Divorce decisions, divorce laws and social norms

Victor Hiller* and Magali Recoules†

December 2009
preliminary version

Abstract

This article focuses on the three way relationship between change in divorce law, evolution of divorce rate and evolution of the cultural acceptance of divorce. We consider a heterogeneous population in which individuals differ in terms of the subjective loss they suffer when divorced, this loss being associated with stigmatizing social norms. The proportion of each type of individual evolves endogenously through a cultural transmission process. Divorce law is chosen by majority voting between two alternatives: *mutual consent* and *unilateral* divorce. In this framework, evolutions of divorce rate and divorce law may be jointly affected by the cultural dynamics within the society. In particular, we are able to reproduce the fact that divorce rate often raises before a legislation change. Indeed, the shift from *consensual* to *unilateral* divorce has an accelerating effect on the increase in divorce rate but is not the driving force behind this evolution.

Keywords: Marriage and divorce; Divorce legislation; Cultural evolution, Social norms

JEL Classification: J12, K10, Z10

*Université Paris II Panthéon Assas - LEM, 5-7 Avenue Vavin, 75006 Paris, France. E-mail: victor.hiller@u-paris2.fr

†Paris 1 Panthéon-Sorbonne University and Paris School of Economics, CES 106-112 boulevard de l'hôpital, 75647 Paris cedex 13, France, magali.recoules@univ-paris1.fr

1 Introduction

During the last decades, in OECD countries have occurred simultaneously a strong increase in the divorce rate and important changes in divorce legislation. While some countries authorized divorce which was until this time banned, others introduce "no-fault" divorce which can have taken different forms such as mutual consent divorce or unilateral divorce. A number of studies have examined changes in divorce rates that might be associated with a change in law for divorce grounds. There is no consensus regarding the effects of these institutional changes on the rate of divorce. While some argue that these changes by making easier to divorce contribute to a rise in divorce (Stevenson and Wolfers, 2007; Gonzalez and Viitanen, 2009), others point out that these changes have only a transitional effect on the divorce rate evolution and that this rise goes before the introduction of new divorce laws (Allen, 1998). In particular, the study of Sardon (1996) on French data concludes that institutional changes in divorce laws have just confirmed what is happened within the society. Some authors also suggest that the recent increase in divorce rate may be related to the increase in the female labor force participation or changes in the attitudes towards divorce within the society (Kalmijn, 2009; Ishida, 2003). Stevenson (2007) shows that jointly to the increase in divorce rate there is a decrease in the specific investment in marriage. By spending more time on the labor market women have more outside opportunities and lose less in case of divorce than if they are mainly specialized in household activities. On the other hand, Fella et al. (2004) show that changes in social norms can much more explain the increase in divorce rates than changes in divorce laws.

In line with this last set of studies, we suggest that both divorce rate and divorce law may be jointly affected by a third variable: the cultural acceptance of divorce within the society. Moreover, we consider that this cultural factor is itself endogenous since its evolution depends on the legislative and social environment. In other words, the presented model focuses on the complex and three-way interaction between changes in divorce laws, in divorce rate and social norms. By social norms we mean the feeling that suffers some individuals from being divorced. This feeling maybe linked to the degree of tolerance towards divorce within society. This paper presents the advantage to provide a flexible framework which could take into account the evolution of behaviors regarding divorce from an institutional point of view as well as the household point of view.

We develop a model of divorce, socialization and divorce laws which are endogenously determined as economic decisions of agents. In the population there exists two kinds of preferences distributed regardless of gender. Some agents hold the social norm and suffer from a disutility from being divorced while others disregard the stigma against divorce. According to their preferences agents will vote for a divorce legislation among two alternatives: *mutual consent divorce* and *unilateral divorce*. The model shows that those who suffers from the stigma always prefer the former legislation while the others choose the latter one. Once they have voted, each adult male is matched with an adult female to form an household and have two children. Parents have a taste and a technology for transmitting their own preferences to their children. Then, the spouses are faced with the alternative choices of whether to continue together or separate. The match quality for each spouse is revealed *ex post* and those with poor matches may divorce. In the model, remarriage is ruled out following divorce.

A huge literature has been developed around the idea of transmission of preferences using the model introduced by Bisin and Verdier in 1998. This transmission of preferences has been used to explain gender wage gap (Escriche, 2007) or transmission of attitudes towards working mothers (Fernandez et al., 2004). In the current paper we introduce the idea that the cultural trait transmitted by parents concerns the perception of the social norms. So the cultural trait transmitted will determine the type of agent that children will become and determines partly their probability of divorce. This result may be related to the literature concerning intergenerational transmission of divorce based on the idea that parental divorce increases the likelihood of divorce for children (Mclanahan and Bumpass, 1988; Wolfinger, 1999). At an aggregate level, this cultural transmission process generates the dynamical evolution of divorce rate.

In the model, the evolution of divorce rate is impulsed by changes in the composition of the population. An increase in the proportion of individuals who disregard the stigma from social norms will rise divorce rate. Moreover, when those individuals are in majority within the society, divorce law changes reinforcing the pre-existing trend. So, according to our analysis, a change in divorce law has an accelerating effect on the evolution of divorce rate but is not the driving force behind the latter evolution. This result complies with some of the empirical literature presented at the beginning of this introduction. Notice that, the dynamics of preferences is endogenous and may be affected by economic factors. In particular, the tightening of the utility gap between being married or divorced implies an increase in the long-run proportion of agents who do not mind about the norm.

The paper is organized as follows. First, we present the model, then we study the dynamics and, in the last section, we develop a static comparative analysis.

2 The model

The model focuses on the three-way interaction between changes in divorce laws, in divorce rate and in the degree of tolerance towards divorce, in other words social attitudes regarding divorce.

2.1 Framework

There are two possible cultural traits in the population $\{a, b\}$. This heterogeneity captures differences in sensitivity to social penalties that individual experiment when they divorce. The idea is that the effect of norms against divorce is not the same for all individuals within a society. While social attitudes towards divorce will be sanctioned regardless of who violates them, people who care more strongly in the norms will feel themselves more stigmatized if they violates them. For instance, among divorced persons the religious one may face more disapproval from their social contacts than the secular one (Kalmijn, 2009). In particular, we assume that when they divorce type b individuals suffer from the social norms regarding divorce while type a disregard the stigma against divorce. In each period there are two stationary, equally sized populations of adult, males and females.

Agents live three periods (one period of childhood and two periods of adulthood). During the first period, children acquire their preferences. At the beginning of the second period, young adults vote for a legislation about divorce. Then each young adult male is matched with a young adult female to form a household. We assume that each household has two children, a boy and a girl, such that the whole population is stationary. Finally, young adults may socialize their children. At the end of the second period of life, the spouses are faced with the alternative choices of whether to continue together or separate. The match quality for each spouse is revealed ex post and those with poor matches may divorce. In the model, remarriage is ruled out following divorce.

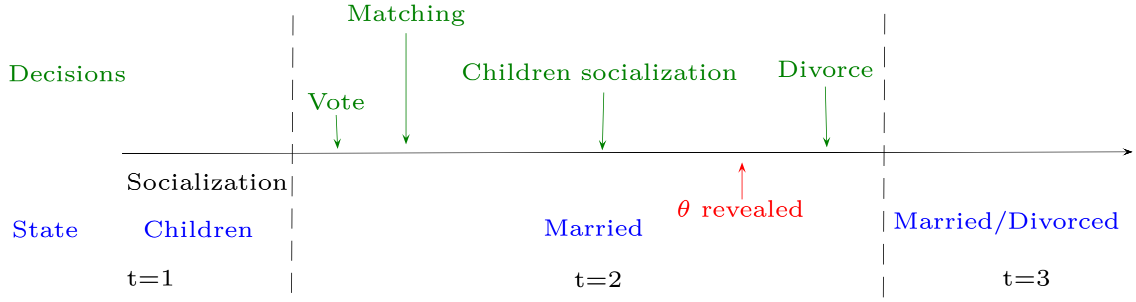


Fig. 1: Timing of decisions

2.2 Preferences

Let us consider that preferences are distributed regardless of gender. We denote by q_t the proportion of type a individuals within the population. This proportion is the same within the male and the female population.

