



Explaining the gap between the theoretical prediction and experimental evidences about the investment in the spouse's human capital

Xuemei Liu*

California State University, Long Beach, Department of Economics, 1250 Bellflower Blvd., Long Beach, CA 90840, United States

ARTICLE INFO

Article history:

Received 17 February 2008

Received in revised form 9 December 2008

Accepted 7 February 2009

JEL classification:

J12

Keywords:

Investment
Human capital
Risk of divorce
Spiritual goods
Altruistic

ABSTRACT

Economic theory that assumes personal income maximization predicts that a wife will under invest in her husband's human capital. However, casual observation of real life marriages and experimental evidences show that outcomes are more efficient than the theoretical prediction. This paper argues that the gap between the theoretical prediction and experimental evidences is due to inappropriate assumptions in the theory. That is, the bias in the theoretical prediction is caused by the neglect of the non-material factors that play crucial roles in marriage and the neglect of the fact that individuals may behave altruistically in marital decisions.

© 2009 Elsevier Inc. All rights reserved.

1. Introduction

If maximizing personal income is regarded as the only motivation for an individual to invest in her or his spouse's human capital (for example, medical degree), then inefficient outcome will be concluded. A man would have an incentive to leave his wife after his wife has financed or supported his lucrative specialist education to reap the benefits from enhanced earnings capacity and, therefore, a clever wife would invest in her own human capital rather than investing in her husband's (Landes, 1978; King, 1982; Dufwenberg, 2002; Oosterbeek et al., 2003). In that case, both the husband and wife are worse off than if the wife invests in her husband's human capital. However, the inefficient outcome predicted by the theory is not compatible with casual observation of real life marriages and experimental evidences. Experimental studies resembling the investment in the spouse's human capital show that the outcomes are more efficient than the theoretical prediction (Berg et al., 1995; Fdhr et al., 1997; Dufwenberg and Gneezy, 2000; Oosterbeek et al., 2003).

The theoretical analysis presented in this paper shows that the gap between the theoretical prediction and experimental evidences is due to inappropriate assumptions in the theory about maximizing personal income. Investments in the spouse's human capital are like business investments in the sense that they have material

returns and are not risk-free. But they are different from business investments in the sense that marital investments are unavoidably influenced by love and other non-material (emotional and spiritual) factors that make marriage different from business partnerships. In many marriages, wives invest in their husbands' human capital not only because they expect material return, but also because they love their husbands and intend to keep and improve the love relationships through the investments or simply because they want their husbands to be better off. Since non-material factors play an important role in marital decisions, neglecting non-material factors in the analysis of marital decisions is likely to lead to a biased, or even wrong, conclusion.

The neglect of emotions in economic studies is typical (Elster, 1998). Dufwenberg (2002) argues that although the assumption that the spouses are motivated solely to maximize personal income is often accepted in economics, it needs to be appended. Gunning (1984) argues that it is not reasonable to assume that each partner seeks to maximize his or her income because partners want to exchange. Thus, a better analysis on the investment in the spouse's human capital requires that the non-material motivations being taken into account.

Dufwenberg (2002) incorporates psychological guilt in a marital investment game and shows that if the payoffs reflect the spouses' personal incomes only, low marital investment will result. However, if the husband is sensitive to guilt, high marital investment and a life-long marriage could possibly result. Although Dufwenberg focuses on the impact of guilt on marital investment and abstracts from all other issues, he points out that marital investment may

* Tel.: +1 562 985 4832.

E-mail address: xliu2@csulb.edu.

be influenced by emotional or other motivational concerns besides guilt, such as companionship, esteem for spouse, erotic ties, and love. These non-monetary considerations have been emphasized by sociologists but seldom touched upon by economists.

In order to incorporate non-material (emotional and spiritual) factors into the analysis of the investment in the spouse's human capital, I use the "material–spiritual goods framework" developed by Liu (2008), which can capture the non-material factors in marriage and disentangle non-material motivations from material motivations. I will show that the level of investment in the spouse's human capital is higher if non-material factors are taken into account than in the case where only personal income is maximized.

Another problem of assuming maximizing personal income is that this assumption implies that individuals are self-interested in making marital decisions. Although individuals are self-interested, they may behave altruistically in the family because of love and other spiritual and emotional factors. Altruistic behavior in marriage has been modeled in different ways in the economic literature. In Samuelson's consensus model (1956), each partner has an individual utility function that depends on his or her private consumption, but the two partners agree to maximize a consensus social welfare function of their individual utilities subject to a joint budget constraint. In Becker's altruist model (1974, 1981), if the husband cares about the wife, then the wife's commodity consumption enters the husband's utility function. In the collective model (e.g. Bourguignon and Chiappori, 1992; Browning and Chiappori, 1998; Chiappori et al., 2002), altruistic family member's utility depends on both partners' consumption and the family maximizes the household utility function that depends on each member's utility, whereas egotistic member's utility depends on his or her own consumption and he or she maximizes his or her own utility subject to a sharing rule.

