Initial Predictors of Life Satisfaction
in Early Adulthood

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Abstract

In this article, we examine the patterns of association among a number of different factors that may contribute to differences in the initial baseline level of subjective well-being among young people in transition to adulthood. Although we know that life satisfaction is relatively stable throughout adulthood with few factors leading to long term increases or decreases in the baseline of life satisfaction over time, we do not know very much about the determinants of baseline life satisfaction. Our own study addresses this question by using data from the adult and youth questionnaires of the German Socio-economic Panel to examine how these factors are related to the initial assessment of life satisfaction by the individual in late adolescence.

JEL Classification: J1

1. Introduction

Well-being researchers have developed an impressive and extensive literature on many aspects of the level and trajectory of subjective well-being during adulthood, but the question of how the initial set point is determined is underinvestigated. For several decades, the set point model of happiness has dominated both theory and research on the short and long-term determinants of subjective well-being. Articulated first by Brickman and Campbell (1971), the model is based on the premise that most changes in subjective well-being are transitory, with individuals experiencing but temporary highs and lows in response to positive and negative life events. According to the model, most individuals have a baseline, equilibrium level of happiness to which they adjust after any period of disequilibrium. Although the speed of adjustment may vary for different individuals, the theory holds that over time most individuals will drift back to their equilibrium or set point level of happiness. Early em-

pirical research lent strong support to this theory. Researchers have found, for example, that cohorts tend to experience little variation in subjective well-being across the life cycle (Easterlin, 2002). Small scale studies that examined individual reactions to strongly positive events, such as winning the lottery, and strongly negative events, such as experiencing a spinal cord injury or becoming a paraplegic, found that individuals did adjust back to levels of subjective well-being that were relatively lower or higher than the peaks and troughs experienced immediately following the event itself (Brickman / Coates / Janoff-Bulman, 1978; Silver, 1982 cited in Lucas / Clark / Georgellis / Diener, 2003). Several extensive reviews of this body of literature exist, including Diener / Suh / Lucas / Smith (1999) and Kahneman / Diner / Schwarz (1999). A substantial body of literature also exists that examines psychological correlates of life satisfaction among adolescents. (See Huebner, 2004 for an overview of this literature.) Based primarily upon small and / or non-random samples from very limited geographical areas, past research has found predictors of life satisfaction among adolescents to be similar to predictors of life satisfaction for adults.

The purpose of this study is to examine the patterns of association among a number of different factors that may contribute to differences in the initial baseline level of subjective well-being among young people in transition to adulthood with a large, nationally-representative sample. The study addresses this question by looking at how demographic and socio-economic characteristics of the young persons and their parents, personality traits of the young persons, the quality and quantity of relationships as reported by the young person, the parent's level of life satisfaction, and other measures of satisfaction for the young person are related to the initial assessment of life satisfaction by the individual in late adolescence. To the extent that such factors are associated with variations in self-reported levels of life satisfaction, the potential then exists to formulate practices and policies that can have both short and long-term consequences for influencing individual subjective well-being.

2. Methods

We used data from the SOEP youth questionnaire merged with household and individual level data for the adolescent and his / her parents. Since the year 2000, themes related specifically to children and teenagers were integrated into the SOEP by a *youth questionnaire*. It contains, in particular, retrospective type questions on school career, music, education and sport, as well as on the current life situation. In addition numerous prospective questions inquire about educational and further training plans and about expectations on future career and family. In 2000 a pre-test was carried out with 232 teenagers who lived in SOEP-households. An expanded and revised questionnaire was completed by 618 teenagers between the ages of 17 and 19 in 2001. From the year

2002 on, each 17 year-old who is personally surveyed for the first time in a SOEP-household will begin his / her "survey career" by completing the youth questionnaire as well as the standard adult questionnaire. In our analyses, we used all 17 years who responded to youth questionnaire during the period 2001 to 2004 for a sample size of 1202 adolescents. Our goal in this paper is to link the initial measurement of life satisfaction in late adolescence with measures from the youth questionnaire of the German SOEP, the household questionnaire, and the individual questionnaires for the parents.

