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# THE RULE OF ONE-THIRD\*

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## THE RULE OF ONE-THIRD

### Abstract

The Rule of One-Third guaranteed wives one-third of their husband's estate upon marital dissolution through death or divorce. We document the historical ubiquity of this legal construct and show that without a wife's residual claim on her husband's estate, children's outcomes are imperiled. Using ancient Roman law as an example, we argue that the patriarch, or *paterfamilias* is the main legal entity with an interest in creating and enforcing the Rule of One-Third. Then, in a game-theoretic model, we demonstrate that the Rule of One-Third obtains when mothers' and fathers' marginal impacts on their children's human capital are equal. We conclude that the Rule of One-Third arose in many societies because it places the cost of marital dissolution on the household rather than society and solves a contracting problem between the husband and wife when each is specialized in tasks the other cannot perform well.

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KEYWORDS: Marriage, Divorce, Human Capital, Institutions.

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# 1 INTRODUCTION

IN PRE-MODERN TIMES, a married woman typically retained a right to one-third of the common family estate upon dissolution of the marriage by death or divorce. This “Rule of One-Third” occurs with striking frequency over thousands of years in numerous societies, including ancient Egypt, classical Rome, medieval Norway, 19<sup>th</sup> Century Scotland, France under the Napoleonic Codes, and South Carolina in 1977. A wife’s claim on her husband’s estate was known as the “dower right” at common law, and is also observed in civil law regimes. Such rights were part of a broader legal setting in which males retained control over household property, but were obligated to support wives and children.<sup>1</sup> Why did so many societies, most of which had little or no contact with each other, guarantee the wife one-third of her husband’s estate upon marital dissolution? Indeed, why not one-half or else nothing at all?

In this paper, we document the historical ubiquity of the Rule of One-Third, and present a game-theoretic model that demonstrates why women received a dower right. The model shows that the Rule of One-Third solves a contracting problem: if marital dissolution occurs after child-rearing, then the husband’s optimal strategy is to leave the wife with nothing as she has completed her primary household duty. Without some *ex ante* commitment device, the husband cannot credibly commit to providing his wife a share of the household wealth *ex post*. We show that without a residual claim on her husband’s estate, a wife will seek to appropriate resources that could otherwise go to children as insurance against household dissolution. Underinvestment in children limits their ability to function in society and can dilute familial wealth.

The second issue we address is the enforcement of the Rule of One-Third. Because husbands would like to renege on promises *ex post*, they have no incentive to institute a law that circumscribes their own behavior. This leads us to investigate the practice

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<sup>1</sup>See Geddes & Lueck (2000a). The ability of men and women to contract around these arrangements varied across societies.

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of the Rule of One-Third in Roman family law—the body of law that has perhaps had the greatest influence on Western civilizations. Roman law included a particularly interesting institution: the *paterfamilias*. The *paterfamilias* was the male head of the Roman household, typically the grandfather, who was endowed with powerful control rights over household property and family members. This basic institutional structure was emulated in virtually all Western legal regimes.<sup>2</sup> We establish that the *paterfamilias* possessed both the incentive and the power to enforce a wife’s claim on her husband’s estate, enabling credible commitment.

The last topic we examine is why the dower right would be one-third. Using a parameterized model, we demonstrate that the Rule of One-Third obtains if mothers’ and fathers’ marginal impacts on their children’s human capital are equal. This obtains because historically men specialized in resource acquisition and women specialized in childrearing so that each had a different impact on children’s human capital. We conclude that the Rule of One-Third arose to solve a contracting problem between the husband and wife when each is specialized in tasks the other cannot perform well.

## 2 MARRIAGE AND ITS DISSOLUTION

Before addressing household dissolution, we discuss three motivations for institutionalized marriage (Becker, 1973, 1974; Weiss, 1997). First, resource flows from the man to the woman have been an essential part of the marriage decision throughout history. Historically, a woman needed a man to provide her with the resources upon which her and her children’s survival depended. As a result, a man’s ability to acquire resources, and his commitment to sharing them, became a primary female mating criterion. Because of the high cost of pregnancy and child-rearing (both metabolic and in foregone mating opportunities), “ancestral women required reliable signs of male commitment before consenting to sex” (Buss, 1994, p. 49). At the same time, “In

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<sup>2</sup>Similar arrangements also existed in some Eastern family law regimes. See Wada 2000, p. 6.

the economics of reproductive effort, the costs of not pursuing a permanent mate may have been prohibitively high for most men” (Buss, 1994, p. 49) as women would preferentially choose a man who would commit to them before acceding to sexual intercourse.

Second, marital investments are highly specific assets, creating a demand for long-term contracts. Becker (1993) writes “Since married women have been specialized to childbearing and other domestic activities, they have demanded long-term ‘contracts’ from their husbands” (p. 30). Since it is not possible for complete vertical integration in which one party legally owns the other to occur within marriage, transactions cost economics predicts that long-term, detailed contacts will result.<sup>3</sup> This outcome has been observed in quite different institutional settings (Joskow, 1988).

Third, during the time period examined, women had limited opportunities to acquire resources. Many societies had laws and social norms prohibiting women from fully participating in labor markets without their husband’s permission (Geddes & Lueck, 2000a, 2000b). These laws and norms increased a woman’s incentive to marry.

Laws mandating payments to women upon household dissolution arose because they shifted costs from society as a whole to the man or his estate. Such laws therefore internalized within the household the cost of socially detrimental outcomes such as indigent women and children. By raising the cost of household disintegration, dower rights increased the gravity of the marriage decision, raising social stability. This presumes, of course, that dower rights are enforced, an issue we examine in Section 3.2.

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<sup>3</sup>While stopping short of slavery, historically family law often recognized property rights held by a husband in his wife. In the English law of coverture, for example, rape was a violation of a property right held by a husband, not a crime against the women. See Geddes & Lueck (2000b).

