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Grades – for Better or Worse? The Interplay of School Performance and Subjective Well-Being Among Boys and Girls

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Abstract We examine adolescents' subjective well-being and investigate how it is related to school performance, gender and class origin. We hypothesize that school performance as indicated by school grades, is associated to subjective well-being in a gendered and class-dependent way. Two well-being dimensions are examined: "general subjective well-being" and "lack of psychosomatic symptoms." We use a unique dataset combining survey data on subjective well-being with individual-level registry data on school achievement (school grades) among secondary school children in Sweden, in their lower teens, 12–16 years of age. Our results reveal a positive association between school grades and "general subjective well-being" – for both boys and girls. The conclusions on "lack of psychosomatic symptoms" show no association with grades for boys, while for girls this association is related to class origin. The findings emphasize the importance of taking gender into account when studying the association between subjective well-being and class origin among young people.

Keywords Subjective well-being · School performance · Gender · Class origin

1 Introduction

Children have traditionally been considered important to society as they represent its future in terms of the labor force, generation of ideas and general hope. During the past decade, increased attention has been paid to children's current well-being. This is in accordance with the children's rights perspective, which has been strengthened (Ben-Arieh and Frones 2007). In line with this development, there has also been an increased

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interest in children's and adolescent's subjective well-being (see also Bradshaw and Richardson 2009; Bradshaw et al. 2009). In the present paper, we will look at adolescents' subjective well-being and investigate how this is related to school performance, gender and class origin.

In Sweden, where children's and young people's well-being is high with regard to objective dimensions, several reports, both national and international, have documented surprisingly low levels of subjective well-being (The National Board of Health and Welfare 2009, see also UNICEF 2007; OECD 2009). These findings are puzzling as Sweden has a wide-reaching welfare state with several policies in place that contribute to children's material well-being as well as general equality in terms of socio-economy and gender, such as general social insurances and expansive public services. What is puzzling in the Swedish context is that girls display lower levels of subjective well-being than boys do (Statistics Sweden 2007; Gillander Gådin and Hammarström 2003, 2005; Sweeting and West 2003).

In the Swedish popular media, there are two images circulating of who these girls and boys with low subjective well-being are. First, we have the image of the high achieving girl, who performs well in school and elsewhere, but whose high demands and unreasonable expectations on herself prevent these achievements from translating into well-being. Although the image is slightly exaggerated, the research indicates that there may be some truth to it, as girls seem to act under a discourse of their own and others' expectations of achieving good results (Landstedt et al. 2009). At the opposite end of the continuum, there is the notion of the boy from a less advantaged background, who does not perform well in school and whose well-being is entirely de-coupled from school achievement. These images, however, are not restricted to Sweden. In the UK and elsewhere, boys' underachievement in school has been scrutinized in the media as well as in academia (Reay 2001; Yates 1997; Epstein et al. 1998)

Inspired by these two images, we examine the problem of young people's subjective well-being by exploring links between subjective well-being, school performance, gender and class origin. The focus on school performance is justified because the school environment plays a significant role in young people's life and can be associated with both positive and negative experiences. Performance and test results are two main objectives that are focused on in the school environment, and hence, the effect of educational circumstances is important to consider when looking at youth well-being. A gender perspective is also of key importance, as girls have been found to display poorer psychological well-being than boys do (Statistics Sweden 2007; Gillander Gådin and Hammarström 2003, 2005; Sweeting and West 2003) and because the research has found that girls both have greater academic motivation and experience higher demands (Låftman and Modin 2012). Furthermore, because educational opportunities and educational attainment are unevenly distributed among socioeconomic groups (see, e.g., Erikson and Rudolphi 2010; Breen and Jonsson 2005; Erikson et al. 2005), adolescents from different class origins may have different expectations concerning their own school performance (Goldthorpe 2007), which in turn may be related to their well-being.

The objective of the present study is to add to the existing knowledge on subjective well-being and examine why it varies among young people. Using a unique dataset, we empirically investigate how subjective well-being is related to school grades as well as to different gender- and class-based belongings, which we understand as varying in

regard of their level of demands and expectations put on young people. We hypothesize that subjective well-being is associated with school grades and that this relationship is influenced by gender as well as class origin.

We focus on subjective well-being of young people between the ages of 12–16 and on problems of an "everyday" character, and not on severe psychological or physical health problems. In our view, the notion of subjective well-being includes positive factors and not only the absence of negative factors (Park 2004).

