

**Klaus Birkelbach / Jörg Otto Hellwig / Werner Hemsing / Heiner Meulemann**

## **Success and Satisfaction in the Occupational Career from Youth to Middle Age in a Cohort of German *Gymnasium*<sup>1</sup> Pupils, 1969, 1984, 1997**

### **1 Research question and design of analysis: objective life history and subjective standards of evaluation**

In modern societies, occupation is a central dimension of a person's identity and occupational mobility a central dimension of a person's life success. Occupational status strongly affects a person's well-being. Yet it is also strongly determined by conditions beyond the person's control. A person is only in part the master of his/her fate and, therefore, only in part the master of his/her happiness. However, while success is defined by objective scales such as educational certificates, money and prestige, happiness is a matter of subjective definition. Like 'Hans in Luck' in Grimms' fairy tale, the worse one is off, the better one may feel. But in order to set one's own definitions against objective scales one needs personal standards of reference. In particular, earlier occupational satisfaction and general strategies to cope with success and failure may transform success into satisfaction.

In this study, we investigate a person's subjective and objective life success, as measured by occupational life satisfaction and occupational status. On the one hand, to assess success subjectively, one cannot ignore objective occupational success. On the other hand, objective conditions loose impact once they are taken account of in a subjective assessment of success. Life success is nothing but subjective life success. Therefore, our ultimate variable is occupational life satisfaction, and we investigate to what extent occupational life satisfaction is determined by occupational status on the one hand and by subjective standards on the other. For both variables, occupational status and occupational life satisfaction, we investigate the effects of the same objective conditions in the person's life history. Over and above these, however, we investigate the effects of current occupational status and of the person's subjective standards for occupational satisfaction. We first consider the determinants of occupational status and then of occupational satisfaction.

Occupational status is dependent on social resources, educational attainment and current family position. As we have conducted longitudinal survey, we shall be looking at two groups of additional determinants: 1) 'starting conditions' at the beginning of an occupational career, i.e. capabilities and life planning, and 2) 'career circumstances', i.e. time spent in episodes which are more or less productive for the attainment of occupational status. Furthermore, the longitudinal design allows us to consider the educational and occupational status not just of the percentage of the population currently in employment, but as an attainment process throughout the life course. We have assigned the father's occupation to 'starting conditions' and educational attainment to 'career circumstances'. As educational achievements are a legitimate form of entry into occupational careers and as gender and family status easily affect occupational attainment, our

---

<sup>1</sup> German secondary education is streamed, with the most academically able pupils attending a *Gymnasium* (similar to the former British grammar school). Furthermore, there are different branches of the *Gymnasium* devoted particularly to classical languages, modern languages, the sciences, etc.

research question is: *Is current occupational status determined by starting conditions and career episodes even if education and current position are controlled?* We answer this question by carrying out regressions of occupational status on starting conditions and on career conditions only and on both groups of variables simultaneously, and by comparing coefficients and explained variances between the regressions.

Occupational life satisfaction refers to the educational and occupational career and therefore can be meaningfully gauged by everybody, whether currently employed or not. Here, we use the same set of predictors as for *current* occupational status, but add '*last* occupational status' and 'being *currently* in employment'. Furthermore, we include two variables which measure personal standards of occupational life satisfaction: 'former occupational life satisfaction' and today's subjective 'importance of occupation'. As satisfaction almost inevitably will reflect objective attainments and subjective standards, our research question here is: *Is occupational life satisfaction determined by starting conditions and career circumstances even when current social position and subjective standards are controlled?* Again, we answer this question by comparing the coefficients of the respective regressions. In both analyses we control the current family position and coping strategies. The common denominator of both questions and both series of regressions therefore, is the degree to which life history affects life success over and above current conditions.

## **2 Sample, variables and hypotheses**

### **2.1 Sample and dependent variables: occupational prestige and occupational life satisfaction**

Our data source is a panel survey of 3,240 German *Gymnasium* pupils in year 10. In 1969 at the age of about 16, they were given a written questionnaire on social background, attitudes to school, and educational plans. 61.4% (1,989 respondents) of the original sample were re-interviewed face to face in 1984 at the age of about 30 regarding their educational and occupational careers and their private life decisions as well as their subjective evaluation of their life careers and their attitudes to politics, religion and the family. 80,2% of those respondents (1,596) were re-interviewed by telephone in 1997 at the age of about 43 on more or less the same topics as in 1984. The panel attrition is somewhat upwardly biased at both steps; we have lost more of the 'losers', i.e. of educationally and occupationally less successful persons. The following analyses refer to the respondents of all three surveys only, i.e. to 1,596 respondents.