2.1 Model and Estimation Techniques

In the initial stages of our estimation, we used OLS estimation to refine our model. We then used maximum likelihood estimation techniques to estimate a series of models, including a simultaneous equation model, an instrumental variable model and a structural equation model for subjective life satisfaction that contained three endogenous predictor variables. This article reports on the results from the structural equation model, which we estimated with EQS Version 6. The results were robust across each of the models. Results for the other models are available from the authors as well as results for the endogenous variables – mother's subjective well being; adolescent personal control, and adolescent satisfaction with grades. Our conceptual model is presented in Figure 1.
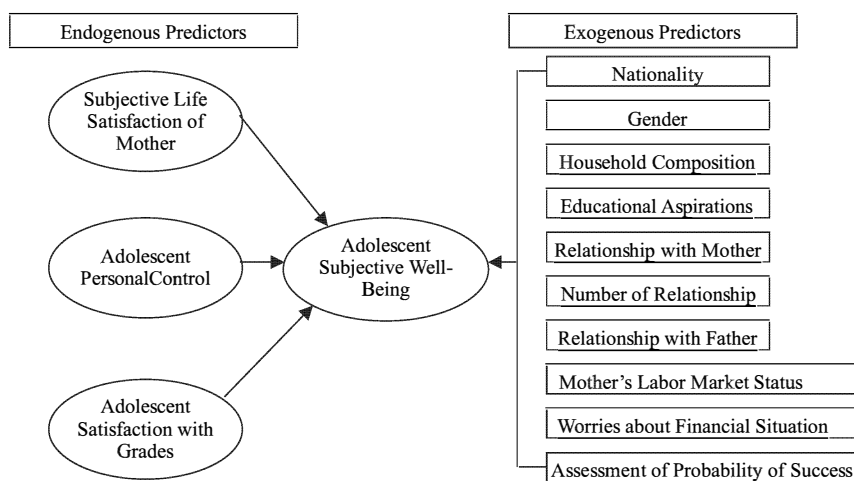

Figure 1: Conceptual Model of Adolescent Subjective Well-being

2.2 Variable Selection

Subjective Life Satisfaction. In each interviewing year of the SOEP, every adult household member is asked to rank their overall life satisfaction. The level of life satisfaction is based on the question: "Finally, we would like to ask about your overall level of life satisfaction. Please answer again according to the following scale, "0" means completely and totally dissatisfied; "10" means completely and totally satisfied. How satisfied are you at the present time, all things considered, with your life?" We used this measure for subjective life satisfaction for the adolescent and his / her mother.

Personal Control. In a review of the empirical and theoretical literature linking personal control and well-being, Peterson (1999) found a consistent correlation between personal control and well-being. In our model, we included personal control as a predictor variable for the life satisfaction of the youth. However, because of the high correlations between personal control and life satisfaction that have been observed in empirical studies, we treat personal control as endogenous. The adolescent's assessment of personal control is based on a set of four responses to a 6 item Likert scale designed to ascertain which factors the adolescents considered the most important for achieving success and improving one's social situation in Germany (Cronbach's alpha = .63). Examples of items include *I have control over my own destiny, Success or failure in life is largely a question of fate or luck,* and *I have often had the experience that others have control over my life.*

Satisfaction with Grades. Research on subjective well-being for adults consistently finds considerable correlation among different domains of subjective well-being, for example, between life satisfaction and job satisfaction (Warr, 1999). We used three components to construct the overall index of satisfaction with grades (school grades in general, grades in German, and grades in mathematics), for each item responses ranged from 0 (unsatisfied) to 11 (satisfied).

Personal Relationships. Links between close relationships and quality of life are well-established (Myers, 1999). Hence we included a number of measures to assess the level and quality of an adolescent's relationships. The first measure relates to the number of relationships that the adolescent judges to be important or very important. We constructed this variable by counting the number of individuals for whom the adolescent checked important or very important; the variable range was from "0" to "9" important to very important persons. We also included measures to assess the quality of the adolescents' relationship with their mothers and fathers. For relationship with mother, we used an index constructed from 7 items with 5 potential responses ranging from very often to never. Specific items included *How often does your mother talk to you about things you do or experience; ask you for your opinion before they decide something that affects you, etc.* Because of missing data for absent fathers, we used a different question for relationship with father that assessed

level of conflict. We constructed a dummy variables based on the question *How often do you argue or fight with the following people (your father)?* A dummy variable was included for (1) Fight very often or often, (2) Fight sometimes (3) No such person in my life, with the excluded category of seldom or never. This specification allowed a test of whether the associations between negative, positive, and no relationship and well-being. This specification also allowed us to investigate the effects of quality of relationship with father in comparison with no relationship with father. Finally, we included a set of dummy variables that indicated whether the adolescent fought often or very often about grades with both parents, mother only, or father only; the excluded category was did not fight often or very often with either parent about grades.

Family Composition. One of the most robust findings in subjective well-being research concerns the relationship between marital status and subjective well-being (Lucas / Clark / Georgellis / Diener, 2003, 2004 and Fujita / Diener, 2005). We constructed a set of dummy variables to measure family composition during the first 15 years of the young person's life. The first group included a set of four mutually-exclusive dummy variables – living with both parents entire life, living some time with stepparent, living some time in nontraditional setting (other relatives, foster parents, in a home), excluded variable: other. The second set indicated whether the father or the mother of the adolescent was deceased and the final set indicated whether the adolescent had contact with his or her father.

Income and Economic Hardship. Based on decades of research, several stylized facts exist concerning the relationship between income, economic hardship, and subjective well-being. In cross-sectional analyses both at the country and interpersonal level, higher income is associated with higher subjective well-being. We used three types of variables to model income and economic hardship. The first was household income specified as the natural log of the yearly household equivalent income / 1000. The second two sets measured economic hardship with dummy variables – one set for the condition of the apartment (apartment in poor condition, apartment needs some repair, excluded category other) and the other for financial worries (major worries, some worries, excluded category other). The natural log of income and the condition of the apartment were household level variables; the assessment of financial worries was reported by the adolescent's mother.

Probability of Success. According to Diener and Lucas (1999), research has shown personality traits and adult subjective well-being to be strongly and robustly correlated. Major traits that have been studied include extraversion, neuroticism, self-esteem, self-efficacy and optimism. As an exogenous variable in the estimation of adolescent life satisfaction, we included a attitudinal variable that measured the adolescent's assessment of future success on number of different domains related to school and work. This measure was based

on an index of 4 items for which the adolescent was asked to assess the probability that they would receive a training or university slot in their preferred field, successfully finish training or university studies, find a job in their field, be successful and "get ahead". Eleven choices were provided, ranging from "0" to "100" percent probability. This probability of success measure can also be interpreted as a measure of optimism.

Parental Employment and Unemployment. In order to test whether employment and unemployment are associated with subjective life satisfaction, we included three employment variables: number of months that the mother was unemployed in the previous year, a dummy variable indicating that the mother was employed full-time for 12 months in the previous year, and a dummy variable indicating that the mother was employed part-time for 12 months in the previous. These questions were based on the individual-level questionnaire of each adolescent's mother.

Demographic and Education Variables. We included a set of dummy variables that indicates whether the adolescent is West German, East German (excluded category), or non-German. We also included a dummy variable for gender. Finally, we also included a set of variables to indicate the adolescent's school aspirations. This variable was constructed based on the highest degree received, if the adolescent indicated that he or she had no additional aspirations for education and on the highest degree expected, in cases where the adolescent intended to pursue a higher degree. Hence this variable is a mixed measure of educational achievement and aspirations.

3. Results

Table 1 presents the estimates for subjective life satisfaction for the adolescents. Descriptive statistics and the results for estimating the three endogenous variables are available from the authors. Mean level of subjective life satisfaction for the adolescents in our survey was 7.63 with a standard deviation of 1.52.

Subjective Life Satisfaction of Mother. This variable, which achieved a high level of statistical significance, was positively related to the life satisfaction of the adolescent. Based on the estimated coefficient of 0.118, the difference in predicted life satisfaction for an adolescent with a mother whose life satisfaction was one standard deviation above the mean versus one standard deviation beneath the mean was approximately .44 points. Higher levels of maternal subjective well-being were positively related to household income and negatively related to poor housing conditions, unemployment, and financial worries.

Personal Control. Adolescents who scored higher on the domain of personal control had higher predicted levels of subjective well-being, that is, adoles-

cents who felt that they had more control over their life tended to have higher levels of life satisfaction. The size of this association was substantial – a predicted difference of .60 points for an adolescent who scored one standard deviation beneath the mean compared with an adolescent who scored one standard deviation above the mean. Males also reported higher levels of personal control than females. Negative associations were observed for adolescents who reported that they did nothing daily and who lived in families where mothers reported some or major worries about the family's financial situation.

Table 1

**Maximum Likelihood Estimation of Subjective Life Satisfaction
of Adolescent, with Endogenous Variables**

	β	SE.
Endogenous variables		
Subjective life satisfaction of mother	.118	.024***
Personal Control	.641	.156***
Satisfaction with Grades	.105	.026***
Demographics		
Nationality / region		
Foreign / immigrant	.300	.161+
West German	.116	.085
Gender: male	.146	.082+
Household composition		
Lived with both parents entire life	.126	.095
Ln equivalent yearly household income / 1000	.156	.084+
Education variables		
Highest Expected Degree		
Intermediate school	.244	.086**
Vocational school	.294	.142*
University	.133	.083
Relationship variables		
Relationship with mother	.319	.074***
Number of important relationships	.050	.026+
Relationship with father		
Argues a lot with father	−.205	.177+
Argues some with father	−.063	.086
Variables pertaining to Mother		
Mother worked full-time entire year (1, else = 0)	−.279	.090**
Mother worked part-time entire year (1, else = 0)	−.197	.084*
Months of unemployment	−.045	.012***
Mother's assessment of worries about financial situation		
Major worries about financial situation	−.209	.098*
Assessment of probability of success in education and work	.015	.003***
Number of Cases = 1152	$R^2 = .165$	

