

Chapter 10: Marriage squeeze and mate selection in China

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Marriage is a near universal practice in China, associated with social adulthood, status and success (Lee and Wang, 1999; Jones, 2005; Sheng, 2005; Evans, 2007). Strong family and social pressure is exerted on young women and men to get married (Zhang and Zhong, 2005; Li et al., 2010), and not getting married is still unusual (Eklund, 2016a). At the same time, men have been subject to a ‘marriage squeeze’ due to a shortage of women in the marriage market. Historically, this shortage stemmed from disproportionately high female mortality rates (Banister 2004) and the practice of concubinage in pre-1949 China (Eklund, 2013). Today, the male marriage squeeze is fuelled by falling birth rates, where younger birth cohorts, smaller than older ones, generate a shortage of women when men from older birth cohorts marry younger women (Attané, 2013). Moreover, as the generations born from the 1980s with their increasingly skewed sex ratios in favour of males reach marriageable age, the male marriage squeeze will be further exacerbated. Studies have estimated that among cohorts born between 1980 and 2000, 22 million more men than women were born (Ebenstein and Sharygin, 2009). Attané (2006) estimates that the sex ratio among people aged 15–49 will continue to increase into the future, reaching 117–120 in 2050, while Tucker and Hook (2013) project that the number of single men aged 25–39 will peak at almost 30 million in 2030. Despite differences with regards to numbers and time frame, there is evidence that the male marriage squeeze will intensify over the decades to come.

How do men respond to the marriage squeeze in China? What strategies do they deploy to find a spouse? How are women’s mate selection practices affected by their numeric shortage? Does the marriage squeeze affect the rate and timing of marriage, and does it lead to alternative mate selection practices? Those are some of the questions previous studies have engaged with. The aim of this chapter is to offer an overview of available research on mate selection in the context of a marriage squeeze, and to discuss the findings in relation to different theoretical perspectives. Special emphasis is placed on investigating the impact of high sex ratios and ‘surplus’ men on mate selection. The situations of ‘leftover’ women in China will not be dealt with explicitly (see Gaetano in this volume).

Theorising mate selection

Mate selection refers to the practice of finding a partner for forming intimate relations. It is closely associated with adulthood and can involve finding a partner for long-term or short-term relationships. One important outcome is marital or marital-type union formation, like cohabitation. Heterosexual marriage has historically been an important institution organising social and economic life of individuals and families. In China, it has been the accepted form where procreation takes place and an arena for legitimate sexual relations, and where resources have been allocated and inheritance regulated. Not getting married has equalised childlessness and lack of care and support. Marriage has also been important for social mobility, not least for women who have not enjoyed the same opportunities to advance their social position through other means, such as work. Theoretically, this chapter draws upon three perspectives analysing marriage squeeze and mate selection: demographic opportunity thesis, sex ratio theory, and an institutional approach.

The demographic opportunity thesis

It has long been proposed that sex ratios affect mate selection and marriage rates. Becker (1991) argues that when sex ratios are high, the proportion of married women in the total population increases, and *vice versa*. Studies show that female marriage rates are higher in communities where men outnumber women (Fossett and Kiecolt, 1993; Angrist, 2002). South, Trent and Shen (2001) found support for this stance from the perspective of marital dissolution in the US: high sex ratios in the local marriage market were positively associated with marital dissolution for women since the sex in short supply can more easily form relationships with partners of the opposite sex. Extending this argument to non-marital mate selection practices, South and Trent (2010) coined the demographic opportunity thesis, suggesting that the availability of potential partners have implications on both marital and non-marital mate selection (Uecker Regnerus, 2010). Living in a community with a surplus of the opposite sex increases the likelihood of finding a partner for the sex in short supply. This, Trent and South (2010) propose, would not only hasten the transition to marriage for the sex in short supply, but also increase the likelihood of premarital, extramarital and multiple-partnered sex. In contrast, a shortage of local potential partners of the opposite sex would lead to delayed marriage for the sex in surplus.

The sex ratio theory: dyadic power and structural power

The demographic opportunity thesis rests on the notion that the sex in short supply has more freedom in mate selection, but it does not account for the ways in which relationships are gendered or conditioned on class. Therefore, it is useful to visit the work of Guttentag and Secord (1983) who put forward what here is referred to as the sex ratio theory. They regarded sex ratio as affecting the dyadic power between women and men at the micro level, with sex ratios adding one power dimension; those in short supply have more dyadic power due to the awareness that there are alternative relationships available. Similar to the demographic-opportunity thesis, in high sex ratio societies, women have more choice in terms of mate selection. However, different from the demographic opportunity thesis, women's increased dyadic power could slower their transition to marriage and increase their possibility for advancing criteria for what constitutes a good match. Yet, the reason for high sex ratios not resulting in a delay in marriage among women in short supply is by the sex ratio theory explained by men holding structural power. Men would thus organise to influence social norms endorsing monogamy and stability in relationships, devaluating promiscuity for women, raising the psychological cost of other relationships, and limiting women's sexual independence and freedom, including in selecting a mate or deferring marriage. Men would also use their structural power to prevent divorce, such as increasing women's economic dependence. Furthermore, women would be highly valued for their feminine roles; 'single women for their beauty and glamour and married women for their roles as wives and mothers' (Guttentag and Secord 1983: 19). Therefore, women and men would adopt complementary roles: women as homemakers and mothers, and men as breadwinners. Relatedly, women would gain social mobility mostly through marriage in such societies. Guttentag and Secord explained the outcomes of intensification of hypergamy through the interaction between dyadic power, where scarce women have the upper hand, and structural power, possessed by men holding key positions in society, which leaves limited room for women to advance in social mobility except through marriage.