2 Literature Review

2.1 Youth Subjective Well-Being

Youth is a special phase of life; the individual's identity and future well-being are being formed, as signified by movement through the educational system, labor market transitions and family formation. Conditions during childhood and adolescence can influence present and future well-being in many ways. During these years, the foundation for future well-being is formed, but, according to Ben-Arieh and others, we should not study young people's well-being only for the sake of their future 'well-becoming' (Ben-Arieh et al. 2001). Current health and well-being per se constitute an important prerequisite and resource, not least because a certain level of health and well-being is required if one is to participate in and benefit from education, leisure activities, and so forth (Östberg 2001). Furthermore, according to recent research, well-being should not be considered a monolithic concept, but instead a multidimensional phenomenon (Ben-Arieh and Frones 2007). Child well-being encompass quality of life in a broad sense, such as economic conditions, peer relations, political rights and opportunities for development. Goldbeck et al. (2007) have examined the effects of age and gender on adolescents' life satisfaction in the German context and found that life satisfaction decreased in the age between 11 and 16, mainly due to decreasing satisfaction with family relationships. They concluded that decreasing life satisfaction in this period should be seen as a developmental phenomena (Goldbeck et al. 2007). A rich flora of studies from other parts of the world validate these general results on declining subjective wellbeing during adolescence, not the least the latest large scale data collection by HBSC (Health Behavior in School-aged Children 2009/2010) (Holte et al. 2014:21f)

2.2 Gender

According to Connell, gender is socially constructed and reproduced and entails a power relation (Connell 2002). Gender is what we do in social practice – rather than something we have (Connell 2002; West and Zimmermann 1987). There are many different representations of femininity and masculinity, however by social agreements on what should be considered typically feminine and masculine behaviors, girls and boys are encouraged to adapt to these dominant constructions. Still, several competing gender discourses may exist, where some are more appealing than others to different groups of girls and boys (Paechter 2006; Francis 1998). The process that determines which gender discourse are best suited to different groups may be influenced by social

class (Reay 2001). West and Sweeting (2003) point to how the stress associated with achieving and maintaining a female identity, combined with educational stressors, can lead to increased levels of psychological distress. Following the expansion of the educational system, girls have been exposed to new stressors and educational expectations, and West and Sweeting (2003) argue that these factors, along with adopting a traditional female identity, contribute to psychological distress among girls.

As regards young people's subjective well-being there are clear gender differences. Research has found that gender differences in well-being are visible already in adolescence (Statistics Sweden 2007; Haugland et al. 2001; Sweeting and West 2003). This gendered difference in health also seems to persist throughout adult life and into old age (Halleröd and Seldén 2012). Most young people have rather good psychological well-being; however boys have a more positive view of themselves than girls do (Statistics Sweden 2007). Girls also report more psychosomatic complaints and poorer psychological well-being (Haugland et al. 2001; Sweeting and West 2003; Statistics Sweden 2007). It should be noted, however, that more boys than girls have contact with outpatient psychiatric care and that risk of suicide is slightly higher among boys than among same-age girls (The National Board of Health and Welfare 2013). These problems are not captured in the present study, however, as we focus on problems of an "everyday character." Given these differences, it is important to explore in more detail the gendered mechanisms of well-being.

Hjern et al. (2007) found that different school stressors, such as harassment, schoolwork pressure and poor treatment from teachers, are related to psychosomatic pain and psychological complaints. Moreover, girls have been found to report higher levels of stress symptoms (Alfven et al. 2008). In addition, girls show greater academic motivation and experience higher demands, and school performance indicators such as demands, academic motivation, teacher support, and school marks have a slightly stronger association with subjective health complaints among girls (Låftman and Modin 2012). Landstedt et al. (2009) found that both boys and girls strive for recognition through different forms of performance in school, yet this appears to be even more important for girls. Girls, to a greater extent than boys, seem to act under a discourse of their own and others' expectations of achieving good results. However, some boys were also found to experience stress and anxiety in relation to school performance because they were afraid of letting themselves or their parents down. Landstedt et al. (2009) discuss the notion that, among the young, performance processes are perceived as having both positive and negative effects on mental well-being. One contributor to poorer well-being was doubting your own capacity, which was something girls did to a greater extent than boys.

2.3 School Performance

The relationship between education and subjective well-being thus appears to be gendered, but it is also important to explore other aspects of young people's well-being in relation to their academic achievement. School achievement is important to consider, because educational attainment can have a great influence on young people's lives and health. Research has shown that there is a positive relationship between poor health and poor educational achievement (Eide et al. 2010; Costante 2002). Several studies have also investigated the significance of educational performance for

children's adult life, and weak school performance has been related to mental ill-health and self-inflicted injury (Jablonska et al. 2009) and crime (Nilsson and Estrada 2009) as well as to economic hardship, increased mortality, and weak labor market attachment in middle age (Halleröd 2011). Moreover, extensive research has revealed that educational opportunities are unevenly distributed across socioeconomic groups in society (see, e.g., Erikson and Jonsson 1993, 1996; Erikson and Rudolphi 2010; Erikson et al. 2005). The connection between class origin, educational attainment and future health and well-being leads us to consider whether class origin also influences any relationship between school grades and subjective well-being.

