The age difference at marriage in England and Wales: a century of patterns and trends

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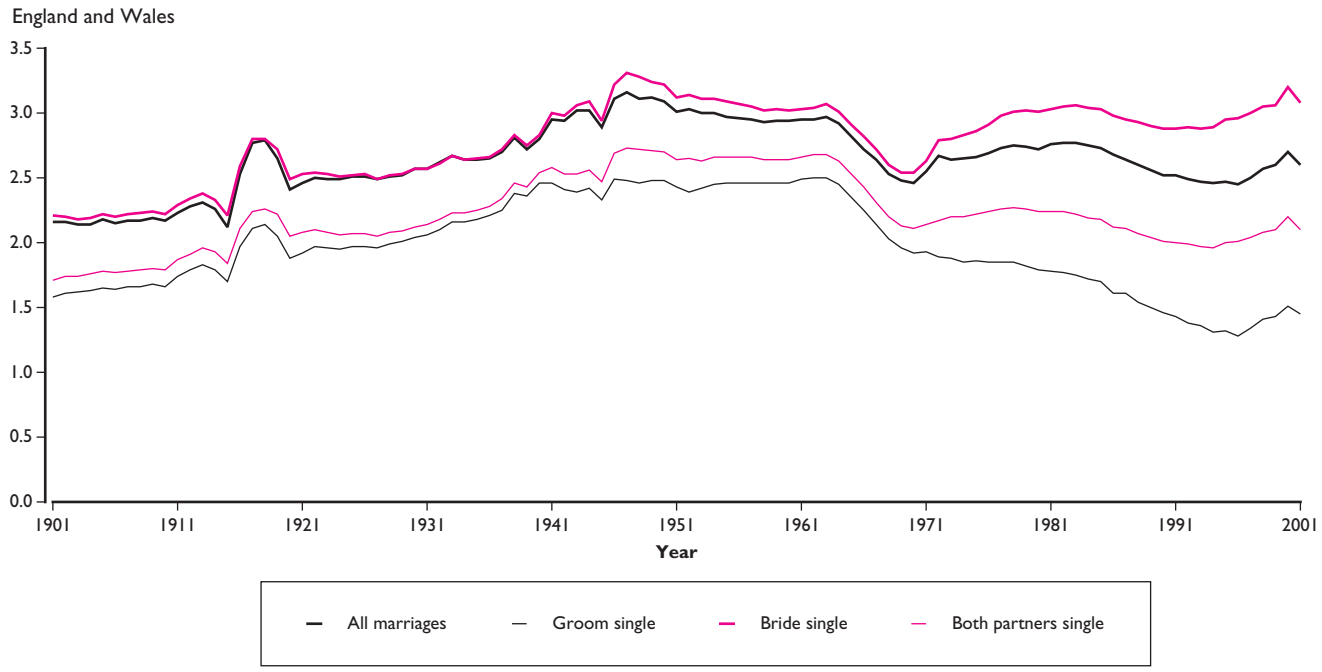
In the last 100 years the mean age difference at marriage in England and Wales has fluctuated in the range 2–3 years, but without exhibiting any long-run trend. Nevertheless, an age gap of 2–3 years is not typical. A 1-year gap is the most common in recent years and there is a good deal of variation between couples. Marriage partners are closer in age than would be predicted if men and women were matched at random by age. There is little evidence that the age difference is governed by strong social norms. Some explanations for diversity and change in the age difference are discussed.

Introduction

The age difference is of perennial interest with regular comment, both academic and popular, on the frequency, social acceptability and socio-biological basis for various age gaps between partners. The issue is of demographic interest because of its connection with the question of how the marriage market operates, and is of relevance for actuarial purposes and in a policy context also.[1] The present article discusses and documents the age difference at marriage in England and Wales, examining trends in the age gap through the twentieth century and presenting detailed data on differentials by marital status and on age difference distributions. Some common beliefs about the age difference are considered, as are the determinants of age differences between partners.