The sex ratio theory has been confirmed in several cross-national studies. A study of 117 countries found that sex ratios are positively associated with high marriage rates for women and negatively associated with female labour force participation (South and Trent, 1988). Another study using data from 66 countries found that high sex ratio countries have lower divorce rates

(Trent and South, 1989). These findings were replicated in another study of 76 countries, where divorce rates were lower in high sex ratio countries, at least when there was a surplus of men in the age group 15-49 (Barber, 2003).

It is important to note that the demographic opportunity thesis and the sex ratio theory are not mutually exclusive (Uecker Regnerus, 2010). Yet, reasons for research supporting both theories could also be methodological. Some studies look at overall sex ratios affecting mate selection, while others analyse community sex ratios, or adding other parameters like age structure, income, education etc. Yet, importantly, studies on which different theoretical claims are being made differ in terms of social and cultural context, hinting at the importance of understanding variations in institutions and how they intersect with sex ratios and mate selection practices.

The institutional approach

One potential risk with the demographic opportunity thesis and the sex ratio theory is that they overplay the role of sex ratios in mate selection practices and strategies by treating sex ratios as an independent variable, even though skewed sex ratios may also be a dependent variable; sex ratios may not only cause certain behaviour, but may also be the consequence of certain practices. Not acknowledging the difficulty with establishing causality can lead to spurious relationships and confounding factors, blurring the extent to which sex ratios can explain for instance mate selection.

An institutional approach draws attention to the fact that marriage squeezes have to be understood not only in terms of numeric imbalances between the sexes, but also in relation to how marriage is constructed as a family, social, political and economic institution. To be sure, the construction of a sex ratio-induced marriage squeeze rests on the assumptions that all individuals want to get married, that they want to get married to someone of the opposite sex and that they want to stay married over a lifetime, preventing flexibility in the marriage market (Eklund, 2013). Such insight prompts further engagement with institutional factors which differ depending on social, economic, cultural and political context. It also challenges ‘demographic determinism’ (Jeffery, 2014). It is here suggested that institutional factors relevant to the theme of marriage squeeze and mate selection evolve around four main themes.

First, women’s position in the labour market and their economic (in)dependence on men are important factors to consider when analysing the effects of sex ratios on mate selection practices (Lloyd and South, 1996). South and Trent (1988) found that the effects of high sex ratio on limiting women’s independence can be partly moderated by women’s structural power, suggesting that institutional factors are important. With regards to the impact of sex ratios on timing of marriage (Akers, 1967; Schoen, 1981, 1983), Oppenheimer (1988) argued that – sex ratios aside – women’s entry into the labour market and their possibilities to achieve jobs on par with men would reduce their propensity to form and stay in unhappy marriages out of economic necessity, impacting both timing of marriage, divorces and the proportion of women and men who stay unmarried.

Second, uneven economic development between regions and different strata of societies has meant that regional and social inequalities have entered the mate selection equation; both spatial hypergamy and income hypergamy become ways in which social positions can be advanced, leaving men with low income in poor areas with dim prospects of getting married, sex ratios aside. Relatedly, Fan and Li (2002) argued that uneven regional development has reinforced the importance of space in mate selection. Moreover, the surge in labour-intense jobs has increased the demand for rural migrant workers in cities, which has expanded the marriage market for both rural women and men.

Third, legal and social policy frameworks also impact the institution of marriage (Eklund, 2016a). Marriage and the family are important institutions in which social and economic welfare is ensured and provided. Moreover, the institution of marriage is partly reinforced by legal frameworks regulating benefits and rights beyond marriage. The most important legal factor relates to childbearing, since out-of-wedlock births are illegal. Moreover, in China, the Family Planning Law and related provincial regulations have until recently reinforced the category of ‘late marriage’, which was 23 for women and 25 for men. There have been certain benefits tied to ‘late marriage’, such as extended marriage leave. This has cemented the notion that marriages formed in late 20ies are ‘late’, and may have stigmatised such marriages. In terms of housing policy, married couples have in many cities been limited to purchasing one or two homes, which has led to a surge in ‘fake’ divorces (Han and Li, 2016), making divorce statistics unreliable. At the same time, the 2011 Supreme People’s Court’s Third Interpretation of the Marriage Law stated for the first time that property signed by one spouse belongs to that spouse after divorce (Davis and Friedman, 2014), a legal interpretation that may discourage women from filing divorce, since men often are the ones signing housing contracts (Hong Fincher 2014).

The fourth factor shaping mate selection relate to norms. Although China remains conservative compared to other countries (Parish et al., 2007; Zheng et al., 2014), norms surrounding pre-marital and extra-marital sex have overall become increasingly liberal after 1978, compared to the pre-1978 Mao era, and family values more diverse (Sheng, 2005). This means that it has become more acceptable for individuals to choose a partner, both for marriage or sexual purposes (Parish et al., 2007). While some attribute these changes to sex ratio imbalance in line with the demographic opportunity thesis (Trent and South, 2012), an institutional approach draws attention to other process of social change that may operate concurrently with the sex ratio question. The institutional approach acknowledges the diversity in norms, as evident that persons with higher educational level have more permissive norms (Sheng, 2005; Parish et al., 2007). It also opens up for regarding sexuality, which in both the demographic opportunity thesis and the sex ratio theory is understood as being heterosexual, as an institution often assumed to be hetero-normative.

Methods and material

This chapter is based on a literature review of secondary sources that have used empirical data to investigate the relationship between marriage squeeze and mate selection in China. Occasionally, sources concerning other countries have been consulted in order to be able to situate the Chinese case in a wider context theoretically. Among the quantitative studies, which constitute the main bulk of the literature reviewed, two approaches are used. One compares geographical areas with skewed sex ratios to determine the impact on mate selection behaviour. The other compares married and unmarried men, assuming that unmarried men are victims of a marriage squeeze. Only a few studies adopt a qualitative research strategy.