### 3 LEGAL INSTITUTIONS

#### 3.1 THE RULE OF ONE-THIRD

The Rule of One-Third occurs with striking frequency across time and cultures. Cord (1885) provides a standard definition of the dower right in English common law, and suggests a link to rearing children: “Dower is the right the wife has in the husband’s land if she survive him. It is the provision the law makes for the widow of the lands or tenements of her husband, for her support and the nurture of her children” (p. 501-2). This right was considered so important that it was included in the Magna Carta by King Henry III.<sup>4</sup> In discussing the wife’s share in her husband’s property in ancient Egypt, Pestman (1961, p. 139) states,

From the time of the New Kingdom onwards many cases are known in which the wife acquires this (one-third) share in the case of dissolution of the marriage which devolves on their children after her death. Her being entitled to one-third part does not mean, however, that she already during the marriage has the right to prevent disposal by her husband, in the way the heirs (before the inheritance actually devolves on them) or the creditor to whom a property is given in security, are entitled to contest disposal by the testator or by the giver of the security. The right of the wife to her one-third part is not more than a right to her share in the common property at the time the marriage is dissolved.

Three thousand years later, the Rule of One-Third appears in 19<sup>th</sup> century U.S. common law. Luce (1991, p. 151) summarizes laws in the U.S. at this time:

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<sup>4</sup>Some of the earliest known laws deal with support of wives after marital dissolution. For example, the Laws of Ur-Namma of Sumer and Akkad (circa 2100 BC), paragraph 9, state, “If a man divorces his first-ranking wife, he shall deliver 30 shekels of silver” (Roth 1995, p.18).

Many women had no opportunity to acquire property of their own. What constituted a husband's 'separate' estate was often what he had been able to acquire because his wife's domestic services freed him to earn. She had no claim to that property and earnings during his life, and inheritance laws in the common law states treated joint property as the husband's separate property. If she died first, it belonged to her husband, and she could not secure a share of it for her children, her parents, or other kin. If he died first, she could claim only a third if it, and had no disposition of the remainder.

[Table 1 about here]

Table 1 provides a sample of jurisdictions and time periods that established dower rights. The table shows a surprising degree of conformity to the Rule of One-Third, suggesting a common motivating factor.<sup>5</sup> The evidence suggests that the Rule of One-Third was related to child support. In some jurisdictions, the wife's dower right was expanded to one-half if there were no children from the marriage. For example, in referring to 12<sup>th</sup> century England, McCaughan (1977, p. 9) states, "The husband could not alienate his land so as to bar the wife's right to dower unless he had her concurrence. Dower did not extend to the husband's chattels but from the 12<sup>th</sup> century the wife was entitled to one-third of the husband's personalty if there were children, and to one-half if there were none." Similarly, for the making of wills in Scotland between 1500 and 1700, Forte, p. 110 reports that "This (husband's consent needed for the will) continued to be the case until the seventeenth century though, even as Balfour wrote, the practice permitted her to make a will as to one-third or

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<sup>5</sup>While there are variations on this rule, they are often minor. For example, in reference to polygamy under traditional Muslim law, Khairallah (1941, p. 9) states that, "She or they inherit the one-fourth in the absence of offspring capable of inheriting a share of the estate." (Khairallah 1941 p. 9, citation to the Qoran - Surat al-Nisa - Part IV, Chap. 4:12)



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one-half of her goods depending on whether she had children or not, without the need for any formal consent by the husband.” More detail on the legal rules surveyed in Table 1 is provided in the Appendix.

The Rule of One-Third did not operate in an institutional vacuum. Societies that promulgated dower rights were patriarchal, with husbands retaining management and control rights over household persons and property, but requiring specific support duties toward their wives and children. In the next section, we examine the workings of a legal institution that enforced household duties, the *paterfamilias* in Roman family law.

### 3.2 PATERFAMILIAS

It is difficult today to conceive of the vast power held by the *paterfamilias* over family members and property in Republican Rome. Subject only to the restraints of a family council, the *paterfamilias* had power over life and death of family members.<sup>6</sup> Gratwick (1991, p. 42), summarizes the authority of the *paterfamilias*:

The powers of the *paterfamilias* within the *familia* are very real; the law regards him as the absolute monarch of a tiny realm, and the regulations governing these tiny kingdoms are like international law written small. *Patersfamilias* are all expected to conform to certain rules of conduct, but their internal affairs are their own. Anything which I use - land, money, slaves - or which I produce - crops, earnings, children - are not mine but belong to my *paterfamilias*, and only become mine absolutely when I become *paterfamilias* myself by the combined decease of father, his father, his, and so back: meanwhile what I have is on sufferance. I

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<sup>6</sup>Thomas (1976, p. 414-5).

cannot marry without his consent, and it would be difficult to avoid his explicit advice to marry X's daughter because of the pressures he could exert. It is he, not I or my wife, who decides whether on birth our children should be raised or got rid of. He can tell me to divorce my wife without having to justify his decision - though this would cost him money, because the dowry would have to be repaid. In scandals affecting the reputation of the family he is the ultimate authority recognized by the State, and he can sit with a family tribunal with the power of life and death over anyone in his *potestas*. . . Since men generally did not marry before their middle twenties, the breeding-cycle of males was roughly twenty-five to thirty years. Consequently, a young man could not normally expect to pass out of *patria potestas* before his middle years, if he lived that long, unless his grandfather and father should both die relatively young.<sup>7</sup>

Several points are noteworthy. First, the *paterfamilias* was typically the household's grandfather, rather than the young husband, and he might be in control for a substantial period of time. Second, the *paterfamilias* was able to determine the fate of the children born to the household, including whether children in his domain lived or died. Children were often killed by "exposure" (literally leaving them outside to die), to limit family size, and to protect family lines from bastards.<sup>8</sup>

<sup>7</sup>The head of the traditional Japanese household had similarly striking powers. In referring to the powers of the senior male househead, Wada (2000, p. 6, note 16) states "Some representative examples of these powers were: right to designate the residence of the house members; right to include new members in the house; right to eliminate certain members from the house; right to consent to marriage or adoption of the house members. One essential *duty*, on the other hand, of the househead was to support the family members. A typical exercise of the power of a househead would be therefore: the consent of a househead was necessary for the house members to marry, and the househead could eliminate from the house those who married without his consent, and did not have to support them any longer."

<sup>8</sup>The power of the *paterfamilias* to "expose" children was curtailed by the time of Constantine,

In the next section, we develop a model that explains the incentive of the *paterfamilias* to enforce the Rule of One-Third. Below we use the term *paterfamilias* to refer to the household head or institution imposing rules on the disposition of the husband's estate generally.