The utility derived by one individual depends on three components, his/her preferences, his/her marital status (married or divorced) and the match quality when married. Let us define $u^m(i, \theta)$ the utility of a married individual of type i within a match characterized by a quality θ. We assume that θ is an independent draw from a given symmetric distribution with support $\mathbb{R}$ and zero mean. Any two married individuals who live in the same household share the same value of u^m and θ, so there exist no gender differences in preferences. This utility is given by:

$$u^m(b, \theta) = u^m(a, \theta) = u^m + \theta \tag{1}$$

with u^m a given parameter that measures the intrinsic utility from being in couple rather than single. By (1) the utility derived from marriage is the same for the two types of agent.

Conversely, the utility when divorced depends on preferences. The individual belief, for example religion, affects how people feel about divorce. In particular, we assume that b type individuals suffer an additional disutility $s > 0$ when they are divorced. This parameter captures the fact that they consider themselves as stigmatized when they are divorced. In other words, they suffer from social penalties towards divorce. We denote by $u^d(i)$ the utility of a divorced individual with preferences i:

$$u^d(a) = u^d \tag{2}$$

and

$$u^d(b) = u^d - s \tag{3}$$

where u^d measures the utility of a divorced individual.

The crucial, but quite standard, assumption is that individuals do not know the value of θ when they are matched (Chiappori and Weiss, 2007; Chiappori et al., 2008). The quality of the match is discovered only during the first period of match and according to this realization they decide to remain married or to divorce. Negative surprises about the match quality trigger divorce. In particular, an individual i prefers to divorce when $u^m(i, \theta) < u^d$. It directly comes from (1)-(3) that an individual a prefers to divorce when:

$$\theta < u^d - u^m \equiv \theta^a \tag{4}$$

and an individual b wishes to divorce when:

$$\theta < u^d - u^m - s \equiv \theta^b \tag{5}$$

Then the threshold θ^i captures the critical value of the match quality under which an individual i prefers to divorce. We can see that b type individuals are more prone to stay married for lower value of match quality due to the sigma of divorce that they are suffering in case of divorce.

We consider that all individuals have always incentives to enter in the marriage market at the beginning of their second period of life. In other words, the expected utility over the life cycle when spouse has decided to marry is higher than the utility of being single. Notice that utility of being single on the first period of adult life is not necessary the same as the one extracted from being divorced in the second period of adult life. This comes from the fact that individuals during the marriage have two children and they get a positive utility from having children that subsists even if they are divorced.

2.3 Matching

We assume that each agent finds a match with probability one. All matches end up in marriage because the expected gains from marriage are positive for each type of individual. The matching between men and women is not fully random. We consider that individuals with same preferences are more likely to be matched together. The matching process is then biased towards homogamy. We can also analyzed this matching process as Bisin and Verdier (2000) did, by saying that there are two restricted marriage pools (one for each type of individual) where people having the same cultural trait can possibly married together. First, with a probability $\pi \in (0, 1)$ an individual of type i enters in the first restricted pool and is matched with an individual i, so he/she will be in a homogamous marriage. Second, with a probability $1 - \pi$ agent enters in the second marriage pool in which the matches are random. This process is illustrated in Figure 2:

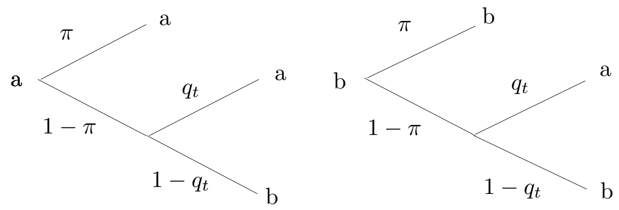


Fig. 2: Matching process

It is well documented that marriages are assortative in several dimensions (Mare 1991) and the matching of individuals is strongly influenced by the social sphere in which they are living. Individuals are more likely to meet someone belonging to their band of friends or to the community in which they are living. For example, religious persons may be more likely to meet someone going to the same church. Moreover, as individuals tend to be regrouped with persons similar to them and tend to be married with someone belonging to their community, thus they are more likely to be married with someone like them. The first part of this matching process conforms with these evidence. However, it remains a random part in matching process due to the meeting by chance of news persons that is taken into account through the second part of the presented matching process.[1]

We denote π_t^{ij} the probability for an individual i to be matched with an individual j. It follows from the matching process described above, that:

$$\pi_t^{aa} = \pi + (1 - \pi)q_t \tag{6}$$

$$\pi_t^{ab} = (1 - \pi)(1 - q_t) \tag{7}$$

$$\pi_t^{ba} = (1 - \pi)q_t \tag{8}$$

$$\pi_t^{bb} = \pi + (1 - \pi)(1 - q_t) \tag{9}$$

There exists four possible couples configurations: $\{a, b\}$, $\{b, a\}$, $\{a, a\}$ and $\{b, b\}$. For ease of presentation, let us refer to h type family to define heterogamous couples ($\{a, b\}$

1. In this model, there is no effort concerning the matching process. We would have been introduced an endogenous choice of matching effort as Bisin and Verdier (2000) did. They based this assumption on the idea that parents in their desire to transmit religious and social values wish to be in a homogamous marriage. For example, families belonging to the "Bottin mondain" reject any "light customs" such as divorce or cohabitation. Following this idea they will reject to be married with someone who does not belong to the same social network in a sense with someone who does not hold the same preferences towards divorce and marriage (L.Arrondel and C.Grange 1993).

or $\{b, a\}$ matches), a type family for homogamous couples of type a ($\{a, a\}$ matches), and b type family for homogamous couples of type b ($\{b, b\}$ matches).

2.4 Legislation and divorce probabilities

Before that the matching process takes place, young adults have to choose between two archetypal divorce laws l: the *mutual consent divorce* (indexed by c) and the *unilateral divorce* (indexed by u). In the vast literature studying effects of divorce laws on divorce decisions (Gonzales and Viitanen, 2009; Fella et al. 2004) we find that under mutual consent, a divorce occurs if the spouse who wants to divorce, compensates the one who wants to stay married. And under unilateral divorce, a divorce will take place unless the one who wants to stay married compensates the one who wishes to leave.

In the current paper we consider that, under consensual divorce c, the divorce occurs if the two spouses prefer to divorce, while under unilateral divorce u, the couple divorces if one of the two spouses want to divorce. Let us define the threshold $\theta^l(i, j)$ as the critical value on the quality of the match under which a couple $\{i, j\}$ divorces when the legislation implemented is $l \in \{c, u\}$. Following the description of the two legislations, we obtain:

$$\theta^c(i, j) = \min\{\theta^i, \theta^j\} \tag{10}$$

and

$$\theta^u(i, j) = \max\{\theta^i, \theta^j\} \tag{11}$$

Note that, we could consider that, under consensual divorce, the threshold $\theta^c(i, j)$ corresponds to the mean between θ^i and θ^j, without qualitative consequences on our results.[2]

Divorce laws affect the spousal decision of divorce. From (4) and (5), we deduce:

$$\theta^c(a, b) = \theta^c(b, b) = \theta^u(b, b) = \theta^b \tag{12}$$

and

$$\theta^u(a, b) = \theta^u(a, a) = \theta^c(a, a) = \theta^a \tag{13}$$

The threshold θ^b (respectively θ^a) is the critical value of the match quality within a couple in which an individual of type b (resp. a) has the final decision about divorce. It is the case within homogamous b couples (resp. homogamous a couples). Moreover, there exists a range of value of θ (the $[\theta_b, \theta_a]$ interval) for which only individuals of type a are prone to divorce. Consequently, within heterogamous couples, individuals of type b (resp. type a) have the final say if the divorce decision is consensual (resp. unilateral). Finally, since the utility associated to divorce is lower for b type individuals than for a type ones, we obtain: $\theta_a > \theta_b$.

