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487-2012

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ISSN: 1864-6689 (online)

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Education, personality and separation: The distribution of relationship skills across society*

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* Acknowledgment: We thank Gabriel Bartl for handling and preparation of SOEP data and Jürgen Schupp for helpful comments on an earlier draft of this paper.

Abstract

The reasons why the lower educated divorce more than the higher educated in many societies today are poorly understood. Distinct divorce risks by education could be caused by variation in pressures to the couple, commitment, or relationship skills. We concentrate on the latter explanation by looking at the distribution of personality traits across society and its impact on the educational gradient in divorce in Germany. Using data on married couples from the German Socio Economic Panel (N = 9 417) we first estimate the effect of several personality traits on divorce: the tendency to forgive, negative reciprocity, positive reciprocity, and the Big Five. We also account for and find non-linear effects of several personality traits on divorce risk, which is relevant for future research on the effects of personality. In addition, effects differ by level of education. We find personality traits that affect divorce risk to be unevenly distributed over educational groups, but contrary to expectation to favor the lower educated. Once taking into account personality the educational gradient in divorce becomes more negative. This is due to especially high scores on openness to experience for the higher educated, which is a very significant predictor of divorce risk. Overall, we find no support for the hypothesis that the lower educated have less relationship skills in Germany.

Recently, scholars have stated concerns about increasing polarization between groups of families in society (McLanahan, 2004). To a large extent this concern has been based on an observed negative educational gradient of divorce. Whereas divorce used to be more common for the higher educated, lower educated individuals are more likely to divorce in many countries today (De Graaf & Kalmijn, 2004; Härkönen & Dronkers, 2006; Jalovaara, 2003; Lyngstad, 2004; Teachman, 2002). Because divorce has many consequences for the well-being of the couple and their children, the relative position of families with lower educated individuals seems to have worsened in the last decades. Despite its importance, the reasons why the lower educated divorce more are poorly understood (Amato, 2010). Three broad categories of explanations can be identified. Firstly, it could be that the lower educated experience more financial pressures and related problems that could destabilize relationships. Secondly, people with different levels of education could have distinct levels of commitment to relationships, which makes them quit relationships at different levels of satisfaction. Thirdly, lower educated individuals could possess less skills and abilities that make relationships work.

In this paper we will concentrate on the third possible explanation. We look at the distribution of psychological traits across educational groups in Germany, and how they account for differences in relationship stability. We hypothesize that the lower educated have more unfavorable personality traits than the higher educated, and that personality therefore contributes to a more negative educational gradient in divorce. We also formulated hypotheses relevant for the estimation of effects of personality in general. We expect the effects of personality to be non-linear and to differ by level of education. Using data about married couples from the German Socio-Economic Panel (SOEP) we first estimate the effects of personality on divorce and subsequently look at their distribution across educational groups, and whether they contribute to a more negative educational gradient in divorce.

Education and Divorce

Concerns about increasing family polarization have first been articulated in the context of the United States. However, a considerable body of research has also identified trends towards increasing family polarization in several European countries (De Graaf & Kalmijn, 2004; Härkönen & Dronkers, 2006; Jalovaara, 2003; Lyngstad, 2004; Teachman, 2002). More specifically regarding divorce, the observed trends are in line with the developments predicted by Goode (1962; 1970; 1993). He argued that, over time, individuals with access to many resources will be first to divorce most. Resources are needed to overcome legal, social, and financial barriers. Once divorce becomes more widespread, institutions adapt and those barriers

are likely to become smaller. When the costs related to divorce decrease, the lower educated are enabled to divorce too. Because lower educated people might experience more economic pressures and/or have fewer relationship skills, they are expected to divorce more than the higher educated once barriers have faded out. This trend has been observed in many countries, suggesting that, indeed, when constraints are lifted, the unions of the lower educated are less stable. The reasons for the lower educated to be more prone to divorce, however, have not been empirically verified.

The most straightforward explanation is that lower educated people experience more shocks to their family life due to financial pressures and employment disruptions. A large body of research has shown that income and employment affect relationship stability (Conger et al., 1990; Ono, 1998; Oppenheimer, 1997; Rogers, 2004; Sayer & Bianchi, 2000; Schoen, Rogers & Amato, 2006; Teachman, 2010; Hankins and Hoekstra, 2011; Boertien, 2012).

