Partnership transformation in three former socialist countries: Romania, Bulgaria and Hungary. Effects of non-marital childbearing

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- First Draft -

Introduction

There is an important body of literature that documents the inter-relations among family-building behaviours. In their comparative study, Perelli-Harris and collaborators (2009) document a great variation across European countries in terms of partnership transformation between first conception and first birth: women from northern countries are the most persistent in their non-marital living arrangements, with highest shares of children born in consensual unions. Several eastern, former socialist countries show a more traditional behaviour, in the sense that the non-marital living arrangements (single or cohabitation) are transformed before or soon after the birth of the child, because marriage continues to be the preferred context for childbearing and childrearing.

The aim of this paper is to study the transformation of consensual unions and the role of conception/childbirth in this process. We want to deepen the investigation of how pregnancy or birth in a consensual union or before it influence the transformation of the partnership, either in form of marriage or in form of separation, controlling at the same time for other factors that might be important in the process. We choose to compare three neighbouring former socialist countries, namely Romania, Bulgaria and Hungary, to see how far similarities go and when differences appear. On the one hand, the choice of countries is motivated by the similarities found by Perelli-Harris and associates (2009) for eastern European countries. By the other hand, these countries shared a similar background associated with socialist regimes, although they have different cultural and social history, as well as different socio-economic transitions to democracy and market economy.

Literature review

During the last decades, the share of births outside marriage increased all over Europe, especially in form of births within cohabiting unions (Kiernan 2004a, Thomson 2005, Musick 2007). Nevertheless, pregnancy remains a key factor that accelerates marriage (Berrington 2001, Blossfeld and Mills 2001) and the effect of fertility on the transition from cohabitation to marriage has been found to be strongly time-dependent. Some earlier studies (Blossfeld et al. 1993, 1996 for Germany and the Netherlands) found that the rate of entry into marriage from cohabitation increases strongly as soon as a woman became pregnant, but the rate decreases sharply if the couple didn't marry soon after the childbirth (a six months period). Mills and Trovato (2001) calculated monthly transition rates to marriage in Germany, Canada, Latvia and the Netherlands and documented the

time dependent effect of fertility on the transformation of cohabitation into marriage as well. Berrington (2001) found that marriage rate of cohabiting women is particularly high in the second and third trimester of the pregnancy, and then falls again for women who did not marry before the birth of the child. Steele et al. (2005, 2006) have also shown that when the couple expects a child, the odds of marriage increase, but fall after the childbirth. Manning (2004) documents for the U.S. that conception during cohabitation increases the chance of marriage.

In their paper from 2001, Blossfeld and Mills offer, besides the statistical interpretation of the time-dependent fertility effects on the transition to marriage from cohabitation, a substantive explanation as well. They stress that there are two different possible situations at the time when a pregnancy is discovered: the partner's preferences toward marriage are diffuse and vague, or a decision regarding marriage is already taken. Blossfeld and Mills (2001) argue that in case of diffuse marriage preferences, a negotiation process is taking place and marriage preferences are about to form or to change, a process that is highly time-structured. The social norms about the accepted/preferred context for childbirth play an important role in this stage. The optimal time for marriage, in terms of visibility of the pregnancy to other people, is in early phase of the pregnancy. But women need 1-2 months to acknowledge the pregnancy, and that is why the highest rated are after the first semester of pregnancy. After the childbirth the rates are low, since the child is already illegitimate and the time pressure for marriage disappeared (Blossfeld and Mills 2001). A different situation is when the couple has already reached a decision about marriage before the discovery of the pregnancy, and that is why most of the recent studies on the inter-relations between fertility and marriage model the two processes simultaneously and account for unobserved heterogeneity (Steele et al. 2005, Baizan et al. 2004, 2005).

