in Southern Ethiopia, they found that men had on average, two more children for each additional wife. The fitness benefits for men were clear. However, for women, only the first wife had more surviving children (5.3 children) than monogamously married women (3.6 children). The second and third wives were predicted to have less children (3.1 and 1.7, respectively), likely because first wives married younger and spent longer of their reproductive career monogamously married to high status men. In short, fitness outcomes are not uniform because women differ.

This point makes us consider causality. Does, in fact, polygyny *increase* the first wife's reproductive success, or is it that *women with higher reproductive value* marry polygynously married men? Where polygyny is preferred, like in Ethiopia, monogamously married women may have lower reproductive value - they may be older or less healthy. Gibson and Mace explain this as a 'best of a bad job' situation. This is exactly the point that Winking *et al.*, (2013) made looking at fitness outcomes of polygyny in the Tsimane. Unlike the Kipsigis example, Tsimane women who married polygynously had lower fertility than monogamous women. This may suggest women were forced to marry a polygynous man (i.e. male coercion). However, women who marry monogamously or polygynously are different to begin with. In Bolivia, monogamy is preferred, and thus monogamously married women likely have higher reproductive value because they are more competitive. To test this, Winkling and colleagues examined if the addition of a second wife was associated with reduced fertility of the first wife *after that marriage*. This test looks specifically at the effect of the marriage, not the characteristics of the women. Accordingly, they found no evidence that more wives impacted the first woman's fertility, suggesting that polygynously married women may be less competitive to begin with, so a polygynous marriage represents the best scenario *for these specific women*.

Of course, reproductive success is not only a consequence of fertility but also child survival. To this end, research has explored the relationship between marriage type, child survival and health. Among the Dogon farmers from Mali, researchers argued that competition among co-wives increased the odds of a child dying when women married polygynously (Strassmann, 1997). This is in line with large-scale (country or population level) analysis from across the African continent which show that child mortality and ill health is positively correlated with polygyny (Lawson et al., 2015). Polygynous marriage is often assumed to increase conflict, stress and resource dilution, resulting in poorer outcomes for women and children. Yet, such large-scale analysis hides key dynamics. Specifically, in for instance Tanzania, given that polygyny is more common in rural, marginalised and ecologically vulnerable groups if we *only compare groups* then polygyny will appear to predict worsened child health. However, polygyny is not the cause of the worsened child health, poverty is. By looking *within groups* we find that polygynous households have higher food security and better child outcomes within their restricted context (Lawson et al., 2015). It is evident that polygyny is not a uniform practice, and its form and outcomes depend on the context.

Research Focus Box 1 - Polyamory and rise of ethical non-monogamy in the West

Polyamory, also known as consensual non-monogamy, is different from the classical anthropological case studies discussed in this chapter because it allows for same-sex relationships within the union (Goldfeder & Sheff, 2013). There is very limited research to date on this family type, but it represents an excellent opportunity to explore the plurality of human marriage systems. It is often assumed to have negative consequences for child outcomes, in line with the literature on divorce, remarriage and blended families (Scelza & Prall, 2023). However, it may also have positive effects associated with the increased number of adults, and their resources, to meet the physical, emotional and developmental needs of children. At the same time, children may face the disadvantages of household crowding and repetitive changes to household composition when multiple adults and their children are involved (Goldfeder & Sheff, 2013). There is little empirical

evidence to support these claims, however, Sheff's 15-year ethnographic study of polyamorous households in the US found the children to be happy, intelligent and confident. Nonetheless, she notes these households tend to be highly educated, white and middle class - thus the children's outcomes may be *caused* by this privilege rather than the household composition. Further research is required; however, it is clear that polyamorous households, their division of investment and support beyond biological parents - particularly when there are multiple individuals of the same gender present - remains an important testing ground for key concepts in the study of the division of labour (chapter xxx), parental care (chapter) and allomothering (chapter).