2. The theoretical literature on divorce decisions usually considers that a couple $\{i, j\}$ divorces if a randomly picked match quality θ is under a given critical value. This critical value is alternatively modeled as $\max\{\theta^i, \theta^j\}$ (see, for instance, Weiss and Willis 1985 or Chiappori and Weiss 2007) or $(\theta^i + \theta^j)/2$ (see, for instance, Chiappori et al. 2008). Here, we argue that the relevant formulation crucially depends on the prevailing divorce law. Our interpretation applies if the Coase theorem does not hold, *i.e.* if the utility is not transferable or if bargaining is costly (see Sevenson and Wolfers, 2006 for a discussion).

Let us denote $p(f,l)$ the expected divorce probability for a family $f \in \{h,a,b\}$ when the legislation is l. It directly comes from expressions (12) and (13) that:

$$p(h,u) = p(a,u) = p(a,c) = \text{Prob}(\theta < \theta^a) \equiv \bar{p} \tag{14}$$

$$p(h,c) = p(b,c) = p(b,u) = \text{Prob}(\theta < \theta^b) \equiv \underline{p} \tag{15}$$

with $\bar{p} > \underline{p}$ since $\theta^a > \theta^b$.

This result is directly derived from the critical thresholds on the quality of the match which we determined in the previous section. For homogamous couples, the divorce law does not affect divorce probability. Indeed, the two mates, sharing same preferences and facing the same match's quality, agree on the decision to separate or not. Moreover, since incentives to remain married are higher for b individuals, the expected probability of divorce is larger for $\{a,a\}$ couples than for $\{b,b\}$ ones (these probabilities are respectively $\bar{p}$ and $\underline{p}$). The divorce decision for heterogamous couples may depend on the divorce law. In particular, when the quality of the match θ belongs to the interval $[\theta^b, \theta^a]$, the a type mate prefers to separate while the b type spouse prefers to pursue the match. In that configuration, when the *unilateral divorce* applies, the a type spouse has the voice and the couple divorces, hence the probability of divorce is $\bar{p} = \text{Prob}(\theta < \theta^a)$. Conversely, under the *mutual consent divorce* regime, the couple cannot split without the consent of the b type spouse and the divorce probability becomes $\underline{p} = \text{Prob}(\theta < \theta^b)$.

2.5 Expected utilities and political equilibrium

In the vote concerning divorce legislation, each individual opts for the alternative maximizing his/her expected utility for the period $t+1$.[3] This expected utility obviously depends on the expected probability of divorce which is a function of divorce law and the composition of the couple.

We can derive the second adulthood period expected utility of an individual i, being given the composition of his/her family f and the divorce law l. This expected utility is denoted $U^i(f,l)$:

$$U^i(h,u) = U^i(a,c) = U^i(a,u) = \bar{p}u^d(i) + (1-\bar{p})[u^m + E(\theta|\theta > \theta^a)] \equiv \bar{U}^i \tag{16}$$

$$U^i(h,c) = U^i(b,c) = U^i(b,u) = \underline{p}u^d(i) + (1-\underline{p})[u^m + E(\theta|\theta > \theta^b)] \equiv \underline{U}^i \tag{17}$$

with $E(\theta|\theta > \theta^i)$ the expected value of θ conditional to $\theta > \theta^i$. Note that, preferences of the individual taking the final divorce decision not only determines the divorce probability but also the expected utility of marriage. Indeed, b type individuals are more prone to remain married for low quality of the match since they fear to support the social stigma if they divorce. Then, the expected quality of the match when a b type individual is the

3. Note that, the expected utility of period t is independent of the divorce law. Indeed, all individuals are married during the first adulthood period and their expected utility equals $u^m + E(\theta) = u^m$ whatever the divorce law. Conversely, since divorce laws affect the probability to remain married during the second adulthood period, vote decisions are based on expected utilities in $t+1$.

decision maker $E(\theta|\theta > \theta^b)$ is lower than the expected quality of the match when a a type individual is the decision maker $E(\theta|\theta > \theta^a)$.

Finally, the match composition for an individual i depends on the matching probabilities π_t^{ij}, which in turn are function of q_t the distribution of preferences within the population. Hence, we obtain an expression of the second adulthood period expected utility of an individual i, as a function of l and q_t. This expected utility is denoted $W^i(l, q_t)$:

$$W^a(l, q_t) = \pi_t^{aa} U^a(a, l) + (1 - \pi_t^{aa}) U^a(h, l) \tag{18}$$

$$W^b(l, q_t) = \pi_t^{bb} U^b(b, l) + (1 - \pi_t^{bb}) U^b(h, l) \tag{19}$$

Since individuals vote before to be matched they will choose the legislation maximizing their expected utilities. Comparing those expected utilities, we can claim the following:

Lemma 1 *$W^a(u, q_t) \geq W^a(c, q_t)$ and $W^b(u, q_t) \leq W^b(c, q_t)$ for all $q_t \in [0, 1]$.*

Proof. We have to determine the sign of $W^i(u, q_t) - W^i(c, q_t)$ for $i \in \{a, b\}$. Combining (16)-(19), we obtain:

$$W^i(u, q_t) - W^i(c, q_t) = (1 - \pi_t^{ii})(\bar{U}^i - \underline{U}^i) \overset{sign}{=} \bar{U}^i - \underline{U}^i$$

with

$$\begin{aligned}
\bar{U}^i - \underline{U}^i &= (\bar{p} - \underline{p})(u^d(i) - u^m) + (1 - \bar{p})E(\theta|\theta > \theta^a) - (1 - \underline{p})E(\theta|\theta > \theta^b) \\
&= (\bar{p} - \underline{p})(u^d(i) - u^m) + \int_{\theta^a}^{+\infty} \theta dF(\theta) - \int_{\theta^b}^{+\infty} \theta dF(\theta) \\
&= (\bar{p} - \underline{p})(u^d(i) - u^m) - \int_{\theta^b}^{\theta^a} \theta dF(\theta) \\
&= (\bar{p} - \underline{p}) \left\{ u^d(i) - u^m - E(\theta|\theta \in [\theta^b, \theta^a]) \right\}
\end{aligned}$$

Using expressions (2)-(4), we conclude that $\bar{U}^a - \underline{U}^a \geq 0$ since

$$E(\theta|\theta \in [\theta^b, \theta^a]) \leq \theta^a = u^d - u^m$$

and $\bar{U}^b - \underline{U}^b \leq 0$ since

$$E(\theta|\theta \in [\theta^b, \theta^a]) \geq \theta^b = u^d - s - u^m$$

Hence, $W^a(u, q_t) \geq W^a(c, q_t)$ and $W^b(u, q_t) \leq W^b(c, q_t)$. ■

Lemma 1 states that a type individuals always prefer the *unilateral divorce law* while b type always prefer the *mutual consent divorce law*. The intuition behind this result is quite simple. First of all, let us underline that ex-post, homogamous couples are indifferent between the two legislations since the two mates agree on the decision to separate or not. Concerning heterogamous couples, when the match quality is low ($\theta < \theta^b$) the two spouses agree to split the match and the divorce law does not matter. In a similar way, if the match quality is high ($\theta > \theta^a$) the two spouses mutually consent to remain married whatever the legislation. Hence, Lemma 1 results from the situation of heterogamous couples with an intermediate match's quality ($\theta \in [\theta^b, \theta^a]$). In such couples, the preferred solution of

a individuals (*i.e.* to separate) is implemented under the *unilateral divorce* law; while the preferred solution of b individuals (*i.e.* to pursue the match) is chosen under the *mutual consent divorce* regime. Consequently, a (respectively b) individuals maximize their expected utility if *unilateral divorce* (respectively *mutual consent divorce*) is chosen.