Long-run trends in the mean age difference at marriage in England and Wales are shown in Figure 1, with the age difference defined as husband's minus wife's age (this definition is used throughout the article).[2] We see from the line representing all marriages that the mean age difference has varied over time, though within a relatively narrow range: the mean gap in 1901 marriages was 2.2 years, it rose to a peak value of 3.2 in 1947, declined to 2.5 in 1970 and has since then undergone gradual fluctuations, reaching a value of 2.6 in 2001. Over the century, there was no long-run, unidirectional trend in the overall mean age difference – its level at the start and end of the 100 years covered are very little different. The characteristic feature of the mean age difference during this period in England and Wales is that it was fluctuating, and that tendency continues right up to the present. These time-series data illustrate that looking at just a few widely-separated time points may give a misleading picture of temporal variation in the mean age difference: data on intervening years reveals neither stability nor long-run trends.

Figure 1 **Mean age difference in first marriages by sex, and in all marriages, 1901–2001**

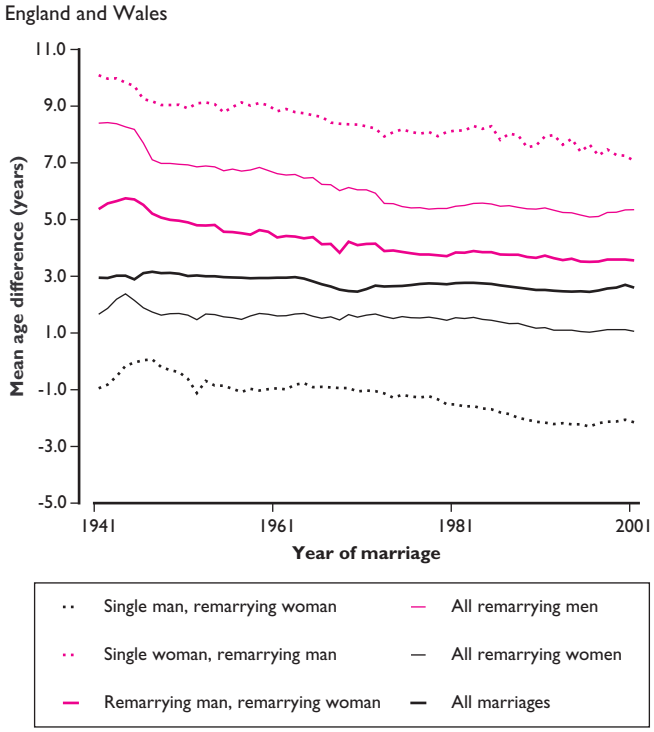


Source: Marriage and Divorce Statistics, Series FM2 No. 16, Tables 3.1 and 3.5 (online version, accessed September 2004)

Besides the series for all marriages, Figure 1 shows also the time-trends in the age gap in the first marriages of men and women, separately, and in marriages where both partners are single. Throughout the century, the mean age difference in the marriages of single women is larger by up to six months than in marriages as a whole and the gap in the marriages of bachelors is narrower by up to 14 months than in marriages as a whole. That is to say that single brides are on average somewhat younger than their husbands than are all brides and single grooms are not as much older than their wives as are grooms in general.