Secondly, relationship commitment may be a possible factor at play (Amato et al., 2007; Amato & Hohmann-Marriot, 2007; Amato, 2010). People differ in the extent to which they value the duration of relationships. Some might want to stay in one relationship for the most part of their lives, no matter what, while others may find breaking up a reasonable option when relationships do not seem to work. However, the ways in which people differ in their commitment to relationships and how this is distributed across society, has not yet been investigated.

A last argument is that the lower educated might be less able to manage relationships. Lower educated people could have less favorable communication styles, unfavorable personality traits or lack other abilities that help relationships stay intact. It is this explanation that our paper will focus on.

Very little research gives insight into the matter, as most studies on relationship skills do not focus on educational differences (Amato, 1996; Donnellan et al., 2004). Recently, some economists have started looking at the effects of personality traits on union stability (Blazys, 2009; Lundberg, 2010). These studies found that certain personality traits (e.g. conscientiousness) are favorable to relationship longevity, while others (e.g. openness to experience) are not. The distribution of these traits across society and its implications, however, remain unexplored. Some more explicit support for the hypothesis has been provided by studies on intelligence. Two studies have shown that intelligence is related to union stability net of income, education, and various personal and parental characteristics (Blazys, 2009; Holley et al., 2006). At the same time, intelligence might not be the most important skill necessary to manage relationships. Psychologists have focused on the effects of personality on marital satisfaction for small scale samples, but did in general not look at the effects on marital stability.

They found effects of neuroticism and conscientiousness on marital satisfaction (Claxton et al., 2012; Robins et al., 2000), and some also found effects for extraversion and agreeableness (Nofle & Shaver, 2006; White et al., 2004). In addition, other constructs such as negative emotionality and child-mother attachment styles seem related to marital satisfaction too (Robins et al. 2000; Shaver & Brennan, 1992) All in all the effects of personality on marital stability and its distribution across society remain unclear and will therefore be investigated in this paper.

Personality and divorce in Germany

The aim of this paper is to use a large representative panel to investigate the distribution of relationship skills across German society. The German context on which this study focuses differs from other countries studied before, since the turnaround in the educational gradient in divorce has not yet been observed (Härkönen & Dronkers, 2006). Germany has more traditional characteristics compared to countries such as the U.S. and Scandinavia, where the higher educated do divorce less today. Female labour force participation rose from 43 % in 1990 to 53 % in 2010, but is still much lower than in other countries. In addition, 45 % of women still work part-time, which makes the division of labor for most households relatively traditional. Research on the division of labor and divorce has confirmed the persistence of relatively traditional gender norms in the country, arguably due to the institutional context. Cooke (2006) has shown that any deviation from a traditional division of labor increased the odds of divorce in former West-Germany where the male breadwinner model was supported by the institutional context. In contrast, in a context where such support was not present, the U.S., the more egalitarian the division of labor, the more stable couples were observed to be. These observations hint at the persistence of socio-economic barriers to divorce in Germany. The question is whether, if these barriers were to be lifted, changes in the educational gradient of divorce can be expected. Were an uneven distribution of relationship skills to be found, one could expect this turn around to still take place in Germany once barriers are lifted.

What are the expected effects of the distribution of personality traits on the educational gradient in Germany? Lundberg (2010) has found, using the same data as the present study (SOEP) that certain personality traits affect divorce risk. Openness to experience increases break-up chances for both men and women, while extraversion does so only for men. Conscientiousness, on the other hand, increases union stability for men in Germany. Given these results we expect personality traits to relate to divorce risk, but we also add some expectations to the way in which personality is related to divorce risk. Earlier research did not take into account the possibility of non-linear effects of personality. Disadvantageous personality traits might only

matter if a certain threshold is passed, or it might be the deviation from the average that matters in other cases. In this paper we explicitly examine possible non-linear effects to fully account for the influence personality traits might have on divorce risk. The first hypothesis of this paper is therefore: 1) Personality affects union stability, and does so in a non-linear fashion in some cases.