The rate at which cohabitant women marry following a pregnancy is an indication about the extent to which cohabitation is an alternative or a precursor to marriage (Berrington 2001, Musick 2007). Musick (2007) argues that cohabiting couples with children are similar to married couples with children regarding several aspects, such as the presence of two parents who share parenthood tasks, domestic chores and resources. But there is an important body of evidence that indicate that cohabiting unions are less stable than marriages and the patterns of parenting and sharing of resources are different (as noted by Musick 2007 based on the literature reviewed).

Researchers have documented the effects of conception or birth on union dissolution, too. Since the literature suggest that marriage and cohabitation differ in a number of aspects, the effect of children on cohabitation stability might be different than the effect on marriage stability. Children tend to create stress in a relationship and cohabiters might be less able to cope with such situations and therefore the protective effect of children to be weaker on cohabitation than on marriage (Wu 1995). Nevertheless, conception during cohabitation decreases the risk of separation (Manning 2004, Steele et al. 2005). Effects of children born within cohabitation on the risks of union dissolution are not uniform across countries or cohorts. Wu (1995) and Steele et al. (2005) found that having (young) children together reduces the risk of separation for a cohabiting couple, while Berrington (2001, for UK) found that the presence of children born within the partnership had no effect on the rate of separation, compared with women with no children, and Manning (2004, for US) showed that having a child during

cohabitation or conception before cohabitation shows no effect on separation risk. Wu and Musick (2008) interpret their findings that the ordering of cohabitation, marriage and childbirth does not influence the union stability as an indication that couples plan marriage and childbearing jointly.

Other characteristics
The spread of cohabitations and of non-marital childbearing have often been connected with the manifestations of the second demographic transition. Higher education is a central element of the second demographic transition: Lesthaeghe and Surkyn (1988) found that education was positevely associated with values such as nonconformism, permissiveness in personal matters, post-materialism, protest-proness etc., as well as with non-traditional family forms. A high level of education, especially prolonged education, constitutes a mechanism for value change and for the emergence of childbearing within consensual unions (Perelli-Harris şi Gerber, 2011). One can consider education as a proxy for certain socio-economic desadvantages (association between procreation within cohabitation with low education), or, on the other hand, as a proxy for the degree of adopting new behaviours associated with the second demographic transition (association of procreation within cohabitation with high education) (Perelli-Harris and Gerber 2011). Regarding educational enrollment, students show lower risks of transfroming cohabitation into marriage and higher risks of separation (Berrington 2001).

Researchers found effects of other socio-economic or backgropund characteristics on the transformation of cohabitation into marriage or union dissolution. Older ages at cohabitations are related to increased odds of marriage and decreased odds of separation (Manning 2004).

Data and method
We use for our investigation the datasets of the Generations and Gender Survey, which are available via UNECE. The survey's retrospective design allows the reconstruction of partnership and fertility histories for a large number of women and the life course approach of partnership transformation. Unlike in cross-sectional approach, each individual biography is viewed as a complex process, and we are able to investigate how a particular event from someone's life can influence his/her subsequent life course and how certain characteristics can influence an individual to adopt behavioral patterns that differ from those of other individual (Courgeau and Lelievre, 1992; Courgeau, 2007).

Our focus is on first time cohabiting women, and our dependent variable is the (first) partnership transformation, which could be marriage or separation, which we treat as two competing risks. We construct piecewise constant exponential event history models, where the baseline hazard is the time elapsed since entry into first cohabitation until marriage or separation (in other words, duration of cohabitation in months). Given that we study first cohabitation transformation and the effect of the first conception/birth, we choose to stop the process time at 10 years after union formation.

The covariate of most interest for us is the *pregnancy-and-parity status*, which is time-varying and captures both conception/birth before and during the first cohabitation. It has the following categories: "not pregnant", "pregnant, first 3 months", "pregnant, 4-9 months", "with child, less then 1 year old", "with child, older than 1 year",

"conception/birth before cohabitation". We do not differentiate between conception and birth of the child before the cohabiting union because of the small number of cases in these categories. This covariate was build with the assumption of the time-dependent fertility effect on transition to marriage (Blossfeld and Mills 2001). We expect that being pregnant to increase the risk of transforming the cohabiting union into marriage, and the risk to decrease after the child's birth. We also expect that conceiving or giving birth to a child before the union formation to increase the risks of cohabitation dissolution.