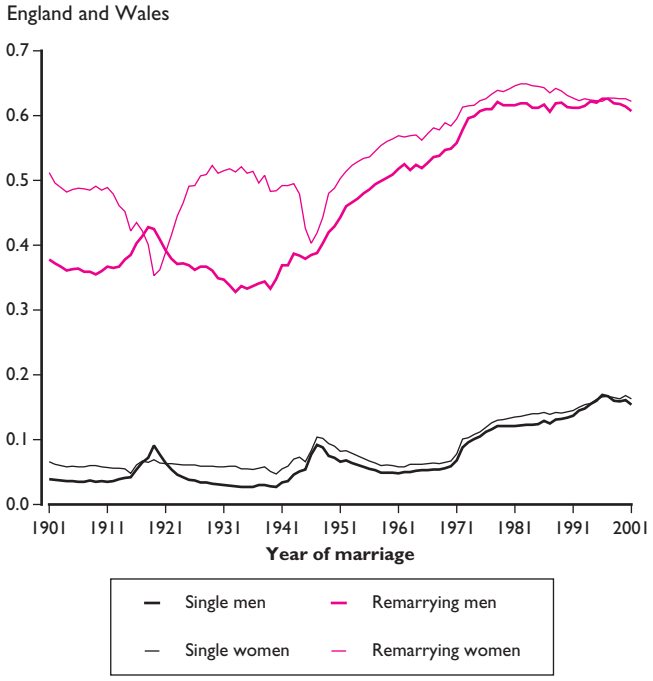
The reason for the discrepancy between single men and women is twofold. Some men and women marrying for the first time marry a partner who was previously married, and so the sets of first marriages of men and of women overlap but do not correspond exactly. Allied to this, the age difference in marriage varies according to the marital status of both bride and groom.[3] This can be seen from Figure 2 which shows the mean age gap according to the marital status of each partner. The age gap in the marriages of single women with previously married men is larger than average. By contrast, when a bachelor marries a previously married woman, the mean gap is not only smaller, but actually negative, implying that the husband is younger on average. In 2001, for example, single men who married a remarrying woman were an average 2.2 years younger than their bride and in the majority of such marriages (59 per cent) the groom was younger than the bride. Thus, the much smaller mean age difference for bachelor grooms than for single brides results from the differentiation in age gaps between first marriages, male remarriages and female remarriages. These features follow naturally from the fact that previously married people are older on average than those who have never been married. Mortality improvements and the rise in divorce rates mean that widows and widowers represent a declining share among persons remarrying, and divorcees an increasing share. In 1901, divorcees accounted for just 1 per cent of those remarrying, whether men or women; the figure rose steadily thereafter, increasing sharply directly after the second world war and in the early 1970s, following divorce liberalisation, and now stands at over nine–tenths of all remarrying persons.

Figure 2 **Mean age gap in remarriages and in all marriages by marital status of bride and groom, 1941–2001**



Source: Marriage and Divorce Statistics, Series FM2 No. 16, Tables 3.1 and 3.5 (online version, accessed September 2004)

Figure 3 **Proportion marrying a previously married partner, by sex and marital status at marriage, 1901–2001**



Source: Marriage and Divorce Statistics, Series FM2 No. 16, Tables 3.1 and 3.5 (online version, accessed September 2004)

A further notable feature of Figure 1 is that the mean gap in the marriages of single women has been increasing since the early 1970s in contrast with that in the marriages of single men, which has declined particularly sharply. Both are explained by the increase in recent decades in the proportion of single brides and grooms who marry a previously married person (Figure 3). The rise was particularly rapid during the 1970s, following the liberalization of divorce law, the increase in the number of divorces and thus in the number of previously married people available for marriage. Since the previously married are older on average than the never married, the choice of a previously married person means that single women will be further in age from their husband and single men closer in age to their wife than if they had married a single person. Nevertheless, although the recent increase in marriages between single and previously married people has been sizeable, it would be a mistake to infer that current trends in the age difference reflect an entirely new departure in the demography of marriage. While the age difference in the marriages of single women was nearly 12 months larger in 2001 than in 1901 it is comparable to the level obtaining during the 1950s. The mean gap of 1.5 years in the marriages of single men in 2001 is little different from the figure of 1.6 a century before, even though the age gap in the marriages of single men has been declining steadily since the early 1960s.

Fact and fiction in relation to the age difference

The age difference is the subject of a number of popular and scientific myths, some of which are considered here. The first to be discussed is the role of social norms. It is often supposed that age differences are strongly governed by norms[4–7] but there is little to support this idea, either by way of direct information on normative expectations, or in the characteristics of recent and past distributions of age differences, whether in the UK or in other countries, or in the expressed preferences of individuals. In fact, several pieces of evidence tend to discount the proposition that the age gap is subject to strong social norms.

We see first in Table 1 that the age difference distribution is highly dispersed.[8] In the selection of years covered here, the standard deviation of the age difference is close to or in excess of twice its mean value. The spread of age differences over a comparatively broad range of values is a quite general phenomenon, being observed in a wide range of settings.[3, 9-12] A further reason for doubting a central role for norms in governing the age difference is that the distribution of age differences is volatile from year to year and appears to be fairly responsive, through time, to the age distribution of available unmarried partners. For example, among women born between 1900 and 1967 who married at age 21, the proportion whose husband was two years older than themselves ranged between 11 per cent and 19 per cent; among men of these generations who married at age 23, the proportion marrying a woman three years younger than themselves ranged between 10 per cent and 21 per cent. These peaks and troughs tend to be associated with the varying supply of unmarried partners of the corresponding age difference, due to changes in age–sex structure resulting from demographic processes.[13] Thus, age differences appear to some extent to have a chance element, with unmarried men and women being more or less likely, in a given year, to encounter a person of a given age difference according to the proportion that partners of that age gap form of the unmarried population as a whole. Consistent with the volatility of age difference distributions, evidence on explicitly stated preferences of both men and women reveals much flexibility in relation to potential partner ages: preferences are not focussed on narrow ranges of partner ages but there is a good deal of indifference within moderately broad age ranges of partner.[14]