## 4 A MODEL OF DOWER

In this section, we characterize the choices faced by a wife within the household. As discussed in Section 2, if a man seeks to reproduce, a woman will not comply in most cases unless their relationship is legally formalized in order to maintain the resource flow men bring to the household. In this traditional setting, the man is specialized in bringing resources into the household, and the woman is specialized in childrearing. Buss (1994, p. 186) writes that, "From her husband's perspective, her (the wife's) parenting skills constitute a valuable and virtually irreplaceable resource." Yet this resource has no value to the husband once the children are raised. As a result of this devaluation, a wife faces a decision when she is part of the household that impacts her post-childraising consumption.

The set of household decisions by the man and wife are illustrated in Figure 1. The figure suggests three noteworthy outcomes given the resource flow to the wife, nodes  $\mathcal{A}$ ,  $\mathcal{B}$ , and  $\mathcal{C}$  (the model below shows that there is a continuum of equilibria, but we initially focus on three stark cases). At node  $\mathcal{A}$  the household remains intact but substantial powers over children remained. Thomas, p. 415, states, "Finally, Constantine ruled that to kill one's child was the crime of parricide (*parricidium*) and, by the time of Justinian, the *ius vitae necisque* had been reduced to a power to inflict reasonable chastisement. While it was an effective operation, the *ius vitae necisque* postulated that the *pater* had accepted the child into the family in the first place. For he could expose *neonati* rather than enlarge the family, a practice accepted in classical law and, though forbidden in the later fourth century, in fact surviving for Justinian to legislate on the subject."

and the time the mother spends with her children is highest as she has no incentive to engage in other activities to acquire resources. As a result, children's human capital is highest when the household remains intact.

Next, consider the situation when the household dissolves. The wife must now decide how much time to spend nurturing children versus acquiring resources independent of her husband. While married women in traditional societies faced restricted earning opportunities, there was a set of internal and external income-earning activities to which they could devote time.<sup>9</sup> Below we show that, without institutional guarantees, married women have strong incentives to earn income to insure against household dissolution. Denote  $c_w$  as the wife's consumption, and  $d$  and  $e$  her time inputs into the external labor market and childraising, respectively, with total time normalized to unity. The per-unit-of-time earnings ability of women is  $\omega$  and the transfer a wife receives from her husband is  $X$ .

Because men and women are specialized in the inputs they provide to children, we follow Becker (1993) and specify a production function for human capital that takes into account inputs of time from mothers and resources from fathers.<sup>10</sup> To concretize the analysis, we choose functional forms for the production function for children's human capital,  $h$ , and for utility. The human capital production function has the form

$$h = e^{\sigma} \tau^{\eta}, \tag{1}$$

for  $\sigma, \eta \in (0, 1)$ , with the transfer provided by fathers being  $\tau > 0$ . Mothers receive utility from their own consumption and from their children's human capital, with

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<sup>9</sup>See, for example, Schaps (1979) for women's labor market opportunities in ancient Greece. The earliest reliable data, for the U.S in 1890, indicates that labor force participation rates varied between approximately 4 percent for white and 35 percent for non-white married women. See Goldin (1980) and Goldin (1990, p. 25, Table 2.3).

<sup>10</sup>Most production functions for human capital use only time inputs, e.g. Lucas (1988), Tamura (1996), and Zak, Feng, & Kugler (2000).

$U(c_w, h) = \ln(c_w) + \beta \ln(h)$  for  $\beta > 0$ .

Using these functional forms, the decision faced by a wife is the time allocation problem

$$\text{Max}_{d,e} \ln(c_w) + \beta \ln(h) \quad (2)$$

s.t.

$$c_w = \omega d + X$$

$$1 = d + e$$

$$h = e^\sigma \tau^\eta$$

In this problem, a wife's consumption is the sum of the transfer from her husband  $X$  and her labor income  $\omega d$ .<sup>11</sup>

The time spent nurturing children that solves (2) is

$$e^* = \frac{\beta\sigma(X + \omega)}{\omega(1 + \beta\sigma)}. \quad (3)$$

Observe that the time a mother spends nurturing her children (3) is increasing in the transfer from her husband  $X$ .<sup>12</sup> Greater support from the husband results in more time spent by the wife in raising children's human capital. Time spent nurturing children also increases as the relative weight a mother places on her children's human capital,  $\beta$ , increases, and as her productivity in producing human capital  $\sigma$  rises. Conversely, relation (3) shows that when women have a paucity of outside options ( $\omega$  is small), they will optimally spend more time childrearing. Thus, model (2) provides a rationale for a traditional legal structure: if women have limited ability to earn outside income ( $\omega \leq \beta\sigma X$ ), then the human capital of children is as high as possible ( $e^* = 1$ ).

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<sup>11</sup>We ignore the intertemporal and stochastic aspects of this problem as they do not affect the solution.

<sup>12</sup>To keep  $e^*$  well-defined requires that  $X \leq \frac{\omega}{\beta\sigma}$ .

Continuing with the cases of model (2) depicted in Figure 1, node  $\mathcal{B}$  portrays the circumstance in which the husband dies or divorces his wife with a dower right. In this case, the wife has less incentive to acquire outside income as resources continue to flow to her after household dissolution. As (3) shows, as the wife's residual claim on her husband's estate  $X$  increases, investment in children rises as does their human capital.

At node  $\mathcal{C}$ , absent a dower right ( $X = 0$ ), a woman will use part of the time that would be spent nurturing children to acquire resources. By (3), this results in the lowest investment in children's human capital relative to an intact household (node  $\mathcal{A}$ ) or household dissolution with a dower right (node  $\mathcal{B}$ ), but acts to insure the wife's consumption.