A recent study has established differences in personality traits across educational groups in Germany (Dehne & Schupp, 2007), although without testing the significance of the findings. We therefore expect an unequal distribution of relationship skills across German society. The second hypothesis of this paper is therefore: 2) Lower educated persons possess fewer relationship skills, in this case less advantageous personality traits regarding union stability.

Personality can affect the educational gradient in divorce in two ways: Firstly, by an unequal distribution of these characteristics across society. Secondly, through different effects personality traits can have across educational groups. Certain behaviors such as positive affect, humor, and interest can attenuate negative effects of behavior coming from unfavorable personality traits (Bradbury & Karney, 2004). This suggests that other individual attributes and contextual variables can influence the effects of personality. It could well be that these contexts are more favorable for the higher educated than the lower educated. To put it differently, it might not just be certain personality traits but also the way people handle having certain personality traits that determines the ability to manage relationships. Whether a person's revengeful behavior leads to a break-up will depend on other skills of the person and the context, too. We will therefore also look at the ways in which the effects of personality differ by education. We would expect that the higher educated act within more favorable contexts. The lower educated experience more economic pressures. Therefore, the probably increased amount of related problems might make personality to matter more for them than for others. In that case we would expect bigger effects of personality traits across the board. If higher educated people manage to avoid the negative consequences of certain personality traits we could expect a (more) non-linear pattern for them, with effects leveling off at disadvantageous scores on personality scales. If context also allows people to profit more from favorable personality traits, one would expect more effects of favorable scores for the higher educated, hence, an increase in non-linearity when moving to more advantageous scores. This leads to our third hypothesis: 3) The effects of personality differ by education.

Our final hypothesis regards the overall result of our study. Earlier research has shown that no educational gradient in Germany can yet be observed. Based on the expected unfavorable personality skills for the lower educated and its effects, we expect the following: 4) No

educational gradient in Germany can yet be observed and when controlling for personality the gradient becomes more positive.

Method

We will use data from the SOEP to estimate the effects of personality traits on the risk of divorce. The SOEP is a German nationally representative longitudinal household panel that has been running since 1984. Before 1991, only a West-German sample was interviewed, but East-Germans are included since 1991, too. The last wave we used in this study is the year 2010. For each year the individuals are in the sample it is recorded whether they are still with their partners in the next wave (0) or not (1). We estimated discrete-time event history models to explain the probability of divorce. The main independent variables are education and a number of established personality measures available in the SOEP. The SOEP has recently incorporated batteries of questions that measure individuals' negative reciprocity, positive reciprocity, and tendency to forgive. Especially the latter is expected to be one of the most relevant personality traits for marital satisfaction and longevity (Fincham et al., 2006), but this has not been empirically tested. The SOEP also contains measures of the Big Five personality traits: openness to experience, extraversion, neuroticism, conscientiousness, and agreeableness.

Sample

For this study we selected all persons in the sample that had information on the eight personality traits examined in this paper and that were ever married during the time they were under observation in the panel. The personality traits used were the Big Five (i.e. openness to experience, extraversion, neuroticism, conscientiousness, and agreeableness) which were measured in 2005; negative and positive reciprocity, measured in 2005; and the tendency to forgive measured in 2010. First, all persons were selected who provided info on all eight personality characteristics. Subsequently all persons whose marital status did not take on the value "married" in any wave of the panel were dropped. All remaining individuals were used for the analysis. Earlier research has found differences in effects of many variables by gender (e.g. personality traits, income, education, labor market status). We therefore analyze two subsamples, one male and one female sample. Multiple imputation was used to prevent having to drop cases from the analysis due to missing values on other variables of the analysis. The SOEP contains 48 318 individuals that are present in at least one wave of the panel, in the end 9 417 of them were used for this analysis, and provided a total of 108 847 person-years of information.