Monogamy

Human children, due to their vulnerability and development needs, require extreme amounts of care which mothers cannot provide alone. It is often assumed then that bi-parental care is a necessary feature of human development, and this is arguably provided by monogamy in which children have access to non-shared (beyond other siblings) resources and sexual fidelity is more assured (however, marriage and sex are very different domains - social monogamy does not mean sexual monogamy) (Schacht & Bell, 2016). However, there are multiple issues to this argument. Firstly, phylogenetic analysis suggests that paternal care evolved only *after* monogamy was present (Brotherton & Komers, 2003). Secondly, many (over 40%) monogamous species do not have paternal care, indicating it is not a sufficient factor. Thirdly, in cross-cultural analyses or reviews, male care is not *consistently* positively associated with child survival, unlike maternal presence (Schacht & Bell, 2016; Sear & Mace, 2008). Unlike maternal care, paternal care is as facultative (Rosenbaum et al., 2019) and often replaced by other non-maternal caregivers. As a result, paternal care is not a sufficient explanation of monogamy.

Explanations for monogamy are separated into ecologically or socially imposed - once again indicating that the assumption here is that monogamy *must be imposed* on men. Socially

imposed monogamy is when laws and rules prohibiting polygyny, suggesting that men would marry multiple wives otherwise (Alexander, 1979). Henrich and colleagues (2012) use cultural group selection to understand why elite driven norms and institutions prohibit polygyny when it is these very elites who have the most to gain from polygynous marriage (due to their wealth and prestige). Henrich and colleagues argue that they do so because the *social group level benefits* of increased within-group cooperation of monogamy are sufficient to create significant advantage in between-group competition. They propose that monogamy reduces intrasexual competition (chapter xxx) by decreasing the number of unmarried men in a population. Polygyny, they argue, increases men's reproductive variance (chapter xxx) and biases the sex ratio towards more adult men, both which places increased selective pressure of intrasexual competition, which is a cause of violent crime (murder and physical and sexual assault). This pathway increases conflict within the society, decreasing its competitiveness at the group level. Monogamy further, they argue, decreases intra-household conflict, and the assumed (but as discussed, not demonstrated) negative consequences of polygyny for women and children (child neglect, resource dilution and conflict). Thus, they argue the community enforces monogamous marriage and associated norms to create societal level benefits since societies which favour monogamy 'have the edge in inter-group competition'.

There are a number of issues with this argument, both theoretically and empirically. The first speaks to the core assumption that monogamy reduces reproductive variance, and thus intrasexual competition. Research has demonstrated that reproductive variance does not vary between polygynous and monogamous societies (Brown et al., 2009), and it can be significant in monogamous societies with serial monogamy (see below), meaning mate competition will still occur due to sexual selection (Courtiol et al., 2012). Furthermore, there is no reason to assume that sexual selection will foster *violent* competition and result in discord. Male competition is also dependent on female choice - if females choose provisioning or paternal care then increased levels of competition are not problematic but could foster stability (Schacht et al., 2014). Secondly, polygyny does not necessarily result

in large numbers of unmarried men (who as argued by Henrich and colleagues are statistically more likely to - often due to their youth in western monogamous societies - commit violent crime), as the vast majority of men eventually get married in polygynous societies (Lawson & Gibson, 2018) . Further, even if there were an excess of unmarried men, resulting in a male-dominated sex ratio (chapter x), theoretically this should result in *increased* investment in the form of paternal care rather than increased violent mate competition (Kokko & Jennions, 2008; Schacht et al., 2014). This has been demonstrated to be the case across different taxa, particular birds, and cross-culturally where male biased sex ratios have been associated with lower rates of violence (Schacht et al., 2014). As a result, there is no theoretical reason to assume monogamy increases cooperation, or polygyny increases competition. There is better evidence in support of ecologically imposed explanations, which focus on what individuals (rather than the social group) gain from monogamy. We do not need to turn to group level explanations to explain an 'paradoxical' behaviour from an inclusive fitness perspective.