To explore the consequence of the assumption about self-interested behavior, I will first study the investment in the husband's human capital motivated by the wife's self-interests, and then study the investment motivated by altruistic interests. Comparing the two cases, I find that an altruistic wife will surely invest more in her husband's human capital than a self-interested wife.

The risk of divorce is an important factor in the investment in the spouse's human capital, because the investment would be efficient if the risk does not exist. The risk of divorce is treated as an exogenous factor in the related literature (King, 1982; Lommerud, 1989; Rea, 1995). I treat the risk of divorce as an endogenous variable because the risk increases with the level of the spouse's human capital. A husband has an incentive to leave after his wife has financed or supported his lucrative specialist education (Allen and Brinig, 1998; Dufwenberg, 2002). This positive relationship may be due to opportunistic behavior, or may be due to the fact that individuals' preferences are likely to change after their income and social status increase. Another reason that I treat the risk of divorce as an endogenous variable is that the husband and wife can, although may not fully, control the risk through their effort. The wife who invests in her husband's human capital may manage to reduce the risk of divorce in two ways. One is through increasing the quality of the marriage. The investment may deepen the love between the couple, and thus increase the probability that the marriage will last a lifetime. The other way is through inculcating guilt to the husband who is supported. Individuals tend to feel guilty to abandon their spouses who have sacrificed themselves to support them (Dufwenberg, 2002).

I assume that the couple cannot take loans to support the accumulation of human capital. That means, if a wife does not support her husband, the husband will not be able to accumulate human capital. I also assume that the family law does not protect the investments in the spouses' human capital. If courts can divide

human capital assets and entitle the women who have invested in their husbands' human capital, outcomes would be more efficient (Borenstein and Courant, 1989; Rea, 1995). I will present the model in Section 2 and conclude the paper in Section 3.

2. The model

2.1. The setup of the model

In Becker's theory, households produce some commodities that cannot be purchased in the marketplace, including meals, children, recreation, companionship, prestige and esteem, health status, love, envy, and pleasures of the senses (Becker, 1974, 1981). In this paper, a good or service that is consumed for physiological needs is defined as a *material good*. For example, food and water, rest and exercise, and sex for a purely physiological need are material goods. A good or service that is consumed to satisfy non-material (spiritual and emotional) needs is defined as a *spiritual good*. For example, love, trust, belonging, and esteem belong to the category of spiritual goods.

Material and spiritual goods are jointly produced in households. The household production functions of material and spiritual goods are determined by the couple's specific traits and environmental variables, such as intelligence, capability, social and physical climate. The inputs of household production consist of various market goods and the effort each spouse devotes to the marriage. The effort includes time, energy, emotions, money and other resources.

Traditional economic studies consider the household to be the basic decision unit. But it would make more sense to think that a wife's decision on the investment in her husband's human capital is made by her rather than by both partners collectively, because the wife should be aware that she would not receive the return to the investment if divorce occurs. Therefore, in my optimization model, the decision maker is an individual instead of a family. I assume that the choice maker is a wife, but the general decision rule is equally applicable with the stereotypical roles reversed. Each married individual is an independent decision maker on how much effort to devote to marriage. The husband and wife cannot control each other's decision, even though they may influence each other. For simplicity, the effort the husband devotes to the marriage and to his human capital is assumed to be exogenous in the wife's optimization problem.

The wife would benefit from her investment in her husband's human capital in two aspects. One is the material return to the investment. After the husband accumulates more human capital and enhances his earning power (Korenman and Neumark, 1991; Rea, 1995), the wife can increase her material consumption and thus increase her utility. The other one is the non-material return to the investment and the resulted lower risk of divorce. The wife's investment can increase the marriage-specific spiritual capital and thus improve the quality of the marriage, which in turn makes the wife derive more utility from the marriage and lowers the probability of divorce.

Therefore the wife's benefit from the investment in the husband's human capital is a function of material consumption and spiritual consumption. The material consumption depends on the husband's human capital, which depends on the wife and husband's effort and other inputs in the human capital accumulation. The spiritual consumption depends on the wife's effort. Let u denote the wife's effort in supporting the husband's human capital, which is the wife's investment in the husband's human capital. Let u_h denote the husband's effort in his human capital, and x denote all other inputs needed in the human capital accumulation. u_h and x are both exogenous in the wife's optimization problem. Let $H(u, u_h, x)$ represent the husband's human capital function, $M(H)$ represent the material consumption function, $S(u)$ represent the spiritual capital

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات