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# Growing up fatherless in antiquity: the demographic background 

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Abstract: In ancient societies, many individuals lost their fathers while they were still minors or unmarried. Building on Richard Saller's seminal work, this paper examines the demographic dimension of this phenomenon. This paper is designed to provide demographic context for a forthcoming collection of essays on growing up fatherless in antiquity.
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The severe mortality regime of the ancient world caused many minors to lose their fathers. In classical Athens, men attained legal maturity at the age of eighteen while women commonly got married in their mid-teens and passed under the control of their husbands. ${ }^{1}$ In Roman society, males entered legal adulthood at the age of fourteen and and assumed unqualified competence at twenty-five. ${ }^{2}$ Women were considered mature at twelve and often appear to have begun marrying in their late teens. ${ }^{3}$ In Roman Egypt, men started paying poll tax at fourteen and the majority of women found husbands in their mid- to late teens. ${ }^{4}$ Under these circumstances, the loss of fathers during the first 15 to 20 years of life mattered most and merits our attention here.

The average scale of loss was a function both of the overall age structure of the population and of male marriage practices. With the help of a computer simulation of the Roman kinship universe, Richard Saller established the basic parameters. ${ }^{5}$ In his own words, this exercise 'generates a model population by simulating the basic events of birth, death and marriage, month by month, in accordance with the age-specific probabilities of those events as established by the demographic parameters'. ${ }^{6}$ Saller devised three different scenarios to capture the probable range of life experiences in Roman society. The default model, labeled 'Ordinary', aims to represent the general population by positing a mean age of first marriage of twenty years for women and thirty years for men, and an age structure consistent with a standard model life table based on a mean female life expectancy at birth of 25 years. The other two ('Senatorial') options envision marriage at younger ages as documented for elite circles, with means of 15 years for women and 25 years for men, and a mean life expectancy at birth of either 25 or 32.5 years, to allow for the (arguably remote) possibility of significantly lower elite mortality. ${ }^{7}$

In terms of the average risk of losing one's father, these three scenarios differ to a limited degree but ultimately generate fairly similar outcomes (Fig. 1). Depending on our choice of demographic conditions, between 28 and 37 per cent of all individuals would have lost their fathers by age 15 , and between 49 and 61 per cent by age 25 . Thus, broadly speaking, about onethird of all Romans would have lost their fathers before they attained maturity (for men) or got married (for women). Closer to 4 in 10 male Athenians became fatherless before they entered the ephebeia, and over half of Romans did so prior to the aetas perfecta of 25 which conferred complete freedom from curatorial oversight.

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Figure 1 Proportion of fatherless individuals according to different scenarios of paternal marriage age and life expectancy

Source: Saller (1994), 48-65
These reconstructions critically depend on two variables, male age at first marriage and age-specific mortality levels. This raises the question of whether these starting assumptions are sufficiently well established to support these models, and to what extent historically plausible modifications might alter the predicted outcomes.

In the most general terms, as the annual odds of death gradually increase with age from the mid-teens onwards, delays in male marriage raise the proportion of minors who grow up fatherless. With regard to classical Greek society, late male marriage - around age 30 - seems largely uncontroversial. ${ }^{8}$ By contrast, Saller's thesis of relatively late first marriage among Roman men has recently been challenged by Arnold Lelis, William Percy and Beert Verstraete. ${ }^{9}$ They not only - correctly - emphasize that literary evidence for Roman aristocratic marriage customs suggests lower male marriage ages even than Saller's 'Senatorial' model, of closer to 20 years rather than 25, but less convincingly reject Saller's reconstruction of non-elite marriage practices derived from shifts in commemorative preferences in funerary inscriptions from the western parts of the Roman empire. Saller takes the age at which deceased men began to be primarily commemorated by wives rather than parents - of around 30 years in most samples - as indicative of the customary age of male first marriage. ${ }^{10}$ As I have argued elsewhere, this reading is more readily consistent with the available data than Lelis' et al. rival claim that commemorative shifts for men were largely determined by the presence or absence of living fathers. ${ }^{11}$ At the same time, however, it deserves notice that this finding of late male marriage is limited to those elements of the population that are represented in the epigraphic record, that is, predominantly 'Romanized' and urban groups. Comparative evidence from late medieval

[^1]Tuscany suggests that male marriage age in villages could be much lower than in cities: unfortunately, we have no way of ascertaining whether or not this was also true of Roman populations. ${ }^{12}$