Ecologically imposed monogamy assumes men are willing to marry monogamously because they cannot afford to, or will not benefit from, marrying multiple wives. Fortunato & Archetti (2010) proposed this occurs when the inheritance of wealth is necessary for children's successful marriage and reproduction. Under intensive agriculture, as prevailed historically across Eurasia, reproductive success is tied to land ownership. However, this was limited when land became scarce due to high population growth associated with the increased economic productivity. Parents transfer viable plots (i.e. large enough to support a family) of land to their children to ensure their reproductive success. The cost of having too many children was the excessive division of land between heirs with multiple wives. In polygyny, unigeniture (the eldest son inherits all wealth) applies within each 'set' of children from each wife. Therefore, each wife would result in further division of resources, arguably none of whom would be able to successfully reproduce due to unviable plot sizes. Monogamy produces only one inheriting son, and thus the concentration of resources in that heir to ensure their successful reproduction which maximises the parents' inclusive fitness.

Fortunato & Archetti (2010) demonstrated this using a game-theoretic model. Arguably, this is why we see high levels of monogamy in Europe and Asia with intensive agriculture, while polgygny is much more prevalent in African societies. This means that group level explanations (such as cultural group selection) are not necessarily required (but new iterations may be developed). Yet, this does not mean cultural processes are not important and may go on to reinforce and amplify the importance of inheritance of wealth and status by enforcing monogamy once it was imposed due to land limitation (Shenk, 2024). For instance, Christianity spread rapidly and in doing so underpinned the success of monogamy because it became tied up with supernatural belief, legitimacy and prestige (Henrich et al., 2012).

Serial monogamy

Serial monogamy is what happens when individuals in a monogamous system re-marry following divorce or death of a spouse. Re-marriage is common cross-culturally and though its rate varies, many societies are tolerant of it following divorce. In western societies, such as the US, UK or Australia, there are high levels of divorce and remarriage, making plural or blended families common (Buss et al., 2017; Cartwright et al., n.d.; Goldfeder & Sheff, 2013). Generally, men have more freedom to remarry, however in many societies so do women (Scelza, 2013). In some populations, such as the Ju/Hoansi bushmen, women initiated 90% of divorces when they were unhappy with their current spouse (Scelza, 2013). Theoretically, divorce and remarriage (as well as socially recognised concurrent partnerships (Scelza & Prall, 2023), box 2) can be understood as 'trading-up' when partners re-evaluate their current situation, themselves and their partners, as well as potential partners to improve their future prospects (Buss et al., 2017; Scelza & Prall, 2023). This may be one causal reason why we see fertility increased in some instances of re-marriage: partners have traded-up for better quality (increase resources, land, strength and status etc) which improves economic circumstances, facilitating fertility and child survival (Borgerhoff Mulder & Ross, 2019).

Research Focus Box 2 - Concurrent partnerships

Concurrent partnerships are an important feature of family life for both men and women worldwide (Scelza & Prall, 2023). These can be hidden extra marital affairs, but they can also be socially recognised and fulfil important functions (Scelza, 2024). One cross-cultural study reported by Scelza & Prall (2023) shows that 39% of societies (n = 185) accepted some form of extramarital sex in women. Scezla has studied informal partnerships in the Himba for over ten years (pastoralists from Namibia), finding that these partnerships lasted decades, providing practical and emotional support, complementing what was offered by marital relationships (Scelza & Prall, 2023). Scelza and Prall (2023) argue that concurrent partnerships may be adaptive (and thus permitted) when the benefits are high (increased food security when returns associated with pastoralism are unpredictable), the costs of paternity uncertainty (chapter xxx) are low with matrilineal descent (here investment comes from the mothers families, limiting paternal investment) and 'mate guarding' is difficult due to extended periods of separation with pastoralism. Similar arguments have been proposed to help understand partial paternity across a wide range of South American populations (Walker et al., 2010). This is where all men who had sex with a woman in the month prior to pregnancy are socially recognised as fathers, with obligations to the children. This may be due to the difficulties of mate guarding with matrilocal residence and the benefits of increased support received by children from multiple fathers (Beckerman et al., 1998; Beckerman & Valentine, 2002; Walker et al., 2010). Beyond access to additional resources, concurrent partnerships may also reduce the risks associated with divorce and remarriage as it acts as a 'trial period' (Buss et al., 2017) ensuring the new partners are in fact 'better'. However, it is not necessarily the case that informal partnerships 'replace' existing formal ones. In the Himba for instance women's preference did not suggest they were 'trading up' because they wanted different things from their husband and their boyfriend at the same time (Prall & Scelza, 2017).