After selecting the individuals of the study, all waves were selected in which these individuals were recorded as married. Using discrete-time event history models we estimated whether divorce risk differed by scores on the personality trait measures. Personality was not always measured before the relationship started or before the divorce was observed. But given that personality traits have a high degree of stability during adulthood (McCrae & Costa, 1990), treating them as time-invariant seems reasonable. However, robustness checks were done to see if effects differed between cases that had personality measured before and after divorce. Unless mentioned, this was not the case.

Measures

The main independent variable of the analysis is whether individuals divorced or not in the year of reference. The main independent variables were education and personality. Two measures of education were used: a categorical measure reflecting lower (International Standard Classification of Education (ISCED) categories one and two), middle (ISCED three and four), and higher education (ISCED five and six), and a continuous measure reflecting the years of education. Results are reported for the continuous measure unless different results were found when using the categorical one. Personality traits were each measured by a battery of three questions (four for the tendency to forgive), for which respondents were asked to what extent certain statements about behavior were applicable to themselves. For the Big Five personality traits a short form of the Big-Five-Inventory developed for the SOEP (Gerlitz & Schupp 2005), was used. A short version of the “Personal Norm of Reciprocity Questionnaire” (PNR) (Perugini et al., 2003) was used to measure negative and positive reciprocity. The answers were given on a seven-point Likert-scale ranging from 1 (“does not apply at all”) to 7 (“fully applies”). The Tendency To Forgive (TTF)-Index used in the present study is an adapted version of Brown’s Tendency to Forgive scale (Brown, 2003), a measure of an individual’s dispositional tendency to forgive. The TTF-Index consists of four items that measure four different dimensions of forgiveness: (1) To get over something, (2) To ponder after the wrongdoings of others, (3) Being resentful, (4) To try to forgive and forget after an offense. The TTF-Index uses a 7-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”) (for more info see Weinhardt & Schupp, 2011). The α ’s of the resulting scales ranged from 0.50 for agreeableness to 0.82 for negative reciprocity. To uncover possible non-linear effects of personality traits on divorce, the squared terms of the scales were also included in the analysis.

Control variables used for the analysis were age; age difference with the partner; household income; the share of labor income brought in by the respondent; duration of the relationship; education of the partner; division of domestic work (his housework on a usual weekday / his + her housework); employment status (dummies for being unemployed, inactive, or a student); a dummy for whether it is a higher order relationship; number of children; a dummy whether a child under 16 years is in the household; a dummy for people born outside of Germany; marriage cohort by decade (married in the 1980s, 1990s or 2000s). Education and the control variables were measured at t-1 where the independent variable (having experienced a divorce in the last year) is measured at t=0. See Table 1 for descriptive statistics of the sample.

➤ Table 1 about here <

Procedure

The analysis consisted of two stages. First, we examined the relationship between education and personality traits by running sets of Ordinary Least Squares (OLS) regressions. For each personality trait we ran a regression with education as the dependent variable and personality and its squared term as the independent one. In these models we only included controls for the reference year, the marriage cohort and whether it is a higher order marriage. Subsequently, we estimated discrete-time event history models with divorce as the dependent variable. We examined whether the different personality traits were related to divorce risk. We ran a separate model for each trait with the trait and its squared term as the independent variables. After uncovering possible non-linear effects and differing effects by education, we included the best specification for each personality trait into the final discrete-time event history models. We added control variables into the analysis in a stepwise manner to look at the possible mechanisms underlying the findings.

Results

Table 2 displays the relationship between personality traits and education for men and women. When no significant non-linear relationships were found the results for regressions without interaction terms are displayed. To easily interpret the interaction terms, the variables were coded such that the lowest observed score was zero, and each unit increase was equivalent to a one standard deviation increase. We observed that in all cases but one, education was related to personality trait scores. While differences in magnitude of effects existed between men and women, all results went in the same direction. The higher educated are significantly more open

to experience, conscientious, agreeable, tend to forgive more and have higher levels of positive reciprocity. Only higher educated women are significantly more extravert. In contrast, the higher educated are significantly less neurotic and have lower levels of negative reciprocity. Several squared terms were also significant, indicating that the higher educated were especially less likely to have very low scores on openness to experience, conscientiousness, agreeableness and positive reciprocity. They were also less likely to have very high scores on the negative reciprocity scale. How did these personality traits relate to divorce and did these effects differ by education?