It is worth noting that while there is no data on how many of unmarried men (or women) can be considered as ‘victims’ of a marriage squeeze, and how many have chosen not to marry willingly, several studies about China assume, on the basis of the high value still placed on marriage (Yu and Xie, 2013), that any man beyond a certain age is an involuntary bachelor (Yang et al., 2015) or forced bachelor (Zhang et al., 2011). In this chapter, however, those bachelors will be referred to as single or unmarried, in order not to attach any normative imperatives on marital status.

Below follows the results of the literature review on marriage squeeze and mate selection. Specifically, these findings pertain to mate selection for marriage purpose, mate selection for sexual purposes, and strategies in the wake of a marriage squeeze.

Marital mate selection

In terms of marital mate selection the literature has engaged with the effects of sex ratio imbalance on 1) marriage frequency, 2) age of marriage, 3) divorce and 4) hypergamy and – what here is named – ‘marital stratification’.

Marriage frequency

In 2011, only 1.4 percent of women and 5.2 percent of men aged 35-39 years in China were unmarried (Eklund, 2016a). This makes China markedly different from other low-fertility countries. In 2005, the proportion of women and men (men in parenthesis) aged 35-39 who were single was 18 (30) in Japan, 8 (18) in South Korea, 16 (22) in Taiwan, 15 (20) in Singapore and 20 (30) in Hong Kong (Jones and Gubhaju, 2009: 239, 243). While both the demographic opportunity thesis and the sex ratio theory predict that marriage rates will go up among the sex in short supply, the sex ratio theory predicts that marriage rates will go up also for men, as values become more centred around marriage and the family. Cross-national research shows that in high sex ratio societies, female marriage rates are indeed higher, but also slightly higher for men (Angrist, 2002). Given that sex ratios at marriageable ages have been high in China for several decades (Attané, 2013:60) and that other factors (social, political, family) also influence marriage, it is hard to establish a significant correlation between sex ratio and marriage rates. Yet, theoretically, it may be that marriage rates are high due to high sex ratios. This may give a clue as to why marriage rates have fallen in other parts of East Asia but not in China (Eklund, 2016b). Yet, from an institutional approach, persistently high marriage rates can also be explained by the fact that social welfare policies do not provide alternatives to forming a family, which remains the main unit to provide care, support, and wellbeing to its members. Also the Chinese Marriage Law which outlaws out of wedlock births may contribute to the high marriage rates (Eklund, 2016a). Furthermore, women’s deteriorating position in the labour market (Attané, 2012) can explain the persistence of high marriage rates, as women are economically dependent on their family and spouse (Eklund, 2016a).

Marriage age

According to both the demographic opportunity thesis and the sex ratio theory, high sex ratios would hasten women’s transitions into marriage. For China, claims have been made that a response to a marriage squeeze would be that men would postpone marriage while women’s age at marriage would remain stable or even decrease, which would result in widening spousal age gap (Attané, 2006). Ebenstein and Sharygin (2009) suggest that the age gap between spouses and age at marriage for men will ‘necessarily rise ad infinitum’ as each male cohort ‘passes along’ the bride shortage to the next. However, this prediction ignores the mitigation effect on the marriage market brought about by various adjustment practices, such as the increase in marriage migration or in divorce followed by a remarriage among women in short supply.

Investigating local sex ratios, Trent and South (2011) found that a one-unit difference in local sex ratios increases the odds that women marry before age 25 by 1.3 percentage points, giving support for both the demographic opportunity thesis and the sex ratio theory. Likewise, factoring in sex ratio differences between age cohorts, Porter (2016) found that when sex ratios

are high, men tend to marry later, giving evidence for the proposition that men adjust their marriage age. However, at an aggregate level, there is little support for this notion.

While the mean age has increased markedly for both women and men in other parts of East Asia,¹ in comparison, it has increased modestly in China. As shown by Poston (this volume), by 1980, when sex ratio among the population of marriageable age was relatively even, the mean age at first marriage in China was 22.4 for women and 25.1 for men. By 2010, when sex ratios had begun to rise, the mean age at first marriage had increased more for women than for men (by 1.4 years and 0.7 years respectively), suggesting that age gap actually decreased from 2.6 to 1.9. Comparing data from 1990 and 2010, Lu and Wang (2014: 40-41) found that in urban areas the mean age at first marriage increased by 2.3 years (from 23.9 to 26.2 years) for men and by 2.0 years (from 22.4 to 24.4) years for women. However, in rural areas, where the marriage squeeze is concentrated, mean age at first marriage increased by only 1.6 years (from 23.2 to 24.8 years) for men and 1.2 years (from 21.6 to 22.8 years) for women. Moreover, the increase in the age gap levelled off in rural areas in the late 1990s (also Jones and Yeung, 2014).

These aggregated data challenge the proposition that adjustments to the marriage squeeze may take the form of widening spousal age gap, where in particular men's age of marriage would go up significantly due to high sex ratios. Yet, education levels are important for supporting or rejecting the proposition that age at marriage for men will 'necessarily rise ad infinitum' (Ebenstein and Sharygin, 2009). Using data from Shanghai, Yong and Wang (2014) found that men with lower education marry earlier and at a faster pace than men with higher education, as observed in other countries. However, after the age of 30, men with low education have very dim prospects of getting married, while well-educated men continue to marry beyond their 30ies. While the postponement of marriage for well-educated men can be interpreted as a response to the marriage squeeze, an institutional approach would explain the changes with labour market factors and career ambitions. In fact, high education is associated with later marriage in most parts of the world. Similarly, using data collected in Anhui Province, Liu and Jin (2011) found that most rural men get married between ages 22 and 27, and the probability of marrying decreases sharply after age 28. In fact, 96 percent of never-married men aged 28+ had experienced difficulties in finding a wife. Research also shows that most unmarried rural men believe it will be very difficult to marry, and 71.6 percent believe that it is more difficult for a rural man to marry after age 30 (Attané et al., 2013). Hence, it seems that men with lower education do not adjust to the marriage squeeze by postponing mate selection for marriage, but simply forgo on marriage.