Note that the wife's behavior at node  $\mathcal{C}$  does not suggest that mothers do not care about their children. The result is more subtle: women care about their children but also about their own consumption.<sup>13</sup> A similar low-investment-in-children equilibrium occurs when parents cannot coordinate in the models of Wiess & Willis (1985) and Willis (1999) and is also discussed by Becker (1974). There is a large body of evidence showing that, in modern times, children from single-parent families spend less time in school, have lower incomes over their lifetimes, are more likely to divorce, and have shorter lives (Tucker, et al, 1997; Amato, 1999). Much of this effect occurs through the loss of income that a father contributes to the household (Haveman & Wolfe,

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<sup>13</sup>Indeed, a women's consumption must be maintained at some minimum level or she will not be able to effectively care for her children. Further, underinvestment in children's human capital does not violate the kin selection theory of Hamilton (1964). Evolutionary biology demonstrates that parents have an interest in bringing their offspring to reproductive maturity (see, for example, Bergstrom, 1996, or Dawkins, 1976). This level of investment is presumably much lower than that required for children to function at a high level in complex societies, including marrying "well" and protecting inherited wealth. Even more starkly, the model of Aiyagari, Greenwood & Guner (2000) asserts that an unmarried man with offspring has no interest at all in his children's outcomes.

1994; McLanahan & Sandefur, 1994).

Since the choices in model (2) are fairly obvious, it would not be difficult for a wife to solve for the most likely outcome. Indeed, as Figure 1 illustrates, because the man has an incentive to promise support but not to follow through *ex post*, and since it is impossible to guarantee that the household will remain intact, without an institution to enforce dower rights the wife will behave as if she is at node  $\mathcal{C}$ .<sup>14</sup> That is, a woman's best option *ex ante* is to acquire outside resources to insure her consumption if the household dissolves.

In order to reach the high investment equilibrium at node  $\mathcal{B}$ , the wife must choose an amount of nurturing time when children are young. The husband retains the ability to renege on his promise of support after children are raised. Knowing this, it is difficult for the husband to credibly precommit to support the wife. A way out of this dilemma is to place legal restrictions on the man if the household dissolves. As discussed in Section 3.2, the *paterfamilias* in ancient Rome had both the legal authority and the interest in children's outcomes to enforce dower rights. With such an enforcement mechanism, the equilibrium moves from node  $\mathcal{C}$  to node  $\mathcal{B}$ , and children (and ex-wives) are better off. Because the *paterfamilias* has an "encompassing interest" (McGuire & Olson, 1996) in protecting the outcomes of his progeny, grandfathers have a substantial incentive to enforce the dower right.

[Figure 1 here]

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<sup>14</sup>Social norms are also likely to constrain husbands from abandoning wives after child-rearing. Formal examination of social norms is difficult due to lack of written records. More importantly, we study long-lived regimes where a substantial deviation between law and norms is unlikely. See Ellickson (1991).

#### 4.1 THE SIZE OF A WOMAN'S CLAIM ON HER HUSBAND'S ESTATE

Model (2) demonstrates that to move away from the low investment equilibrium requires that a wife be guaranteed a portion of her husband's estate. In this section we present a model to determine the amount of a woman's claim on her husband's estate that would be chosen by the *paterfamilias*. This model assumes that married women solve the time allocation problem (2), and that *patersfamilias* will enforce strictures regarding the portion of their son's estate that is transferred to the wife upon divorce or the husband's death. Because the *paterfamilias* makes this choice, he is the first-mover in this game, *viz.* this is a Stackelberg game.

Define  $W$  as the present value of the husband's wealth, with  $\alpha_w$  and  $\alpha_c$  being the proportion of wealth that is transferred to his wife and children, respectively. The remaining portion of the husband's wealth,  $1 - \alpha_w - \alpha_c > 0$ , is retained by himself (in the case of divorce), or returned to the *paterfamilias* (if the husband dies). As shown in (3), the time a mother puts into nurturing her children,  $e$ , increases as the woman's share of her husband's estate increases,  $\frac{de}{d\alpha_w} > 0$ , where in model (2)  $X = \alpha_w W$ . Similarly, the transfer of resources that men provide for their children is  $\tau = \alpha_c W$ .

The *paterfamilias* is assumed to have preferences over his son's consumption,  $c$ , and over the human capital of his grandchildren,  $h$ . The latter occurs because the *paterfamilias* seeks to protect his lineage and wealth. Moreover, the *paterfamilias* is empowered to make the allocation decision regarding his son's wealth because, in most cases, a large proportion of the son's wealth comes from the *paterfamilias* himself.<sup>15</sup>

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<sup>15</sup>An alternative specification of the *paterfamilias*' decision problem would model preferences over his grandchildren's consumption rather than their human capital as in a bequest model (McGarry, 1999; Bernheim, 1991; Bernheim, Shleifer, & Summers, 1986). As long as a child's consumption is increasing in their human capital, the solution will be similar.



Because we seek to solve for particular values of  $\alpha_w$  and  $\alpha_c$ , we choose a functional form for the *paterfamilias's* utility, that being  $U(c, h) = \ln(c) + \gamma \ln(h)$  for  $\gamma > 1$ . To simplify notation, note that the woman's reaction function to her claim on her husband's estate (3) is linear in the payment she receives from her husband,  $e = \delta\alpha_w W$ .

Using these functional forms, the *paterfamilias* chooses the shares  $\alpha_w$  and  $\alpha_c$  to solve

$$\text{Max}_{\alpha_c, \alpha_w} \ln(c) + \gamma \ln(h) \quad (4)$$

s.t.

$$c = (1 - \alpha_w - \alpha_c)W$$

$$e = \delta\alpha_w W$$

$$h = e^\sigma \tau^\eta$$

The solution to (4) is

$$\alpha_w^* = \frac{\gamma\sigma}{1 + \gamma(\sigma + \eta)} \quad (5)$$

$$\alpha_c^* = \frac{\gamma\eta}{1 + \gamma(\sigma + \eta)}. \quad (6)$$

The wealth division rules (5) and (6) are the *paterfamilias's* attempt to both maintain his son's consumption and secure good outcomes for his grandchildren.