We consider a majority voting rule, then we deduce the following result by assuming, without loss of generality, that if the two legislations receive the same number of vote the *unilateral divorce* is chosen:

Corollary 1 *If $q_t < 1/2$ the mutual consent divorce is chosen, otherwise the unilateral divorce is chosen.*

When $q_t < 1/2$, b individuals are in majority, since they prefer the *mutual consent divorce* law, this later obtain the higher number of votes and is implemented. Conversely, when a individuals are in majority $q_t \geq 1/2$ the *unilateral divorce* law obtains a majority of votes and is implemented.

2.6 Socialization

Our mechanisms of preferences transmission are borrowed from the well established model proposed by Bisin and Verdier (2000 and 2001). Children are assumed to be born without well-defined preferences. In a first step, they are socialized by their parents who try to transmit their own traits. The probability of direct transmission is endogenously determined by parents' education efforts. This effort is denoted τ_t^f for a $f = \{a, b, h\}$ type family. If this parental socialization fails, children adopt the preferences of a role model randomly chosen within the all population of adults.

In the model, there are two types of unions, homogamous and heterogenous marriages. While in the former spouses agree on the socialization level of children, in the latter conflictual situations emerge concerning the transmission of preferences to children. If both types of couples can socialized their children, we can assume that parents in homogamous marriages have a better technology to socialize their children to their own trait than parents in heterogamous marriages in which there is no consensus between spouses concerning the transmitted trait. As a consequence, the effort of socialization is higher in a homogamous unions than in heterogamous ones. In Bisin, Topa and Verdier (2004) the authors introduce the possibility that heterogamous unions socialized directly their children following an exogenous probability of direct socialization which is independent of parents' effort.[4] However, if it is dependent of parents' effort, we can discuss about the possible negotiation within the couple concerning this effort of socialization. Thus questions emerge about the kind of bargaining regarding this decision which can be cooperative or non-cooperative. If it is non cooperative, each partner choose its individual

4.
$$P_{ij}^i = \frac{1}{2}m + (1-m)Q^i \tag{20}$$
where m is an exogenous probability independent of parents' effort and corresponds to an exogenous direct socialization.

level of effort that he/she wants to transmit to their children. According to their type, the individual efforts chosen by spouses correspond to those chosen in each type of homogamous unions. However, the final transmitted value of effort is lower than in homogamous marriages due to the scattering efforts of socialization within heterogamous couples.

To simplify, in line with Bisin and Verdier (2000), we assume that only homogamous family can directly socialize their children such that $\tau_t^h = 0$. Some evidence have shown that homogamy is related to higher socialization rates. For example, the religious commitments of children are lower for those belonging to a mixed religious marriages than those of a single religious marriages (Hoge and Petrillo, 1978; Ozorak, 1989). On the other hand, the transmission of religious and social values from parents to children are less likely to success in a mixed religious couple (Hoge, Petrillo and Smith, 1982).

A child born in heterogamous family is only influenced by the society and picks the trait of a role model chosen randomly in the population. Then, he/she becomes a with a probability q_t and b with a probability $1 - q_t$. Consider now a child born in a type a homogamous family, with a probability τ_t^a parental socialization successes and the child becomes a. Conversely, with a probability $1 - \tau_t^a$ direct socialization is not successful and the child is socialized by a role model (becoming a with a probability q_t and b with a probability $1 - q_t$). Symmetric reasoning applies for type b homogamous family, with τ_t^b the probability to directly transmit the preference b. Then, we can define transition probability $P^{f,i}$ which determines the probability that a child born in a type f family adopts preferences i:

$$\begin{array}{ll} P^{a,a}(\tau_t^a, q_t) = \tau_t^a + (1 - \tau_t^a) q_t & P^{a,b}(\tau_t^a, q_t) = (1 - \tau_t^a)(1 - q_t) \\ P^{b,b}(\tau_t^b, q_t) = \tau_t^b + (1 - \tau_t^b)(1 - q_t) & P^{b,a}(\tau_t^b, q_t) = (1 - \tau_t^b) q_t \\ P^{h,a}(q_t) = q_t & P^{h,b}(q_t) = 1 - q_t \end{array} \tag{21}$$

Let us now focus on the determination of τ_t^f, the education effort within a type f homogamous family. Education efforts are costly, let $c(\tau_t^f)$ be the cost of the education effort τ_t^f. This latter is assumed to be increasing and convex with the effort level. Without loss of generality we retain the following functional form for education costs: $c(\tau_t^f) = (\tau_t^f)^2/2k$. Parents make education effort for an altruistic motive. Nevertheless, following Bisin and Verdier (2000 and 2001), parental altruism is assumed to be paternalistic: parents aim at maximizing the welfare they expect for their children, but evaluate their offspring's future behavior through the filter of their own preferences. Let V_t^{fi} denotes the utility that parents, in a type f homogamous family, expect for a type i child. The socialization problem of parents consists in the maximization of the utility they expect for their child net of education costs:

$$\max_{\tau_t^f} \left\{ P^{fa}(\tau_t^f, q_t) V_t^{fa} + P^{fb}(\tau_t^f, q_t) V_t^{fb} - (\tau_t^f)^2/2k \right\} \tag{22}$$

The associated first order condition is:

$$\frac{\partial P^{fa}(\tau_t^f, q_t)}{\partial \tau_t^f} V_t^{fa} + \frac{\partial P^{fb}(\tau_t^f, q_t)}{\partial \tau_t^f} V_t^{fb} = \frac{\tau_t^f}{k} \tag{23}$$

It comes from transition probabilities (21), the optimal efforts of education for type a and b families:

$$\tau_t^a = (1-q_t)k(V_t^{aa} - V_t^{ab}) \qquad \text{and} \qquad \tau_t^b = q_t k(V_t^{bb} - V_t^{ba}) \tag{24}$$

Hereafter, we denote the relative gains that parents perceive for socializing their children with their own values by $\Delta V_t^a = V_t^{aa} - V_t^{ab}$ for type a families and $\Delta V_t^b = V_t^{bb} - V_t^{ba}$ for type b families. It comes from (24) that the incentives to socialize children are increasing in this relative gain. Moreover, direct socialization within a type families reduces with the proportion q_t of a. The reason is that, the larger the fraction q_t, the more likely children acquire the a preferences during the oblique socialization stage. In other words, vertical and oblique socializations are substitutes. Symmetric reasoning applies for b type families such that τ_t^b is increasing in q_t.