Reasons for why sex ratio imbalance may not lead to a delay in marriage have been explored in qualitative research. A study of young adults in higher education in China found that both women and men express concern over being 'leftover' and that marrying early is a strategy to minimising that risk, despite the sex ratio theory suggesting that men with a higher education would be somewhat 'immune' to the marriage squeeze. In this study, there was a clear sentiment that choice was significantly greater at younger ages, as an older age in itself was regarded as a negative quality that would reduce the prospect of finding the ideal partner. For men, postponing marriage was a strategy to circumvent the expectations placed on them in terms of being able to offer financial stability. Aspirations for early marriage is thus prompted by hypergamous norms, as the expectations placed on men in terms of having accumulated wealth and status are perceived to be less accentuated in marriages at young ages (Eklund, 2017). This sentiment may also help explain why rural men aged 30+ have little hope getting married. The perceived risk of a marriage squeeze indirectly impacts practices and strategies in favour of early marriage, as a 'moral panic' of being 'leftover' fuels the notion that it is better to 'grab the opportunity'.

Intergenerational relations and expectations are also important for informing young adults wish to marry early (Eklund, 2017).

Hence, there are many intersecting factors which impact timing of mate selection. Together, they may help explain why China has not experienced the same increase in age at first marriage as other neighbouring countries (Eklund, 2016b). Yet, it is important to remember that the segment of the Chinese population that was of marriageable age in the 1980s-2000s did not suffer from very skewed sex ratios. Hence, although the spousal age gap has not significantly increased in the recent past, it might do so in the future.

Marital dissolution

As postulated by the demographic opportunity thesis, high sex ratios are positively associated with divorce rates, while the sex ratio theory posits that high sex ratios are negatively associated with divorce rates. Using data from 66 countries, Barber (2003) found that high sex ratios among the younger age group was associated with higher divorce rates, suggesting that the bargaining power of women may increase when young men are in over supply, but in countries with overall male-biased sex ratios, divorce rates were lower, confirming the sex ratio theory that men would use their structural power to ostracise divorce. Analysing sex ratio fluctuations over time in the US, Pedersen (1991) found that high sex ratios were negatively associated with divorce rates, lending support to the sex ratio theory. Yet, South, Trent and Shen (2001) found that high local sex ratios in the US were positively associated with marital dissolution.

In the Chinese context, data on sex ratios and divorce rates are missing, but it has been hypothesised that the growing surplus of males in the marriage and sexuality markets may lead to increased female marital mobility as women have more choice in mate selection, and are subject to a greater demand from men (Attané et al., 2013), in line with the demographic opportunity thesis. Indeed, over the last few decades, divorce rates have increased in China (see Xu and Miller, this volume). If the demographic opportunity thesis holds, sex ratios could well be an explaining factor. Based on a survey conducted in 1996, Xu and Ye (2002) found that individuals who were aware that there was a great supply of partners of the opposite sex and who thought they had a high chance of replacing their current partner were more prone to having the intention to get divorced, suggesting that skewed sex ratios may impact divorce rates positively. Yet, increased divorce rates can also be explained by men's structural power not being absolute, and that institutional changes pertaining to some women's economic independence and norms about divorce are changing in favour of more accepting attitudes towards divorce. At the same time, the moral panic of the marriage squeeze may create a sentiment that it is better to stay married than to risk not finding another partner (Eklund, 2017), and divorce rates may have been even higher had the marriage squeeze not been such a great cause of public and popular concern.

Hypergamy and marital stratification

Contrary to the demographic opportunity thesis, the sex ratio theory takes into account class and gender dimensions of mate selection. It suggests that in high sex ratio societies, hypergamy will intensify, as women will have more bargaining power in mate selection, which leads to a stratification process along class lines. Du et al. (2015) found that the higher the sex ratio, the more do women tend to marry hypergamously in terms of income. They also found that hypergamy extends to type of occupation, where men in government jobs and private sector jobs are more sought after as they enjoy higher social status, more stable income, and better welfare. However, Du et al (2015) also found that after 2000 the effect of sex imbalance on individual income hypergamy becomes insignificant, while the effect on hypergamy in terms of parents' wealth gap stayed positive and significant. Du et al. explain this shift by the fact that housing

prices have soared and that house ownership is considered important for men in the marriage market (also Wei and Zhang, 2011).