Another covariate in our analysis is *age at start of the union*, a time-constant covariate with the following categories: below 20, 20-24 years, 25-29 years, and 30 and above. We want to see how the normative pressure to legitimize the relationship before the birth of the child varies with women age at the union formation, and we expect the pressure to be higher for younger ages.

Since all three countries have experienced the socialist regime before 1990 and the transition to a democratic political regime and market economy after, we introduce in our models a covariate accounting for the *calendar period*. We distinguish among three periods: before 1990 (socialist years), 1990-2000 (transition period), and after 2000 (considering that the transition has finished and the capitalism consolidated), periodization suggested by Muresan (2012, forthcoming). We want to see whether the normative pressure toward formal marriage as the proper context for giving birth and raising children has changed over time, and we expect to be weaker after the change of the political regime in 1989.

Since previous studies about cohabitation and non-marital childbearing emphasized the importance of women's education, we introduce a time-varying covariate accounting for woman's *educational enrolment and attainment*. First wave of Generations and Gender Survey did not registered completed educational histories, but only the highest educational attainment, at the moment of the interview, and the date when this level was attained. For the construction of this covariate, we followed the approach of Hoem and Kreyenfeld (2006) and Mureşan and Hoem (2009) for data with no complete educational histories, assuming that the respondent was enrolled in education all the time before they attained the level reported at the interview, and continuously out of education (with the reported level attained) between the date of attainment and the interview. We constructed a time varying covariate which combines educational enrolment and educational attainment, with the following categories: enrolled in education; not enrolled, low educational attainment (pre-primary, primary and lower-secondary education); not enrolled, medium educational attainment (upper-secondary and post-secondary non-tertiary education) and not enrolled, high educational attainment (tertiary education).

In connection with previous discussions in the literature about the characteristics of cohabitation and non-marital childbearing (Perelli-Harris and Gerber 2011), we want to see whether better educated women are less prone to legitimize their union once a child is conceived (as an expression of the second demographic transition), or rather less educated women are more likely to persist in their non-marital union even after a child is conceived or born.

We first run completely multiplicative models for each country, and then build model interacting the pregnancy-and-parity status with woman's current educational

status. We want to see whether the effect of childbearing within or before cohabitation union differs by education.

Results

We dropped from the original sample the women of Roma ethnicity. Their small number would distort the final results, given that the boundaries between consensual union and marriage are overlapping for Roma persons.

The Romanian study sample contains 981 women first time cohabiting, with 759 marriages and 83 separations. The Bulgarian sample consists of 2970 first time cohabiting women, with 2508 marriages and 99 separations, and the Hungarian sample consists of 1133 first time cohabiting women, with 463 marriages and 321 separations.

Transition from cohabitation to marriage

In all three countries, cohabitation transformation into marriage is most intense during the first three years of union. Bulgaria shows the highest rate of transformation, while Hungary the lowest.

Figure 1. Transition from cohabitation to marriage by union duration, with separation as competing risk
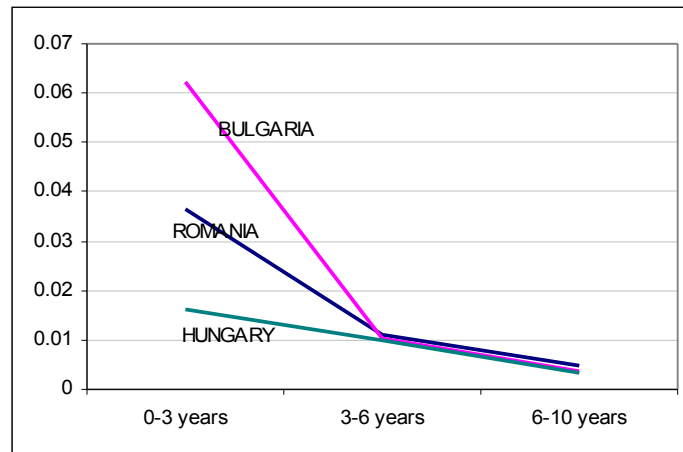
Source: Generations and Gender Survey 2005, author's calculations.
Note: controlled for pregnancy-and-parity status, age at union formation, calendar period and current educational status

