The Long-Term Effects of Divorce and Parental Discord on the Adult-Child’s Socioeconomic Attainment

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I. Introduction

The topic of divorce and its effects on both parental and child outcomes is an important field of study. Economists have been studying the economic determinants of divorce with the hope of developing effective government policy adjustments to reverse the increasing rate of divorce. However, in order to motivate such policy adjustments, conclusive evidence needs to be established to link divorce to negative outcomes. To date, while short-term effects have been well-established, long-term effects have yet to be proven.

In the short run, children of divorce show significantly more acting out/withdrawal behaviors, but long-term effects are inconsistent. The salient outcomes of divorce in the child once he has reached adulthood (hence forth referred to as the “adult-child”) appear to be mediated by demographic and relational changes, such as diminished family wealth and happiness, resulting directly from divorce (Amato, 2000). The fact that children of divorce are less likely to finish high school or attend college, are more likely to be unemployed, have a lower socioeconomic status, experience increased marital discord and exhibit less effective parenting behaviors all appear to mediate the extra space direct effects of divorce in the long-run (Kiernan, 1997; Amato, 2000). It has been shown that when these intermediate variables are included in divorce models, divorce no longer retains its significance of direct effect.

Some of the most recent divorce research suggests that a better descriptor of adult socioeconomic attainment is not divorce, nor its intermediary causes, but rather the existence of hostile and aggressive parental behavior during childhood (Keister, 2005; Amato, 2005). Accordingly, divorce may just be another measure of a more significant cause of diminished income attainment among children of divorce: poorly managed anger by parents. The present study seeks to explore these complex relationships and establish that the parental relationships in a household are as important as the legal outcome of the marriage itself with regard to long run adult-child effects.

II. Review of Literature

Past research is useful to the present study in two important ways: (1) as a survey of the significant findings of past divorce and marital discord research, and (2) as a review of the sociological and economic theories which motivate the present study’s model.

The relationship between divorce and long-term outcomes is not simply direct. There are a few main causal pathways through which divorce affects adult outcomes. Kiernan (1997) finds rather atypical results in a study using data from the National Child Development Study, a British longitudinal study. Kiernan was the first to observe no correlation between divorce and job qualification development (human capital attained) once potential mediating variables such as socioeconomic background, education and relationship with parents were controlled for. Though no path analysis is conducted, there is reason to believe that the effects of divorce are mediated by the above controls. These results
support two interpretations: (1) avoiding divorce does seem to improve long term outcomes in the adult-child’s life, and (2) these improvements must be considered with respect to the family background and the economic resources available to children (Kiernan, 1997).

Consider divorce’s effect on socioeconomic status. Keister (2005) confirms evidence that divorce negatively impacts childhood socioeconomic status and has negative long term effects on wealth attainment. Keister explains that children of divorce face a significantly different economic reality than their non-divorced cohorts. Divorced parents have less wealth to transfer to their children through gifts and less human capital than non-divorced parents do. Some human capital differences include wealthier social connections and better communication skills.

While Keister’s study results are robust, some suggest that the socioeconomic status variable is a catch-all factor that accounts for more than just economic resources. Jeynes (2006) suggests that racial factors interact with the effect of socioeconomic variables. Even so, there is still good reason to believe that the availability of learning and coping resources to children should be conservatively included in a model of the long-term effects of divorce (Jeynes, 2006).

Divorce also affects a child’s academic achievement. Amato (1999) finds significant results indicating that parental divorce affects people’s sense of well-being and economic attainment in adulthood by lower educational attainment. Academic achievement is correlated with higher economic achievement in adulthood. These results agree with other research (Amato and Sobolewski, 2001; Keister, 2005; Kiernan, 1997). Divorce’s direct effects on socioeconomic status and academic achievement lend support to the hypothesis that divorce has a significant impact on adult outcomes.

While causal models for divorce are established in literature, another significant explanation for adult outcomes from childhood experiences is found in measures of marital discord. High levels of expressed anger in a child’s home act to decrease later performance. There is much evidence to support this claim. Amato and Sobolewski (2001) show that parent-child relations explain subjective measures of adult-child happiness. In addition, they support viewing people who experience a distant or angry parent-child relationship in their childhood as having significantly lower psychological well-being in adulthood. This disparity is indicative of the continued effects of poor parent-child relationships into adulthood (Amato and Sobolewski, 2001). It can reasonably be inferred that the effects of parent-child relationships on psychological well-being also reflect socioeconomic status.