Next, we ask when the split of the husband's estate between himself (or the *paterfamilias*), his ex-wife (or widow), and his children, is equal. An equal split requires that  $\alpha_w^* = \alpha_c^*$  and, when this obtains, that these shares also equal the share of wealth retained by the husband. Using (5) and (6), the Rule of One-Third obtains upon dissolution of the household when

$$\sigma = \eta = \frac{1}{\gamma}. \quad (7)$$

Condition (7) demonstrates that the Rule of One-Third requires that the elasticity of the wife's contribution to her children's human capital ( $\sigma$ ) equals the elasticity of

the husband's contribution to children's human capital ( $\eta$ ), and these two equal the reciprocal of the *paterfamilias's* preferences over his grandchildren's human capital ( $\frac{1}{\gamma}$ ). More simply, condition (7) indicates that the *Rule of One-Third obtains when fathers and mothers have equal marginal impacts on their children's' human capital*. This follows directly from the specialization of parents' abilities in the household: women are specialized in child-rearing, while men are specialized in earning income. Because children need *both* resources and nurturing to acquire human capital, equal elasticities for father's and mother's inputs into their children's human capital militate towards a one-third split of the husband's estate when the household dissolves. This result is pleasingly intuitive: children need both parents' inputs to acquire human capital, which indicates that the preferred split of the man's estate between a widow or ex-wife and their children is one-third.

Lawmakers in the wide range of cultures surveyed in Section 3 appear to have intuitively understood that both parents' contributions were important to children's acquisition of human capital. A simple wealth allocation rule which guarantees that both parents equally contribute to the children's human capital is the equal elasticities rule (7). Indeed, in the absence of information on the elasticities of mother's and father's inputs on their children's human capital, it is reasonable for lawmakers to assume that they are equal. Because the law is a blunt instrument, simple rules, such as the Rule of One-Third, are often implemented. We have shown that this simple rule leads to better outcomes for children.

Table 1 shows that some jurisdictions adopted the more typically modern one-half share of wealth for wives upon household dissolution. This institutional arrangement provides an interesting contrast to the Rule of One-Third. Solving the *paterfamilias'* problem (4) for the shares transferred to children and retained by the husband or the *paterfamilias* when the wife's share  $\alpha_w = \frac{1}{2}$  produces the following results under the equal elasticities rule  $\sigma = \eta = \frac{1}{\gamma}$ . First, ex-wives or widows are clearly better off as

their share of husbands' estates rises by 50%, from one-third to one-half. Children's human capital faces two opposing effects. The time women spend nurturing their children,  $e$ , rises as the dower share increases. At the same time, husbands' transfers to their children,  $\tau$ , fall by 25%, from one-third to one-fourth. The net effect is that children's human capital rises 12.5% when wives receive one-half rather than a one-third share. Finally, husbands' (or the *paterfamilias*) share falls by 25%, from one-third to one-fourth. Thus, this institutional arrangement results in a wife, children, husband split of one-half, one-fourth, one-fourth, which raises outcomes for wives and children at the expense of men.

Given this analysis showing that two of the three parties are better off if the institutional arrangement changes, one must ask why the Rule of One-Third persisted in so many cultures over several millennia. A welfare analysis demonstrates that moving from the Rule of One-Third to the "wife's share is one-half" arrangement results in a welfare loss to the *paterfamilias* of 5.1%. The Rule of One-Third therefore is associated with patriarchal legal structures.

## 5 CONCLUSION

This institutional analysis of household dissolution rules indicates that the Rule of One-Third provided incentives for both parents to contribute to their children's human capital. We show that this arose in societies where men and women were specialized in tasks the other could not perform well. The analysis suggests that lawmakers throughout history intuitively understood that inputs from both parents are important to children's development, and they sought to establish rules encouraging those contributions. Alternatively, the Rule of One-Third may be the result of spontaneous evolution. Hayek wrote that "All the paradigms of culturally evolved institutions, morals, exchange, and money refer to such practices whose benefits transcend the

individuals who practice them in the particular circumstances . . . Such practices can lead to the formation of orderly structures far exceeding the perception of those whose actions produce them.”<sup>16</sup> Regardless of the genesis of the Rule of One-Third, our analysis demonstrates that it was an important legal institution arising to solve a contracting problem between men and women which ultimately facilitated vital investments in children’s human capital.

## 6 APPENDIX

In this Appendix, we provide more detailed quotations and definitions from the legal sources used to construct Table 1.

### 1. Code of Hammurabi

“In the case of either a private soldier or a commissary, who was carried off while in the armed service of the king, if his son is able to look after the feudal obligations, the field and orchard shall be given to him and he shall look after the feudal obligations of his father.” (Pritchard 1969, p. 16, #28)

“If his son is so young that he is not able to look after the feudal obligations of his father, one-third of the field and orchard shall be given to his mother in order that his mother may rear him.” (Pritchard 1969, p. 16, #29)

### 2. Code of Hammurabi

“If a man should decide to divorce a *sugitu* who bore him children, or a *naditu* who provided him with children, they shall return to that woman her dowry and they shall give her one half of (her husband’s) field, orchard, and property, and she shall raise her children; after she has raised her children, they shall give her a share comparable

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<sup>16</sup>Cited in Nishiyama & Leube (1984, p. 318).

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in value to that of one heir from whatever properties are given to her sons, and a husband of her choice may marry her.” (Roth 1995, p. 107, paragraph 137)

*Naditu.* A member of a group or class of Old Babylonian temple dedicatees, with special inheritance privileges and economic freedoms; some groups lived in cloisters or compounds, others married but were not permitted to bear children; Sumerian *lukur*. (Roth 1995, p. 271)

*Sugitu.* A member of a group or class of temple dedicatees, with special privileges, but always inferior to a *naditu*. (Roth 1995, p. 273)

### 3. Ancient Egypt, New Kingdom

“In some cases - the fictitious lawsuit just discussed is one of them – it appears that the wife is allotted part of what she and her husband have jointly acquired. As a rule this is a third. From the time of the New Kingdom onwards many cases are known in which the wife acquires this share in the case of dissolution of the marriage which devolves on their children after her death . . . The right of the wife to her one third part is not more than a right to her share in the common property at the time the marriage is dissolved.” (Pestman 1961. p. 139)

### 4. Rome under Justinian

“Divorce by mutual consent remained completely free: repudiation *ex iusta causa* for one of specified faults of the other party (adultery, desertion, taking a concubine, etc) was valid, the party at fault being penalized; repudiation *bona gratia* (to enter the religious life, on the insanity or presumed death of the other spouse) was valid without penalty; repudiation *sine causa*, while ending the marriage, involved for a woman the loss of her dowry and for a man the loss of one-third of his estate.” (Thomas 1975, p. 34)

5. Norway and Iceland, 10th Century

“Of the common fund the husband had the disposal, but as soon as the marriage was dissolved by any means, and the wife had pretaken her landed property and her marriage presents, the rest was divided between the two, sometimes in equal shares, but more often in the ratio of two-thirds to the husband and one-third to the wife.” (Trubner & Co. 1875, p. 12-13)

6. France and England, High Middle Ages

“At least in the late Middle Ages, widows often profited from marriage contracts that, in place of the traditional widow’s third, gave them far more of their husbands’ land, even, on occasion, all of it.” (Gies & Gies 1978, p. 232)

7. England before Edward I

“A system of community need not be a system of equality. We do not mean merely that during the marriage the husband may and, at least in the middle ages, will have an almost unlimited power of dealing with the common fund; we mean also that there is no reason why the fund when it has to be divided should be divided in equal shares. Many schemes of division are found. In particular, it is common that the husband should take two-thirds, the wife one-third.” (Pollack and Maitland 1899, vol. II, p.403)

“A widow is entitled to enjoy for her life under the name of dower one-third of any land of which the husband was seized in fee at any time during the marriage.” (Pollack and Maitland 1899, vol. II, p.404)

8. Sweden, 1875

“Of the community of gains and movables, implied by marriage, she had the right only to a third in the event of her survivorship.” (Trubner & Co. 1875, p. 18)

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9. Traditional German Law

“But by degrees these old customs fell into disuse, and in compensation for her Leibgeding and Morgengabe a woman became entitled as widow to one-third of her husband’s property, or inheritress of one-third of the common fund.” (Trubner & Co. 1875, p. 23)

10. 19<sup>th</sup> Century America (community property states)

“Many women had no opportunity to acquire property of their own. What constituted a husband’s ‘separate’ estate was often what he had been able to acquire because the wife’s domestic services freed him to earn. She had no claim to that property and earnings during his life, and inheritance laws in the common property states treated joint property as the husband’s separate property. If she died first, it belonged to her husband, and she could not secure a share of it for her children, her parents, or other kin. If he died first, she could claim only a third of it, and had no control over the disposition of the remainder.” (Luce 1991, p. 151)

11. England pre-1834

“Community property, just as much as the old *jus mariti* did, the assignment by the wife to her husband of all the movable property she possessed. But she had the right of the testamentary disposition of her communal share, and though her husband could dispose by sale or gift of the common fund, he was unable to deprive his widow of what was and is known as her *jus relictæ*, i.e. of her right to one-third or one-half of the whole, according as there were or were not children of the marriage.” (Trubner & Co. 1875, p. 85)

12. Scotland, 1875

“The wife, in default of any special contract to the contrary, is entitled to one-third of the inheritance left by her husband at his death. This right is called her *terce*.”

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(Trubner & Co. 1875, p. 87)

13. India, 1925

“When a male Christian dies intestate having a widow and children or their descendants, the widow is entitled to one-third share while the remaining two-thirds goes to the children or their descendants.” (Haté 1969, p. 237)

14. Malaysia, 1968

“The position, therefore, is that throughout Malaya except in Singapore a divorced wife is entitled to a share of all property acquired during marriage. Where she has in fact assisted in cultivating the land she is entitled to one-half of the property, and in other cases to one-third of the jointly acquired property (*harta sapencharian*) of the marriage.

In Perak the matter was settled by a Perak State Council minute dated January 18, 1907. In that minute the Council declared and ordered to be recorded:

That the custom of the Malays in Perak in the matter of dividing up property after divorce, which such property has been acquired by the parties or one of them during marriage, is to adopt the proportion of two shares to the man and one share to the woman, and the gifts between married persons are irrevocable either during marriage or after divorce.

Claims to such property were dealt with by the Court or Collectors of Land Revenue (in the case of land registered in the Mukim Registers), but Kathis were called in as advisors on questions of principle. The claim of the divorced wife to one-third of the value of the lands acquired during the marriage is not defeated even if it is proved that she was divorced for adultery, nor would she lose her right on *tebus talak* (*khula*) unless the consideration for the *tebus talak* was the waiver of her claim to the *harta sepencharian*.” (Ibrahim, 1968, p. 191)



15. South Carolina, 1977

“In South Carolina, a woman does have the right to dower at her husband’s death. Dower entitles a widow to own for her life one-third of all the real estate her husband acquired during the marriage.” (Eslinger & Knowles 1977 p. 20)

## REFERENCES

- AIYAGARI, S. RAO, GREENWOOD, JEREMY, AND GUNER, NEZIH, 2000, On the State of the Union, *Journal of Political Economy*, 108(2):213-244.
- AMATO, PAUL R., 1999, Children of Divorced Parents as Young Adults, Ch. 7 in *Coping with Divorce, Single Parenting and Remarriage: A Risk and Resiliency Perspective*, E. Mavis Hetherington, ed., Lawrence Erlbaum Assoc.
- BECKER, GARY S., 1993, *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*, 3<sup>rd</sup> Edition, Chicago University Press.
- BECKER, GARY S., 1974, A Theory of Marriage: Part II, *Journal of Political Economy*, 82(2):S11-S26.
- BECKER, GARY S., 1973, A Theory of Marriage: Part I, *Journal of Political Economy*, 81(4):813-846.
- BERGSTROM, THEODORE C., 1996, Economics in a Family Way, *Journal of Economic Literature*, 34(4):1903-1934.
- BERNHEIM, B. DOUGLAS, 1991, How Strong Are Bequest Motives? Evidence Based on Estimates of the Demand for Life Insurance and Annuities, *Journal of Political Economy*, 99(5):899-927.
- BERNHEIM, B. DOUGLAS, SHLEIFER, ANDREI, AND SUMMERS, LAWRENCE H., 1986, The Strategic Bequest Motive, *Journal of Labor Economics* 4(3):S151-82.
- BUSS, DAVID M., 1994, *The Evolution of Desire*, Basic Books.
- CORBETT, PERCY ELLWOOD, 1930, *The Roman Law of Marriage*, Oxford: The Clarendon Press.
- ELICKSON, ROBERT C., 1991, *Order Without Law: How Neighbors Settle Disputes*, Cambridge: Harvard University Press.
- ESLINGER, VICTORIA L. AND KNOWLES, LUCY M., 1977, *The Legal Status of Homemakers in South Carolina*, Washington, DC: Center for Women Policy Studies, May.