As the German *Gymnasium* is socially selective, the original sample is already upwardly biased. Pupils who attended academically less demanding schools (the *Hauptschule* or *Realschule*) could not therefore be included in our sample: the parents' social classes of our sample are almost normally distributed. We cannot generalise for the total population, however we are able to follow the different life careers of a homogeneous group geared to social elite positions very precisely. Furthermore, we follow up a single cohort and hold constant the social and political conditions of their careers, in particular the educational opportunities and the labour market.

In the first and second panel interviews, respondents were asked to outline their occupational history step by step, listing each change of job, company or internal promotion within the company. For each phase, respondents were asked to detail occupation, predominant activity, status category, working hours, income and - in 1997 also - job satisfaction. The occupations were classified according to the ISCO and assigned MPS prestige scores (Magnitude Prestige Scaling) according to Wegener (1988: 238-244). Among the German population, this scale has a

mean of 63.8, a standard deviation of 30.8 and a range between 20.0 (manual worker) and 186.8 (doctor); yet in our socially selective sample the mean is 99.7 and the standard deviation 34.7.

Also in the first and second panel interviews, the respondents were asked to rate their occupational life on a 11-point scale ranging from 0 'totally dissatisfied' to 10 'totally satisfied' in answer to the following question: 'How satisfied are you with your occupational development and your occupational life?' At both points in time, this question was addressed to all respondents whether or not they were currently in employment. The answer in 1997 is the dependent variable, the answer in 1984 one of the independent variables.

**Table 1: Variables and Hypothesis**

	Reference	Survey Time	Predicted Influence on Occupational ...	
			...Prestige	...Satisfaction
<b>Starting Conditions</b>	1969	1969		
<u>Social Resources:</u>				
Father's Occup. Prestige			+	-
<u>Capabilities:</u>				
Measured Intelligence			+	-
Average Grades in Year 10			+	-
<u>Life planning:</u>				
Aspirations to Higher Educ:			+	-
Yes				
Possibly				
Undecided				
(Ref.: No)				
Clear Life Goal			+	-
<b>Career Circumstances</b>	1969	- 1984,		
	1997	1997		
<u>Unfavourable: Interruptions</u>				
Housewife/househusband,			-	-
Motherhood				
Unemployment			-	-
<u>Favourable: Highest Level of Educ.</u>			+	+
<i>Mittlere Reife</i>				
<i>Abitur</i>				
Univ. (dropped out)				
(Ref.: First Degree)				
Doctorate				
<u>Occupational Prestige in 1997</u>				+
<b>Current Social Position</b>	1997	1997		
<u>Occupation:</u>				
In Employment				+
<u>Family:</u>				
(Ref.: Single)				
Partner in Household			+	+
Child in Household			+	+
Female*Child			-	-
<u>Gender:</u> Female			-	-
<b>4 Standards of Occupational Life Satisfaction</b>				
<u>Occupational Satisfaction 1984</u>	1984	1984		+
<u>Importance of Occupation</u>	1997	1997		+
<b>5 Coping Strategies</b>	1997	1997		
<u>Tenacious Goal Pursuit</u>			+	+
<u>Flexible Goal Adjustment</u>			-	+

## 2.2 Hypotheses and Independent Variables

The design of our study, the hypotheses and the independent variables for occupational status and occupational life satisfaction are listed in Table 1.

### *Starting conditions: social resources, capabilities and life planning in 1969*

As can be seen from the columns 'reference time' and 'survey time', three starting conditions measured in 1969 might affect occupational success during the life course up to 1997: namely, social resources, capabilities and life planning. Greater social resources, better capabilities and more definite life planning constitute higher life chances and should facilitate the attainment of occupational status. In Table 1, therefore, all starting conditions have a positive influence on occupational prestige. However, in terms of occupational life satisfaction the same variables do not constitute life chances but obligations. Obligations serve as a personal yardstick for measuring one's own success and should affect occupational life satisfaction negatively. The greater the social resources, the better the capabilities and the higher the goals of a life plan, the higher an individual's demands on his/herself should be, the *lower* his/her satisfaction. In Table 1, therefore, all starting conditions have a negative influence on occupational life satisfaction.

The first starting condition, *social resources* was measured by the father's occupation, as reported by the parents or, if parents did not respond, by the pupil and coded according to Treiman's (1977) International Prestige Scale. The second starting condition, *capabilities*, comprises intelligence and school grades. Intelligence was measured by a class-administered test (Intelligence Structure Test, IST; Amthauer 1953) which is standardised to have a mean of 100 and a standard deviation of 10, and has a mean of 111 and a standard deviation of 11 in our socially selected sample. Grades were measured by the average attained in year 10 in the most important subjects in the different branches of the Gymnasium, as reported by the pupils. Before averaging, grades were z-transformed within each class and subject such that biases of teacher behaviour were eliminated and a mean of 0 and a standard deviation of 1 in each class and subject was produced (Meulemann 1979: 193-196). The scale was reversed so that the high values refer to high grades. In order to avoid negative values, 5 was added to the mean; furthermore, the aggregation over all school classes reduces the standard deviation to 0.7. All variables of the first and second group are metric. The third starting condition, *life planning* was measured by two questions: Do you wish to go to university after leaving school? And: Do you have a clear life goal, a vague life goal or no life goal at all? Aspirations to higher education refer to the institutional blue print, life goals to the personal design of life planning. Aspirations to higher education are categorical and will be coded as three dummy variables ('yes', 'maybe', 'undecided' and 'no'; the latter serving as a base category). The three intensities of a life goal are, for purposes of analysis, considered to be metric.

Of the three starting conditions, the father's occupational prestige may be considered as an illegitimate influence on occupational attainment if legitimacy is defined as achievement: status is transmitted to the next generation through inherited resources not deserved by the beneficiary, namely money and capital, knowledge and networks of the parent generation. However, grades and aspirations are not illegitimate channels of occupational attainment.

### *Independent variables 1984 and 1997: life career circumstances*

Like starting conditions, career circumstances are resources for the attainment of occupational status. They should affect occupational success positively if they are favourable and negatively, if they are unfavourable. For occupational life satisfaction, however, career circumstances no longer

constitute a yardstick, but a component. They are part of the life history between 'then' and 'now'. As components they affect satisfaction by their very quality: positive components heighten, negative components lower satisfaction. Unlike starting conditions, therefore, career circumstances affect occupational prestige and occupational life satisfaction in the same way. In Table 1, therefore, favourable conditions have a positive influence on occupational prestige and occupational life satisfaction, unfavourable conditions have a negative influence.

As can be seen from the columns 'reference time' and 'survey time', variables referring to career circumstances have been constructed using all the information of the two follow up surveys and refer to the entire time-span between the first and third survey. In the two follow up surveys, respondents were asked to outline the story of their life in general which we called - for convenience - 'global biography'. In 1984, respondents were asked, starting from year 10 in 1969, to report with a month's accuracy what they 'did next' according to a predefined scheme which included school, university, professional training, and employment as 'major' categories and about 20 'minor' categories ranging from housewife/househusband and motherhood through illness and army service to unemployment and imprisonment. As far as the major categories are concerned, further questions were asked pertaining to subjects and to success at school, at university or college and during occupational training. In 1997, the same procedure was employed, but here the last phase of the 1984 interview was taken as the starting point. From this information, the highest level of educational attainment and the variables for life career circumstances were constructed.

As circumstances unfavourable to an occupational career, *periods of unemployment* or periods spent without employment as a *housewife/househusband* or *mother* are considered. Both interrupt the professional career and will therefore affect its outcome negatively. Both were measured as months spent in the respective activity between ages 15 and 43 and assigned a value of zero if it was not observed. As circumstances favourable to an occupational career, *educational attainment* and *occupational attainment* are considered. Educational attainment was measured on five levels: (1) *Mittlere Reife*, German school-leaving certificate presented after completing year 10 (age 16); (2) *Abitur*<sup>2</sup>, without beginning a degree course at university or college, (3) dropping out of university/college, (4) graduation from university/college and (5) doctorate. As (4) is the typical and most frequent category in our group, it was taken as a reference group and the remaining levels of attainment were coded as dummy variables. The typical educational achievement is contrasted with under and over-achievement: (1), (2) and (3) should affect the occupational prestige of the last occupation negatively, and (5) positively. As a predictor of occupational satisfaction, occupational success belongs to favourable career circumstances; it was measured as the prestige of the *last* occupation in the life course which in 86.9% of the cases was also the respondent's current occupation.

#### *Independent variables 1997: current social position and standards of occupational life satisfaction*

As occupational life satisfaction is analysed in the total sample, but seen as dependent on the last occupational status attained, being *currently in employment* had to be included as a predictor. Being employed is a favourable component of occupational life and should affect satisfaction positively. It was coded as a dummy variable with '1' for current employment.

---

<sup>2</sup> School-leaving examination taken at the age of 18/19 by the academically most able pupils and required for entry into higher education.

*Gender* and *marital status* are indicators of social obligations which should affect attainment and satisfaction in the same way. As gender-specific life plans oblige women less strongly than men to have an occupational career, less occupational attainment and occupational satisfaction is expected for women. Gender is coded '0' for men and '1' for women. Marital status implies obligations resulting from partnership and parenthood. As having a partner or having a child means stronger social obligations which in turn act as incentives for success, both should affect occupational attainment and occupational success positively. Both were coded as two dummy variables coded '1' if only one partner, married or not, or a child under 18, was currently part of the household, and '0' if the person was single. Furthermore, as a child is much more demanding for employed women than men we also have constructed an interaction variable 'female\*child', which measures the differences of occupational prestige and of occupational satisfaction between men and women. This interaction variable should have a negative effect on both dependent variables.

*Standards of satisfaction* - by definition - affect occupational life satisfaction only. Here, two variables are regarded. Firstly, the satisfaction in 1984 was measured in exactly the same way as in 1997 and should have a positive effect on its repeated measurement in 1997. Secondly, the importance of occupational life was rated on a 7-point scale ranging from 1 (absolutely unimportant) to 7 (very important) in 1997 together with other domains of life. It too, should have a positive effect on occupational life satisfaction.

Finally, *coping strategies* affect occupational attainment as well as occupational life satisfaction - albeit in different ways. They were measured according to Brandstätter and Greve's scales of Tenacious Goal Pursuit (TGP) and Flexible Goal Adjustment (FGA) developed in 1994. Both scales refer to opposite responses to difficulties, if life does not develop as one might have wanted. Both scales are additive indices of 3 items.<sup>3</sup> As a degree of tenacity is more useful for attaining goals in case of difficulties rather than avoiding difficulties and switching to less demanding goals, TGP should positively affect occupational prestige while FGA should have a negative influence. However, some kind of strategy for coping with difficulties – regardless of whether this strategy is tenacity or flexibility – helps to avoid frustration. Therefore TGP as well as FGA will have a positive influence on satisfaction; a person who is unable to cope with difficulties in either way will be the least satisfied. In brief, coping strategies should affect success according to their inner logic, and affect satisfaction through their very existence.

---

<sup>3</sup> TGP+: (1) 'If there are obstacles in my way, I usually step up my efforts to a considerable extent.' TGP-: (2) 'If I meet with insurmountable obstacles, I prefer to look for a new goal.' TGP-: (3) 'If something does not go the way I want it to, I tend to give up my aims instead of struggling for too long.' FGA+: (1) 'I can also gain something from doing without.' FGA+: (2) 'I find it easy to see the good side of the unpleasant things in life as well.' FGA+: (3) 'If I am in difficulties, I ask myself straight away how I can make the best of things.' The five-point rating scale was as follows: strongly agree, agree, undecided, disagree, strongly disagree.

**Table 2: Regression of the Occupational Prestige in 1997 (MPS) on Starting Conditions, Career Circumstances, Current Social Position and Coping Strategies**

	Mean	SD	Predict.	B		
Intercept				121.321		
<b>Starting Conditions in 1969</b>						
<u>Social Resources:</u>						
Father's Occup. Prestige	48.56	13.35	+	.215	****	.08
<u>Capabilities:</u>						
Measured Intelligence	111.70	11.49	+	-.077	****	-.03
Av. Grade in Year 10 (*100)	502.17	69.20	+	.046	****	.09
<u>Life planning:</u>						
Aspirations to Higher Educ.:						
Yes	.40		+	5.653	**	.08
Possibly	.16		+	1.590		.02
Undecided (Ref.: No)	.23		+	2.207		.03
Clear Life Goal	2.02	.64	+	.700		.01
<b>Career Circumstances 1969-97</b>						
<u>Highest Level of Educ. Attained:</u>						
<i>Mittlere Reife</i>	.15		-	-27.640	****	-.28
<i>Abitur</i>	.07		-	-27.030	****	-.20
Univ. (dropped out) (Ref.: First degree)	.10		-	-26.195	****	-.23
Doctorate	.08		+	34.018	****	.26
<u>Interruptions:</u>						
Housewife/househusband, motherhood	10.68	32.56	-	-.056	**	-.05
Unemployment	8.40	21.18	-	-.062	*	-.04
<b>Current Social Position in 1997</b>						
<u>Family:</u>						
(Ref.: Single)						
Partner in Household	.17		+	10.207	****	.11
Child in Household	.69		+	9.687	****	.13
Female*Child	.27		-	1.721		.02
Gender: Female	.41		-	-5.403	*	-.08
<b>Coping Strategies in 1997</b>						
Tenacious Goal Pursuit	3.58	.82	+	.374		.01
Flexible Goal Adjustment	3.96	.77	-	.246		.01

n=1316; for dependent variable MPS: M=99.7, s=34.7; listwise deletion; R<sup>2</sup>=0.354