The persistent but unproven belief that age differences are governed by strong social norms is often tied up with the mistaken assumption

Table 1 **Percentage of marriages with specified age gaps, and summary statistics. All marriages, 1921, 1971–2001**

England and Wales

Year of marriage	Husband/wife older										
	Wife older (gap in years)			Same age	Husband older (gap in years)						Coefficient of variation
	5+	3–4	1–2	0	1–2	3–4	5–9	10+	Mean	SD	SD/Mean
1921	5	5	13	13	23	16	17	8	2.5	5.1	2.0
1971	4	4	10	12	28	20	16	7	2.6	4.9	1.9
1981	5	4	10	11	25	18	19	9	2.8	5.5	2.9
1991	7	6	11	10	21	16	19	9	2.5	5.8	2.3
2001	9	6	11	9	19	15	20	11	2.6	6.3	2.4

Sources: 1921: Registrar General's Statistical Review of England and Wales 1921; 1971–2001: Unpublished tables provided by ONS

Table 2 **Frequency of narrow age gaps and other aspects of the age difference distribution. All marriages, 1921, 1971–2001***

England and Wales

Year	Percentage of marriages in which the age difference is:				Most common age gap	25th percentile	75th percentile	Inter–quartile range	Range including 75 per cent of marriages
	2–3 years	1–3 years	1–4 years	0–4 years					
1921	*20*	*32*	*39*	*52*	0	0	4	4	–3 to +6
1971	*25*	*40*	*48*	*60*	1	0	4	4	–1 to +6
1981	*22*	*35*	*42*	*53*	1	0	4	4	–2 to +7
1991	*19*	*30*	*37*	*48*	1	0	5	5	–3 to +7
2001	*17*	*26*	*33*	*43*	1	–1	6	7	–4 to +8

* A negative value indicates an age difference in favour of the wife.
Sources: as Table 1

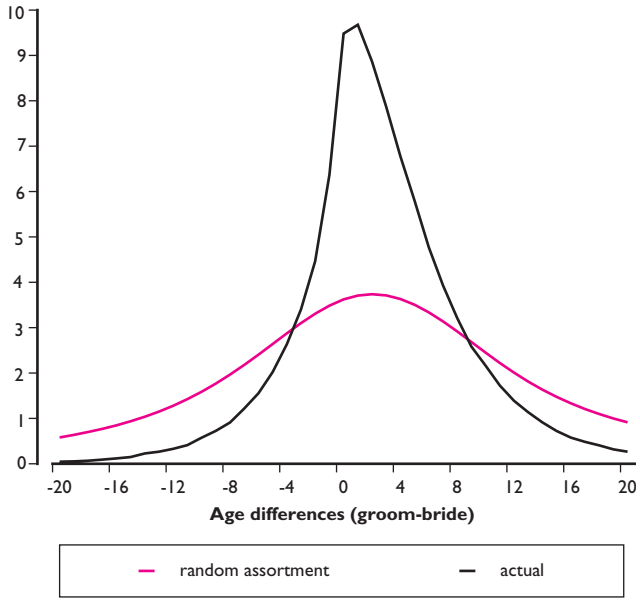
that age differences typically fall within a narrow range, with many assuming that in most marriages the husband is two to three years older than the wife.[15] We saw in Figure 1 that the *mean* age difference in marriage in England and Wales has, for most of the 20th century, been in the range 2–3 years, but this does not imply at all that the *majority* of marriages feature a gap of this size. In fact, only in a minority of marriages is the husband 2–3 years older than the wife, as we see in Table 2: no more than a quarter of all marriages in the years examined feature a gap of 2–3 years. In recent decades a gap of one year is the most commonly occurring age difference in British marriages, and not a two or three year gap (Table 2).

This is not a new development and has nothing to do with recent trends away from traditional marriage patterns. As we see, only a fifth of marriages in 1921 featured a groom 2–3 years older than his bride and the modal age difference in 1921 marriages was zero – that partners were of the same age. Nevertheless, the most common age differences are not, in relative terms, very frequent – in the selection of years considered here, the single most common age gap occurred in just 14 per cent of marriages (one-year gap, 1971). In order to account for at least half of all marriages in 1921, 1971 and 1981 we have to include age differences in the range of 0–4 years, 0–5 years in 1991 and 1–6 years in 2001. These ranges only just cover half of all marriages, and do not include the large majority of marriages. The ranges encompassing three–quarters of all marriages in these years are gaps of from –1 to +6 in 1971 and from –4 to +8 in 2001–ranges that are 8 to 13 years wide (see the final column of Table 2). Set against the supposition that most marriages feature a small age gap in favour of the husband, this represents a fair amount of diversity. In summary, it is not true that the large majority of marriages feature either a 2–3 year gap, or a gap in a very restricted range. The distribution is broad rather than concentrated at a small number of values.

Nevertheless, while the age gap is far from being uniform across marriages, its distribution is more compact than it could be in principle. Marriage partners are not assorted randomly by age. Some combinations of ages are substantially more frequent than would be expected by chance and others a good deal less so. We see this from Figure 4 and Table 3, which compare the actual proportionate distribution of age differences in marriages occurring in 2001 with the distribution that would be found if men and women marrying in 2001 were to be paired up randomly by age.[16] We see that the age differences that occur in practice are much more concentrated than would be expected under random matching, and that extreme age differences in either direction are much less frequent than would be expected under chance assignment. The two lines cross at age differences of about –4 (wife older) and +9 (husband older). Age gaps outside these limits are found less frequently in 2001 than would be expected by chance, and those within the range, more so. If partners

Figure 4 **Percentage distributions of age differences observed and expected under random assortment by age (range –20 to +20). All marriages, 2001**

England and Wales



Source: calculations based on unpublished tables provided by ONS

Table 3 **Percentage age difference distributions observed and expected under random assortment by age. All marriages, 2001**

England and Wales

	Wife older (gap in years)				Same age	Husband older (gap in years)			
	10+	5–9	3–4	1–2	0	1–2	3–4	5–9	10+
Actual	*2*	*6*	*6*	*11*	*9*	*19*	*15*	*20*	*11*
Expected (random)	*15*	*11*	*6*	*7*	*4*	*7*	*7*	*16*	*26*

Source: author's analysis of unpublished tables provided by ONS

were matched at random by age, 27 per cent of 2001 brides would be at least five years older than their husbands, while the actual percentage is, at 9 per cent, one-third of this number; 26 per cent of husbands would be at least 10 years older than their wives, if randomly assigned by age, compared with an actual figure of 11 per cent in 2001 marriages. Four-fifths of marriages fell in the central range of –4 to +9 years age difference in 2001, but just 47 per cent would be expected if partners' ages were randomly assorted.

These calculations also give a fresh perspective on the phenomenon of what is often taken to be a social convention: that the husband is older than the wife. Husband-older marriages were certainly in the majority in 2001, and have long been so. Nevertheless, at 65 per cent of all marriages they are not a great deal more frequent than the 56 per cent that would be expected by chance (see Table 3): that is, the actual percentage of husband-older marriages exceeded the figure that would be expected at random by only 9 per cent.[17] A qualification is in order, however: the calculation of the expected distribution takes as given the age distributions of men and women marrying in 2001, and the older mean age at marriage of men may in itself, to some extent, reflect a preference for husband-older marriages. Making the extreme assumption that later male marriage is due to a preference for husband–older pairings, our observed 65 per cent should be compared with an expected 50 per cent – a sizeable but not huge excess of male-older partnerships.

