Twice chosen: Spouse matching and earnings among women in first and second unions

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ABSTRACT

This study examines spouse matching for females in second order marriages or cohabiting relationships. It is based on detailed data from longitudinal Swedish population registers. We follow women who marry, divorce, and subsequently remarry compared to women who marry and remain married over the course of the study interval. The earnings of both groups, along with the earnings of their respective husbands, are modeled on the basis of data in the year prior to their marriages. From the regressions we obtain spouse-to-be pairs of earnings residuals and measure the correlation between spouses within each marital regime. Overall, we find significant positive residual correlations for both sample partitions. The correlation is smaller for the first of two marriages for women who divorce than for women who marry and remain married. For the second of successive marriages, however, the correlation is larger than that for women who marry but once. Also for twice-married women, we find evidence of matching between successive husbands. Women who marry men with unmeasured positive earnings capacities, in the event of divorce, tend to select and match in a similar fashion the second time around.

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1. Introduction

In the final decades of the twentieth century, many Western countries witnessed marked changes in the frequency of marriage and marital dissolution. In the United States, the numbers of marriages per 1000 population aged 15–64 were 15.9 in 1980, 14.9 in 1990, and 12.5 in 2000. The corresponding numbers of divorces were 7.9, 7.2, and 6.2. In Sweden, the focus of this study, rates of marriage were 7.1 in 1980, 7.4 in 1990, and 7.0 in 2000; the comparable rates of divorce were 3.7, 3.5, and 3.8, respectively.[1]

These phenomena occurred at the same time social scientists developed interest in determinants and consequences of marital formation and divorce. Economists have devoted attention to the effects on marriage of labor force outcomes such as employment and earnings. Viewing marriage as an institution in the context of markets, Becker (1974, 1981) and subsequent researchers focused on factors that tend to match individuals as spouses. A natural outgrowth of that endeavor was research concerning determinants of separation and divorce, as exemplified by Becker, Landes, and Michael (1977). These early studies are followed by a large volume of research on marital matching and determinants and consequences of divorce.

Accompanying the trend in marital disruption is pervasive incidence of remarriage; a substantial proportion of individuals who end their first marriages tend to enter subsequent unions. The remarriage phenomenon

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[1] Statistical Abstract of the United States, 2012: Table 1336.

has stimulated research to delineate socioeconomic factors and individual characteristics that explain formation of second marriages. Early examples in this literature include Thornton (1978), Hutchens (1979), and Wolf and MacDonald (1979). What has been largely unexplored in remarriage literature is the phenomenon of second-spouse matching and how it compares to first-marriage matching. An exception is Mueller and Pope (1980), who compare occupational status among successive husbands of twice-married women.

Aside from these papers, the literature is silent on partner matching in second unions. This study examines spouse matching in second order marriages and cohabiting unions of females. It exploits longitudinal data registers from the Swedish population, which are compiled by Statistics Sweden and the National Tax Board of Sweden. We follow a large sample of marriages between 1990 and 2003. For women who first marry, then dissolve their marriages and subsequently enter into second marriages, we examine the statistical anatomy of successive matches. Our particular interest, as described in Section III below, is matching of spouses on the basis of unmeasured determinants of earnings, which manifest themselves in residuals from estimated earnings equations. These estimates are based on pairings of females with their respective first husbands and, later in the longitudinal file, with their second husbands. Because the data follow all spouses back to years preceding marriage, we examine matching in its true retrospective sense, *i.e.*, prior to the formation of each marriage. This "back to the future" feature of the data has previously been exploited by Nakosteen, Westerlund, and Zimmer (2004), who restrict their attention to first marriages. Accordingly, for purposes of comparison, in the empirical analysis we also present estimates for a separate sample of once-married women.

Although the principal contribution of this research is to provide insight into the *a priori* matching process of a given female with two successive husbands, it also creates an opportunity to examine the matching process that unites husbands. Although the husbands clearly do not choose one another in the marriage market, the phenomenon that links them is their common selection by the same female at two different points in time. The sample design of this study is unique in facilitating analysis of the extent, if any, to which this indirect matching of successive husbands is present in the process of remarriage.

2. Theoretical considerations

Economic models of the marriage market ascribe to partners the intention to maximize the lifetime value of their marriage. According to Becker (1981), individuals of superior productivity tend to marry one another and are compensated for their higher productivity. As a consequence, outcomes in the marriage market tend to produce a matching of traits. In Becker's framework, spouses reinforce one another in traits that are complementary within the family and offset one another in traits that are substitutes. Becker suggested that this optimizing behavior would pair high-wage males, whose productive advantages are in the labor market with low-wage females,

whose advantages are in home production. In that way the time of wives at home complements that of husbands at work. Lam (1988), on the other hand, pointed out that many gains from marriage result from the family's joint consumption of goods purchased in the market. If those gains offset the advantages from respective specialization of husbands and wives in market employment and the home, then high-earning spouses tend to match with one another. Resolution of these conflicting hypotheses is a useful empirical issue.

This study addresses matching in second unions on the basis of earnings traits that are not directly measured. To a certain extent it is natural to observe correlation in spouses' *measured* earnings. It is well known that individuals marry persons similar to themselves in education and age. Schooling in turn correlates closely with earnings, and spouses accumulate work experience as they age together. In addition, they share lifestyles and some health outcomes, and they experience the consequences of similar regional labor markets. As a matter of course, then, their earnings are correlated in a manner that is not reflective of matching at the time the unions were formed. Recognizing this, most studies attempt to capture unmeasured factors that determine earnings. This approach is used by Van der Klauww (1996), who studies marriage decisions of females. The model assumes that unmarried women confront a marriage decision each period. At the time of her choice, a woman knows her potential husband's actual current earnings as well as information that she uses to forecast his expected future earnings. In Van der Klauww's model, the forecast is generated from a regression equation based on current data.

In a similar spirit, most studies measure marital matching in a multivariate context. Becker (1981) estimates partial correlations of spouses' wages that control for age and schooling. Smith (1979) uses residuals from spouses' wage regressions, where controls include schooling, experience and region. Other studies that use variations of the residual approach include Behrman, Birdsall, and Deolalikar (1995) and Zimmer (1996).

As noted in the previous section, the literature has devoted scant attention to matching of partners in second unions. What is clear about second unions is that they occur after first unions that dissolved. The implication is that the first union had elements of a mismatch, and it is reasonable to assume that individuals experience a degree of learning from the experience. The premise of this study is that learning from the first dissolution manifests itself in two respects in the second union for those who experience a second match. First, individuals, having learned from their first unions about the economic dimension of matching process, might show a greater degree of discernment in the second match. That would suggest stronger matching on the basis of unmeasured earnings characteristics in second unions. A second factor, however, might produce an offsetting effect. Partners who experience dissolutions might find a diminished pool of potential partners in a second match. That would happen, for example, if the partners have children from the first unions, which can diminish their attractiveness to potential second partners. In any case, this is a useful item for empirical resolution.