This leaves us with an ambiguous result: while Saller's projections are likely to approximate the experience of urban populations in the western Roman empire, we must allow for the possibility that thanks to male marriage at younger ages, the rural majority may conceivably have witnessed a lower incidence of fatherlessness. Even so, any such difference was bound to be modest (Fig. 2). For children born to fathers soon after his first marriage, the difference was fairly negligible: a person born to a thirty-year-old man was only 10 per cent more likely to lose that father within the first 15 years of life than someone born to a twenty-year-old man. The offspring of older men were more heavily affected by paternal marriage age: for instance, a person born 15 years after the father's first marriage at age 30 faced a chance of losing that father within the first 15 years of life that was one-third higher than for someone born 15 years after a father's first marriage at age 20 (viz., 48 versus 36 per cent). On average, however, the overall incidence of paternal loss among minors was only moderately sensitive to male age at first marriage. ${ }^{13}$


Figure 2 Probability of male survival according to paternal age at first marriage
(Model West Level 3 Males)
Source: Coale and Demeny (1983), 43
Mortality, the other principal variable, also merits further scrutiny. Saller's simulation is based on standard model life tables that rigidly extrapolate from (known) low-to-mediummortality regimes to (unknown) high-mortality regimes with scant regard for the peculiarities of archaic disease environments. Critics have charged that at very low levels of life expectancy that is, at those levels that are relevant for ancient historians -, these models may well exaggerate the scale of infant mortality and underestimate death rates among adolescents and young and

[^2]middle-aged adults. ${ }^{14}$ If correct, the latter suggests that ancient rates of fatherlessness would have been (even) higher than predicted by standard model life tables. Once again, however, any reasonable amount of adjustment has only a limited effect on the overall likelihood of paternal loss. Woods' new alternative high-mortality life tables for southern European populations consistently posit higher age-specific mortality risks for teenagers and young and middle-aged adults than existing models: in his estimate, compared to Coale and Demeny's predictions, the odds of dying in a population with a mean life expectancy at birth of 25 years (for women) were higher by 39 per cent from ages 20 to 25 , by 44 per cent from ages 25 to 30, by 35 per cent from ages 30 to 35, by 30 per cent from ages 35 to 40, by 25 per cent from ages 40 to 50, and by 8 per cent from ages 50 to 55 . In this scenario, children born to men in their twenties, thirties and forties - that is, the great majority of all children - would more often have lost their fathers as minors than previously thought.

The extent of this divergence is impossible to quantify in detail without re-running the entire simulation of the Roman kinship universe with new mortality rates. Nevertheless, the differences in the mean probability of parental death are relatively modest overall: in the case of women - while Woods’ life table only deals with women, we may reckon with similarly sized differences for male life tables -, the odds of dying in any given five-year period from ages 20 to 50 rise from 9 to 12 per cent in the standard model to 12 to 15 per cent in the new projections. Thus, the resultant rates of paternal loss were by no means dramatically higher than in existing reconstructions. Figure 3 illustrates the difference in the survival chances of mothers: the corresponding curves for fathers (which are unavailable for the Woods model) may assume a somewhat different shape but the average degree of divergence would presumably be similar.


Figure 3 Probability of maternal survival for a child born to a woman aged 30 in a population with a mean life expectancy at birth of 25 years Source: Coale and Demeny (1983), 43; Woods (forthcoming)

[^3]All in all, we may conclude that Saller's projections are fairly robust in the sense that they are only mildly sensitive to historically plausible changes in our assumptions concerning male age at first marriage and adult mortality rates.

In a further step, we may compare the average likelihood of the death of a father to that of the loss of other adult male relatives who were suitable guardians of minors, most notably paternal uncles and grandfathers. Figure 4 suggests that the presence or absence of a living father was the single most important indicator of the level of protection enjoyed by a minor. In the majority of cases, the loss of a father could not have been offset by the appointment of a paternal uncle or grandfather as guardian simply because no such relatives were still alive and able to serve in this capacity.


Figure 4 Probability of loss of father and of loss of father, paternal grandfather and any paternal uncles ('Ordinary', Level 3)
Source: Saller (1994), 52
At the same time, brothers who were old enough to serve as guardians (that is, 25 years in Roman law) must have been rare except among children born to older fathers, who were disproportionately prone to losing their fathers as minors and even less likely to benefit from the presence of paternal uncles or grandfathers. In order to illustrate the probable shifts in the identity of adult male caretakers depending on paternal age, I consider two bounding scenarios: the experience of a child born to a father aged 25 and that of a child born to a father twice as old.


Figure 5 Mean risk of loss of father depending on paternal age at birth of child Source: Coale and Demeny (1983), 43


Figure 6 Mean risk of loss of father, paternal grandfather, and any paternal uncles depending on paternal age at birth of child Source: Coale and Demeny (1983), 43; Saller (1994), 52

Figures 5 and 6 show that a child born to a twenty-five-year-old man was relatively well buffered against risk. While he or she would not be able to draw on the services of an older
brother - except via adoption -, the risk of ending up without a mature male paternal relative who was suitable as a guardian was fairly low: only 1 in 7 by age 14, and 1 in 3 by the less important threshold of age 25 . Conversely, the corresponding odds were much worse for a child born to a fifty-year old man: close to one-half by age 14, and 5 in 6 by age 25 . In other words, risk was more than 3 times as high by age 14, and two-and-a-half times as high by age $25 .{ }^{15}$

To what extent would the presence of adult brothers mitigate the deficit of other mature male relatives among children born to older men? This question is difficult to answer precisely without recourse to Saller's simulation program but can nonetheless be addressed with tolerable accuracy. If we schematically envision a scenario in which two brothers were born 20 and 10 years prior to the birth of a child fathered by a fifty-year-old man, their mean chances of being alive at the time of the birth of that third child were 43.6 and 48 per cent, respectively. ${ }^{16}$ By the time that child reached age 14, his or her chance of having a twenty-five-year-old brother who could act as a tutor or curator had already dropped to 1 in 3 . At that age, the average cumulative risk of lacking a living father, paternal grandfather, paternal uncle or mature brother was 1 in 3 , and hence more than twice as high as the odds that a coeval individual born to a twenty-five-yearold man might find him- or herself in the same situation. While the presence of mature brothers increased the availability of close-kin guardians for the offspring of older men, it could not fully compensate for the higher rates of loss associated with high paternal age. All other things being equal, the children of younger fathers were better off than the progeny of older men. Not only were the former less likely to lose their fathers as minors: they also had a much better chance of being cared for by mature close paternal relatives in the event of their father's death than the children of older men.

Taken together, the growing risk of fatherlessness associated with rising paternal age, the concurrently growing paucity of other mature male relatives, and the relative scarcity of mature brothers indicate that birth order was an important determinant of a child's security and wellbeing. The census records of Roman Egypt show that men customarily continued to father children well into their fifties: the median age of paternity appears to have been around 37-38 years. ${ }^{17}$ We can only surmise that Greeks and Romans more generally displayed similar habits, with the result that a substantial share of all children would have been fathered by men in their forties and fifties.

In conclusion, we may distinguish among three ideal-typical categories:

- Children of relatively young men whose fathers lived on and continued to father children. They would grow up under the care of their fathers, and might later be called upon to assume responsibility for their younger siblings once their father had finally died.
- Children of relatively young men whose fathers died young and who subsequently grew up under the tutelage of mature male relatives of the deceased father, and who did not have to assume responsibility for younger siblings later on.
- Children of older men who more frequently lost their fathers as minors and were more likely to grow up under the care of others and to come under the control of guardians who were not close paternal relatives.

[^4]In practice, the boundaries between these ideal types were fluid and intermediate experiences must have been common. Even so, these scenarios arguably represent the most typical outcomes and provide a rough demographic template that helps historians to structure the experience of growing up fatherless in antiquity.

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[^0]:    A revised version of this paper will be published in S. Hübner (ed.), Growing up fatherless in antiquity.
    ${ }^{1}$ E.g., Garland (1990), 180, 211; Pomeroy (1997), 23, 196 n. 10.
    ${ }^{2}$ E.g., Saller (1994), 185, 188; Gardner (1998), 146-8.
    ${ }^{3}$ Saller (1994), 25-41, 185. See also below.
    ${ }^{4}$ Bagnall and Frier (1994), 27, 113.
    ${ }^{5}$ Saller (1994), 43-69, superseding Saller (1987). His model was generated by the CAMSIM program developed by James Smith.
    ${ }^{6}$ Saller (1994), 44.
    ${ }^{7}$ Saller (1994), 45-6; Coale and Demeny (1983), 43-4 (Model West Levels 3 and 6 Females). For elite mortality, cf. Scheidel (1999).

[^1]:    ${ }^{8}$ E.g., Pomeroy (1997), 23.
    ${ }^{9}$ Lelis, Percy and Verstraete (2003).
    ${ }^{10}$ Saller (1987), (1994), 25-41.
    ${ }^{11}$ Scheidel (forthcoming).

[^2]:    ${ }^{12}$ Herlihy and Klapisch-Zuber (1985), 203-11.
    ${ }^{13}$ The impact of birth order is explored in greater detail below.

[^3]:    ${ }^{14}$ See Coale and Demeny (1983), 3-36 for the data and methodology underlying conventional model life tables. For criticism, compare Woods (1993); Scheidel (2001); and now also Woods (forthcoming).

[^4]:    ${ }^{15}$ Despite frequent paternal remarriage, children born to older men were also on average more likely to have older mothers and hence fewer mature maternal relatives who could serve as guardians: cf. Saller (1994), 52-3.
    ${ }^{16}$ Incidentally, this chimes with Saller's estimate that a notional average fifty-year-old man had a 69 per cent chance of having any living sons (1994: 52), although his simulation does not allow for the birth for an additional child at that age. Thus, my example overstates actual reproductive success, and thereby also the likelihood of the presence of surviving older brothers.
    ${ }^{17}$ Bagnall and Frier (1994), 146.