There is further support of marital discord as a cause of diminished adult socioeconomic attainment. While Riggio (2004) does not concern herself with economic outcomes explicitly, the effectiveness of modeling parental marital conflict as an independent cause of negative human capital outcomes is clear. Riggio (2004) found a significant independent negative effect of marital conflict on quality of parent-child relationships, perceived social support from others, and anxiety in personal relationships. Importantly, these effects remained once gender and SES were controlled for. These findings lend strong support for inclusion of a marital discord variable in discussion of divorce outcomes, provided these psychological findings can be theoretically linked to long-term outcomes.

The effects of divorce and marital discord summarized above can be explained according to two complementary models. The first conceptual framework is called the life course perspective. The life course perspective states that the events and circumstances of the family of origin persist with children well beyond the time when the children have left. Amato (1999) applies this model, finding the effects of parental discord to persist into adulthood. Amato (1999) applies is called the risk
and resiliency perspective. This model emphasizes the importance of a child’s history in defining factors of stress in childhood. This stress history persists into adulthood through the potentially maladaptive coping skills that such events may force children to acquire. These maladaptive coping habits could likely include codependency problems, which are associated with lower adult well being (Amato, 1999). These two frameworks motivate a long-run explanatory model based on the effects of marital discord as experienced by the children in the household.

Ultimately, the best model to apply to a question pertaining to family economics is that pioneered by Becker (1973). He works to explain the divorce decision based on the comparative advantage of economic production for the parents being together versus being single (or with a more attractive mate). Becker (1973) applies his theory of joint versus individual utility maximization to much data, finding largely confirmatory evidence of the predicted effects. This study establishes the benchmark for economic research in the field of divorce research. While the present model is ultimately based on human capital, it is inspired by the production function design discussed by Becker.

In summary, there are quite a few factors involved in divorce that have been consistently shown to negatively impact the adult-child. Among these are the post-divorce family’s socioeconomic status, the adult-child’s amount of educational attainment, the nature of the parent-child relationships, and the presence of additional childhood stressors.

III. Theoretical Model

The present theoretical model draws upon the developments in previous research. The model describes the effects of divorce and marital discord upon socioeconomic attainment in adulthood. The theory that drives this link is human capital theory. Human capital is the stock of an individual’s knowledge, capability, and skills that determines his or her economic value (Becker 1973). According to human capital theory, the experiences and skills an individual develops in childhood will determine future income. Human capital can be communication skills, competency for using computer programs, or even abstract skills such as emotional intelligence. These skills are developed as a direct result of experiences beginning in childhood and continuing through adulthood.

As was established in the literature review, children of divorce are more likely to be exposed to a host of economic disadvantages that are likely to inhibit human capital development. For example, a child who lives in a low-income neighborhood is likely to be involved in a culture that emphasizes trade work, or even crime, instead of the pursuit of higher education. The resulting deterrence of education directly impacts a key component of human capital. Another way in which children of divorce may have diminished human capital development as compared to their contemporaries is that they are exposed to inefficient problem solving skills by observing their parents. Many parents who decide to significantly change their family member’s lives through divorce may not have the energy or presence of mind to continue to teach their children healthy coping skills and problem management. Accordingly, there is reason to believe that growing up in a stressful household may negatively influence those skills that would otherwise have increased earnings potential. In this way, both marital discord and divorce may directly affect adult outcomes.

Given this theoretical background, it is plausible that divorce is a cause of lower adult-child income because of the stressful household and living conditions that resulted in the divorce: the parental discord. As a result, the risk of endogenous effects showing up in the model, called simultaneous equations bias, is substantial. This bias could result in confusing the effects of the divorce and discord variables, perhaps skewing the magnitude of effect for either variable. Should the regressions yield significant results, a Hausman Specification Test will reveal the size of
the simultaneous equations bias.

IV. Hypotheses
1. As the level of expressed anger and violent behavior between parents increases, adult-child gross income will decrease.
2. A child whose parents were divorced during his or her childhood will have a lower gross income than a child whose parents did not divorce.

V. Data / Empirical Model
Data are obtained from the Marital Instability Over the Life Course (MIOLC) data set. This dataset is especially useful given its extensive marriage and family conflict information over three generations. Thus today’s adult economic attainment can be linked to family experience during childhood. This panel data is nationally representative, acquired through random digit dial phone interviews over a period of 15 years. The data are particularly robust in that multiple generations of the same family were observed for marital instability and income measures. The sample consists of 375 adult-children observed first in 1992 at approximately age 25, and then again in 1997 at approximately age 30. The family income, divorce and parental discord variables are obtained from the 1988 observation of the original respondent parent corresponding with the observed children.