The effect of pregnancy-and-parity status is as anticipated, for all countries. Being pregnant strongly increase the risks of transforming the cohabiting union into marriage, the strongest effect being found in Hungary (being pregnant inflates the risks by 3.39 and 5.13 times, respectively). After the child is already born, the risks of marriage with the cohabiting partner decrease in all countries, most strongly in Bulgaria (decreased by 67% and 78%, respectively). Only in Bulgaria there is a positive effect of childbearing before the union on the transition to marriage.

A higher age at union formation lowers the risks of transforming the union into marriage. In Hungary there is also a positive effect of starting the union at young age on the transition to marriage. In all three countries the period after the fall of the socialist regime means lower propensity to transform the cohabiting union into marriage. In

Romania the effect of transition from socialism to democracy has a moderate effect, compared with other two countries.

In Romania and Bulgaria, women that are enrolled in education and women that completed medium or higher education are more prone to transform their union into marriage, compared with low educated women. These are signs that cohabiting unions in these countries are not alternatives to marriage chosen by highly educated persons (as the second demographic transition theory would argue), but a precursor to marriage. In Hungary there is no effect of woman's current educational status.

Table 1. Results of event history model, transformation of first cohabitation into marriage, with union separation as competing risk

		Romania		Bulgaria		Hungary	
		Relative risks					
Duration of cohabitation (absolute risks)	0-3 years	0.036597		0.062118		0.016128	
	3-6 years	0.011072		0.010261		0.009942	
	6-10 years	0.004862		0.003694		0.003462	
Pregnancy and parity status	Not pregnant	1		1		1	
	Pregnant, first 3 months	1.47	***	1.92	***	3.69	***
	Pregnant, 4-9 months	1.51	***	1.97	***	5.13	***
	With child, les then 1 year old	0.75	*	0.33	***	0.42	**
	With child, older than 1 year	0.71	**	0.22	***	0.62	**
	Conception/birth before cohabitation	0.86		1.25	***	1.06	
Age at union formation	Before age 20	1.14		0.96		1.39	***
	20-24 years	1		1		1	
	25-29 years	0.77	**	0.62	***	0.70	**
	30+	0.49	***	0.33	***	0.43	***
Calendar period	Before 1990	1		1		1	
	1990-2000	0.79	***	0.30	***	0.54	***
	After 2000	0.31	***	0.08	***	0.07	***
Current educational status	Enrolled in education	1.41	***	1.53	***	0.64	
	Low education	1		1		1	
	Medium education	1.50	***	1.91	***	1.06	
	High education	1.62	**	1.66	***	0.94	

Source: Generations and Gender Survey 2005, author's calculations.
Note: *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

Now we want to see how the effect of the main covariate – pregnancy-and-parity status – varies by education. We constructed a combination factor that accounts for possible situations regarding pregnancy-and-parity status and educational enrolment and attainment (Figure 2). In Romania, it seems that a pregnancy hastens the marriage only in case of higher educated women. In case of low educated women, the risks of marriage do

not change when the woman becomes pregnant or when the child is already born. This indicates that cohabitation in Romania is a stage in the marital process for higher educated women, and an arrangement of necessity or a "poor people marriage" in case of low educated women, who persist in their non-marital living arrangement even when a child is conceived or born.

For Bulgarian women there are more similarities in the effects of pregnancy-and-parity status on the transition to marriage across educational groups, with the low educated being rather immune to the effects of a pregnancy or birth.