Going one step further, the institutional approach draws attention to the marriage squeeze effects that can *arise* from mate selection behaviour, sex ratios aside. From an institutional perspective, marriage squeezes can be generated due to women marrying upwards in a stratified economic system, with large income disparities, as well as difference in job opportunities and living conditions between regions. Economic inequality caused by economic liberalization (Du et al., 2015), lack of redistribution policies (Eklund, 2016a) and limited opportunities for women to advance their social and economic position, makes marriage an important route to social mobility and will lead to women's social hypergamy. Du et al (2015) showed that over the last half century there has been a change from positive to negative assortative matching. Drawing attention to the importance of institutions, Wei and Zhang (2015) argue that marriage squeezes 'should be understood as a manifestation of the gendered features of the marriage system which work against low-class men'. Indeed, failing to marry has stratifying effects, contributing to a growing under-class which is predominantly rural. Jin et al. (2013) found that the number of female labour migrants correlate with the number of unmarried men, as well as per capita income. Remoteness of a village and poor conditions prompt female migration and increases the male marriage squeeze in sending areas (Fan and Li, 2002; Jin et al., 2013; Das Gupta and Li, 1999; Chen, 2004; Jiang and Sanchez-Barricarte, 2012). Hence, there is growing evidence that men at the lower end of the socioeconomic strata are victims of the male marriage squeeze (Attané, 2006; Ebenstein and Sharygin, 2009; Li et al., 2010; Jiang and Sánchez-Barricarte, 2012; Attané et al., 2013; Yang et al., 2014; Liu et al., 2014), both because they are not desired by prospective wives (Attané et al., 2013), and because they may doubt their ability to provide for a family (Jones and Gubhaju, 2009). In fact, only about one in four unmarried men surveyed in rural Anhui saw the shortage of local women as an obstacle to marriage, while the vast majority saw poverty as the main factor (Li et al., 2010). Jin et al. (2013) even suggested that the current male marriage squeeze is not primarily a result of imbalanced sex ratios, but an outcome of hypergamy. Moreover, since marriage has a stratifying effect, failing to marry tends to perpetuate poverty (Ebenstein and Sharygin, 2009). However, at the same time, the practice of hypergamy, allegedly intensified at least partly due to the shortage of women, may also lead to reductions in inequality between classes, but – as discussed later on – may create unequal power relations between spouses.

Non-marital mate selection

Sex ratio imbalances also have implications for non-marital mate selection. According to the demographic opportunity thesis, in high sex ratio societies, women in short supply would be more prone to engaging in sexual activities with multiple partners, due to the increased availability of male partners to choose from. Yet, the sex ratio theory proposes the opposite: when men are in over supply, they use their structural power to limit women's sexual freedom despite 'favourable demographic opportunities' (Trent and South, 2011: 252). Testing these assumptions, studies have looked into mate selection for sexual purposes, namely 1) partnered sex, 2) same-sex sexual behaviour, and 3) commercial sex.

Partnered sex

Zheng et al. (2014) studied the relationship between sex ratios and sociosexuality and confirmed neither of the predictions proposed above, since differences in sociosexuality varied between high and low sex ratio areas in inconsistent ways. In fact, wealth was the strongest independent variable correlating with unrestricted sociosexuality for both women and men,

suggesting that institutional factors related to resources, social position and norms were more important in understanding sociosexuality than sex ratios. These findings are interesting given that Schmitt's (2005) study in 48 countries found that sex ratio was an important explanatory variable for differences in sociosexuality.

Comparing married and unmarried men in rural Anhui, Yang et al., (2014) showed that single men have both less partnered sex and fewer sexual partners. While such findings are not surprising given that marriage is still the most acceptable setting of sexual relations, it does hint at some of the consequences a male marriage squeeze may have in terms of mate selection for sexual purposes. Li et al. (2010) found that single men reported one sexual relation on average per month, four times less than married men. In fact, more than half of the unmarried men surveyed reported never having had sex (Yang et al., 2014; Attané et al., 2013; Li et al., 2010). In terms of average number of lifetime sexual partners, unmarried men reported 0.7, while married men reported 1.5 (Attané et al., 2013: 718). Yet, another study shows no significant difference in multiple sexual partners between married and unmarried male migrants (Liu et al., 2012), suggesting that migration increases the opportunities for partnered sex, including commercial sex as discussed below.

Attané et al (2013) found that among men who had their last sexual intercourse with their girlfriend, only 2.4 percent expected to marry within a year. Still, those with girlfriend had much less frequent sex than married men, possibly due to the lack of privacy in rural China. Hence, marrying or not is not only determined by the availability of partners. Although the authors do not discuss other possible reasons, it is plausible that young adults engage in mate selection without the intention of getting married, as supported by other research (Ferrer, 2014). Yet, reasons for not marrying a girlfriend could also be that the two partners are incompatible for marriage for reasons related to hypergamic norms, and that parents disapprove of the match (Eklund, 2017).

Trent and South (2011) showed that the higher the sex ratio, the more likely women engage in pre-marital sex, with a strongest correlation for those born in the 1960ies and 1970ies who came of age at the time of liberalization of sexual norms. They also found a positive association between the sex ratio and the probability for women to be engaged in extramarital sex and multi-partner sex over their lifetimes (Trent and South 2012). South and Trent (2010) postulate that the increase in women's premarital sex is larger due to sex ratio imbalance in favour of men, although they also acknowledge the importance of institutional changes in sexual mores. They also found that when men are in short supply, they are more likely to engage in premarital sex. These findings are consistent with the demographic opportunity thesis. However, the increase in the frequency of premarital partnered sex also results from delayed marriage, with longer premarital periods for both women and men.

Same-sex sexual behaviour

Recent research suggests that in the context of a shortage of women, more diversified sexual behaviour may be a response to the unavailability of marital sex. One response could be to engage in same-sex sexual behaviour (Yang et al., 2012a; Yang et al., 2012b). Attané et al. (2013) proposed that as heterosexual marriage will not be universal, attitudes towards homosexuality may become more permissive, and homosexuality practiced more openly. As a result, homosexual men will no longer feel the urge to enter heterosexual marriage. These propositions offer new theoretical perspectives not covered well in the demographic opportunity thesis and the sex ratio theory. Rather, it challenges the sex ratio theory, which posits that in high sex ratio societies norms may become more centred on heterosexual marriage.

