Subsequent marriages: which one lasts longer?

Thomas Woehler * and Valeria Bordone *

* University of Mannheim, Graduate School of Economic and Social Sciences
Corresponding author: Valeria Bordone - vbordone@mail.uni-mannheim.de

Long Abstract

Nowadays modern societies show two important trends with regard to partnership trajectories: more and more couples opt for cohabitation rather than marriage and, still, divorce rates are increasing. The role of increasing divorce rates is central because of its adverse consequences, but also because it is the starting point for possible further unions. Research about marriage stability has compared first and subsequent marriages since the 1970s, showing that first marriages are more stable than second marriages (e.g. Cherlin, 1978; Bumpass and Sweet, 1972). This suggests that disadvantages are likely to cumulate in the life of a person with multiple marriages. Poortman and Lyngstad (2007) highlight three reasons for changes in relationship stability as people move from first to second unions. First, higher order unions might be more complex than first unions, especially if there are children from previous unions (Cherlin, 1978; Furstenberg and Spanier, 1984). Second, there might be differences in the marriage market, at least in terms of restrictions of eligible mates (Dean and Gurak, 1978; Jacobs and Furstenberg, 1986; Gelissen, 2004). Third, divorced people might be more cautions in getting committed and invest less into the second union (Furstenberg and Spanier, 1984). Therefore, second unions might result to be shorter than first ones.

However, we believe that this argument is unsatisfactory. We argue that it is not a causal effect that makes an individual who experiences more than one marriage more prone to divorce compared to a counterpart who did not experience it. Instead, we refer to a problem of unobserved heterogeneity. In a comparison between subsequent marriages which takes into account different individuals, the second marriage results to be shorter than the first one because of a selection of the persons who experience divorce. Persons with good partnership abilities stay in their partnerships. Thus the persons who reenter the marriage market are in a sense "negatively selected" in regard to partnership stability. Still, for the people concerned, it might hold a "learning-effect". "People who marry for the second time ought to have learned something from their past experiences and mistakes" (Gelissen, 2004: 362) and do things better the second time around. Furthermore, each individual has only a limited "partnership-time", i.e. the second marriage of those who do not get divorced might be even more durable, we just cannot observe it. Indeed, there is a double selection of those who enter a subsequent

marriage because, not only they are a sub-sample of those who married and then face a divorce, but they are additionally a selection of those who face a divorce. We believe previous studies have failed as they compare first and subsequent marriages' duration including also those who remained into the first marriage and those who got divorced, but did not reenter marriage. A within-person comparison could show the "learning-effect". Previous analyses based on the comparison between-individuals might have not taken into account these aspects. Thus, previous findings were automatically biased in the direction of an increasing risk of dissolution over subsequent unions.

In our analysis, we compare first and subsequent unions. We examine whether higher order marriages are more likely to dissolve than first marriages for people who experienced at least two marriages. If prior findings hold, we should find greater instability for second marriages. However, we expect to find support for the *learning hypothesis*, once we solve the problem of unobserved heterogeneity. By using fixed-effects regression models, we compare the same individuals over time and therefore control for time-constant traits of persons who experience union disruption. We argue that people learn from their past experiences and do things better the second time around. This study further expands the knowledge about union stability because we compare dissolution risks of first, second and higher order marital or cohabiting unions. Furthermore, by taking into account also people who experienced cohabitation first and marriage later on, we provide answers that previous studies on premarital cohabitation could not offer, as they have only tracked cohabitants who then marry the same partner.

To test our hypothesis, we use data that trace the trajectory of individual partnerships over life. The Gender and Generation Survey investigates retrospectively over partnership biographies. In particular, the data used in the following are from 8 countries, namely Bulgaria, France, Georgia, Germany, Hungary, Romania, Russia and The Netherlands. The entire sample consists of over 50,000 relationships – cohabitations and marriages – from over 40,000 respondents. For the central analysis, we use only respondents with at least two marriages which reduces the sample under investigation to approximately 2,000 respondents (descriptives of the different samples are given in the paper). Only these respondents constitute the sample for the within-estimation. By using within-estimation techniques, we account for self-selection and test whether the differences in relationship stability found by previous research were actually determined by a problem of unobserved heterogeneity. The statistical method we use for the analysis of the duration of a relationship is Cox-regression (Cox, 1972). We are interested in the determinants of the hazard rate *r*:

$$r(t \mid x) = r_0(t) * e^{\beta_1 x_1 + \ldots + \beta_p x_p} .$$

The hazard rate provides us with a measure of the stability of relationships. In the semi-parametric model, the base rate r_0 is not estimated, thus avoiding parametric assumptions.

Simple between-subject analysis suffers from unobserved heterogeneity (for a discussion, see Beck et al., 2008; Yamaguchi, 1986). To overcome this problem, we use fixed-effects methods, which have been also applied to the Cox-regression by Allison (2005). The intuition behind this within-estimation technique is the assumption of individual hazard functions. Therefore, we compare only episodes of one person. Doing this, time-constant, unobserved characteristics are taken into account and do not bias the estimation of the coefficients of interest. Technically, the Cox-regression is estimated as a stratified model with the individuals as different strata. Variables of interest in the analyses are duration of partnerships, subsequent partnerships and number of partnerships as a proxy for divorce-„proneness“. We control for the number of children of both the partners from previous and current relationships, the age at marriage and cohabitation prior to the marriage with the respective partner or with another partner.

The analyses are very straightforward: the duration of a subsequent marriage/partnership in comparison to the first one is tested by a dummy variable. Table 1 shows the coefficients of the three model specifications (negative values indicating more stable relationships): Model 1 is the analysis of all relationships in the data set, using the “traditional” pooled approach, Model 2 is the fixed-effects model and Model 3 is an attempt to control for an important unobserved characteristic, the “divorce proneness” mentioned above. We use the total number of partnerships in the entire biography as a proxy for this trait.

By using “traditional” analysis (meaning between-estimations), we are able to replicate previous findings on the instability of subsequent marriages, as the positive coefficient suggests (Model 1). The application of within-estimation analyses however, including only persons with at least two marriages, clearly shows that subsequent relationships are more stable than first ones (Model 2). As in the previous model, in Model 3, the coefficient of instability is negative, indicating more stable subsequent marriages. This confirms the “learning hypothesis”. However, such coefficient is not as strong as in Model 2, possibly due to the imperfect proxy variable. This demonstrated mechanism holds in every single country of the dataset (not shown).

The paper analyzes additionally further determinants of martial stability and cohabitation as a type of relationship which offers an alternative to marriage. It discusses duration of cohabitation as well as cohabitation as determinant of marital stability. Furthermore, limitations of the study are discussed and tests of robustness are shown.

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Tables and Figures

Table 1: *Different Model Specifications of Cox Regression on Duration of Marriage*

	Model 1		Model 2		Model 3	
	Pooled Cox-regression		FE-Cox-regression		Pooled Cox-regression	
First Marriage	(ref.)		(ref.)		(ref.)	
Subsequent Marriage	0.525	(9.16)**	-2.262	(-17.52)**	-1.160	(-8.81)**
No. of relations					1.408	(24.31)**
Episodes (censored)	51,055	(42,153)	4,102	(1,439)	51,055	(42,153)
Respondents	48,296		1,983		48,296	
Wald/LR χ^2	372.62		1358.92		850.18	

Source: GGS, authors´ calculations.

Notes: *t* statistics in parentheses; * $p < 0.05$, ** $p < 0.01$. Beta coefficients, z-values in parentheses. Coefficients of the following variables omitted from the output: "age at marriage", "cohabitation before", "months of cohabitation prior to marriage", "child with other partner".