\*p<.10, \*\*p<.05, \*\*\*p<.01, \*\*\*\*p<.001

Dummy variables: no standard deviation shown

### 3 Results: occupational prestige

#### *Overview*

The regression of occupational prestige 1997 on starting conditions, career circumstances, current family status and coping strategies is presented in Table 2. Altogether 19 variables explain 35.4% of the variance - which is fairly high if one takes into account that the variation of origin and destination of careers is reduced in our socially selective sample.

As far as *starting conditions in 1969* are concerned, each of the three groups of variables continue to exert a remarkable influence. The indicator of social resources, the father's occupational prestige, exerts a positive influence for almost 30 years, as expected, although its range is already restricted to the upper strata. Of the two indicators of capabilities, measured intelligence has no (or rather a negative) impact, but average grades heighten occupational prestige as expected (Birkelbach 1998: 241). Measured intelligence is a scientific construct not easily verifiable in everyday life; but grades refer exactly to the combination of capability and motivation which is rewarded in social and particularly in occupational life. Grades have often been criticised because of their incomparability between school classes (e.g. Ingenkamp 1976); obviously, much of this criticism is not warranted if grades refer to the relative position within school classes and their validity is proven in a long-term perspective on occupational success. Of the two indicators of life planning, aspirations to higher education have the expected positive impact, but having a life goal does not. Aspirations refer to the level within conventional life plans pre-designed by the educational and the status system; a life goal may direct life planning beyond educational goals and status systems. However, it is only conventional life plans and not the personal ones that affect life success if, in turn, success is measured in the conventional hierarchy of status.

As far as *career circumstances 1969-1997* are concerned, favourable and unfavourable career circumstances have the predicted positive or negative effect. Educational achievements strongly improve occupational prestige scores. As the typical group of our sample, those with a university degree constituted the reference group, the three lower levels - *Mittlere Reife*, *Abitur*, and dropping out of university - were employed in lower-status occupations, while the higher level - doctoral thesis (which is almost mandatory in chemistry and medicine) - were employed in higher-status occupations. However, the effects of the three lower levels only marginally follow the hierarchical order of the education system; by and large, they attain the same status. In a group geared to attaining a university degree, attaining less than this does not pay in terms of occupational prestige. This may have two reasons. Firstly, someone who does not waste time on education without getting a degree has more opportunities of occupational advancement to offset educational disadvantages. This is particularly remarkable for the *Abitur* which has traditionally been a passport to university entry only, but ought to have gained value in terms of occupational qualifications at least since the enormous increase in candidates taking the examination which began in the late sixties; the comparison between the effects of leaving school after year 10 and after taking the *Abitur* shows that the gain is very small indeed.<sup>4</sup> Secondly, dropping out of university without graduating can be taken as a negative signal by employers. Both explanations point to the fact that the German educational system is discontinuously stratified: there are no small steps, but only big jumps. A halfway failure is worse than not having started the race at all.

---

<sup>4</sup> Our sample typically gained their *Abitur* in 1973. The situation may improve for later cohorts with the examination.

Much of the recent talk in Germany about the positive *social* functions of dropping out of university seems at least dubious against this background of individual failure caused by the discontinuous stratification within the university.

Much weaker than the positive effects of favourable career circumstances are the negative effects of unfavourable ones. Yet they are not less remarkable. Career interruptions caused by unemployment or by family obligations - which are found almost exclusively with women - have a negative impact on the attainment of an occupational position even if gender and marital status as well as educational attainment are controlled. At the job entry, educational stratification strongly determines the occupational stratification; yet even then, a detour from the standard of a continuous occupational career is harmful for occupational success - not dramatically, but perceptibly. Standardisation is working both ways - positively through big rewards for educational credentials, negatively through small punishments for irregularities within the occupational career.

As far as *family position in 1997* is concerned, there are two strong effects: living together with a partner and having a child strongly increases occupational prestige in comparison to being single. Obviously, private obligations serve as incentives to strive for personal success. This is true not only for men, but for women as well, although to a lesser extent - as gender specific regressions show. Success in private and in occupational life go hand in hand.