- 
- GEDDES, RICK AND LUECK, DEAN, 2000a, The Rationale for Coverture in the Common Law, *Working paper, Stanford University*.
- GEDDES, RICK AND LUECK, DEAN, 2000b, The Gains from Self-Ownership and the Advancement of Women's Rights, *Working paper, Stanford University*.
- GIES, FRANCES AND JOSEPH GIES, 1978, *Women in the Middle Ages*, New York: Thomas Y. Crowell Company.
- GOLDIN, CLAUDIA, 1980, The Work and Wages of Single Women, 1870 to 1920, *The Journal of Economic History*, XL:81-91.
- GOLDIN, CLAUDIA, 1990, *Understanding the Gender Gap: An Economic History of American Women*, New York: Oxford University Press.
- GRATWICK, A.S., 1991, Free or not so Free? Wives and Daughters in the Late Roman Republic, pp. 30-53 in *Marriage and Property: Women and Marital Customs in History*, Elizabeth Craik, ed., Aberdeen University Press.
- HAMILTON, WILLIAM H., 1964, The Genetical Evolution of Social Behavior, *Journal of Theoretical Biology*, 7:1-52.
- HATÉ, CHANDRAKALA ANANDRAO, 1969, *Changing Status of Woman in Post-Independence India*, Bombay, Allied Publishers.
- HAVEMAN, ROBERT H., AND WOLFE, BARBARA, 1994, *Succeeding Generations: On the Effects of Investments in Children*, Sage.
- IBRAHIM, INCHE AHMAD, 1968, The Muslims in Malaysia and Singapore: The Law of Matrimonial Property, in J.N.D. Anderson, ed., *Family Law in Asia and Africa*, New York: Praeger.
- JOSKOW, PAUL, 1988, Asset Specificity and the Structure of Vertical Relationships: Empirical Evidence, *Journal of Law, Economics, and Organization*, 4: 95-117.
- KHAIRALLAH, IBRAHIM A., 1941, *The Law of Inheritance in the Republics of Syria and Lebanon*, Beirut: The American Press.
- LUCAS, JR., ROBERT E., 1988, On the Mechanics of Economic Development, *Journal*

- 
- of Monetary Economics*, 22:1-42.
- LUCE, PATRICIA, 1991, Marriage and Law Reform in Nineteenth-Century America, in Elizabeth Craik, ed. *Marriage and Property: Women and Marital Customs in History*, Aberdeen, Scotland: Aberdeen University Press.
- MCCAUGHAN, MARGARET M., 1977, *The Legal Status of Married Women in Canada*, Toronto: The Carswell Company Limited.
- MCGARRY, KATHLEEN, 1999, Inter Vivos Transfers and Intended Bequests, *Journal of Public Economics* 73(3):321-51.
- MCGUIRE, MARTIN C., AND OLSON, MANCUR, JR., 1996, The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force, *Journal of Economic Literature*, 34(1):72-96.
- MCLANAHAN, SARA, AND SANDEFUR, GARY, 1994, *Growing Up with a Single Parent: What Hurts, What Helps*, Harvard University Press.
- MURPHY, RUSSELL D., 1999, A Good Man is Hard to Find: Marriage as an Institution, *Working paper*, Virginia Polytechnic Institute and State University.
- NISHIYAMA, CHIAKI, AND LEUBE, KURT R., 1984, *The Essence of Hayek*, Hoover Institution Press.
- PESTMAN, P.W., 1961, *Marriage and Matrimonial Property in Ancient Egypt: A Contribution to Establishing the Legal Position of the Woman*, E.J. Brill.
- PRITCHARD, JAMES B., 1969, *Ancient Near Eastern Texts* Princeton NJ: Princeton University Press, including supplement.
- ROTH, MARTHA T., 1995, *Law Collections from Mesopotamia and Asia Minor*, Atlanta: Scholars Press.
- SCHAPS, DAVID M., 1979, *Economic Rights of Women in Ancient Greece*, Edinburgh: Edinburgh University Press.
- TAMURA, ROBERT, 1996, From Decay to Growth: A Demographic Transition to Economic Growth, *Journal of Economic Dynamics and Control*, 20:1237-1261.

- 
- THOMAS, J.A.C., 1975, *The Institutes of Justinian: Text, Translation and Commentary*, Amsterdam: North-Holland Publishing Company.
- THOMAS, J.A.C., 1976, *Textbook of Roman Law*, Amsterdam: North-Holland Publishing Company.
- TRUBNER AND CO., 1875, *The Rights of Women. A Comparison of the Relative Legal Status of the Sexes in the Chief Countries of Western Civilization*, London: Trubner and Co.
- TUCKER, JOAN S., ET AL, 1997, Parental Divorce: Effects on Individual Behavior and Longevity, *Journal of Personality and Social Psychology*, 73(2):381-391.
- WADA, MIKIHICO, 2000, Abolition of the House Under the Occupation—Or the Ke-seki, a Two-Faced Janus *Law in Japan*, 26, forthcoming.
- WEISS, YORAM, 1997, The Formation and Dissolution of Families: Why Marry? Who Marries Whom, and What Happens upon Marriage and Divorce?, in *Handbook of Population and Family Economics*, Mark R. Rosenzweig and Oded Stark, eds., Elsevier Science.
- WEISS, YORAM, AND WILLIS, ROBERT J., 1985, Children as Collective Goods and Divorce Settlements, *Journal of Labor Economics*, 3:268-292.
- WILLIS, ROBERT J., 1999, A Theory of Out-of-Wedlock Childbearing, *Journal of Political Economy*, 107(6):S33-S64.
- ZAK, PAUL J., WITH FENG, YI AND KUGLER, JACEK, 2000, Immigration, Fertility, and Growth, *Journal of Economic Dynamics and Control*, forthcoming.