The contrast between actual age gaps and those that would occur if age matching were random casts some light also on the question of very large age differences, whether in favour of the husband or of the wife. As we have seen, they are less common than would be expected by chance. Whether through social or other structural processes, or the aggregate of individual decisions, large age differences in either direction appear to be avoided and are rare in an absolute sense. Some further details are given in Table 4, in which a large disparity in age is defined, arbitrarily, as 15+ years in favour of the husband or 8+ years in favour of the wife, the different limits being chosen in recognition of the fact that wife–older marriages are less common. Thus defined, 2–4 per cent of marriages in the years selected involve a large disparity in the husband's favour and the same proportion in the wife's favour (though the gap chosen is narrower). A large age difference in favour of one or other sex is more common on remarriage: 10–12 per cent of remarrying men are 15+ years older than their new wife and 8–10 per cent of remarrying women are 8+ years older than their new husband. While the spread of age differences has been increasing in recent decades, nevertheless the current proportion of extreme age differences, on the present definition, is not greatly different from the situation in 1921.

It is sometimes supposed that in past times the age gap was typically much larger than currently and that age differences have declined in recent times, reflecting a more egalitarian, companionate approach to marriage.[18–20] While there can be little doubt that marriages are more egalitarian in structure nowadays than in the past, this is not due in Britain to a smaller gap between spousal ages. As we saw in Figure 1, mean age differences at the turn of the twentieth century were very little different from their current levels and in 1846, when published marriage statistics begin, the mean age difference in marriage was 1.8 years.[21] Indeed, a relatively small age difference, with husbands and wives fairly close in age on average, is characteristic of marriage patterns in England and Wales in earlier centuries also.[22] If it is true that the dispersion of age differences was greater, and that large age gaps were more common, in historical times than currently, then the phenomenon pre-dates the 20th century.

A final but only partial myth about the age difference is that it is larger than average in remarriages. As we saw earlier, this is only half-true. The mean age difference is larger when men remarry but not when women remarry. As we saw in Figure 2 above the age gap is, in fact, narrower than average in the remarriages of women, whose chances of being older than their second or later husband are much greater than in the case of their first marriage. And while it is true of *both* sexes that their second or later spouse tends on average to be younger than their original partner,[23] very large disparities in age are not in any sense typical in remarriages. We saw in Table 3 above that just 10–12 per cent of remarrying men were 15+ years older than their new wife. Even if we adopt a more inclusive definition of a large age difference as 10+ years, a minority of between 25–29 per cent of remarrying men in the years selected are older than their new partner by such a margin.

Some of the enduring myths about the age difference possibly arise through a combination of the fact that in the majority of marriages husbands are older than their wives but that fine gradations of age are not socially transparent. Except maybe for children and adolescents, it is usually not possible to identify a person's age with precision. We can probably identify the decade of a person's age and perhaps whether a person is in the early or later part of that decade, but judgments of age will not generally be much more accurate than that. As a result, unambiguous information on the relative ages of couples will not usually be available to us in our daily lives – in contrast, for example, to information on the relative height of couples, which is immediately apparent, public information.

What determines the age difference?

What factors influence the age difference between partners? Several forms of this question can be considered. First, why is the mean age difference generally in favour of the husband, not only in England and Wales but in virtually all known societies? What factors contribute to the differences between individual couples in age gap? And finally, what factors influence change in the age gap through time? No definitive answers can be given to these questions as yet, but some hypotheses can be considered.

Table 4 **Percentage of marriages with a large age difference, 1921, 1971–2001**

England and Wales

		Year of marriage				
		1921	1971	1981	1991	2001
Wife older by 8+ years	All marriages	*2*	*2*	*2*	*3*	*4*
	Remarrying men	*n/a*	*3*	*3*	*3*	*3*
	Remarrying women	*n/a*	*8*	*8*	*10*	*10*
Husband older by 15+ years	All marriages	*3*	*2*	*3*	*3*	*4*
	Remarrying men	*n/a*	*12*	*10*	*11*	*11*
	Remarrying women	*n/a*	*5*	*5*	*5*	*4*

Sources: 1921: Registrar General's Statistical Review of England and Wales 1921; 1971–2001: Unpublished tables provided by ONS

The universality of an average gap in favour of the husband has been ascribed by some commentators working within a socio-biological or evolutionary psychology perspective to male preferences for younger women, and that this in turn is a biological adaptation resulting from the greater potential fertility of younger women.[24–25] Whether this explanation is reasonable is extremely hard to establish, since data on the demographic characteristics and marriage patterns of human populations in prehistory, and the environmental constraints to which they were subject, are not available. Though apparently reasonable, such an account must be evaluated against other possible explanations for the universal phenomenon of husband-older marriages. One alternative, also rooted in biology, is that the universal age difference in favour of the husband results from female preferences – a suggestion which in many respects is more in tune with an evolutionary perspective since female choice is accepted in biology as having a central role in pair formation.[26] Overlying such perspectives, either male or female choice could operate in precisely the way predicted on biological grounds, but for social and also for economic reasons. For example, a man wishing to have a family would be expected to choose a partner young enough to bear children, a choice that may be directed purely by rational here-and-now considerations, rather than by an inbuilt preference resulting from a biological adaptation. Similarly, women entering marriage may prefer a somewhat older partner for here-and-now economic reasons, since older men will be better established economically. A final explanation for the universality of husband-older marriage, is that by convention women marry at a younger age than men, and that the phenomenon can be explained entirely in this way. This may well be part of the explanation but, if so, it is not complete. As we saw earlier, the distribution of age differences is more concentrated than a random matching of grooms and brides by age in any particular year would predict and this is true in a wide range of settings.[12] A second problem is that this explanation leaves unresolved the question why there should be a convention that women marry on average at an earlier age than men, though a number of candidate explanations can be suggested: that women mature earlier than men, psychologically or physically, that women's exposure to pregnancy accelerates their entry into marriage, either through fear of or actual pregnancy, or, given the traditional role of men as the primary breadwinners in the family, that men's capacity to fulfil that role is both better established and more evident at later than earlier ages.

What about variation within a society? What accounts for the differences between individual couples? One important differentiating factor is age at marriage: the younger the woman at marriage, the larger the age difference, and the younger the man, the smaller the age difference. There is, in other words, a broad tendency for the age difference to rise with male age at marriage, and to decline, at least initially, with female age at marriage.[3,11,27,28] This phenomenon probably reflects in part the relative age distributions of partners available to people marrying at each age, as well as, at the youngest ages, the lower limit on marriage age. But beyond opportunity and availability, preferred age differences also vary by age and sex. While nationally representative data on age preferences are lacking, evidence from a more specialised source – the preferences of dating agency clients – show that the mean preferred age differences behave just like actual age differences at marriage, rising with age of groom and declining with age of bride. Nevertheless, these data also suggest that age preferences are not rigid or very precise but that there is a good deal of indifference regarding the age of potential partners. While men on the whole prefer a younger partner, and women on the whole prefer an older partner, both sexes appear willing to accept a fairly wide range of potential partner ages, though at younger ages men are less demanding in this respect than are women.[29]

Note that although marriage partners are closer in age than would be expected by chance, and although extreme age differences are avoided, this need not be due either to social norms or to the operation of individual preferences that are specifically related to age. Non-random matching could arise simply because people closer in age are more likely to encounter each other socially, or because people of similar ages have more interests, experiences and attitudes in common. Assortative matching by age may arise, that is, either as the incidental outcome of social arrangements or as a by-product of preferences for age-related characteristics, rather than that partners of specific ages or age-gaps in themselves are preferred.

Finally, what explains changes through time in the age difference? Demographic factors are probably the key to such changes, though again definitive statements cannot yet be made. One influence is secular trend in the age at marriage. Changing age at marriage can affect trends in the age difference because, as noted above, the age gap between partners is closely associated with the age at marriage of each partner. A further contributory cause is the shifting age structure of potential marriage partners. The age-sex structure of the unmarried population can vary quite substantially, within precise age ranges, from year to year and over time as a result of past fertility, mortality, migration, marriage, divorce and remarriage patterns. As a result, the distribution of relative ages of partners available to unmarried people of any particular age can be quite variable over time. Previous research suggests that the two are linked – that alterations in the age structure of the unmarried population are associated with corresponding change in the distribution of age differences.[10] It is not yet completely clear how strong this connection is, but current evidence suggests that age differences are flexible and adapt rapidly to the ages of the available unmarried population. Hence future trends in the distribution of age differences at marriage will depend not only on trends in age at marriage but also on all demographic factors that influence the age–sex composition of the unmarried population.

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Key findings

- During the 20th century, the mean age difference at marriage in England and Wales fluctuated within a relatively narrow range. The mean gap in 1901 marriages was 2.2 years, it stood at 2.6 in 2001, and in the intervening 100 years its maximum value was 3.2 in 1947. The age gap is defined as husband's minus wife's age.