➤ Table 2 about here <

Tables 3 and 4 show how education, personality and controls are related to divorce risk. We ran four models for each personality trait: a simple linear one, one with a squared term, and two where we interacted education with personality. For Model 3, where all personality traits were put together in one model, we only included more complicated specifications if the addition of an interaction was significant. We observe several positive effects of personality traits on divorce. Openness to experience and extraversion increased the odds of divorce for both men and women. For men very high scores on the extraversion scale reduced union stability in particular. We observed that conscientiousness promotes union stability for men, while agreeableness and neuroticism only do so for women. Very low scores on the neuroticism scale decreased union stability in particular. We saw differing effects by education for negative reciprocity and also for women's conscientiousness scores. We observed that especially lower educated women had higher probabilities to divorce when their conscientiousness scores are lower and especially when moving to the lowest scores of the scale. We also observed both non-linear and interaction effects with education for negative reciprocity. High levels of negative reciprocity are especially detrimental for the marriages of lower educated women. Given the significance of several squared terms and interactions with education, we can confirm hypotheses 1 and 3. Personality affects divorce in a non-linear manner, and effects also differ by education in some cases.

➤ Tables 3 and 4 about here <

The other models in Tables 3 and 4 allowed us to look at the role personality plays when looking at the educational gradient of divorce. In Model 1, we looked at the effect education has on divorce, while just including the necessary controls. In Model 2 we included interactions of

education with marriage cohort, to investigate whether in recent cohorts the educational gradient has reversed. Model 3 includes both education and personality, and Model 4 also includes all controls.

When looking at Model 1, we noticed for both men and women a slightly negative but insignificant educational gradient of divorce. When interacting education with marriage cohort, we noticed that the gradient is not different between cohorts from the 1980s, the 1990s and those married in the 2000s. Only for women do we observe a trend towards a more negative educational gradient, but this is not significant. The question is therefore whether, ultimately, a negative relationship between divorce and education can be expected in the future. Model 3 shows that the coefficient for education changes slightly when accounting for personality. For both men and women we notice a slight increase in the effect of education, which implies that, overall, the personality characteristics of higher educated people are unfavorable to the stability of their relationships compared to those of the lower educated.

When including other covariates in Model 4 coefficients for personality did not change significantly for men and women, while most covariates had expected significant effects (e.g. age, child before marriage, employment status). In general, effects of personality traits were even slightly bigger when covariates were included. The covariates included in this paper could therefore not explain the observed effects of openness to experience, extraversion, conscientiousness, and, for women also neuroticism, agreeableness and negative reciprocity on union stability.

We looked at the influence of measuring personality before instead of after divorce in some cases. Coefficients were practically identical for men when restricting the sample to the observation years from 2005 onwards, which means that only waves for which the Big Five was measured before divorce were taken into account. For women the results for conscientiousness and extraversion changed. The effect of extraversion disappeared. This was not the case when just looking at waves 2001-2004 (the waves just before the measurement of conscientiousness), which suggests that for women the causal direction of the positive effect of extraversion on divorce goes the other way around. Divorce seems to increase extraversion for women. For conscientiousness, the effects changed too, but these changes can also be observed when looking at the time frame 2001-2004. This suggests that this is a change over time in effects of conscientiousness in recent years. We observed that conscientiousness mattered more for the lower than for the higher educated in recent cohorts.

Discussion

The results we presented have shown that personality matters for union stability, that they sometimes do so in a non-linear fashion, and that the effects of some personality traits do depend on educational level. At the same time, personality traits are unevenly distributed over educational groups. They do not, however, favor the higher educated overall. The higher educated score higher on the openness to experience and extraversion scales, which are both personality dimensions that destabilize marital unions. At the same time, higher educated women score higher on agreeableness which reduces the chances of divorce. In addition, higher educated men and women are more conscientious which is also related with lower divorce risks. However, the positive effects of conscientiousness on union stability are smaller for the higher educated than for others. On the other hand, the negative effects of negative reciprocity are smaller for the higher educated. Higher educated women are also less neurotic, but that does not necessarily reduce divorce risk, given that both high and low scores increase the likelihood of a break-up. All in all, some personality traits contribute to a larger negative educational gradient in divorce while others reduce its size. When controlling for all personality traits of this study the educational gradient in divorce becomes more negative. This indicates that personality, overall, does not put the lower educated at a disadvantage compared to others when looking at union stability. Hypotheses 2 and 4 of this study are therewith not supported.