Somewhat weaker are the effects involving gender. Having a child does not affect occupational prestige differentially for men and women in the manner expected: if anything, women with a child attain more occupational prestige than men with a child. Yet while the current status of being a parent does not disadvantage women, time spent as housewife or househusband reduces occupational prestige in general - as a look back to the respective row of Table 1 shows. At the age of 43, current parenthood no longer disadvantages women, but former family obligations are still felt as loss of occupational prestige. Finally, women in general attain less prestige than men. Being a mother formerly led to occupational handicaps, but no longer does, while today being female does lead to occupational handicaps. This pattern of results fits in with the results of a similar regression of occupational prestige attained after university graduation up to the age of 30 (Meulemann 1996: 237-247). At that time, current parenthood did disadvantage women; however, if parenthood was controlled, women attained the same or even more occupational prestige as men. Women were handicapped as mothers but not as women. Taken together, the results for both ages suggest that the differential impact of parenthood shows up during the life span normally scheduled for parenthood, i.e. age 20-40, but not afterwards. What does show up during the respondent's early forties is an occupational prestige gap for women as women, independently of private obligations. Women *become* less successful than men. On the one hand, employers may increasingly discriminate against women as they climb up the career ladder. On the other hand, women may increasingly disengage from striving for occupational success which for them is less obligatory than for men anyway. And most probably, both tendencies work together inextricably.

Finally, neither *coping strategy* - TGP or FGA - has a significant effect on occupational prestige. If TGP refers to a persistent attitude to strive for success, and FGA to give in, they should have shown opposite effects on occupational success. Yet they have no effect at all. Possibly, two biases of our research design have worked against them. On the one hand, as the occupational prestige in 1997 is already attained earlier in many cases, it may have been easily determined by some of the competing factors, notably starting conditions and career circumstances. On the other hand, as coping strategies were measured as late as 1997, they must have been more or less constant since 1969 in order to have effects on occupational prestige - which obviously is a strong assumption.

### *Discussion*

If one ranks the effects according to strength, education is by far the most important, followed by private obligations. Education alone explains 27%, and together with partnership and parenthood 30% of the variance. The distance between the highest and lowest educational group is 62 prestige points, i.e. nearly two standard deviations of the prestige distribution in our sample. Even in our sample restricted to the higher level of secondary education which comprises at most a fourth of a generation,<sup>5</sup> successful completion of secondary and tertiary education strongly determines not only the entry into an occupation, but also the educational career up to age 43. Similarly, private obligations have a considerably stronger effect on occupational prestige than at the age of 30 (Meulemann 1996: 243). On the one hand and as is the case at the age of 30, private obligations may work as incentives to strive for occupational success. On the other hand, selective filters specifically at work in advanced stages of higher professional careers may discriminate against single persons and in favour of families - and this may explain the increased strength of the effects at the age 43. A family may facilitate becoming involved in occupational networks after office hours and in this manner be instrumental for occupational advancement: and as family predominantly means a wife and children, this may explain part of the occupational prestige gap of women too.

Given the high impact of educational certificates and current family position, the persisting significant influence of each of the three starting conditions is remarkable; furthermore, the seven starting conditions alone explain 13.8% of the variance. The father's occupational prestige, average grades and aspirations to higher education may well have an impact on educational attainment; but they definitively have a positive effect on occupational prestige which by passes educational attainment. This by passing can be traced back to the occupational attainment of our group at the age 30: already, the father's occupational prestige and grades in year 10 had positive effects on the occupational prestige among the ones who attended university; measured intelligence and aspirations to higher education, however, at that time, had no effects (Meulemann 1996: 240-247; Birkelbach 1998: 284, 363). Social resources and socially visible capabilities have not only long term, but also permanent effects on occupational success beyond the effects of education, while 'pure' capabilities never pay in terms of occupational prestige and the effect of a goal-directed planning is latent for some decades but does show up in middle age. Beyond the achievements defined by educational certificates, then, illegitimate as well as legitimate factors prompt occupational success up to middle age: resources which are inherited and not deserved as well as grades which fine-tune the measurement of achievement.

Not only starting conditions have an impact on occupational prestige but also career circumstances. Interruptions in the occupational career due to unemployment have a fairly strong negative effect, independently of education and current position.