- Single brides are on average somewhat younger than their husbands than are all brides and single grooms are not as much older than their wives are as are grooms in general. This is largely because of remarriage.

- On average, bachelors who marry previously married women are younger than their brides. In 2001, for example, single men who married a remarrying woman were an average 2.2 years younger than their bride and three in five of such men were younger than their bride.

- Although the *mean* age difference in marriage has long been in the range 2–3 years, an age difference of 2–3 years is not in any sense typical. No more than a quarter of all marriages in a selection of years studied between 1921 and 2001 feature a gap of 2–3 years.

- Age gaps in marriage are quite diverse, and the most common age differences are not very frequent. In 2001 the most common age gap of 1 year occurred in just one tenth of all marriages, half of all gaps were in the range –1 to 6 years and three quarters were between –4 and +8 years.

- Marriage partners are closer in age than would be expected by chance. Large age differences in either direction are less common than if couples were randomly matched by age. This may be due partly to preferences but also to more frequent social encounters between people of similar age.

- There is little evidence that the age gap in marriage is subject to strong social norms. Age differences appear to reflect, to a significant extent, the age distributions of people available for marriage.

Notes and references

1. Hancock R, Stuchbury R and Tomassini C (2003) Changes in the distribution of marital age differences in England and Wales, 1963 to 1998. *Population Trends* **114**, pp 19–25.
2. The age differences used in this article are obtained from the age recorded at marriage registration, in the form of age last birthday. If the younger partner had a birthday on the day before the marriage and the older partner has a birthday on the day after, the true age difference between them will be close to one year more than that computed from vital registration marriage statistics. If the opposite is the case, the true age difference will be close to one year less than that used here. Assuming that dates of marriage occur randomly with respect to birth dates, the age difference in years will be distributed randomly in the interval (d–1,d+1) but centred on d, where d is the age difference computed from marriage registration data. Since most marriages feature an age difference in favour of the husband, these distributions may not be symmetrical. However, no finding reported here is substantially affected by such considerations.
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7. Yaukey D and Anderton D L (2001) *Demography 2nd edition*. Prospect Heights: Waveland Press.
8. The data for 1921 and 1971–2001 are in the form of matrices of marriages by single year of age of bride and of groom. Marriage ages in 1921 are top–coded at 70, and those for 1971–2001 are in single years to the maximum observed age at marriage of each sex in the year in question.
9. Lampard R (1993) Availability of marriage partners in England and Wales: a comparison of three measures. *Journal of Biosocial Science* **25**, pp 333–350.
10. Ní Bhrolcháin M (2001) Flexibility in the marriage market. *Population – An English Selection* **13**, pp 9–48.
11. Goldman N, Westoff C and Hammerslough C (1984) Demography of the marriage market in the United States. *Population Index* **50**, pp 5–25.
12. Casterline J, Williams L and McDonald P (1986) The age difference between spouses: variations among developing countries. *Population Studies* **40**, pp 353–374.
13. Further data are given in Tables 1 and 2 of Ní Bhrolcháin (2001) (see note 10), which includes a detailed discussion of the variability through time of age difference distributions in England and Wales.
14. Ní Bhrolcháin M (2001), cited in note 10, pp 30–34.
15. Pollard J and Höhn C (1993) The interaction between the sexes. *Zeitschrift fur Bevolkerungsforschung* **19**, pp 201–216.
16. The calculation of how age differences would be distributed if brides and grooms in the 249,227 marriages that took place in 2001 were paired randomly by age proceeds as follows. Denoting the proportion of men marrying at age x in 2001 by m_x and the proportion of women marrying at age y in 2001 by w_y, the proportion of marriages of men aged x to women aged y that would occur in 2001 if partners were matched at random is given by $m_x * w_y$. The proportions of expected marriages resulting in each age difference are then summed to obtain the expected distribution of age differences under random assortment. So, where e_d denotes the expected proportion of marriages with an age difference of d years, $e_d = \sum_{x-y=d} m_x w_y$.

    Note that the calculation of expected age differences is based only on the age distributions of brides and grooms in 2001 rather than on the age distribution of those eligible to marry (the unmarried population) in 2001.
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