At the start of the article we posed the question whether a turnaround in the educational gradient in divorce can be expected in Germany. We did find a slight negative educational gradient in Germany, but this was not significant. Furthermore, the gradient in divorce barely changed between the 1980s and the 2000s. This makes the question whether the gradient will eventually turn around even more relevant. If personality overall did disadvantage the lower educated, a turnaround when economic, social, and legal barriers are lifted would lie within the line of expectation. This was not the case. Therefore, if such barriers were to be lifted, a turn around in the gradient of divorce would not be related to personality differences between educational groups. Earlier research also did find that higher educated people do not have higher marital satisfaction than the lower educated in Britain, a country where the former do divorce less (Boertien & Härkönen, 2012). The result of this article therefore emphasizes that explanations for educational differences are likely to be caused by differences in barriers to divorce and alternatives to relationships, rather than the quality of the relationship itself.

The article also provided new insights on the effects of personality. Earlier research did find effects of openness to experience and, for men, of conscientiousness and extraversion on union stability (Lundberg, 2010). But for other personality traits no effects were found, because the

non-linearity of effects was not taken into account. Therefore, in contrast with earlier research we did find effects for neuroticism, conscientiousness and negative reciprocity once non-linear effects were allowed for. Especially for neuroticism for women, where both very low and very high scores reduce union stability, the existent effects will remain absent when not using a non-linear specification. However, in general, moving towards more disadvantageous scores increased the effect size of personality traits on divorce.

The effects of personality in some cases also differed by level of education. As hypothesized, this suggests that other individual attributes or contextual factors determine how personality matters. Conscientiousness and negative reciprocity mattered significantly more for the lower educated. When controlling for several contextual variables these effects did not change. The other significant effects of personality in general could also not be explained by controls. This suggests that it is possibly the possession of personality characteristics themselves that plays a role in the decision to divorce or not, rather than that the effects go through, for example, income or employment status. It might be that certain personality traits change the attractiveness of alternatives outside of the relationship. For example, a conscientious person might see more possibilities to find a new partner than others or a person with high levels of negative reciprocity might see less possibilities. For lower educated individuals such considerations might play a bigger role. Since the other resources available to create an attractive alternative to the relationship are scarce to this group, the relative importance of personality compared to other resources becomes greater. This would be in line with the larger effects of personality on union stability for the lower educated.

Future research could concentrate on questions left unanswered by this article and its limitations. We suggested that were a turnaround in the educational gradient in Germany to take place, this would not be due to differences in personality. In order to claim that the educational gradient in divorce will not turn around in Germany, one could investigate whether personality traits disadvantage the lower educated in other countries when it comes to union stability. There might be context-specific factors that affect the influence of personality on union stability. This is in line with the finding that the effects of personality differ by educational groups. It might very well be that in countries with negative educational gradients, more negative effects of personality on union stability exist for the lower educated. If personality disadvantages the lower educated in countries with negative educational gradients in divorce, and already did so before the gradient turned around, it could be that the gradient in Germany will not turn around in the same way as has been observed elsewhere.

Future studies could also investigate how personality exactly plays a role in the divorce process. It seems that the effects of personality on divorce are direct and not mediated by important socio-economic controls. Do people consider the role their personality could play in the future as part of the costs or benefits associated with alternatives to their relationships? And are these considerations more important for the lower educated, and does the importance differ by country? Some studies also have suggested that the combination of personality traits within the couple matters (Claxton et al., 2012; Rammstedt et al., 2012) for union stability, which is a possibility left unexamined by this paper.