From an evolutionary perspective, serial monogamy is treated the same as polygyny, given that it allows for individuals' to have multiple spouses, the only difference is that they are

sequential (Borgerhoff Mulder, 2009). Therefore, the assumption remains that men who marry multiple times will have a higher reproductive success (Scelza, 2024). This has been demonstrated in the United States, where men with three or more consecutive spouses had 19% more children than men with only one (Jokela et al., 2010) and pre-industrial Finland where re-married men had five years longer reproductive lifespan resulting in higher reproductive success (Käär et al., 1998; Pettay et al., 2014). No such extension to the re-married reproductive lifespan was found for women, and in both studies women's fitness was not impacted by re-marriage. However, this is not consistently the case. For instance, in the Pimbwe men with more serial spouses did not have more children, but women with more serial spouses increased their reproductive success (Borgerhoff Mulder, 2009; Borgerhoff Mulder & Ross, 2019). In this context, it may be that the reasons why men and women get remarried vary, speaking to underlying differences which impact fertility.

Women are also assumed to bear a cost from remarriage associated with their children's wellbeing due to the withdrawal of paternal care and/or stepparent effects (Wilson & Daly, 1985). Given a kin selection framework, biological fathers are predicted to provide high levels of paternal care. However, with remarriage this care is replaced by step-fathers who gain no indirect fitness benefits from non-biologically related children (Wilson & Daly, 1985). Stepparents are 'expected' to provide sub-par or even negligent levels of care. Furthermore, recombined families or blended households include stepsiblings resulting in conflict over household resources as relatedness is not equally shared (Schacht et al., 2021). This is what is referred to as the 'Cinderella Effect', reflecting on the often-severe mistreatment step-children receive in fairy tales, like the wicked stepmother in Cinderella (Daly & Wilson, 1999). Prior literature from Canada found that children living in households with one or more step-parent were 60% more likely to experience abuse which may be fatal compared to households with two biological parents (Daly & Wilson, 1985).

This perspective, however, has been critiqued on both theoretical and empirical grounds. Firstly, in the Canadian study there was no data on *who* committed the abuse, only that it

occurred more often in stepparent households. Secondly, it is difficult to untangle cause-and-effect when comparing different types of households because they are not the same to begin with (comparing apples and oranges). Stepparent families are formed after divorce or parental death and, thus, are more likely to face poverty and it may be *these adverse events* which produce poor outcomes, rather than parental care, neglect or abuse (Schacht et al., 2021). In line with this research finds that stepfathers provide a good quality of care and biological fathers often remain involved in their children's lives which increases overall investment (Hofferth & Anderson, 2003). A way around the issue of causality is to conduct the analysis at the level of the family, comparing apples to apples. Recombined families have both stepchildren and biological children, and it is possible to look at the differences between their survival and wellbeing within the same family. When this is done the Cinderella Effect - be that measured in educational attainment, behaviour or survival – disappears (Hofferth & Anderson, 2003; Schacht et al., 2021). For instance, from historical records of remarriage in the Mormon population in Utah, Schacht and colleagues (2021) found that remarriage did not increase the risk of death of stepchildren compared to non-stepchildren who had also lost of parent (comparing apples to apples again), and in fact stepchildren had improved survival than their half-siblings *within the same family*. Therefore, the costs of remarriage may not be as high for women as previously assumed.

Polyandry

Polyandry has had a lot of anthropological attention to understand *why* a system would evolve when it limited the reproduction of multiple men to the reproductive capacity of one woman (Crook & Crook, 1988). Given the high instance of polyandry in the Himalayas, researchers found an explanation in the low productivity of arable land which entailed multiple men's labour to ensure sufficient output. Similar to the explanation for monogamy, in order for the land to support a family it could not be divided between multiple sons. Here, fraternal polyandry ensured the land remained intact when multiple brothers married the same woman (see Barrett et al., 2002 for extended discussion). Arguably, grandparents maximised their lifetime fitness (number of grandchildren) with polyandry as without it

younger sons would remain unmarried without any land to support a family (Crook & Crook, 1988). Smith (1998) extended this study by pointing out that younger brothers gained fitness benefits because they *never had the option to marry monogamously*. It was either marry polyandrously and share paternity or not marry at all because the younger brother never had the family farm to support a monogamous household. In this case, as long as there was a large enough skew in the paternity towards the senior brother (fathering at least 67% of children, not uncommon when the other brothers were often much younger) then polyandry was still advantageous to the senior brother even if they did not father *all the children*. Polyandry, then, is adaptive (maximising lineage descendants by preserving family estates) when families face constraints (in fact when constraints lifted economically younger sons married monogamously (Barrett et al., 2002)). Marriage systems are flexible and what is 'optimal' in any given situation is interwoven with inheritance, subsistence, mobility, environmental predictability and alternative sources of support.

'Non-classical polyandry' is where women marry multiple men who are not related to one another (as opposed to the Himalayan systems with fraternal polyandry). These systems are more fluid, flexible and less formally institutionalised, but more responsive to varying social, economic and environmental factors which promote alternative marriage formation (Starkweather & Hames, 2012). For instance, in situations of high male mortality and absence related to hunting, which historically occurred in Inuit populations, families arranged informal polyandrous relationships to ensure women and children remain protected and provided for (Kjellstorm, 1973). In this way, non-classical polyandry can be understood as a type of insurance. Similar to the explanations proposed to concurrent relationships above, additional husbands bring access to more support. In fact, partible paternity is often associated with non-classical polyandry (without co-residence) in South American populations (Starkweather & Hames, 2012). There are multiple paths to similar marriage and family formations which shift over time, depending on constraints, norms and individual strategies.

Conclusions: Assumptions in evolutionary perspectives on marriage

There are many types of marriage, variation stemming from who one marries and how many times one marries, as well as concurrent partnerships. Our chapter has highlighted some major assumptions in the literature on marriage. We have seen that men are assumed to benefit from multiple spouses, impacting how we ask functional questions about monogamy and polygyny. It is also assumed that women not only do not benefit from remarriage, but pay a cost in doing so, impacting research on serial monogamy and concurrent partnerships. Finally, fathers are assumed to be necessary for childrearing, necessitating monogamy to ensure paternal care. Our chapter has demonstrated none of these assumptions hold based on theory and evidence. However, they remain because they are deeply embedded into Western perspectives which dominate social science research, based on concepts of gender, sex roles which stem from mid 20th century concepts of the 'traditional' male-breadwinner nuclear family (Sear, 2021). When studying marriage from cross-cultural perspectives it is important to explicitly question the assumptions we make because of who we are as researchers. For something which happens across the world, marriage takes many shifting forms requiring an evolutionary perspective to question why such behaviours occurs in any given socio-ecological and culture niche.

Teaching Box

Assumptions vs Evidence

We present multiple topics in this chapter where we evaluate whether a commonly held viewpoint - or 'assumption' - is actually situated in evidence or facts. That is, is there enough evidence provided by researchers that either supports or debunks a particular viewpoint or assumption?

Your task is to (i) identify at least two of these assumptions; for each assumption, state (ii) what belief or rationale underpins this assumption; (iii) what evidence supports this assumption, or lack thereof and (iv) what are the consequences of this assumption.

Some of the assumptions they can highlight:

1. Polygyny leads to worsened child health versus poverty which leads to both
2. Cinderella effect versus stepchildren having improved survival compared to their half-siblings within the same family
3. Progressive shift from extended families to nuclear ones over time and/or with urbanisation
4. Paternal care is necessary to raise children versus allomothering

Self-assessment questions

1. What are the different types of marriage systems described in this chapter? Provide a brief description of each type.
2. Under what conditions would a woman be expected to prefer to marry polygynously? How is this empirically tested?
3. Explain the difference between cultural preferences for marriage systems and the actual prevalence of these systems in practice.
4. Describe the polygyny threshold model and explain the circumstances under which women might benefit from entering a polygynous marriage.
5. What are the key arguments for the evolution of monogamy, and how do these explanations address the role of paternal care and resource inheritance?
6. Explain the conditions under which polyandry, especially fraternal polyandry, is adaptive. How does it differ from non-classical polyandry?
7. What roles do concurrent partnerships play in different cultural contexts, and how might they provide adaptive benefits to individuals and families?

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