**Table 1: Women's Property Rights at Marital Dissolution**

<b>Jurisdiction/Time Period</b>	<b>Summary of the Rule</b>	<b>Source</b>
1. Code of Hammurabi (1792-1750 B.C.E.)	1/3 of land if husband killed in battle but son too young to administer it	Baker (1992, p. 137)
2. Code of Hammurabi (1792-1750 B.C.E.)	½ of husband's property, she shall raise the children	Roth (1995, p. 107)
3. Ancient Egypt, New Kingdom (1580-1085 B.C.E.)	1/3 right to common property upon marital dissolution	Pestman (1961 p. 139)
4. Rome under Justinian	1/3 of property if husband divorces without cause	Thomas (1975, p. 34)
5. Norway and Iceland, 10 <sup>th</sup> century	Sometimes ½ but typically 1/3	Trubner & Co. (1875, p. 12-13)
6. France and England, High Middle Ages	Widow traditionally gets 1/3	Gies & Gies (1978, p. 232)
7. England before Edward I	Widow gets dower right of 1/3	Pollack and Maitland (1899, p. 403-4)
8. Sweden, 1875	1/3 of community property	Trubner & Co. (1875, p. 18)
9. Traditional German law	Widow entitled to 1/3 of husband's property, or inheritress of ½ of the common fund	Trubner & Co. (1875, p. 23)
10. U.S., 19 <sup>th</sup> century (community property states)	Wife had right to 1/3 of husband's estate	Luce (1991, p. 151)
11. England, pre-1834	Wife entitled to 1/3 part of any estates of inheritance held in his life, called her dower right.	Trubner & Co. (1875, p. 73)
12. Scotland, 1875	Wife is entitled to 1/3 of inheritance left by husband. Right is called her <i>terce</i> .	Trubner & Co. (1875, p. 87)
13. India, 1925	Christian widow and children entitled to 1/3 of estate.	Haté (1969, p. 237).
14. Malaysia, 1968	Divorced wife is entitled to ½ if she has cultivated the land, 1/3 if she has not	Ibrahim, (1968, p. 191)
15. South Carolina, 1977	Widow has life interest to 1/3 of all the real estate her husband acquired during the marriage	Eslinger and Knowles (1977, p. 20).

Note: See the appendix for details of rules in each jurisdiction.

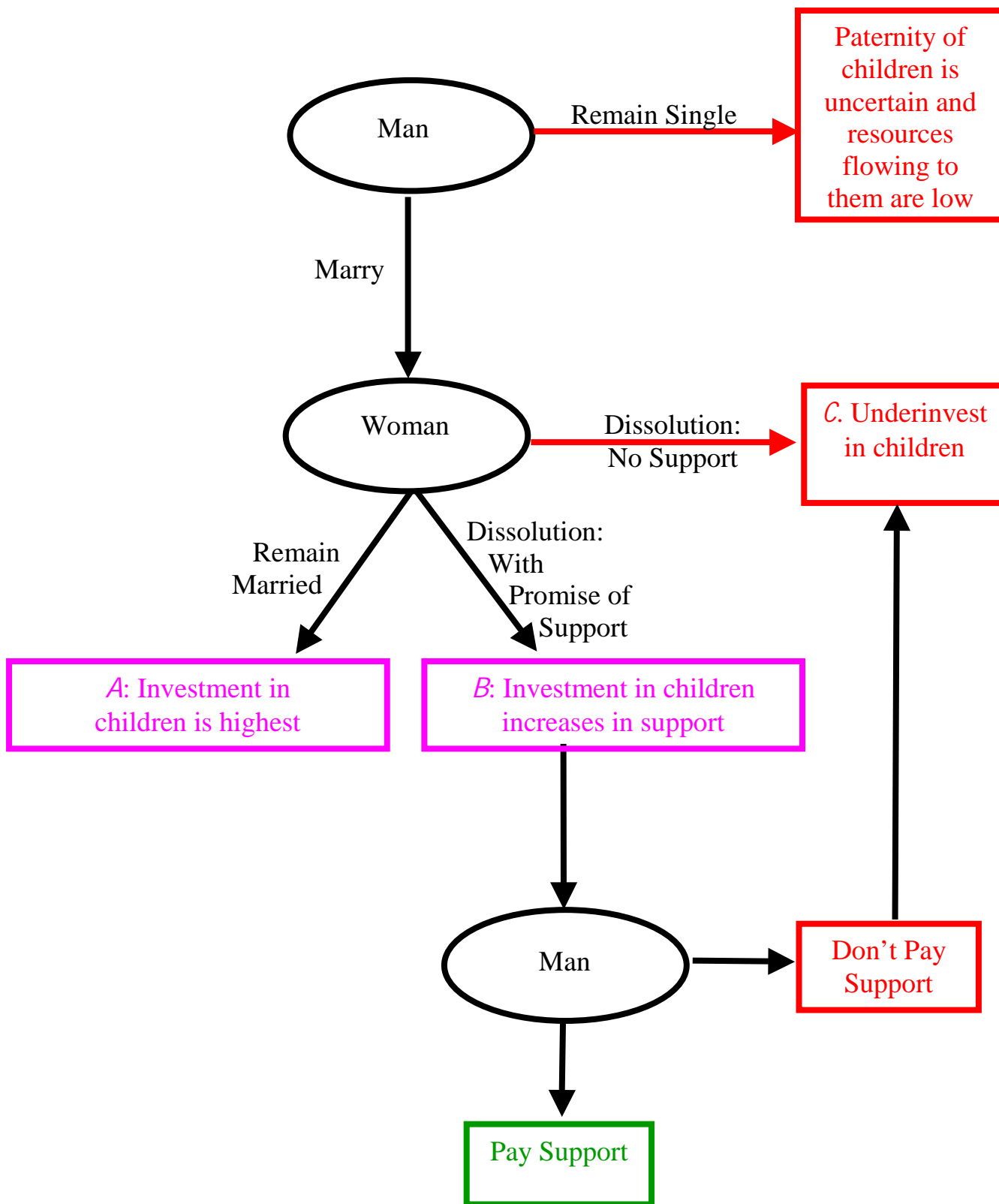


Figure 1: Marriage, Household Dissolution, and Investments in Children