Conclusion

Personality matters when it comes to the longevity of marriages. Openness to experience, extraversion and negative reciprocity are traits that are related to a decreased duration of relationships, while conscientiousness and agreeableness increase the likelihood of people to stay together. Importantly, these effects differ by gender and education. In this paper we have shown that many effects are related to union stability in a non-linear fashion. The more one moves to less advantageous scores on personality trait scales, the bigger the effects. This was especially the case for the lower educated. By showing that effects differ by educational groups, we demonstrated that the effects of personality are dependent on other individual attributes or contextual factors. Our aim was to investigate whether personality influenced the relationship between education and divorce. In Germany, unlike in many other countries, the lower educated do not (yet) divorce more than others. The question arises whether a move towards such a trend can be expected in Germany too. We found that, overall, personality traits do not disadvantage the lower educated. While the lower educated do have some more unfavorable traits (e.g. low conscientiousness, high negative reciprocity, low agreeableness), the higher educated are more extravert and open to experience which are strong positive predictors of divorce. If a turnaround in the educational gradient of Germany would take place, this will probably not be related to differences in personality across educational groups. If future research would find that personality leads to disadvantages amongst lower educated individuals in other contexts in which they do divorce more, it could even be suggested that a turnaround in the gradient of divorce will not take place in Germany. Given that the gradient in divorce has barely changed when comparing marriage cohorts from the 1980s to couples married in the 2000s this should be a scenario that cannot be excluded from our expectations about the future.

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Table 1. Descriptive Statistics for the sample used in this paper

	Mean	SD	Minimum	Maximum
Male (1) / Female (0)	0.48		0	1
Age	48.5	13.2	17	98
Age difference between partners	0	4.89	-31	31
Duration of marriage	22.0	13.86	0	68
Education in years	13.4	3.1	4	18
Tendency to forgive	2.81	0.98	0	5.58
Negative reciprocity	1.41	1.00	0	4.21
Positive reciprocity	5.63	1.01	0	6.90
Neuroticism	2.44	0.97	0	4.90
Conscientiousness	4.08	0.91	0	5.12
Openness to Experience	2.90	0.99	0	5.00
Agreeableness	4.15	0.96	0	5.67
Extraversion	3.45	0.96	0	5.28
Student	0.00		0	1
Retired	0.11		0	1
Unemployed	0.05		0	1
Ln(Household Income)	7.86	0.48	3.58	11.53
Ln(personal labor income)	2.85	5.64	0	11.51
Share of labor income of respondent	0.50	0.33	0	1
% Not born in Germany	0.12	0.33	0	1
% who has a child under 16 in household	0.42	0.49	0	1
<i>N</i>	9 417			

Source: SOEP V27

Table 2: Coefficients for educational groups for each OLS regression with a different personality trait as the dependent variable by gender

	Men		Women	
	Education		Education	
	Coefficient	SE	Coefficient	SE
Openness to experience	1.00***	0.20	0.52***	0.04
Openness to experience ²	-0.09***	0.03	.	.
Extraversion	0.03	0.05	0.19***	0.05
Extraversion ²	.	.	.	.
Neuroticism	-0.35***	0.05	-0.28***	0.04
Neuroticism ²	.	.	.	.
Conscientiousness	1.23***	0.31	0.56*	0.29
Conscientiousness ²	-0.18***	0.04	-0.07**	0.07
Agreeableness	1.45***	0.29	0.73**	0.35
Agreeableness ²	-0.18***	0.04	-0.09**	0.04
Tendency to forgive	0.16***	0.05	0.12***	0.04
Tendency to forgive ²	.	.	.	.
Negative reciprocity	0.18	0.14	0.01	0.12
Negative reciprocity ²	-0.15***	0.04	-0.09***	0.03
Positive reciprocity	1.19***	0.39	0.16***	0.04
Positive reciprocity ²	-0.10***	0.04	.	.
N	4 486		4 931	

Note: Separate OLS regressions ran for each personality trait, control variables included duration, duration², marriage cohort, and marriage sequence.