Satisfaction with Grades. Our third and final endogenous variable was the adolescent's assessment of satisfaction with grades. Here the association was also positive and statistically significant, with the size of the predicted effect approximately the same as for mother's subjective well-being, with each standard deviation difference associated with a .20 point difference in predicted life satisfaction for the adolescent. Adolescents who were foreigners or immigrants reported higher satisfaction with grades than did West German adolescents, who in turn reported higher levels of satisfaction than their East German counterparts. A positive relationship was observed between the adolescent's assessment of probability of future success and satisfaction with grades. A positive relationship also existed between actual grades and satisfaction with grades.

Other Findings. Our results for adolescents are consistent with past research on the importance of relationships, particularly high quality relationships, in predicting levels of subjective well-being for adults. Adolescents who reported a higher quality of relationship with their mothers also reported higher levels of subjective well-being than did adolescents with a lower quality of relationship with their mothers. Quantity of relationships was only marginally significant as was our measure of level of conflict with father. Conflicts with mother and / or father were, however, strong and statistically significant predictors of an adolescent's satisfaction with their grades – a finding that suggests that adolescent-parental conflict may affect subjective life satisfaction via mediating variables. Despite strong associations that have been found in past research between adolescent outcomes and family composition, we found no statistically significant association between family composition and subjective well-being for the adolescent. Nor did we find strong direct associations between adolescent subjective well-being and our measures of household income. Mother's assessment of financial worries, however, was associated with both direct and indirect – via mother's subjective well-being – decreases in the predicted level of well-being for the adolescent.

Among adolescents in our study, those with higher assessments of their probability of success in education and work had higher levels of subjective well-being and higher levels of satisfaction with grades, a result that is consistent with findings concerning the link between optimism and subjective well-being for adults. We did not find significant direct associations between our three measures of life participation and adolescent subjective well-being. These variables were, however, statistically significant predictors in our estimation of personal control – adolescents who reported that they were active in sport and who reported that they read daily reported higher levels of personal control, whereas those who reported they did nothing on a daily basis had lower er reported levels of personal control. These results suggest that how adolescents spend their time may indirectly affect subjective well-being through influencing other important personality constructs, such as personal control, that in term may affect levels of subjective well-being.

Maternal unemployment was associated with both direct and indirect associations with subjective well-being. Each month of maternal unemployment was associated with decreases in adolescent subjective well-being (–.043 points for each month or a decrease of more than one half point for adolescents whose mothers were unemployed for the entire year). This coefficient was approximately one-half the magnitude of the coefficient (–.097) for months of unemployment in the equation for mother's subjective well-being. Adolescent's whose mothers worked the entire year also reported lower levels of subjective well-being – for full-time work, a decrease of –.279 points and for part-time work, a decrease of –.197 compared with adolescents whose mothers were not employed the entire year.

4. Discussion

Although our methodology does not allow us to make any claims regarding causality, our results nonetheless suggest that links may exist between the formation of subjective well-being and experiences before adulthood. Our results also indicate that the same factors that are associated with subjective well-being throughout adulthood are associated with the level of subjective well-being at the point of transition from adolescence to adulthood. These associations seem to operate both directly and indirectly via the association of life satisfaction of the parents with the life satisfaction of the child. For example, unemployment, which has emerged as one of the most important predictors of both level and change in adult subjective well-being, has both a direct negative association with adolescent well-being and an indirect one via its negative association with maternal life satisfaction. Income and economic hardship also seem to exert both direct and indirect effects. We found that personality traits were associated with subjective well-being and that consistency existed across different domains of satisfaction, specifically satisfaction with life and satisfaction with grades. Based on a wide range of measures, we found a strong pattern of association between the subjective well-being of the adolescents and variables that measured different dimensions of the experiences and assessments of parents regarding economic hardship. The quality of these relationships was also a predictor of adolescent well-being. In conclusion, policies that attempt to lower unemployment levels and that seek to minimize economic hardship and uncertainty for parents may influence not only the level of subjective well-being experienced by parents, but also the formation of the subjective well-being of their children. Programs that encourage parents to develop strong and positive relationships with their children and that provide the psychological and socio-economics supports necessary to facilitate the development of these relationships may lead to long-term effects on subjective well-being of youth that may persist into adulthood.

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