In Hungary, being pregnant has a strong effect on the transition from cohabitation to marriage for all educational groups, most powerful in case of women enrolled in education. In other words, when a woman enrolled in education cohabits and gets pregnant, the chances to transform the cohabitation into marriage before the birth of the child are the highest, compared with women who completed their studies.

Risks of cohabitation transformation into marriage once the child is born are low for all countries and for all educational groups, except for higher educated women in Romania. When a pregnancy or a child is involved, high educated Romanian women transform their consensual union into marriage.

Figure 2. Relative risks of transforming the first cohabitation into marriage, by pregnancy-and-parity status and current educational status, with separation as competing risk
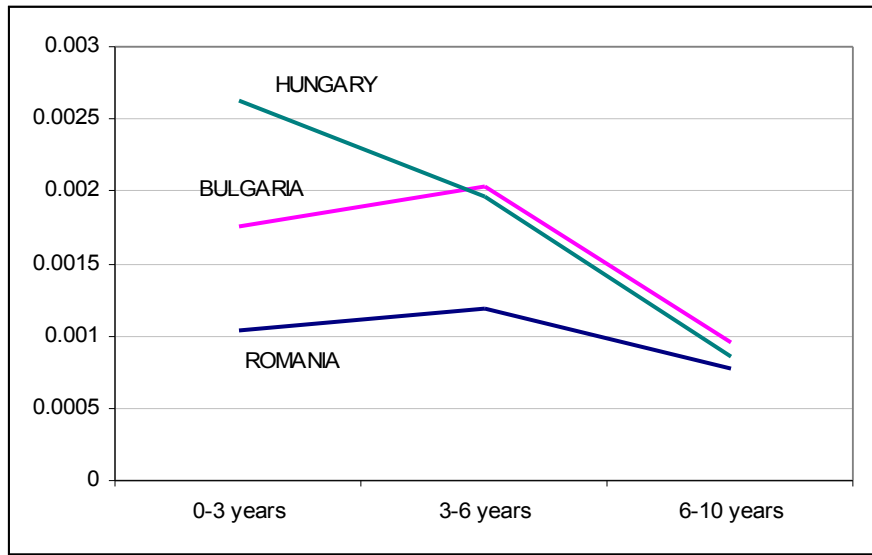
Bulgaria
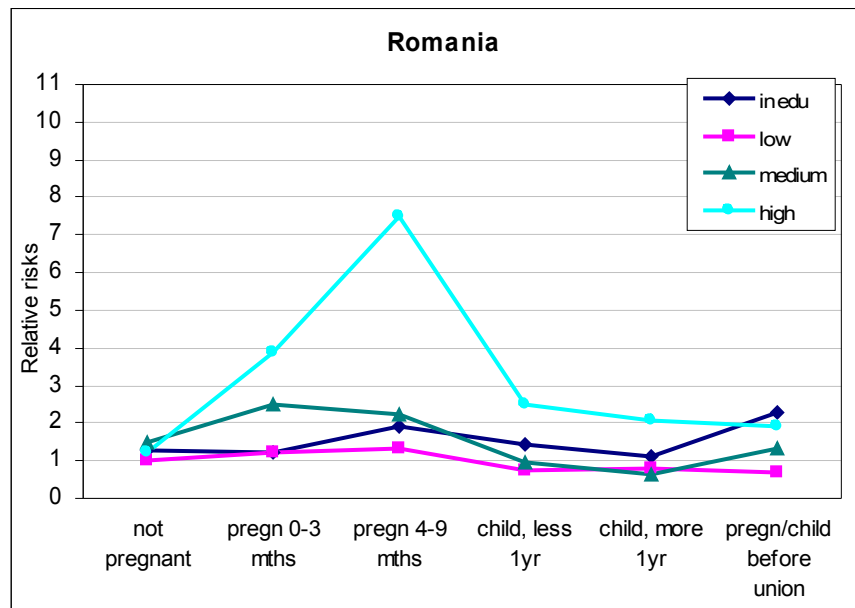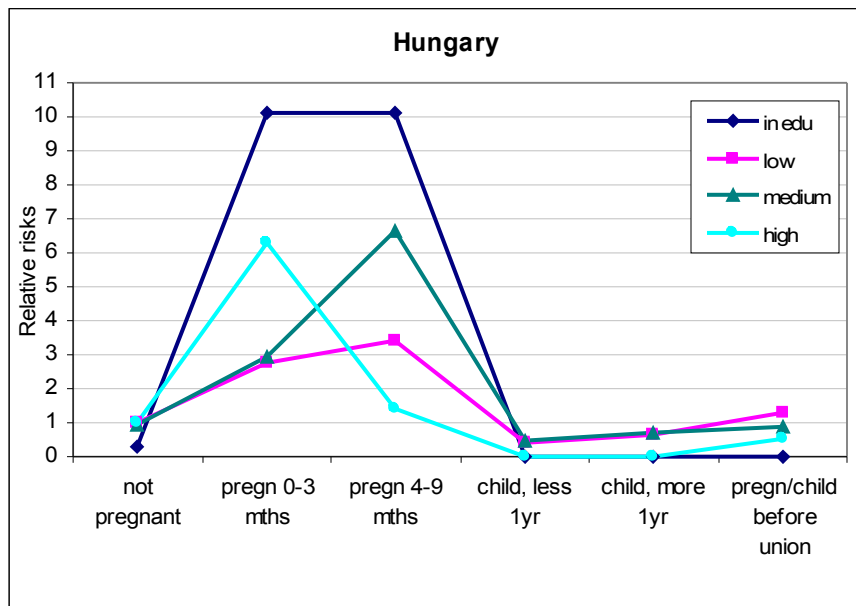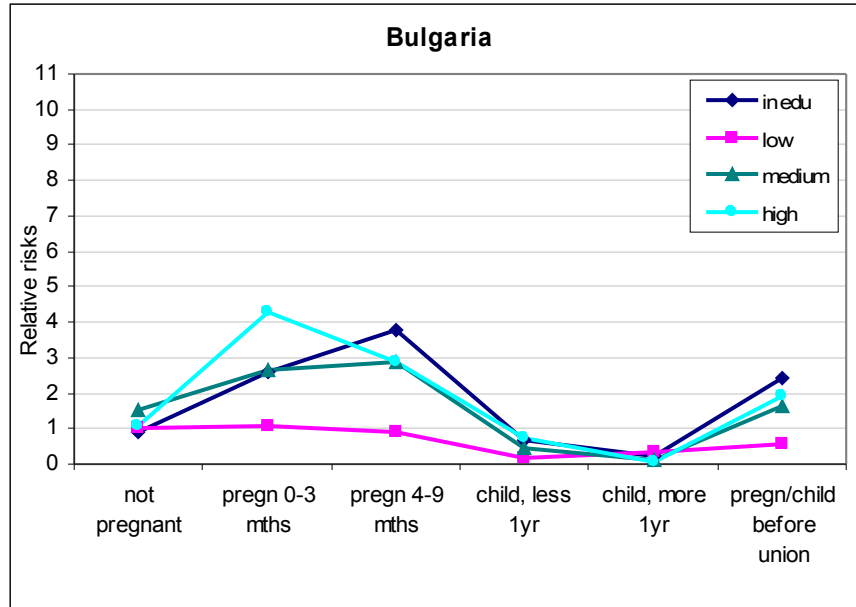
Hungary

Source: Generations and Gender Survey 2005, author's calculations.
Note: controlled for duration of cohabitation (baseline), age at union formation and calendar period.

Dissolution of cohabitation

Hungary shows the highest intensity of union dissolution and a different pattern by union duration than Romania and Bulgaria. The highest risks of dissolution in Hungary are during the first three years of cohabitation, while in Romania and Bulgaria the highest risks are at duration 3-6 years. For all countries the dissolution risks are lowest at longer durations of cohabitation.