Yang et al. (2012b) found that the prevalence of same-sex sexual behaviour among rural unmarried men was 17.2 percent, twice as higher as married men (8.9 percent). A study on male migrants in Xi'an generated similar results. The prevalence of same-sex sexual behaviour among unmarried male migrants (11 percent) was twice as common compared to both the married who lived apart from their wife (5.1 percent) and those who lived with their wife (3.8 percent) (Yang et al., 2012a). This lends some support to the proposition that in the absence of female partners, same-sex behaviour increases among men, and thus to the notion that male-biased sex ratios may fuel same-sex behaviour for men. However, it is worth pointing out that in both studies same-sex behaviour also takes place among married men, which might suggest that homosexual men have entered heterosexual marriage because of the high value placed on marriage.² Yang et al (2012b) also note that the increase of same-sex sexual behaviour among unmarried men might be a result of their free will and that they stay unmarried voluntarily because of their sexual orientations. Indeed, accepting attitudes toward same-sex sexual behaviour was a significant determinant of same-sex sexual behaviour in these two studies (Yang et al., 2012b; Yang et al 2012b). However, they also note that unmarried men who choose to stay single might be very few because of the high value placed on heterosexual marriage in China. This proposition was confirmed in a qualitative study among young women and men in higher education, which found that although attitudes towards homosexuality are liberal, none of the interviewees who identified themselves as bisexual could imagine forgoing heterosexual marriage (Eklund, 2017).

Commercial sex

The use of commercial sex has been on the rise in China since the reform era started. Simultaneously, there has been a liberalisation of sexual norms and practices. These two parallel processes constitute a conundrum if compared to the West, where a liberalisation of sexual mores was accompanied by a reduction in commercial sex work (Parish et al., 2007). One explanation could be the interplay of the marriage squeeze. Indeed, several studies link skewed sex ratios and commercial sex, suggesting that a shortage of women will fuel an increase in commercial sex as a compensation for the availability of women in the marriage market (Tucker et al., 2005; Chen, 2009). Indeed, South and Trent (2010) found that a surplus of women was associated with men less frequently resorting to paid sex, while a shortage of women had the opposite effect. Similarly, comparing married and unmarried men in rural Anhui revealed that for both first and most recent sexual intercourse, commercial sex was significantly more common among unmarried men than married men (Yang et al., 2014: 209). Although one might assume that attitudes towards commercial sex would be more permissive among unmarried men, married men on average showed higher acceptance towards commercial sex than unmarried men (Yang et al., 2014: 209). This suggests that use of commercial sex has an element of 'necessary evil', and is a compensation for partnered sex when men are subject to a marriage squeeze (Attané et al., 2013). However, among unmarried men aged 30 and above, only 4.9 percent reported that their most recent sexual intercourse was with a commercial sex worker, meaning that commercial sex was an infrequent alternative to partnered-sex (Attané et al., 2013: 719). Yet, there are some differences between single men of different age groups. Those aged below 40 were more likely to have had commercial sex, and 7 percent had the most recent sexual experience with a sex worker, against 3 percent for those aged 40+. Reasons for younger men being more engaged in commercial sex may relate to more unrestrictive sexual norms and that younger men are more prone to migrate (Attané et al., 2013).

A survey of migrants residing in Xi'an found that the prevalence of commercial sex was 37.2 percent among unmarried male migrants, 30.1 percent among married but separated migrants and 17.2 percent among married and cohabitating migrants (Yang et al., 2015). Also

investigating use of commercial sex among migrant men in urban areas, Liu et al (2012) found in a meta analysis that unmarried migrants were more likely to engage in commercial sex than married migrants regardless of education level. When adding age to the analysis, it became evident that unmarried male migrants whose age was below 28 and who had relatively lower levels of education and income were engaged in more risky sexual behaviour (Liu et al., 2012).

Despite the above discussion, it is hard to establish the causal relation between commercial sex and the male marriage squeeze. First, commercial sex increased before the male marriage squeeze became a cause of concern. Second, men purchasing sex may not necessarily be subject to a marriage squeeze (i.e. they stay single voluntarily). Third, married men also buy sex, especially migrant ones. Fourth, the millions of women engaged in sex work³ are excluded from the regular marriage market and therefore partly contribute to causing a marriage squeeze. Thus, it seems institutional factors are important for explaining the increase in commercial sex in China, in particular in relation to economic inequalities, labour mobility and shifts in sexual mores and the commercialisation of sexuality (Jeffery, 2015). To this can be added structural inequalities disallowing migrant workers to live under conditions which allow them to stay with a steady partner.

Unmarried men's strategies of finding a wife

Faced with the risk of failing to find a spouse, literature suggests that unmarried men resort to several strategies, including 1) expanding the notion of a 'marriageable' woman, 2) recruiting a wife from afar and 3) meeting inflating bride prices, all of which are associated with some unintended consequences on the institution of marriage as well as individual women and men.

Expanding the notion of a 'marriageable' woman

One strategy to enable marriage is to alter the criteria for what constitutes a suitable match and thereby enlarge the pool of potential marriage partners (Liu et al., 2014b; Wei and Zhang, 2015). Some lower their spouse criteria and consider 'defiant alternatives', who – given no shortage of women – would not be considered for marriage, such as women with disabilities, or from the same family. One form of deviant alternative is levirate marriage, where a woman remarries the brother of her former husband (Wei and Zhang, 2015). Yet there are no data to suggest that this practice is common. Wei and Zhang (2015) further found that poor prospects of getting married prompts unmarried men to reconsider the importance of patrilocality associated with the Confucian deed of perpetuating the patriline. Some men would enter uxorilocal marriage as getting married was more important than marrying patrilocally. Even marrying an infertile woman or a woman whose own family name will be passed on to future children were by some single men considered more acceptable than staying unmarried. This leaves Wei and Zhang (2015: 18) to conclude that the 'overwhelming concern of our informants regarding the marital choices is to obtain a spouse at an affordable cost, rather than to reproduce their patriline.' Hence an unintended consequence of the male marriage squeeze may be an easing of patrilocality.