** $p < 0.05$; *** $p < 0.01$

Source: SOEP V27

Table 3. Discrete-time event history models explaining divorce, men

	Model 1		Model 2		Model 3		Model 4	
	OR	SE	OR	SE	OR	SE	OR	SE
Education (years)	0.99	0.01	1.00	0.02	0.98	0.01	0.98	0.04
Openness					1.19***	0.07	1.19***	0.07
Extraversion					0.73	0.18	0.72	0.18
Extraversion ²					1.07*	0.04	1.07*	0.04
Neuroticism					1.00	0.05	1.00	0.05
Conscientiousness					0.82***	0.05	0.82***	0.05
Agreeableness					1.02	0.06	1.03	0.06
Tendency to forgive					1.01	0.05	1.00	0.05
Negative reciprocity					1.13	0.19	1.36	0.94
Negative reciprocity ²					0.97	0.04	0.85	0.17
Negative reciprocity*edu							0.98	0.05
Negative reciprocity ² *edu							1.01	0.02
Positive reciprocity					1.05	0.05	1.05	0.05
Marriage in 1990s (ref. 80s)	1.06	0.14	1.49	0.70			1.49	0.70
Education*1990s marriage			0.98	0.04			0.98	0.04
Marriage cohort 2000s	1.16	0.20	1.57	0.95			1.57	0.95
Education*2000s marriage			0.98	0.04			0.98	0.04
Duration	0.91***	0.01	0.91***	0.01			0.91***	0.01
Duration squared	1.00**	0.00	1.00*	0.00			1.00*	0.00
Higher order marriage	1.27*	0.15	1.26*	0.15			1.26*	0.15
Age							0.98**	0.01
Ln(household income)							0.97	0.14
Ln(labour income)							1.03	0.03
Resp. labour income share							0.48***	0.14
Not born in Germany							0.47***	0.09
Child under 16 in hh							0.88	0.10
Respondent unemployed							1.77**	0.49
Respondent retired							1.12	0.46
Respondent student							0.87	0.56
Partner unemployed							1.51*	0.32
Difference in age							1.02	0.02

N 4 486 (52 605 person-years)

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Source: SOEP V27

Table 4. Discrete-time event history models explaining divorce, women

	Model 1		Model 2		Model 3		Model 4	
	OR	SE	OR	SE	OR	SE	OR	SE
Education (years)	0.99	0.01	0.99	0.02	0.98*	0.01	0.79***	0.07
Openness					1.21***	0.06	1.24***	0.06
Extraversion					1.10*	0.06	1.07	0.06
Neuroticism					0.64***	0.11	0.59***	0.10
Neuroticism ²					1.09***	0.03	1.11***	0.03
Conscientiousness					0.87	0.24	0.13***	0.06
Conscientiousness ²					1.01	0.04	1.32***	0.11
Conscientiousness* edu							1.17***	0.05
Conscientiousness ² * edu							0.98***	0.01
Agreeableness					0.88**	0.04	0.87**	0.04
Tendency to forgive					1.03	0.05	1.02	0.05
Negative reciprocity					0.93	0.05	1.25	0.25
Negative reciprocity*edu							0.98*	0.01
Positive reciprocity					0.99	0.04	0.99	0.04
Marriage in 1990s (ref. 80s)	1.15	0.13	0.95	0.41	1.15	0.13	1.39	0.17
Education*1990s marriage			1.01	0.04				
Marriage cohort 2000s	1.18	0.18	1.98	1.17	1.17	0.18	1.50	0.25
Education*2000s marriage			0.96	0.04				
Duration	0.91***	0.01	0.91***	0.01	0.91***	0.01	0.94***	0.02
Duration squared	1.00**	0.00	1.00*	0.00	1.00**	0.00	1.00**	0.00
Higher order marriage	1.31***	0.13	1.31***	0.13	1.27**	0.13	1.74***	0.24
Age							0.97***	0.01
Ln(household income)							0.82	0.12
Ln(labour income)							1.04***	0.02
Resp. labour income share							1.81**	0.46
Not born in Germany							0.79	0.12
Child under 16 in hh							1.17	0.12
Respondent unemployed							2.08***	0.37
Respondent retired							2.59***	1.21
Respondent student							0.93	0.58
Partner unemployed							1.18	0.26
Difference in age							0.99	0.01

N 4 931 (56 242 person-years)

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Source: SOEP V27