Two explanatory models are used to compare adult-child socioeconomic attainment. The primary explanatory variables of these two models are marital discord and marital divorce. Family income during childhood, academic attainment, parental relationship distress, child’s stress history, and parent-child relations are held constant along with basic demographic variables.

In order to best observe the full spectrum of direct and interactive effects of divorce and marital discord, the models are expanded in an incremental way that allows differentiation between simple effects and more complex interactions. The dependent variable is the adult-child’s net income in the year of observation, which is observed in 1992 and 1997. The 1992 observation of income is coded in categorical style, so a value of 1 corresponded to an adult-child income of between five to ten thousand dollars a year, 2 represents a range in income between ten and fifteen thousand dollars a year, and so on. The 1997 income value is in dollars. There will be two separate sets of models, each looking at the income effects of divorce and parental discord when the subject is either approximately 25 or 30 years old. Likewise, two measures of parental discord are modeled independently: the occurrence of quarrels in the child’s household, and the occurrence of spousal abuse in the house. Interaction effects between divorce and discord variables are controlled for. In the final model, a three-way control (divorce and both discord variables) is added. The final models are:

\[
\text{Income}_{92} = B_1 + B_2(\text{Gender}) + B_3(\text{FamInc}) + B_4(\text{Education}_{92}) - B_5(\text{Fight}) - B_6(\text{Abuse}) - B_7(\text{Divorce}) - B_8(\text{Div} \times \text{Abuse}) - B_9(\text{Div} \times \text{Fight}) - B_{10}(\text{Div} \times \text{Ft} \times \text{Abuse})
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\[
\text{Income}_{97} = B_1 + B_2(\text{Gender}) + B_3(\text{FamInc}) + B_4(\text{Education}_{97}) - B_5(\text{Fight}) - B_6(\text{Abuse}) - B_7(\text{Divorce}) - B_8(\text{Div} \times \text{Abuse}) - B_9(\text{Div} \times \text{Fight}) - B_{10}(\text{Fight} \times \text{Abuse}) - B_{11}(\text{Div} \times \text{Ft} \times \text{Abuse})
\]

Where:

- Income92= Adult-Child Net Income in 1992 (1=$5k-$10k; 2=$10k-$15k, etc.)
- Income97= Adult-Child Net Income in 1997 (in dollars)
- Gender= Child’s Gender (1= male, 0 = female)
- FamInc= Child Family Income (Total Household Income in 1988)
- Education92= Academic Attainment (in Years Completed, 1992 observation)
- Education97= Academic Attainment (in Years Completed, 1997 observation)
- Fight= Parental-Parent Verbal Arguments
- Abuse= Parental-Parent Physical Abuse
- Divorce= Parents were divorced or separated
- Div*Abuse= Interaction of Abuse and Divorce
Div*Fight= Interaction of Fight and Divorce
Fight*Abuse= Interaction of Fight and Abuse
Div*Ft*Abuse= Interaction of Fight, Divorce and Abuse

VI. Results

A summary of descriptive statistics is presented in Table 1. While these statistics do not tell the whole story of the effects of divorce and marital discord on adult-child income attainment, they do begin to show the trends of some variables in the sample. Even without running a regression, many characteristics of this dataset appear to be contrary to the established literature.

The first noteworthy insight of deviation from the expected distribution of means is that the Fight and Abuse variables do not vary significantly between those subjects who experienced parental divorce and those who did not (difference of means: Fight µ = .02 and Abuse µ = -.06). Previous studies suggest that a larger disparity between the levels of these discord variables would be expected, because divorce may in fact be predicted by discord. Given the unrelated nature of these values, there is little expectation of any bias due to simultaneous equations bias.

Also noteworthy, many of the main variables have unexpected means. Spousal abuse should be more common among children of divorce than children of non-divorce, but the contrary is true in this sample (µ_{ndiv} - µ_{div} = -.06). Likewise, the family income for households of divorce had a higher mean income and higher child’s academic attainment in year 1997 (µ_{ndiv} - µ_{div} = -2745 and -.12 respectively). The reason these values are unexpected is that Amato (2000) showed that socioeconomic status changes and education restrictions were the main pathways through which the effects of divorce persisted. The present findings suggest that no such pathways exist in this sample.