2.4 Class Origin

The importance of young people's class origin has primarily been studied by looking at 'well-becoming,'and a great deal of knowledge has been gained on the relationship between class origins, educational attainment and labour market transitions (Erikson and Jonsson 1993, 1996; Breen and Jonsson 2005; Broady et al. 2000). However, research on the significance of class origin for youth well-being has produced conflicting results. Östberg (2001) points to previous research showing that the relationship between class origin, health and well-being has proved to be small or unsystematic. West (1997) argues that class differences in health and well-being are small during youth owing to other inputs – children spend more time in school and with friends – and that youth is furthermore signified by a process of emancipation from the home.

Some health habits, however, have been shown to be associated with social class. Upper-middle-class families have healthier habits, while children from a working-class background have the unhealthiest habits (Östberg 2001). In a study of psychosomatic complaints in the Nordic countries, Berntsson et al. (2001) also found that young people from working-class families with a low education and income are the most vulnerable. Economic stress in the family has been found to be connected to psychosomatic complaints and subjective well-being among children (Östberg 2001; Östberg et al. 2007). And regarding adults, the literature clearly shows that class background, health and well-being are intertwined (Halleröd and Gustafsson 2011; Mackenbach et al. 2008).

When it comes to school achievement, there are also clear differences as a function of class origin. Research has found that individuals from less advantaged backgrounds perform less well in school and are less likely to proceed to the next level of education than are individuals from higher class origins (Erikson and Jonsson 1996). Young women, pupils born in Sweden as well as children of higher white-collar parents generally perform better than do young men, children of foreign-born parents and working-class children (Gustafsson et al. 2000; Vinnerljung et al. 2010). Vinnerljung et al. (2010) stress that even when different types of family constellations and recurrent financial assistance are taken into account, the strong correlation between socioeconomic background and low grades remains.

With regard to school grades, there are clear differences between boys and girls and between young people from different class origins. Because class differentials still exist in educational attainment, it is plausible that personal expectations for school achievement are not only gendered but also class dependent. Goldthorpe (2007:31) argues that aspirations, or personal expectations, for educational attainment are relative to different

class positions. Thus, educational decision-making is conditioned by class situation and involves a class-specific assessment of the costs and benefits of education. For example, to an upper-middle-class family, these considerations may mean the preservation of stability and class position. Given that the educational level of the general population has increased, advantaged families are under greater pressure to counteract downward mobility and invest in their children's education. Pupils coming from a more advantaged class may therefore perceive a pressure to live up to expectations regarding high grades and continuation to a prestigious higher education program, which in turn may influence their well-being. As for the less advantaged class positions, Goldthorpe (2007) argues that possibilities for higher education are viewed in a more guarded way. Ambitions for good grades and higher education may still exist, but for these children, a failed attempt to obtain higher academic qualifications can have more severe consequences. It is possible that children from this class background who are pursuing high grades and academic achievement are sensitive to the success or failure of their academic performance, which in turn may influence their well-being. How school performance is related to subjective well-being as well as how it is linked to gender and class origin is the empirical question the present paper seeks to explore. By focusing on school performance and how it is conditioned by gender and class origin, we will contribute to existing knowledge on mechanisms for young people's subjective well-being.

3 Hypotheses

We propose that personal school achievement, as indicated by grades, influences subjective well-being in a gendered and class-dependent way. That is, we predict that the way in which grades are associated with well-being will differ as a function of gender and class due to different expectations and demands. We base our predictions on four sets of findings. First, previous research has documented a gender difference in subjective well-being in which girls score lower than boys (Statistics Sweden 2007; Haugland et al. 2001; Sweeting and West 2003). Second, school grades show gender differences in Sweden, in that girls, compared to boys, receive better grades and are more likely to attend higher education and university (Swedish National Agency for Higher Education 2008). Third, previous research has found that school stressors and expectations are gendered and can be related to well-being (Låftman and Modin 2012; West and Sweeting 2003). Fourth, because class differentials still exist in educational attainment, it is plausible that personal expectations for school achievements are not only gendered but also class-dependent (Goldthorpe 2007).

Our hypotheses are as follows: First, we hypothesize that subjective well-being will be positively associated with higher school grades (H1). Second, we expect that the relationship between subjective well-being and academic achievement will be gendered, such that grades will be of greater importance to girls (H2). Third, because aspirations and demands may vary with different class origins, we hypothesize that there is a relationship between well-being and class origin (H3). Fourth, we expect that the positive effect of grades might be negated for certain groups, such that especially girls from higher strata will be less inclined to feel better owing to higher grades, because their own pressure on themselves to perform well academically, or the pressure from

their closest environment, is higher. Thus we expect an interaction effect between grades and class origin that involves higher strata girls (H4).

We only have information on well-being and academic performance at one point in time. Thus, identifying causal relationships between academic performance and subjective well-being may be somewhat problematic. That is to say, if we find a relationship, it may mean that academic performance influences well-being, but it may also mean that well-being affects academic performance. Nevertheless, knowledge of any relationship is of importance to our understanding of young people's well-being (Östberg 2001). In regard of the impact of class, it is less likely that children's well-being would affect parents' class position and thus identifying causal relationships in this case is less problematic.

4 Data and Methods

4.1 Data

There are different ways to gather information on children's well-being. The most common strategy is to pose questions about a child's health to adults in the child's surroundings (parents, teachers, etc.). This strategy has some advantages, as teachers can make comparisons with other children and parents may have deep knowledge about their child (Östberg 2001). Another possibility is to ask the children themselves, thus focusing on their own understandings and experiences. In such an approach, the child is regarded as the main informant about his/her own life, and parents (or other adults) are not thought to be able to truly represent the subjective understanding of the child's reality (Ben-Arieh 2005).

We use a dataset collected through a mix of sources. The great advantage of this dataset is that information about the children's health and well-being comes from the children themselves, while information about class origin derives from the parents and data on grades are collected from a national registry. This combination of data is somewhat unique and the information is credible.

The analyses are based on the annual Child Survey of Living Conditions (Child-ULF), conducted in 2001–2005, in combination with the Survey of Living Conditions (ULF) and registry data from the School Board of Education. ULF is based on a representative sample of the adult population in Sweden, and each year between 6,000 and 7,000 respondents are interviewed; the response rate has been around 75 %. Child-ULF is an extension of ULF and is a survey aimed at children and youth. The children in Child-ULF have been selected because one of the parents in the household participated in ULF. The number of interviewed households (parent and child) each year is about 1,100. The parents were personally interviewed in their home and the children were interviewed at the same time as their parents. The children's interviews were conducted using an audio-questionnaire (questions played on a tape-recorder) and the children marked their answers on a pre-printed questionnaire. Thus, the data are available directly, both from the children and from the adult the child lives with (parent/s), and they have also been complemented with registry data (grades from the School Board of Education). For the purpose of the present study, we selected all respondents who were in secondary school at the time of the

interview. This selection resulted a population of 2,154 young individuals aged 12–16 (1,082 boys and 1,072 girls).

4.1.1 Dependent Variables

The dependent variables are related to different forms of subjective well-being or lack thereof. In our view, the notion of well-being includes positive factors such as perceived sense of well-being and feeling comfortable, happy and satisfied. We also consider that subjective well-being is dependent on the absence of negative factors such as discomfort, unhappiness, and psychosomatic symptoms such as stomachaches and sleeplessness.

In order to minimize the number of analyses and to capture conditions that are difficult to measure directly, additive indexes were created. The purpose of indexes is to increase validity by summarizing information from single variables and reducing the effect of the wording of individual questions (Black 1999). As defined by exploratory Principal Component Analysis with Varimax Rotation (PCA)[1] and confirmed by Cronbach's Alpha, two additive indexes were constructed. In order to ensure the reliability of the indexes, all variables have also been analyzed individually. The individual analyses confirmed the results and the reliability of the indexes (data not shown[2]).

The first is a positive dimension labeled "general subjective well-being." This index refers to positive well-being and confidence. It contains three statements: "I think I will have a good future," "I am for the most part pleased with myself" and "I am happy with my appearance" (Cronbach's Alpha 0.72). The introductory question, also stating the answers offered, was phrased:"I will list various statements about how one can be as person or about how one can feel." You can answer to these statements with: "perfectly true," "fairly true," "not very true" and "not true at all." The three questions all relate to positive well-being and confidence, albeit different elements of this dimension. The last one, being happy with one's appearance, has to do with how content one is with one's outward appearance, how one looks, and the clothes one wears, etc. "Being pleased with oneself for the most part" also refers to the current situation, but is broader and deeper than the "appearance" question. Believing that one has a good future is a prospective question that reflects confidence in future possibilities. A higher value on the index (10 scale steps) corresponds to greater well-being.

The second dimension is labeled "lack of psychosomatic symptoms." This index relates to negative well-being in that four psychosomatic symptoms are added together: "stomachache," "sleep disorder," "stress" and "sadness." This index contains variables from the question:"Now I will list some problems one can have. Answer how often you had such problems during the past 6 months. For each question, answer if you had it "every day," "several times a week," "once a week," "once a month," or "rarely or never." Index 2 contains four of the problems listed in this question: "stomachache," "difficulty falling asleep," "felt stressed," and "often sad and low" (Cronbach's Alpha 0.63). Also in this case a higher value on the index (16 scale steps) corresponds to greater well-being.

[1] All indicators used have factor scores ranging from 0.42 to 0.81 using Principal Component analysis with Varimax Rotation.

[2] Can be requested from authors.

There is a discussion in the field on the effects of using different scales for measuring subjective wellbeing. The large study by HBSC (Health Behavior in School-aged children) uses, for example, a 11-step scale, the "Cantril Ladder", where above 6 is seen as "high life satisfaction". Cummins and Gullone have argued that extending the scale while measuring wellbeing beyond the typical Likert point's scales of 5 or 7 points is preferable as it is important to increases scale sensitivity when using subjective quality of life as a measure for outcome (Cummins and Gullone 2000). One reason to use finer grades is that responses on subjective well-being expose an "optimistic bias" in the industrialized world, a problem that can be handled to refinement of scales (Holte et al. 2014).

As our analysis relies on existing data, we cannot choose the scale used and are therefore vulnerable for the critique above. Nevertheless, as our data represent unique data we consider the analysis interesting despite of these possible problems.

4.1.2 Independent Variables and Controls

The independent variables in the present study are; gender, school achievement and class origin. School achievement is measured by the final grade in secondary school, that is, the last year of compulsory schooling in Sweden. Four grades were available at this time: "failed," "passed" (10 credits), "passed with distinction" (15 credits), and "passed with great distinction" (20 credits). For the final grade, 16 courses are graded and the range of possible grade values is from 0 to maximum 320 ("passed with great distinction" in 16 courses). For greater understanding and clarity, the grade variable has been transformed to a continuous variable ranging from 0 to 3. On this scale, 0 is approximately equivalent to a "failed" grade in all courses, 1 to a "passed" grade, 2 to "passed with distinction" and 3 to "passed with great distinction" in all courses.

The class origin variable measures the socioeconomic position of the adults (parent or parent's partner) in the home of the respondent and is defined by the Swedish standard classification SEI (Statistics Sweden), which resembles the EGP schema (Erikson and Goldthorpe 1992) (for the differences between the two, see Erikson and Jonsson 1993: 40). The variable is based on the adults' occupation. Attention is paid to employment relationships, whether the work is manual or non-manual, and educational prerequisites. The class origin variable differentiates between (the description in parentheses refers to the EGP schema) Upper White-Collar (Service Class I), Middle White-Collar (service class II), Lower White-Collar (Routine Non-Manual IIIa + IIIb), Self-employed and Farming (IVa, IVb, and IVc) and finally Blue-Collar Workers, skilled and unskilled (Lower-Grade Technicians, Manual Supervisors, and Skilled Manual, as well as Semi- and Unskilled Manual Workers and Unskilled Agricultural Labourers V, VI, VIIa, and VIIb). Where there are two adults/parents, the most dominant class position in the family of origin is assigned. The rationale for using the most dominant class position is that it has the greatest influence on the conditions and life chances of individuals living in the same household[3]. The dominant class position is typically higher in the schema, except in the case of the self-employed (including farmers) who are set to dominate all classes except the highest—Upper White-Collar

[3] Because we are trying to shed light on gender dimensions in any correlation between young people's subjective well-being and their academic performance, we examined whether there were different outcomes for boys or girls depending on which of the parental class positions was analyzed. After using mother's class position, father's class position and the "dominant" class position of the parents, we could see that the "dominant" class position displayed the most evident difference between the young people.

(Erikson 1984). This classification of dominant class position has been made in accordance with the standard classifications used by Statistics Sweden (thus for parents, the highest response among the order of: Upper White-Collar, Farmers, Self-employed, Middle White-Collar, Lower White-Collar, Skilled Blue-Collar, Unskilled Blue-Collar, and Unknown).

Previous research has found that well-being decreases by age (Goldbeck et al. 2007; Holte et al. 2014), why we include age as a control variable (for descriptive statistics of variables see Table 1).

4.2 Methods and Model Specification

Given that dependent variables are ordinal level measures we conducted ordinal regressions using the Polytomous Universal Model (PLUM) in SPSS, with the logit link function. This regression procedure in SPSS reports log odds in a similar way to that of logistic regression, but the possible outcomes are expanded (O'Connell 2006).

In an ordinal regression model, the regression coefficients of the independent variables are not dependent on the steps of the ordinal dependent variable. In the ordinal regression model, different equations (the number of categories of the ordinal dependent variable −1) are calculated, each with a different intercept, or thresholds, but with the same slopes (coefficients), meaning that the estimated model has one set of coefficients for all outcome categories (Garson 2012; Norusis 2005). In general thresholds are not used to interpret the results, and are therefore not reported here.

When applying ordinal regression, one assumes that the effects of the independent variables are the same for each step in the dependent variable (Garson 2012). However, this cannot be taken for granted and should be tested. In the regression models we use the "test of parallel lines". Chi-square is reported and the null hypothesis is that there is no difference in the coefficients between the different levels of the dependent variable. For the model to be valid a non-significant result should be reported and the null hypothesis accepted.

Table 1 Descriptive statistics of variables

	Mean (SD)	*n*
Index 1. General subjective wellbeing (0–10)	7.88 (1.90)	1,714
Index 2. Lack of wellbeing (0–10)	7.23 (1.83)	2,145
Grades (0–3)	1.98 (0.59)	2,126
Age	14,42 (0,99)	2,154
	Percent	*n*
Class of origin		
Blue collar worker	10.2	211
Skilled blue collar	17	352
Lower white collar	10.6	220
Middle white collar	25.6	530
Upper white collar	22.6	468
Self employed	14.1	293
Boys	50.2	1,082
Girls	49.8	1,072

To answer our hypotheses, we begin by examining any gender differences in well-being (Model 1), any association between grades and well-being (Model 2), association between age and well-being (Model 3) gendered associations between grades and well-being while controlling for age (Model 4), gendered associations between grades and well-being while controlling for age and class origin (Model 5) and interactions between grades and class origin for girls and boys separately while controlling for age (Model 6).

5 Results

5.1 General Subjective Well-Being

Table 2 displays the estimated coefficients for the analysis of the index of "general subjective well-being". The first model shows that girls generally have lower subjective well-being than boys do, which confirms findings from previous studies (Statistics Sweden 2007; Gillander Gådin and Hammarström 2003, 2005). Model 2 reveals a general positive correlation between higher grades and general subjective well-being, for girls and boys, as suggested by Hypothesis 1. Model 3 displays a negative association between age and subjective well-being, meaning that well-being decreases by age. The age-span examined is between 12 and 16 years of age. Model 4, where the analysis is split between girls and boys, presents a positive correlation between grades and subjective well-being among both girls and boys. Model 5, which includes the class origin of pupils, reveals that the relationship between grades and subjective well-being among girls holds under control for class origin but that there are no direct relationships between class and wellbeing. However for boys, there is a negative relationship between belonging to upper white collar and subjective well-being. Model 6 examines the interaction hypothesis. A statistically significant interaction is displayed both among boys and girls, however, in different classes. For girls of lower-white-collar origins, there is a statistically significant negative association between grades and well-being when the interaction term is included. At a given grade level, girls belonging to this group have lower well-being than girls from other groups. Although with higher grades they do significantly increase their well-being, they need a fairly high grade-increase to reach the level of well-being of other groups. According to the image of the high-achieving girl, this is the pattern we would have expected, but for the group of higher white-collar girls. Turning to the group of boys, a similar interaction pattern is displayed, but for the group of upper white-collar boys. Contrary to our expectations, also here, boys increase their well-being with rising grades, but also this group of boys need a large increase in order to reach the same level of wellbeing as the reference group. However, the test of parallel lines displays a significant result and we can reject the null hypothesis, indicating that there is a difference in the coefficients between the different levels of the dependent variable. To investigate this, we ran the regression model with a transformed scale, where the scale had been divided into quintiles. This model displayed a non-significant result of the test of parallel lines (data not shown[4]); indicating that the

[4] Can be requested from authors.

Table 2 General subjective wellbeing. PLUM- ordinal regression

	M1	M2	M3	M4		M5		M6	
				Boys	Girls	Boys	Girls	Boys	Girls
Gender									
Female	−0,76***								
(Male ref.)									
Grades (scale 0–3)		0,19**		0,29**	0,36***	0,42***	0,34**	0,07	0,16
Age (12–16)			−0,21***	−0,21***	−0,21***	−0,22***	−0,21***	−0,22***	−0,21***
Class origin									
Skilled blue collar						−0,10	−0,02	−0,59	−0,29
Lower white collar						−0,19	−0,33	−0,82	−2,44*
Middle white collar						−0,48	0,01	−1,58*	0,69
Upper white collar						−0,50*	0,09	−2,39**	0,57
Self employed (Blue collar ref.)						−0,25	−0,04	−0,54	−0,28
Grades X class									
Blue collar									
Skilled blue collar								0,30	0,15
Lower white collar								−0,52	1,05*
Middle white collar								0,62	0,36
Upper white collar								0,95*	−0,15
Self employed								−0,19	−0,12
Test of parallel lines									
General χ^2	14,60	13,29	7,98	17,65	15,26	65,77	32,59	116,46*	109,18
Pseudo R-square									
Cox and snell	0,044	0,004	0,013	0,023	0,026	0,036	0,031	0,051	0,042
Nagelkerke	0,045	0,004	0,014	0,024	0,027	0,037	0,032	0,053	0,043

*** = $p<0.001$. ** = $p<0.01$. * = 0.05

significant result in model 6 was due to the number of levels in the dependent variable. Still, the results for boys in model 6 should be interpreted with some caution.

5.2 Lack of Psychosomatic Symptoms

The second index concerns signs of negative well-being, and thus the index is inverted so that a higher value means higher well-being (greater lack of psychosomatic symptoms). Considering first the bivariate relationship between gender and well-being in Table 3 Model 1, we note that girls have lower well-being than boys, as previous research has indicated (Statistics Sweden 2007; Gillander Gådin and Hammarström 2003, 2005). Model 2 shows that grades generally have no relationship with psychosomatic symptoms, and thus there is not support for Hypothesis 1 in this second analysis. In model 3, a negative association between age and psychosomatic symptoms is displayed, as found also in Table 2. Interestingly, in Model 4, we detect a significant association between age and lack of psychosomatic problems among girls, but not among boys, meaning that girls tend to show increasing psychosomatic problems as they mature into adolescence. In model 5, we note that among girls the association between lack of psychosomatic problems and grades becomes statistically significant when controlling for class origin, which means that if we include class origin, increasing grades are positively associated with lack of psychosomatic wellbeing. We can further note class-dependent patterns that are in line with Hypothesis 3. Several class categories, but especially girls of upper-white-collar origins, have significantly lower well-being than the reference category: skilled blue collar. In Model 6, which examines the interaction hypothesis (H4), there are no significant relationships for boys or girls, and we can reject Hypothesis 4. It should be noted that model 4–6 for boys, did display a significant result in the test of parallel lines, and the results among boys should thus be regarded as preliminary.