From the hypothesis of paternalistic altruism, V_t^{fi} corresponds to the expected utility of a type i children evaluated through the filter of parental preferences within a f type family. This expected utility depends on the expected distribution of preferences (q_{t+1}^e). Indeed, the distribution of preferences determines both matching probabilities (see section 2.3) and the divorce law (see section 2.5). To make the analysis transparent we assume that individuals have myopic expectations, such that $q_{t+1}^e = q_t$. Under this assumption we can express the different values of V_t^{fi} as functions of the preferences distribution q_t and the divorce law l:

$$V^{aa}(l, q_t) = \pi_t^{aa} U^a(a, l) + (1 - \pi_t^{aa}) U^a(h, l) \tag{25}$$

$$V^{ab}(l, q_t) = \pi_t^{bb} U^a(b, l) + (1 - \pi_t^{bb}) U^a(h, l) \tag{26}$$

$$V^{bb}(l, q_t) = \pi_t^{bb} U^b(b, l) + (1 - \pi_t^{bb}) U^b(h, l) \tag{27}$$

$$V^{ba}(l, q_t) = \pi_t^{aa} U^b(a, l) + (1 - \pi_t^{aa}) U^b(h, l) \tag{28}$$

Let us consider, for instance, expression (26). Type a parents evaluate that, a b type child has a probability π_t^{bb} to be matched with another b and then to enter in a b type family. Since they use their own preferences, parents evaluate the utility associated with this situation to $U^a(b, l)$, l being the current divorce law. Conversely, they expect that, with a probability $1-\pi_t^{bb}$, the child will enter in a h type family, getting an utility $U^a(h, l)$.[5]

Using (16) and (17) and (25)-(28), we obtain the expressions the relative gains that parents perceive for socializing their children with their own preferences (ΔV_t^a and ΔV_t^b) as functions of q_t and l:

$$\begin{array}{lcl} \Delta V^a(c, q_t) = \pi_t^{aa}(\bar{p} - \underline{p})A & , & \Delta V^b(c, q_t) = \pi_t^{aa}(\bar{p} - \underline{p})B \\ \Delta V^a(u, q_t) = \pi_t^{bb}(\bar{p} - \underline{p})A & , & \Delta V^b(u, q_t) = \pi_t^{bb}(\bar{p} - \underline{p})B \end{array} \tag{29}$$

5. Let us remark that, expression (25)-(28) correspond to utilities that parents expect for their children's second adulthood period. Rigorously, we should consider the expected utilities for first adulthood period too. However, the latter equals u^m for all individuals, whatever their preferences. Consequently, we obtain same expressions for ΔV^a and ΔV^b considering either the second adulthood period or the whole adulthood period.

where

$$A \equiv u^d - u^m - E(\theta|\theta \in (\theta^b, \theta^a)) \geq 0 \tag{30}$$

$$B \equiv u^m - u^d + s + E(\theta|\theta \in (\theta^b, \theta^a)) \geq 0^6 \tag{31}$$

The variable A measures, for a type a individual, the utility gains associated with the choice to divorce rather than pursue the match in the case of a match quality $\theta \in [\theta^b, \theta^a]$. In a similar way, B measures, for an individual of type b, the utility gains associated with the fact to remain married rather than divorce in the case of a match quality $\theta \in [\theta^b, \theta^a]$.

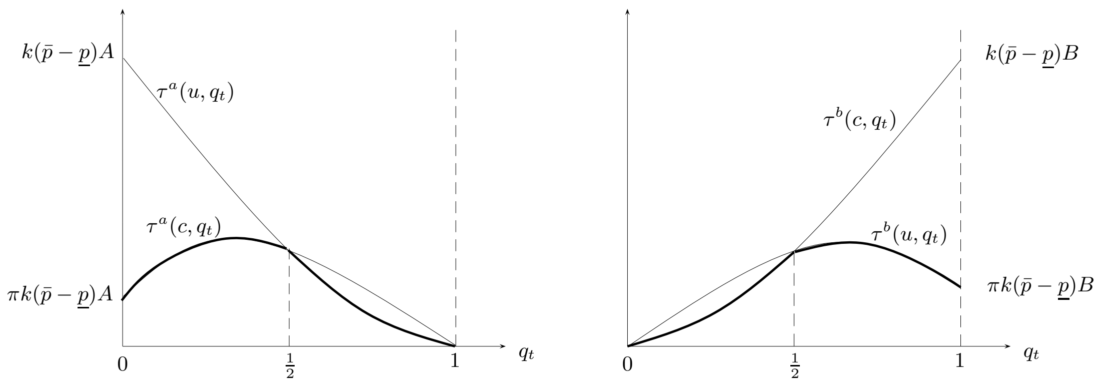
Noticeably, under the *mutual consent divorce* regime, incentives to socialize children are increasing in π_t^{aa} within both types of household, while they are increasing in π_t^{bb} if *unilateral divorce* law is implemented. Consider the case of *mutual consent divorce*, individuals of type a have the voice only in a type family. Since π_t^{aa} measures the probability for a a to enter in an homogamous match, incentives to transmit a trait are increasing in π_t^{aa} (formally, $V_t^{aa}(c, q_t)$ rises with π_t^{aa}). In a similar way, b types parents expect that if their children becomes a he/she will take sub-optimal divorce decisions within a a type family. Hence, an increase in π_t^{aa} fosters the subjective loss that b parents perceive when they have a children ($V_t^{ba}(c, q_t)$ falls with π_t^{aa}). Symmetric reasoning applies concerning the positive impact of π_t^{bb} on both $\Delta V^a(u, q_t)$ and $\Delta V^b(u, q_t)$. It comes from the fact that if the u law is implemented, the optimal decision of b individuals occurs only within a b type family.

Combining equations (24) and (29), we obtain an expression of optimal education efforts as function of q_t and l, let us denote those efforts $\tau^a(l, q_t)$ and $\tau^b(l, q_t)$ respectively for a and b families. Notes that, the distribution of preferences q_t affects education efforts *via* two channels: first through the cultural substitution property, but also through its impact on the probabilities of homogamous matching. Then, it is interesting to determine the total effect of q_t on probabilities of direct socialization. Figure 3 depict the variation of $\tau^a(l, q_t)$ and $\tau^b(l, q_t)$ with respect to q_t under each legal regime.

Consider Figure 3a, there exists a bell-shaped relationship between τ_t^a and q_t under the *consensual divorce* law. It comes from the fact that cultural substitution and matching effects play in opposite way. On the one hand, through the cultural substitution effect, a rise in q_t negatively impacts on socialization efforts of a parents. On the other hand, larger is q_t, higher is the probability that a individuals enter in an homogamous match, which increases the incentives to socialize within a type family. The fact that, cultural substitution effect dominates for relatively large values of q_t results from the convexity of socialization costs function. Consider now the case in which *unilateral divorce* legislation holds, cultural substitution and matching effects have both a negative impact on τ_t^a. Indeed, the loss that a parents perceive for having b children is an increasing function of π_t^{bb} that, in turn, decreases in q_t.

Finally, let us underline that their is a third effect of q_t on parental education efforts: the political equilibrium one. It implies that $\tau^i(c, q_t)$ applies for $q_t < 1/2$ while $\tau^i(u, q_t)$ applies for $q_t \geq 1/2$ (on Figure 3, education efforts effectively implemented are depicted

6. The positivity of A and B comes directly from the lemma1.



(a) a type families (b) b type families

Fig. 3. Evolutions of educations efforts with respect to q_t

in bold line). Consequently, education efforts within both family types are first increasing and then decreasing in q_t.[7] Notice that while change in divorce laws impulses a change in trend of socialization effort of b type, it has no significant effect on the trend of socialization effort for a type.