A final indicator that there may be inconsistencies between the present findings and those in the past is that the mean income for children of divorce in 1992 was actually higher than their non-divorce contemporaries (µ_{ndiv} - µ_{div} = -.04). The fact that the mean income attained for the adult-child in 1992 is higher for children of divorce is not predicted in any of the reviewed literature.

A summary of the linear regression statistics for the 1992 observation year is presented in Table 2. Model A is a simple OLS regression model, which maps divorce, abuse and anger for their individual full effect on income. There are no significant effects for any of these three primary experimental variables in this study. Therefore, there are no simple differences between children who experienced divorce, spousal quarrels or abuse in childhood versus those who

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<th>Table 1: Summary Statistics for Adult-Children Sample of MIOLC Data Set</th>
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| n=375

*Incomes were measured categorically, 1 = $0-$5000, 2 = $5001-$9999, etc.
Model B is the same OLS regression with demographic controls: family income in the childhood household, child’s educational attainment and gender. The divorce and discord variables remain insignificant for both observation years. The values for gender and education attainment appear in the predicted direction and are significant at the p < .01 level. These results indicate that the present study’s sample of data exhibits the two most anticipated realities of income attainment: people with more education tend to earn more, and men tend to earn more than women. These results are in keeping with previous research (Amato, 1999; Riggio, 2004).

The FamInc variable did not return expected results. Riggio (2004) observed that the socio-economic status during childhood was positively related to adult-child income attainment. Such was not conclusively the case in this observation year.

In Model C, adult-child annual income is explained by two explanatory variables and an interaction term, also including controls. Abuse, Fight, and Divorce all remained insignificant. In model C1 Div*Abuse was significant and positive (p < .05), with a total effect size of 1.615. However, in order to assess the effect of the combination of Div and Abuse, the effects of all three variables (Div, Abuse, and Div*Abuse) must be summed. The resulting effect, 1.107, translates into a $5,535 income boost for instances of spousal abuse and divorce interacting. This is not to say, by any stretch of the imagination, that the spousal abuse caused the increase in income. However, the correlation does exist. Interestingly, this is not
predicted by Riggio (2004) who observed a strong negative effect of spousal abuse and parental discord.

In Model D, the full theoretical model is utilized, allowing for effects of all three primary variables and their interactions including controls. In the 1992 observation year, no changes in significance occurred, although the effect size of the Div*Fight interaction grew to 1.743, which is equivalent to an $8,715 positive income effect. This effect is greater than the income gained from 5 years of school, according to the model. Such an effect hardly seems that it could be causal, although this observation in Model D yielded the highest R-squared value of any model ($R^2 = .136$).

A summary of the linear regression statistics for the 1997 observation year is in Table 3. As was true in the 1992 observation year, Model A (the simple OLS regression) did not show any significant effects of either parental discord or divorce.

Model B yields the same insignificance among divorce and discord, though the third control variable (FamInc) is now significant. FamInc had a significant positive effect of $.085
of income later in life gained for every dollar of family income in childhood (p < .1). The nearly 10% increase in income is significant, though not as large an effect as was predicted by Riggio (2004). The effect sizes and significance of the demographic controls remain nearly the same throughout the different models in this observation year, reflecting little interaction between controls, divorce and discord.

Model C was consistent with the 1992 observation year in all but one case. The interaction of parental discord and divorce became a negative, though small, effect. Also, the interaction that is significant in Model C is Div*Fight, not Div*Abuse. The summed effect size of the interaction is -$137.20 (p < .1). This is the first significant effect predicted by the empirical model, although the extremely small effect size is not compelling.

The 1997 observation of Model D was particularly interesting in that the observed Model C, Div*Abuse interaction lost significance, while the Div*Fight*Abuse interaction became significant with a total effect size of $4797.64 (p < .1). This significant positive effect is again contrary to that predicted in the theoretical model. It is very interesting that the concurrence of divorce and both measures of parental discord yield such a strong positive effect. No previous research has suggested the interaction of divorce and discord would yield positive income effects.

VII. Conclusions

This study seeks to explain the diminished economic achievement in adult-children of divorce and parental discord. However, no such harm to income was observed. Additionally, the existence of very interesting interactions between divorce and discord were observed. There was some evidence that the interactions of divorce and marital discord results in higher income in the adult-child (Div*Abuse in 1992; Div*Fight*Abuse in 1997). There was also one instance to support that an interaction between divorce and discord may yield a negative income effect (Div*Fight in model C in 1997). Overall, the results suggest that divorce and marital discord do not have a negative impact on the adult-child’s income attainment.