Therefore, our research question, whether there are influences of starting conditions and career circumstances on occupational prestige even if education and current conditions are controlled, can be answered positively: starting conditions, if they are legitimate or not, by pass the most important legitimate criterion of occupational achievement, educational attainment; and even after graduation, interruptions in the occupational career leave their mark on occupational attainment. At its beginning and at its intermediate stages, life history is consequential for occupational attainment.

---

<sup>5</sup> In 1970, 19% of the 13-year old population attended a *Gymnasium*, whilst 55% attended a *Hauptschule* and 20% a *Realschule* (Datenreport 1994: 52).

Overall, the effects on occupational prestige tell a sobering story of the power of standardisation of life careers which runs counter to the popular notions of 'individualisation', 'chosen careers' or 'patchwork biographies', seemingly tailor-made for such an educationally privileged group as ours. Most easily, this is demonstrated by the high percentage of explained variance even in an upwardly selective sample. More telling, however, is the pattern of strong and weak effects. Grades, as a measure of capability and socially visible motivation, have an impact on occupational prestige, but intelligence, as a measure of individual potential, has not. Aspirations to higher education, as a measure of conventional life planning, have an impact on occupational prestige, but a life goal, as a measure of individual life planning, has not. Educational attainment almost fully determines the entry level into an occupational career, and the standard of a continuous occupational career is still valid as the harmful consequences of deviations prove. Finally, the coupling of success in occupational and private life and the occupational handicap of women in advanced career stages points not only to standard patterns, but even to traditional patterns of life careers.

## **4 Results: occupational life satisfaction**

### *Overview*

The regression of occupational life satisfaction on starting conditions, career circumstances, current social position, coping strategies and standards of occupational life satisfaction is presented in Table 3. The predictors of occupational life satisfaction are the same as the predictors of occupational status - apart from four variables. Firstly and secondly, occupational success is a condition of occupational satisfaction. Therefore, 'last occupational prestige' is included under the heading of career circumstances and 'in employment' under the heading of current social position. Thirdly and fourthly, two subjective standards of occupational life satisfaction have been included: the satisfaction with occupational life in 1984 and the importance of occupation in 1997. Altogether 23 variables explain 22.3% of the variance.

**Table 3: Regression of Occupational Satisfaction on Starting Conditions, Career Circumstances, Current Social Position, Standards of Satisfaction and Coping Strategies (n=1461)**

	Mean	SD	Predict.	B	
Intercept				3.310	
<b>Starting Conditions in 1969</b>					
<u>Social Resources:</u>					
Father's Occup. Prestige	48.56	13.30	-	-.006 *	-.04
<u>Capabilities:</u>					
Measured Intelligence	111.46	11.40	-	.004	.03
Av. Grade in Year 10 (*100)	501.40	69.39	-	-.001	-.03
<u>Life planning:</u>					
Aspirations to Higher Educ.:					
Yes	.39		-	-.011	-.00
Possibly	.16		-	-.338 **	-.07
Undecided (Ref.: No)	.24		-	-.170	-.04
Clear Life Goal	2.02	.65	-	.053	.02
<b>Career Circumstances 1969-97</b>					
<u>Highest Level of Educ. Attained:</u>					
<i>Mittlere Reife</i>	.17		-	-.219	-.04
<i>Abitur</i>	.07		-	-.136	-.02
Univ. (dropped out) (Ref.: First Degree)	.11		-	-.261 *	-.04
Doctorate	.07		+	-.448 **	-.06
<u>Interruptions:</u>					
Housewife/househusband, motherhood	19.94	49.11	-	.001	.02
Unemployment	9.96	25.32	-	-.007 ****	-.10
Last Occupational Prestige	98.06	34.61	+	.003 **	.07
<b>Current Social Position in 1997</b>					
<u>Occupation:</u>					
In Employment	.89		+	.963 ****	.16
<u>Family:</u>					
(Ref.: Single)					
Partner in Household	.16		+	.241	.05
Child in Household	.70		+	.318 **	.08
Female*Child	.33		-	-.091	-.02
<u>Gender:</u> Female	.45		-	.150	.04
<b>Standards of Occupational Life Satisfaction</b>					
<u>Occupational Satisfaction in 1984</u>	6.85	2.36	+	.147 ****	.19
<u>Importance of Occupation</u>	5.43	1.10	+	.368 ****	.22
<b>Coping Strategies</b>					
<u>Tenacious Goal Pursuit</u>	4.58	.83	+	.155 ***	.07
<u>Flexible Goal Adjustment</u>	4.97	.76	+	.279 ****	.12

$R^2=0.223$ , listwise deletion, satisfaction: range 0-10,  $M=7.05$ ,  $s=1.85$ .