3 Preferences, divorce rates and the legislation in the long-run

Let us now analyze the preference dynamics of the model. To do so, we define as $Q_t^{ij}(l)$ the probability that a child with a parent i will develop the trait j when the divorce law l prevails:

$$Q_t^{aa}(l) = \pi_t^{aa}\left\{\tau_t^a(l) + [1-\tau_t^a(l)]q_t\right\} + (1-\pi_t^{aa})q_t \tag{32}$$

$$Q_t^{ba}(l) = \pi_t^{bb}\left\{[1-\tau_t^b(l)]q_t\right\} + (1-\pi_t^{bb})q_t \tag{33}$$

The law of motion of q_t for a given l writes as:

$$q_{t+1} = q_t Q_t^{aa}(l) + (1-q_t)Q_t^{ba}(l) \tag{34}$$

Substituting expressions (32) and (33) in (34) the above expression may be rewritten as follows:

$$q_{t+1} = q_t + q_t(1-q_t)\left[\pi_t^{aa}\tau_t^a(l) - \pi_t^{bb}\tau_t^b(l)\right] \tag{35}$$

7. Notice that changes in education effort do not correspond exactly to changes in divorce laws.

Finally, using optimal socialization choices and given the results of Lemma 1, we obtain an equation describing the complete dynamics of q_t:

$$q_{t+1} = \begin{cases} q_t + q_t(1-q_t)k\pi_t^{aa}(\bar{p} - \underline{p}) \left[(1-q_t)\pi_t^{aa}A - q_t\pi_t^{bb}B\right] \equiv f^c(q_t) & \text{if} \quad q_t < 1/2 \\ q_t + q_t(1-q_t)k\pi_t^{bb}(\bar{p} - \underline{p}) \left[(1-q_t)\pi_t^{aa}A - q_t\pi_t^{bb}B\right] \equiv f^u(q_t) & \text{if} \quad q_t \geq 1/2 \end{cases} \tag{36}$$

This dynamics exhibits two degenerate steady states: $q_s = 0$ and $q_s = 1$ characterized by a complete homogamy. There also exists an interior steady state $q_s = \hat{q}$ with $\hat{q}$ solution of the following equation:

$$(1-q_t)(\pi + (1-\pi)q_t)A = q_t(\pi + (1-\pi)(1-q_t))B \tag{37}$$

The following proposition states that this interior equilibrium is unique and globally stable.

Proposition 1 *The dynamical equation (36) admits one unique globally stable equilibrium $\hat{q} \in (0,1)$. Moreover:*

- *If $A \geq B$: $\hat{q} \geq 1/2$ and the long-run divorce law is unilateral.*
- *If $A < B$: $\hat{q} < 1/2$ and the long-run divorce law is consensual.*

Proof. See Appendix A ■

The following figure illustrates the dynamics of preferences in the case $A > B$ and $q_0 < 1/2$.

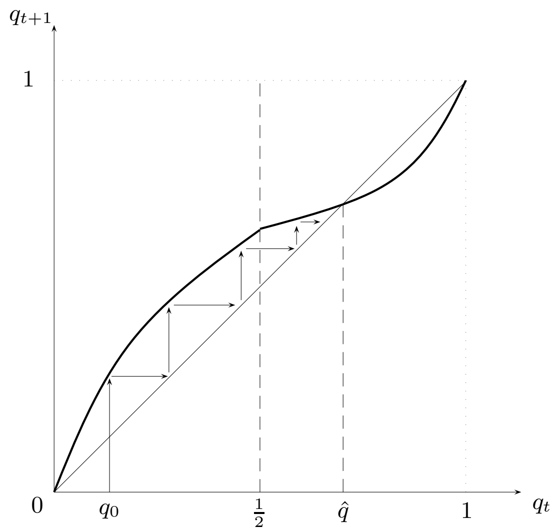


Fig. 4: Convergence to the steady state

Initially, b type individuals are in majority and the divorce law is consensual such that the agreement of both spouses is necessary to divorce. However, in that configuration, the incentives to transmit a traits are relatively strong. Indeed, types a being in minority their transmission effort is large in order to compensate the influence of the environment. Moreover, since $A > B$ the expected gains associated with the transmission of a traits are higher than expected gains associated with the transmission of type b preferences. Consequently, q_t increases over time. As long as the proportion of a types individuals becomes larger, the electoral weight of the *unilateral divorce* law rises. Finally, q_t overtakes one half and the majority changes such that the divorce law becomes *unilateral*. Finally, through the mechanisms of cultural substitution, q_t converges towards an heterogeneous equilibrium $\hat{q}$.

Figure 4 describes the cultural dynamics of the economy. Nevertheless, changes in preferences have strong implications in terms of the evolution of divorce rates. First, a type families have an higher probability to separate since individuals a suffer less from divorce than b ones. Consequently, the increase in q_t mechanically fosters divorce rates. Second, for a given cultural composition, the shift from *mutual consent divorce* to *unilateral divorce* also triggers divorce rates. Indeed, such a legislative change makes divorce easier. Let us denote β_t^l the divorce rate under the legislation l, using the expressions of matching probabilities (6)-(9) and divorce probabilities for each family type (14) and (15), we obtain:

$$\beta_t^u = \bar{p} - (1 - q_t)(\bar{p} - \underline{p})[\pi + (1 - \pi)(1 - q_t)] \tag{38}$$

$$\beta_t^c = \underline{p} + q_t(\bar{p} - \underline{p})[\pi + (1 - \pi)q_t] \tag{39}$$

It is easy to verify that, first both β_t^u and β_t^c; and second $\beta_t^u > \beta_t^c$ for all $q_t \in (0, 1)$. The following figure summarizes the two effects of q_t on divorce rates.

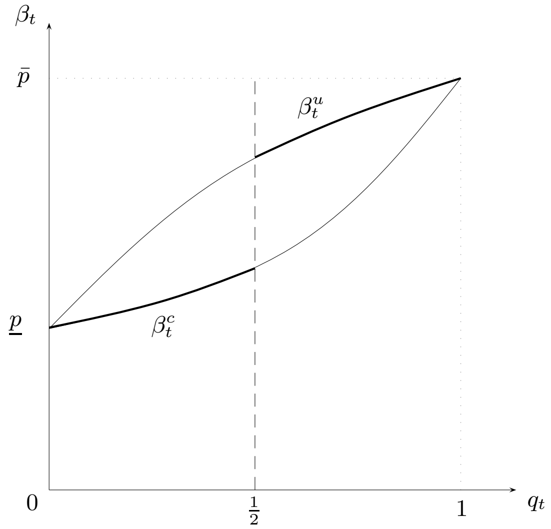


Fig. 5: Evolution of divorce rates as a function of q_t

Let us consider again the cultural dynamics illustrated in Figure 4 and study its implications in terms of divorce rates evolution. In the model, the evolution of divorce rate is impulsed by changes in the composition of the population. The increase in q_t implies the rise in divorce rates before the change in divorce law (see expression (39)). Thus the cultural dynamics generate a secular increase in divorce rates even if the legislation remains *consensual*. In a second step, when a type individuals are in majority within the society, the shift form *consensual divorce* to *unilateral divorce* temporary accelerates the phenomena. Indeed, divorce rates suddenly shifts from β_t^c to β_t^u. Finally, divorce rates gradually increase until q_t reaches its stationary value $\hat{q}$.

According to our analysis, a change in divorce law has an accelerating effect on the evolution of divorce rate but is not the driving force behind the latter evolution. This result complies with French empirical evidence that is represented in Figure 7 in the Appendix B and the study of Sardon (1996) on French data which concludes that institutional changes in divorce laws have just confirmed what is happened within the society. During the seventies an important reform of divorce legislation has been occurred in France, the law of 11 july 1975 which introduces "no-fault" divorce and was applied on January 1st of year 1976. The introduction of unilateral divorce maybe related to this reform in France. According to Figure 7, it seems that the increase in the number of divorces foregoes the change in legislation. At the time of the new divorce legislation there is a jump in the number of divorces. And after this jump, the number of divorces still increases along the period.

Notice that, the dynamics of preferences is endogenous and may be affected by economic factors. In particular, the tightening of the utility gap between being married or divorced implies an increase in the long-run proportion of agents who do not mind about the norm, a type. Let us now develop a static comparative analysis of the steady state $\hat{q}$.

4 Static comparative analysis

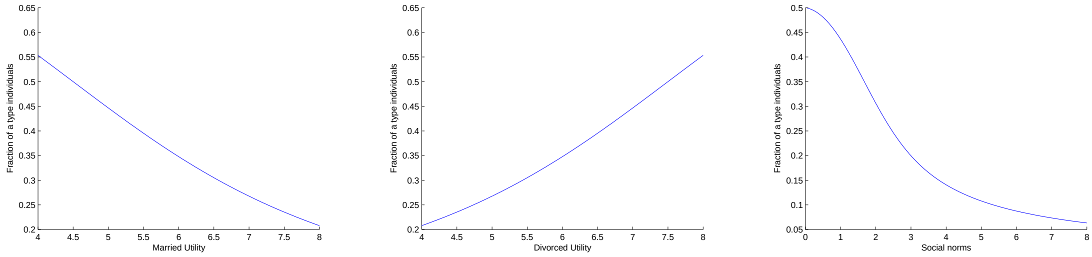
By simulating the model we can proceed to a static comparative analysis in order to see what can introduce changes in the composition of the population at the steady state.

$$\hat{q} = \frac{(B - A(1-2\pi)) - \sqrt{\Delta}}{2(1-\pi)(B-A)} \tag{40}$$

, where $\Delta = (A-B)^2 + 4AB\pi^2$.

Until now we do not need to define explicitly the distribution of the quality of match. However to analyze the effects of changes in the married utility, divorced utility or the perception of divorce within the society on the equilibrium $\hat{q}$, that requires to compute the conditional expectancy and thus to define specifically the distribution of the quality of match.

We assume that θ follows a normal distribution with zero mean and a variance of one.[8] The following Figures show the evolution of $\hat{q}$ following changes in economic environment.



(a) Changes in married utility (b) Changes in divorced utility (c) Changes in social norms

Fig. 6. Evolution of steady state according to changes in economic environment

In the literature, some authors suggest that the recent increase in divorce rate may be related to the increase in the female labor force participation or changes in the attitudes towards divorce within the society (Kalmijn, 2009; Ishida, 2000). For example, Stevenson (2007) shows that jointly to the increase in divorce rate there is a decrease in the specific investment in marriage. By spending more time on the labor market women have more outside opportunities and lose less in case of divorce than if they are mainly specialized in household activities. In our model, the increase in divorce rate is impulsed by changes in the composition of the population that the dynamics depends on the equilibrium $\hat{q}$. Any changes in economic environment which increase or decrease the steady state $\hat{q}$ will thus modify the evolution of divorce rate.

While an increase in the utility of married persons decreases the fraction of the population with the trait a (Figure 6a), an increase in the utility of divorced persons rises it (Figure 6b). Studies have shown that women facing a high probability of divorce may make decisions, such as the increase in their labor force participation in the labor market during the marriage, that increases their utility when they divorce (Clarks, 1999). This may lead to an increase in the divorce rate (Parkman, 1992; Allen, 1998). This is the case in our model, as an increase in $\hat{q}$ pushes up the dynamics of evolution of a individuals within the society and so increases the rate of divorce. If we consider decision of socialization of parents, an increase in divorced utility, for a given stigma and married utility, decreases the gap between being married and divorced and increases the divorce rate, and reduces the incentive to socialize children with trait b. This comes from the fact that the final expected gains associated with the transmission of a traits are higher than final expected gains associated with the transmission of type b preferences.

On the other hand, a decrease in the disutility of divorce s suffered by individual b lead to an increase in $\hat{q}$ (Figure 6c). This results is in accordance with the results of Fella

8. The chosen calibration is respectively for Figure 6a, $ud = 5$, $s = 1$ and $\pi = 0.6$; for Figure 6b, $um = 7$, $s = 1$ and $\pi = 0.6$. Finally for Figure 6c, we compute $ud = 0.1$, $um = 0.2$ and $\pi = 0.6$.

et al. (2004) who show that changes in social norms may explain the increase in divorce rates.

To sum up, any changes in the married utility of divorced utility or social norms imply changes in the stationary state $\hat{q}$ and thus the dynamics of evolution of q_t. Notice that the evolution of utility or social norms do not change at each period. There is an inertia in the evolution of these parameters within the society.

5 Conclusion

We develop a model of divorce, socialization and divorce laws which are endogenously determined as economic decisions of agents. In the population there exists two kinds of preferences distributed regardless of gender. The evolution of divorce rate is impulsed by changes in the composition of the population. More specifically, an increase in the proportion of individuals who disregard the stigma from social norms will rise divorce rate. Our results show that a change in divorce law temporary accelerates the evolution of divorce rate but is not the driving force behind this dynamics. The dynamics of preferences is endogenous and may be affected by economic factors. In particular, the tightening of the utility gap between being married or divorced implies an increase in the long-run proportion of agents who do not mind about the norm, a type.

Empirical evidence have shown that stigmatization towards divorce evolve partly with the divorce rate. As being divorced have become more common the stigma associated with this state had become less severe (Diener et al., 2000; Gelissen, 2003). In extension we may introduce the fact that the divorce rate evolution will itself affect the evolution of the social norms.

Appendices

A Proof of Proposition 1

For ease of presentation we first define the function $h(q_t)$, $g^c(q_t)$ and $g^u(q_t)$ as follows:

$$h(q_t) = (1 - q_t)(\pi + (1 - \pi)q_t)A - q_t(\pi + (1 - \pi)(1 - q_t))B \tag{A.1}$$

$$g^c(q_t) = q_t(1 - q_t)k(\bar{p} - \underline{p})[\pi + (1 - \pi)q_t] \tag{A.2}$$

$$g^u(q_t) = q_t(1 - q_t)k(\bar{p} - \underline{p})[\pi + (1 - \pi)(1 - q_t)] \tag{A.3}$$

such that $f^l(q_t) = q_t + g^l(q_t)h(q_t)$ for $l \in \{c, u\}$.

The proof is divided in three steps: *(i)* we prove that steady states $q_s = 0$ and $q_s = 1$ are unstable; *(ii)* we prove the existence and the uniqueness of the interior equilibrium $q_s = \hat{q}$; and *(iii)* we deduce the global stability of $\hat{q}$.

(i) Steady state $q_s = 0$ and $q_s = 1$ are unstable. The steady state $q_s = 0$ is locally unstable if $\left.\frac{dq_{t+1}}{dq_t}\right|_{q_t=q_{t+1}=0} > 1$. For q_t close to 0, the expression of q_{t+1} is $q_{t+1} = q_t + g^c(q_t)h(q_t)$. Implicit differentiation of this expression yields:

$$\frac{dq_{t+1}}{dq_t} = 1 + \frac{\partial g^c(q_t)}{\partial q_t} h(q_t) + \frac{\partial h(q_t)}{\partial q_t} g^c(q_t) \tag{A.4}$$

with $g^c(0) = 0$, $h(0) = \pi A$ and $\left.\frac{\partial g^c(q_t)}{\partial q_t}\right|_{q_t=0} = k(\bar{p} - \underline{p})\pi$. Hence we obtain:

$$\left.\frac{dq_{t+1}}{dq_t}\right|_{q_t=q_{t+1}=0} = 1 + k(\bar{p} - \underline{p})\pi^2 A > 1 \tag{A.5}$$

In a similar way, the steady state $q_s = 1$ is locally unstable if $\left.\frac{dq_{t+1}}{dq_t}\right|_{q_t=q_{t+1}=1} > 1$. For q_t close to 1, the expression of q_{t+1} is $q_{t+1} = q_t + g^u(q_t)h(q_t)$. Implicit differentiation of this expression yields:

$$\frac{dq_{t+1}}{dq_t} = 1 + \frac{\partial g^u(q_t)}{\partial q_t} h(q_t) + \frac{\partial h(q_t)}{\partial q_t} g^u(q_t) \tag{A.6}$$

with $g^u(1) = 0$, $h(1) = -\pi B$ and $\left.\frac{\partial g^u(q_t)}{\partial q_t}\right|_{q_t=1} = -k(\bar{p} - \underline{p})\pi$. Hence we obtain:

$$\left.\frac{dq_{t+1}}{dq_t}\right|_{q_t=q_{t+1}=1} = 1 + k(\bar{p} - \underline{p})\pi^2 B > 1 \tag{A.7}$$

(ii) Existence and uniqueness of the interior steady state $\hat{q}$. It comes from equation(36) that $\hat{q}$ is solution of the equation:

$$LHS(q_t) \equiv (1 - q_t)(\pi + (1 - \pi)q_t)A = q_t(\pi + (1 - \pi)(1 - q_t))B \equiv RHS(q_t) \tag{A.8}$$

$LHS(q_t)$ and $RHS(q_t)$ are bell shaped functions of q_t reaching their maximum respectively for $q_t = \frac{1-2\pi}{2(1-\pi)} \equiv q_{LHS}$ and $q_t = \frac{1}{2(1-\pi)} \equiv q_{RHS}$ such that $q_{RHS} > q_{LHS}$. Moreover, $LHS(1) = RHS(0) = 0$, $LHS(0) = \pi A > 0$ and $RHS(1) = \pi B > 0$. Consequently, $LHS(q_t)$ and $RHS(q_t)$ cross only once for $q_t \in [0, 1]$, the existence and uniqueness of $\hat{q}$ directly follows.

(iii) Global stability of $\hat{q}$. First of all, let us recall $f(q_t)$ the function describing the full dynamics of q_t in equation (36), such that:

$$f(q_t) = \begin{cases} f^c(q_t) & \text{if} \quad q_t < 1/2 \\ f^u(q_t) & \text{if} \quad q_t \geq 1/2 \end{cases} \tag{A.9}$$

It is straightforward that this function is continuous for $q_t \in [0, 1/2) \cup (1/2, 1]$. Moreover, since $f^c(1/2) = f^u(1/2)$, $f(q_t)$ is also continuous in $q_t = 1/2$. In addition

$$\frac{\partial f(q_t)}{\partial q_t} = \begin{cases} 1 + \frac{\partial g^c(q_t)}{\partial q_t} h(q_t) + \frac{\partial h(q_t)}{\partial q_t} g^c(q_t) & \text{if} \quad q_t < 1/2 \\ 1 + \frac{\partial g^u(q_t)}{\partial q_t} h(q_t) + \frac{\partial h(q_t)}{\partial q_t} g^u(q_t) & \text{if} \quad q_t \geq 1/2 \end{cases} \tag{A.10}$$

Moreover

$$\lim_{k \to +\infty} g^l(q_t) = \lim_{k \to +\infty} \frac{\partial g^c(q_t)}{\partial q_t} = 0 \tag{A.11}$$

Hence, for k low enough $\frac{\partial f(q_t)}{\partial q_t} > 0$. This implies that the unique interior solution $\hat{q}$ of the dynamics $q_{t+1} = f(q_t)$ is globally stable.

B French Empirical Evidence

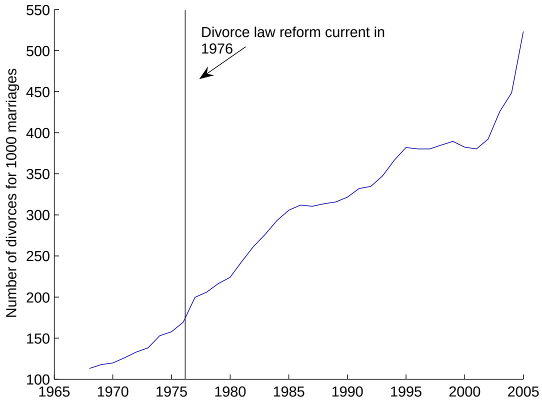


Fig. 7: Number of divorces for 1000 marriages

References

Allen, D. (1998). No-fault divorce in canada: Its cause and effect. *Journal of Economic Behavior and Organization 37*, 129–149.

Arrondel, L. and C. Grange (1993). Logiques et pratiques de l'homogamie dans les familles du bottin mondain. *Revue Française de Sociologie XXXIV*, 597–626.

Bisin, A., G. Topa, and T. Verdier (2004). Religious intermarriage and socialization in the united states. *Journal of Political Economy 112*(3), 615–664.

Bisin, A. and T. Verdier (1998). On the cultural transmission of preferences for social status. *Journal of Public Economics 70*, 75–97.

Bisin, A. and T. Verdier (2000). Beyond the melting pot: Cultural transmission, marriage, and the evolution of ethnic and religious traits. *The quarterly Journal of Economics 115*(3), 955–988.

Bisin, A. and T. Verdier (2001). The economics of cultural transmission and the dynamics of preferences. *Journal of Economic Theory 97*, 298–319.

Chiappori, P., M. Iygun, and Y. Weiss (2008). An assignment model with divorce and remarriage. IZA Discussion Paper.

Chiappori, P.-A. and Y. Weiss (2007). Divorce, remarriage, and child support. *Journal of Labor Economics 25*(1), 37–74.

Clark, S. (1999). Law, property, and marital dissolution. *The Economic Journal 109*(454), 41–54.

Diener, E., C. L. Gohm, E. Suh, and S. Oishi (2000). Similarity of the relations between marital status and subjective weel-being across cultures. *Journal of Cross-cultural Psychology 31*(4), 419–436.

Escriche, L. (2007). Persistence of occupational segregation: The role of the intergenerational transmission of preferences. *The Economic Journal 117*(520), 837–857.

Fella, G., P. Manzini, and M. Maritti (2004). Does divorce law matter? *Journal of the European Economic Association 2*(4), 607–633.

Fernandez, R., A. Fogli, and C. Olivetti (2004). Mothers and sons: Preference formation and female labor force dynamics. *The Quarterly Journal of Economics 119*(4), 1249–1299.

Gelissen, J. (2003). Cross-national differences in public consent to divorce: effects of cultural, structural and compositional factors. In H. J. H. L. Arts, W. (Ed.), *The Cultural Diversity of European Unity: Findings, Explanations and Reflections from the European Values Study.*, Chapter 12, pp. 339–370. Leiden: Brill Academic Publishers.

Gonzalez, L. and K. Viitanen (2009). The effect of divorce laws on divorce rates in europe. *European Economic Review 53*(2), 127–138.

Hoge, D. R. and G. H. Petrillo (1978). Determinants of church participation and attitudes among high school youth. *Journal of the Scientific Study of Religion 17*(4), 359–379.

Hoge, D. R., G. H. Petrillo, and E. I. Smith (1982). Transmission of religious and social values from parents to teenage children. *Journal of Marriage and the Family*, 569–580.

Ishida, J. (2003). The role of social norms in a model of marriage and divorce. *Journal of Economic Behavior and Organization 51*, 131–142.

Kalmijn, M. (2009). Country differences in the effects of divorce on well-being: The role of norms, support, and selectivity. *European Sociological Review*.

Mare, R. D. (1991). Five decades of educational assortative mating. *American Sociological Review 56*, 15–32.

McLanahan, S. and L. Bumpass (1988). Intergenerational consequences of family disruption. *American Journal of Sociology 94*(1), 130–152.

Ozorak, E. W. (1989). Social and cognitive influences on the development of religious beliefs and commitment in adolescence. *Journal of the Scientific Study of Religion 28*(4), 448–463.

Parkman, A. M. (1992). Unilateral divorce and the labor-force participation rate of married women, revisited. *The American Economic Review 82*(3), 671–78.

Sardon, J.-P. (1996). L'évolution du divorce en france. *Population 51*(3), 717–749.

Stevenson, B. (2007). The impact of divorce laws on marriage-specific capital. *Journal of Labour Economics 25*(1), 75–94.

Stevenson, B. and J. Wolfers (2006). Bargaining in the shadow of the law: Divorce laws and family distress. *The Quarterly Journal of Economics 121*(1), 267–288.

Weiss, Y. and R. Willis (1985). Children as collective goods and divorce settlements. *Journal of Labor Economics 3*, 268–292.

Wolfinger, N. H. (1999). Trends in the intergenerational transmission of divorce. *Demography 36*(3), 415–420.