6 Conclusions and Discussion

After confirming previous research on gender differences in subjective well-being among young people, the empirical analysis set out to explore four specified hypotheses. We first investigated the relationship between school performance (grades) and well-being (H1). Our analysis of the first index, "general subjective well-being," confirms the hypothesis of a positive relationship between grades and well-being (H1), whereas the analysis in the second index, "lack of psychosomatic symptoms," rejects it. We interpret these findings as indicating that general well-being and lack of psychosomatic symptoms are two different phenomena in terms of how grades are associated to them. Our results suggest that good educational achievement is positively associated with general well-being and that high grades can entail a positive payoff that boosts confidence and ultimately well-being – or, given that the direction of causality cannot be fully determined, our results may suggest that well-being entails better conditions for studying and receiving higher grades. In regard of the second index we conclude that there does not seem to be a clear association between the presence of psychosomatic symptoms and school performance in the bivariate analysis.

The gendered analysis of the relationship between grades and well-being (H2) showed that grades had a positive association to general subjective wellbeing (index

Table 3 Lack of psychosomatic symptoms. PLUM- ordinal regression

	M1	M2	M3	M4		M5		M6	
				Boys	Girls	Boys	Girls	Boys	Girls
Gender									
Female	−0,88***								
(Male ref.)									
Grades (scale 0–3)		−0,02		0,09	0,15	0,11	0,29**	0,20	0,22
Age (12–16)			−0,16***	−0,08	−0,25***	−0,08	−0,24***	−0,08	−0,25***
Class origin									
Skilled blue collar						−0,34	−0,43*	−0,22	−1,08
Lower white collar						−0,06	−0,44	0,56	−1,55
Middle white collar						−0,19	−0,53*	−0,11	−0,62
Upper white collar						−0,37	−0,73***	−0,07	−0,83
Self employed (Blue collar ref.)						−0,07	−0,59**	−0,08	0,95
Grades X class									
Blue collar									
Skilled blue collar								−0,08	0,35
Lower white collar								−0,35,	0,56
Middle white collar								−0,06	0,05
Upper white collar								−0,16	0,06
Self employed								−0,01	−0,70
Test of parallel lines									
General χ^2	17,39	42,62***	10,03	41,48*	35,92	99,47	103,14	178,60*	190,07
Pseudo R-square									
Cox and snell	0,61	0,00	0,008	0,003	0,022	0,010	0,032	0,010	0,042
Nagelkerke	0,61	0,00	0,008	0,003	0,022	0,010	0,032	0,011	0,043

*** = $p<0.001$. ** = $p<0.01$. * = 0.05

1) for both girls and boys. In relation to the second index "lack of psychosomatic symptoms" the only significant association to grades was found among girls and only when the class variable was introduced as a control (Table 3, model 5). We conclude that there is a stronger association between lack of psychosomatic symptoms and grades for girls, which, in a sense fits the popular picture of the high-achieving girl suffering from stomachache and other stress-related physical symptoms, because of too high ambitions. A general stronger association between well-being and grades among girls in comparison to boys (H2) could however not be established.

Our third hypothesis ponded into how these relationships could be distinguished for different class belongings. In regard of girls, and for the first index, the general subjective wellbeing, the analysis showed no significant direct relationship to class-belonging among girls (Table 2, model 5). However, it turned out that when class origin was introduced into the analysis of the index of "lack of psychosomatic symptoms," the relationship between grades and lack of psychosomatic symptoms among girls became significant (Table 3, model 5). Hence, lack of psychosomatic symptoms among girls is class dependent, in the sense that girls from skilled blue collar, middle white collar, higher white collar, and self-employed backgrounds all have a greater lack of well-being than girls from the reference category: blue collar. The analysis further revealed that it was especially girls from a higher white-collar background who seemed most vulnerable to these kinds of symptoms. This in the line with the image of girls who feels bad when she cannot meet the demands and expectations she puts on herself. We can only theorize about the mechanism underlying this finding. Following the class analysis of Goldthorpe (2007), it is possible that girls from different class origins have different aspirations and thus different expectations for their performance, which in turn affects their well-being. It is possible that girls from a white-collar-origin feel a pressure to succeed and do well, as their parents have done, and that failure to do so leads to lower well-being. These latter results, to some extent support previous research showing that girls' performance expectations influence their well-being (Låftman and Modin 2012; Alven et al. 2008; Landstedt et al. 2009), yet shows that this association entails a class dimension.