The conclusion that divorce and marital discord are not significant determinants of adult-child income does not mean that these events are any less traumatic. It may be that the degree to which children have learned to adapt and cope to an unhappy childhood actually facilitates development of marketable skills. Put simply, maybe the difficulties in childhood “toughen them up.”

Another possible explanation for spurious interaction effects is that those adult-children who experienced divorce and discord in their household were more likely to start working earlier. While the education attainment means do not support the theory that children of divorce drop out of school, it may be that these children had a greater incentive to be out of the home more. Thus the adult-child may have begun developing human capital earlier in life, resulting in a stronger work ethic.

Furthermore, it may be that adult-children are merely better at matching their skills with the best possible economic opportunity. The positive interaction effects due to divorce and discord may describe income attainment, but do not adequately describe the decisions of career paths that may have led them to earn more, nor the motivation behind such decisions.

There is much reason to believe that even if income effects of divorce are not significant, there may be a host of important psychological and sociological outcomes that are of concern. Perhaps income is not a good proxy for happiness, and thus better measures of the effects of divorce and discord would be more subjective ones. Amato and Cheadle (2005) suggest that children of divorce are more likely to divorce, themselves, and may be more prone to self-centered thoughts and distress in changing environments. These trends suggest that children of divorce can adapt to a changing world; they do not indicate that divorce doesn’t take a significant toll on their general well-being.
While the Marital Instability Over the Lifecourse Study was a relatively representative sample of the United States population in its first observation year (1980), there may be reason to believe that a bias may exist due to attrition. Of the over two thousand original respondents, only four hundred adult-children were observed. As a result, the sample of people utilized in this study may be inherently different than the average. This may also partially explain the unexpected and counter-intuitive positive interactions.

There are still important policy implications to be suggested on the basis of the present study. Perhaps the therapy requirements designed to help children of broken homes recuperate post-divorce are effective in the long run. A better understanding of the persistent effects of family situations in childhood can redirect anti-divorce efforts into more effective public policy to improve parent-child relationships and child management skills. These skills, regardless of income attainment, are no doubt irreplaceable in healthy child development.

REFERENCES


The Determinants of Foreclosures for Single-Family Homes in the United States

Bryan Duling

I. Introduction

In the United States, homeownership creates numerous benefits for individuals, families and society and is the cornerstone of the “American dream.” Low foreclosure rates of residential mortgages and the stigmatism associated with the term foreclosure are indicative of the value that Americans put on owning their homes. However, the rate of mortgages entering the foreclosure process during the 2nd quarter of 2007 was 0.65%. This rate is the highest in history, up seven basis points from the first quarter, twenty-two basis points from 2006 and showing no signs of a decrease (Ackerman, 2007). Below, Figure 1 shows the percentage of homes that were in foreclosure at the end of the quarter from 1995 to 2007. Figure 1 illustrates how the current number of foreclosures is close to surpassing the foreclosure totals seen during the post September 11th recession.

Although still a small percentage of all mortgage originations, defaults and subsequent foreclosures are large in absolute numbers and produce crushing losses to lenders and investors, higher finance costs to consumers, and devastating damage to borrowers and homeowners directly affected. The entire macroeconomy is beginning to feel the effects with the real possibility of increased unemployment due to a recession that is imminently looming. This paper analyzes factors that cause borrowers to default on their mortgages and lose their homes to foreclosure.

National foreclosure proceedings have been inflated by significant increases in California, Florida, Nevada, and Arizona. These markets are dominated by investor loans, which are loans to buyers who do not plan on living in the houses. Nationally, home prices have fallen by 3% causing investors to abandon their mortgages, driving up foreclosure rates. These markets are also dominated by subprime loans: deals offered by lenders to borrowers with blemished credit histories that have higher rates of interest. During this period of subprime lending, underwriting standards were lowered and new affordability products such as extra-long term, interest only mortgages, and loans with low teaser interest rates that balloon after a few years (hybrid mortgages) were offered (Ackerman, 2007). While more than a third of all subprime adjustable rate loans are in the previous four Southern states, Ohio and Michigan are two Midwestern states contributing to the foreclosure problem. These troubles are driven by economic problems created by job losses in the manufacturing and the auto industries (Ackerman, 2007).