Recruiting a wife from afar

Both the number of women who migrated for marriage purposes and the migration distance have increased dramatically in China (Liu et al., 2014b). Indeed, marriage migration accounts for up to one-third of women's migration (Davin, 2005). This means that areas with high out-migration of women for marriage purposes are left with a shortage of women of marriageable age (Jiang and Sanchez-Barricarte, 2012). Whether caused by female out-migration or local sex ratio imbalance, recruiting a wife from afar becomes an important strategy for men

who find it hard to find a spouse locally. Indeed, out-of-county brides are more numerous in more prosperous villages, and fewer in the poorer areas, where single men are plenty (Jin et al., 2013). Moreover, recruiting a wife from afar has had unintended consequences which have contributed to new forms of vulnerabilities for mostly women, but also men.

Some studies point at the vulnerable position of women who marry into 'marriage squeezed' areas. Liu et al (2014b) found that out-of-province wives do not have the same opportunity to work in the non-agricultural sector compared to local women. Moreover, the age gap between out-of-province wives and local men tend to be larger, which also may reflect unequal power relations between spouses (Liu et al., 2014b; Liang and Chen, 2014). Liu et al (2014b) further found that brides from afar are sometimes discriminated against and restricted by their family-in-law. Since they live far away from their natal families, they do not have the same network for support as local brides (Min and Eades, 1995). Consequently, they often have lower status in their marital family and village (Liu et al., 2014).

Marriage migrants are also more vulnerable to deception, abuse and abduction. This is a common argument in the literature discussing the effects of high sex ratio. Doung et al. (2007) argue that one driving factor for the trafficking of Vietnamese women to China is indeed the female shortage in villages on the Chinese side of the border. While some women may be trafficked from the beginning, others end up exploited along the way. Important to note is that according to these authors, Vietnamese women's interest in being faraway brides is triggered by their fear of being left unmarried and childless. Here, parallels can be drawn with China, where women feel pressure to get married to avoid ending up as 'leftover' women. However, importantly, deception and abuse of faraway brides was a concern before high sex ratios became a real issue. A survey carried out in rural Anhui in 1987 found that 75% of surveyed wives from other cities or provinces reported that during the marriage migration process they had been 'subject to some form of deception' (Min and Eades, 1995: 860). Still, many studies attribute the increase in trafficking of women for both marriage and sex industry purposes to the shortage of women (Chu, 2011). Yet, recent data on the prevalence of trafficking in women for marriage purposes is hard to come by. One of the few existing empirical studies found that in 30 villages along the Sino-Vietnamese border, 17 out of 272 international marriages involved kidnapping (Liang and Chen, 2014: 117). Notably, many marriages between Chinese men and Vietnamese women remain unofficial and unreported, and local government officials turn a blind eye to unofficial marriages due to the difficulties for local men to find brides. The undocumented status of foreign brides contributes to their vulnerability and also their inaccessibility of protection and legal services (Min and Eades, 1995; Liu et al., 2014b). Although women's vulnerability as faraway brides may be more acute and common, cross-regional marriages also generate vulnerabilities for men. Single men's strong desire for marriage places them at high risk of marriage fraud (Min and Eades, 1995). Jin et al. (2013) found that marriage fraud is more frequent in villages with a more serious marriage squeeze. Liu et al. (2014b) also found that between 2003 and 2007, 40 cases of marriage fraud were reported in the two counties studied, and village cadres also described how some unmarried men had been involved in mercenary marriage, where a bride was 'sold', but no real marriage formed.

It has also been documented that cross-regional marriages are more vulnerable to marital instability. When conducting in-depth interviews with women who had migrated for marriage purposes, Liu et al. (2014b) found that most out-of-province wives migrated for better economic prospects. Liang and Chen (2014) found that out of the 272 cross-board marriages of a Vietnamese woman and Chinese man, only 27 percent described the marriage as 'romantic'. Since most cross-regional marriages tend to be rooted in economic concerns, and not affection, Liu et al. (2014b) argue that such marriages are at a high risk of instability. However, if this may

lead to more divorce is an interesting but understudied theme. It may be that the causes and effects of a marriage squeeze and divorce need to be reconsidered. Rather than high sex ratios having a direct causal effect on divorce due to the increased availability of male suitors, as the demographic opportunity theory posits, the causal effect of high sex ratios on divorce would be only indirect; there could be a link between high sex ratios and hypergamic marriages based on economic concerns, which would increase the risk of unstable relationship, which in turn may lead to marriage dissolution.

Meeting inflating bride prices

As discussed in the chapter by Song (this volume), bride price has increased in China since the 1980s. There is a growing literature arguing for high sex ratios being one driver for this increase (Yan, 2005; Jiang and Sanchez-Barricarte, 2012; Attané et al., 2013), as is also the case elsewhere (Becker, 1991). This argument is in line with the sex ratio theory which suggests that women's bargaining power is improved when they are scarce in the marriage market, albeit interpreted from a strict economic point of view. At the individual level, this means that in order to be able to attract a bride, men have to provide for inflating bride prices as well as housing (Jin et al., 2013). As an indispensable element of marriage, failing to paying a bride price has become a big obstacle for single men to get married (Jiang and Sanchez-Barricarte, 2012) and men without a new house have fewer chances to marry (Liu et al., 2013). Jiang and Sanchez-Barricarte (2012) argue that failing to pay the inflating bride price means that poor men stay unmarried and therefore become poorer. They fall into the stigmatised category 'bare branch'. Then another vicious circles kicks in; because they are bare branches they need to pay an even higher bride price in order to improve their position in the marriage market.

Bride price is particularly important for cross-regional marriage. As argued by Liu et al. (2014b), it is sometimes the determinant for long-distance marriage, while housing tends to be the most important expense for local marriages. Comparing marriage expenses between the bride's family (in terms of dowry) and the groom's family (in terms of bride price) Jin et al. (2013) found that marriage expenses are higher in villages where unmarried men are abundant. Consequently, because of the shortage of marriageable women and the continued importance placed on marriage for social status and wellbeing, women as brides have become commercialized, especially in areas that are more marriage squeezed (Jin et al., 2013).

Yet, the trend of increasing bride price was noted before the sex ratio question became a cause of concern. Min and Eades (1995) argued already in 1995 that shifts in the relative bargaining power of the bride's family and the groom's family related to both increases in rural incomes and the increased value of women's labour as a result of the household responsibility system. Min and Eades (1995) further noted that patrilocal marriage patterns place the burden and pressure on the groom's family to pay for marriage expenses, leaving the bride's family able to push expenditure further. Importantly, bride price often benefits the parents instead of the bride, especially in poorer regions. Although the bride price is often used to pay part of the dowry, the bride's family can decide how much to keep for other family needs, such as paying for a son's marriage expenses (Jiang et al., 2012). This means that in families with both a son and a daughter, the daughter's marriage is of great importance; the higher the bride price the daughter's marriage generates, the higher the bride price the family is able to pay to their son's future in-laws. Finally, parents are increasingly investing in housing property of their son in order to increase his position in the marriage market (Wei and Zhang, 2011), whereby housing becomes a kind of bride price.

Conclusions and directions for future research

This chapter has deployed the theoretical perspectives of the demographic opportunity thesis, the sex ratio theory and the institutional approach in order to furthering the understanding of how marriage squeezes and mate selection interrelate, focusing on mate selection for marital and non-marital purposes, as well as strategies men subject to a marriage squeeze deploy. The chapter concludes that while the demographic opportunity thesis and the sex ratio theory attribute changes in mate selection patterns to sex ratio imbalances, an institutional approach drawing attention to other structural factors that may intersect with sex ratio imbalance is needed. The institutional approach brings in unequal regional development, migration, welfare policies, labour market and norms around sexuality and family as important analytical factors to understand mate selection. Importantly, it underlines gender and class related factors which create marriage squeezes, sex ratios aside.

The chapter finds empirical evidence that high sex ratios are positively associated with marriage frequency, age at first marriage, and hypergamy. There is also evidence for high sex ratios increasing the likelihood for women to engage in pre-marital and multi-partnered sex. However, rather than interpreting these trends as a confirmation of the demographic opportunity thesis, which suggests that mate selection behaviour is causally related to whether a person belongs to the sex in short supply or not, male-biased sex ratios could be seen as a *hampering factor*. By contributing to more conservative gender norms, including hypergamic norms, as the sex ratio theory suggests, male-biased sex ratios contribute to hampering change in mate selection norms and practices compared to if sex ratios had been even and a marriage squeeze not a cause of concern. Hence, given institutional change in terms of urbanisation, education levels and labour force participation of women, it is possible that China would have come closer to a second demographic transition had sex ratios not been biased in favour of men (Eklund, 2016b).

In the case of increases in commercial sex and male same-sex sexual behaviour, the chapter concludes that the marriage squeeze may have a modest fuelling effect, although other institutional changes most likely have bigger explanatory power. These new trends can be thought of as adaptation strategies, which have not been well covered in the literature so far. Given that the marriage squeeze will intensify, further adaptation is needed. One such type of adaptation, which requires structural change in the reduction of inequalities between regions, social classes, and between women and men, is the loosening of the norm and practice of hypergamy. More even distribution of resources would ease the importance of hypergamy and reduce the stigma associated with hypogamy (men marrying women of higher social status). Improving social welfare and individualised social rights would also allow Chinese women and men in an unsatisfying relationship to opt for divorce, which would increase the mobility in the marriage market. However, such measures are incompatible with the revival of Confucianism and the importance of filial piety and family values, as promoted by the current Chinese leadership. If hypergamy is expected to continue to intensify, it will be important to gain more knowledge about how unequal power relations between spouses (where the man may be older, richer and more educated) impact gender relations, fertility behaviour and labour supply (Du et al., 2015). Whether families will invest more in sons in terms of health and education in order to enhance their son's abilities to attract a bride remains to be seen. The review also points at the need to better understand the relation between divorce and marriage squeezes.

Methodologically, the review presented above is based on three types of study designs: population-based studies comparing low/high sex ratio segments of the population, survey data comparing married and unmarried men, and qualitative studies. While each has its merits, they also have their weaknesses. While population-based studies can show correlations, it is important

to be mindful of the fact that skewed sex ratios may also be endogenous to the phenomenon studied (Trent and South, 2011; 2012), and that findings tend to be sensitive to variations in how sex ratios are set (by region, age, education, etc.) (Porter, 2016). While comparing married and unmarried men offers insight into how unmarried men act and respond differently to married men, such studies have the weakness that unmarried men are assumed to be ‘forced’ bachelors, while it is possible that some remain voluntarily single. Qualitative studies while not being able to generate generalizable findings enable an understanding of how people reason around and experience marriage squeezes. Clearly, there is a need for future research to engage with all these study designs, and for the studies to speak to each other. When doing so, future researchers may want to consider the potential discursive effect of how the marriage squeeze has been studied. Describing singlehood as a problem and as something pitiful perpetuates the low status of unmarried men (and women) and further strengthens the institution of marriage. Opening up to the idea that people in China could have preferences that are not compatible with hetero-normative marriage could lead to new research topics of importance to understanding the changing Chinese family in new ways.

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Footnotes

¹ The mean age at first marriage for women (and men in parenthesis) in 2005 was: 29.4 (31.1) in Japan, 28.7 (31.9) in South Korea, 29.5 (31.9) in

² Other studies have found that same-sex behaviour is more common among the married than the unmarried, suggesting that homosexual persons are forced to enter heterosexual marriage (Li, 1998; Liu and Lu, 2005 quoted in Yang et al., 2012a).

³ Estimates vary between 2 and 20 million women (Jeffery, 2015).