Figure 2. Dissolution of cohabitation, by union duration, with marriage as competing risk

In terms of pregnancy-and-parity status, conceiving and giving birth to a child while in consensual union in Romania increase the risk of separation, compared with non pregnant women. The effect is stronger when the child is very small (below one year), when conflicts generated by the inequity in childcare are most frequent. Having conceived or born the child prior to union formation does not show an effect on the risk of separation. In Bulgaria, the only statistically significant effect of this covariate is for women who conceived and gave birth during cohabitation and the child is older than one year, who show reduced risk of separation. These women also showed low risks for transforming the consensual union into marriage (Table 1), so women who conceived and gave birth while in cohabitation and did not married in the first year of the child's life would rather continue the non-marital living arrangement. In Hungary, besides the increasing risk of separation while the child born within cohabitation is less than one year old, we found that a pregnancy also increases the risks of separation.

Educational attainment has an effect on separation risks only in Romania and Hungary: medium or higher education visibly increases the dissolution risks; in Hungary women enrolled in education show even higher risks of dissolution. Current educational status shows no effect on cohabitation separation in Bulgaria. Young age at union formation increase the dissolution risk only in Romania and Hungary.

Table 2. Results of event history model, dissolution of first cohabitation, with marriage as competing risk

		Romania		Bulgaria		Hungary	
				Relative risks			
Duration of cohabitation (absolute risks)	0-3 years	0.001038		0.00176		0.002624	
	3-6 years	0.001195		0.002035		0.001956	
	6-10 years	0.000776		0.000957		0.000859	
Pregnancy and parity status	Not pregnant	1		1		1	
	Pregnant, first 3 months	0.00		0.68		2.16	**
	Pregnant, 4-9 months	1.80		1.44		2.02	**
	With child, les then 1 year old	3.01	***	1.53		1.71	**
	With child, older than 1 year	1.74	*	0.55	*	0.79	
	Conception/birth before cohabitation	1.13		0.90		1.07	
Age at union formation	Before age 20	2.00	**	0.86		1.40	**
	20-24 years	1		1		1	
	25-29 years	0.80		0.81		0.78	
	30+	1.33		0.79		1.37	
Calendar period	Before 1990	1		1		1	
	1990-2000	1.34		1.98	***	1.61	***
	After 2000	0.90		0.18	*	1.24	
Current educational status	Enrolled in education	0.69		0.81		2.58	***
	Low education	1		1		1	
	Medium education	1.65	**	0.84		1.70	***
	High education	2.59	*	0.81		1.75	**

Source: Generations and Gender Survey 2005, author's calculations.
Note: *** significant at 1% level; ** significant at 5% level; * significant at 10% level.

Conclusions

For all three countries the effect of childbearing in cohabitation on the partnership transformation is as documented previously in the literature. Becoming pregnant during cohabitation increase the rate of transition to marriage, but if the child has already been born, the chances to marry decrease. The effect of childbearing on union dissolution is not as uniform across the three countries. Having a child conceived and born within the cohabitation increase the risks of union dissolution in Romania, while in Hungary the effect exists only for small children (below one year). In Bulgaria, the effect of children differs; there, having a child older than one year decrease the risk of separation.

Interacting pregnancy-and-parity status with current educational status gives us more information about the pressure to legitimize cohabiting unions in case of a pregnancy. It is clear in Romania that low educated women persist in their non-living arrangement even after conceiving a child, while better educated (especially higher educated) women legitimize their unions before the birth of the child. This indicates that in Romania the childbearing within cohabitation is not a manifestation of the second demographic transition. In Bulgaria, the pressure to legitimize the unions before the birth

of the child is weakest for low educated women, too. In these two countries, marriage is seen as the proper context for giving birth and raising children mainly by better educated women. In Hungary, conception within cohabitation increase marriage rates for all educational categories, but especially for women enrolled in education.

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