When the class-variable was introduced for boys, there were no significant direct relationships in regard of the second index, but in relation of the first index, general subjective well-being. It was shown that boys belonging to upper white-collar, were most vulnerable to lower levels of subjective well-being. Boys belonging to upper white collar had lower subjective wellbeing, than the reference category, blue-collar boys. Interestingly, this is the class category where we had expected significant relationships among girls.

Turning to the interaction analysis and hypothesis four, our analysis showed in relation to the first index, "general positive well-being," that the interaction term was significant among girls but it was only visible among "lower-white-collar" origins, who displayed a lower well-being than other groups. At the same time, these girls seemed more receptive to an increase in grades than other groups, as the interaction term was positive and significant. Hence, at a given level of grades, girls belonging to lower white collar have a lower general subjective well-being than the reference category blue collar, but with grade increase, the subjective wellbeing is improved. For all other female groups there is no statistically significant interaction term. This is certainly an interesting result, but it requires further research. If the hypothesis concerning high-

achieving girls should be sustained (H4), we would have expected to find this relationship, however, not among girls from lower-white-collar origins, but among girls from higher-white-collar origins. Contrary to our hypothesis we found the hypotehesized relationship (H4) among boys. In the final model an interaction between boys from a "upper-white-collar origin" and grades was found, displaying the same relationship as among girls from a "lower-white-origin". The hypothesized relationship between class origin and grades thus finds some support in the analysis of "general subjective wellbeing", but among boys and not girls. However, due to a significant result of the test of parallel lines these findings should be regarded as preliminary. The second index showed no significant results in the interaction analysis.

Previous research has shown some conflicting results regarding the association between class origin and well-being, which has been shown to be small or unsystematic (Östberg 2001). In our analysis of "general subjective well-being" we find associations between class origin, grades, and well-being, however dissimilar for boys and girls. Hence, our results contribute to earlier research by suggesting that gender also needs to be taken into account when subjective well-being and class origin are analyzed. Two puzzling relationships have emerged. First, does the popular image of that we have used to develop hypotheses actually mirror some of the problems among boys? In the gender model that has dominated the western world and is only now slowly loosing some of its power, the pressure on men to succeed is clearly also considerable. It could be that boys from the upper white-collar strata feel this pressure more than the reference group. Second, how can we understand the particular vulnerability that girls from lower-white-collar origins seem to have regarding general well-being? It is possible that the well-being of these girls is affected by their class position and that educational attainment may mean opportunities in life, explaining why high grades are associated with better well-being for these girls, as they want to climb the socioeconomic ladder. This is only speculative, but what once again seems clear is that greater attention needs to be paid to gender when subjective well-being and class origin are in focus.

Given that we find no support for these interactions in previous research, the results should be considered preliminary. In relation to the discussion on boys' underachievement in school (Reay 2001; Yates 1997; Epstein et al. 1998) and the potential influence of underachievement on their well-being, we find some ambiguous results. From the analysis of "general subjective well-being" we can conclude that grades are also positively associated with boys' well-being Yet, in the second analysis on "lack of psychosomatic well-being" we find no support for a relationship between boys grades and their well-being. This second result could however be due to the gendered nature of some of these symptoms, fitting better to a female way of expressing that something is wrong, that to a male.

The focus on school performance adopted in this paper was justified because the school environment plays a significant role in young people's life. But the school environment is not only restricted to performance. Konu et al. (2001) have developed a School Well-being model to account for well-being among children. In total, they examine 56 independent variables to account for general subjective well-being, and conclude that school context, such as school conditions, social relationships and means for self-fulfillment and health status, are important factors for pupils' subjective well-being. Their conclusion to the field is that research often focuses on health-related issues to account for subjective wellbeing but that it should develop to focus more on

the meaning of school in young people's lives. This study has contributed to this research by focusing on school performance. Our results display an association between school grades and subjective well-being. This association is however different for boys and girls and youths from different class origins. A next step may therefore be to examine how other demands and expectations in the school context interact with subjective well-being.

We have examined the association between subjective well-being and school performance. In line with Ben-Arieh et al. (2001), our aim was to generate knowledge on young people's well-being. We have empirically tested whether grades are associated with subjective well-being among young people, and whether such associations are conditioned by gender and class origin. Taken together, our analysis of the two indexes of subjective well-being reveal a positive association between school grades and well-being, and our results confirmed previous research on gender differences in subjective well-being among young people, where girls have lower subjective well-being than boys do. Our results also display that well-being decrease by age, and especially among girls. With regard to class origin, our findings are somewhat ambiguous. Regarding general subjective wellbeing and the association between school achievements and well-being we find that it is boys from a upper-white-collar origin and girls from a lower-white-collar origin who are most vulnerable. In relation to psychosomatic symptoms we have found relations to class origin but only for girls. The findings suggest that further empirical and theoretical attention must be paid to how subjective well-being is related to different forms of demands and expectations among boys and girls of various class origins.

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