\* $p<.10$ , \*\* $p<.05$ , \*\*\* $p<.01$ , \*\*\*\* $p<.001$

Dummy variables: no standard deviation shown

To assess occupational life satisfaction, *starting conditions* serve as standards of comparison and should have a negative influence. This is indeed the case as far as most of the signs are

concerned. However, it is sufficiently significant only in two cases. Firstly, the father's occupational prestige has a negative influence on the 10% level. Secondly, the aspiration to 'possibly' study has a negative influence on the 5% level. However, the remaining aspiration variables - 'definitely' and 'undecided' - do not show increasing negative influences as one should expect if the aspiration increasingly sets higher standards. The difference in significance notwithstanding, therefore, the effect of the father's occupational prestige is the only one of substantive interest.

Seen as a whole, starting conditions have a negligible influence on occupational life satisfaction. Former life conditions do not serve as a standard for occupational life satisfaction. Advantages in terms of starting conditions are not disadvantages in terms of getting satisfaction - with the remarkable exception of the father's occupational prestige. How can this be explained? The starting conditions considered as yardsticks of satisfaction here have a different power to be persistently experienced over the life course. Grades, aspirations to higher education and life plans can be forgotten; the results of tests probably were never made known to the candidates. During the life course, these starting conditions may be used as entry legitimisation or they may stand for personality traits which are useful in the subsequent occupational career. However, as a yardstick of satisfaction they have to be re-presented, and usually there is neither an incentive nor a trigger to bring them into consciousness again. This is different for social resources. They are imposed during childhood and youth and experienced continuously during early adult life. Even if relations to parents are severed, their social position cannot be extinguished in memory: they continue to be there, and they are the first and most simple yardstick for one's own occupational position. Therefore, the father's occupational prestige is the only variable affecting occupational life satisfaction in the long run.

*Career circumstances* have some but sometimes unexpected influences. Of the two *unfavourable* circumstances, time spent in unemployment has the expected negative influence. Yet time spent in marriage and motherhood has no influence. Of the two *favourable* career conditions, only occupational class has the expected positive influence while educational success affects satisfaction in curvilinear form: it is highest for the university graduates, significantly lower for the two neighbouring groups probably having the same level of aspiration, i.e. graduates with a doctorate and students who dropped out of university. Furthermore, it is somewhat, but not significantly lower for the two groups which have never attended university - in which case the smaller satisfaction gap might derive from lower aspirations. Why are university graduates with a doctorate less satisfied with their occupational life than university graduates with a degree and even than those who have dropped out of university? Two explanations are conceivable. Firstly, time spent on a doctoral thesis shortens occupational career opportunities and therefore reduces satisfaction. Secondly, the students who completed a doctoral thesis mainly studied chemistry and medicine - fields where a thesis is almost obligatory. In medicine, however, income opportunities have been reduced by a policy which set an upper limit on the total income of doctors and caused much frustration among them (Behaghel 1994: 169-194). Similarly, occupational opportunities have reduced in chemistry and in many of the humanities and social sciences where graduates often start a PhD for lack of occupational opportunities after a first degree. In short, current conditions on the labour market may have been the reason why an additional qualification did not pay.

Seen as a whole, career circumstances have a small impact on occupational life satisfaction which increases as one compares the career stages: it derives from occupational rather than from educational attainment - as the fairly strong effects of last occupational prestige and of unemployment show. Even the two significant effects of educational achievements - dropping out from university and doctorate - can be explained by occupational opportunities: their labour markets have worsened objectively and - in the case of a doctorate - also as gauged by personal

aspirations. Although occupational life satisfaction refers to education as well as to occupation, the effects of the earlier stage fade away behind those of the later stage.

*Current status* has strong, but again sometimes unexpected effects. Firstly, being in employment strongly increases satisfaction. Secondly, partnership and parenthood heighten satisfaction. Both is as expected. Not only occupational participation, but also family obligations heighten occupational satisfaction. Contrary to expectation, however, the positive effect of parenthood does not depend on gender. Even with children in the family, women are not less satisfied with their occupational life than men. Moreover, independently of familial status, women are not less satisfied, but more satisfied with their occupational career - although not significantly so (see also Birkelbach 1998: 216, 300).

Seen as a whole, current social positions considerably affect occupational satisfaction, but their effects must be seen in conjunction with the effects of career circumstances. This pertains to occupational as well as to private life. As far as *occupational life* is concerned, the strong effect of

Both *coping strategies* show the expected positive influence on occupational life satisfaction. Yet the effect of TGP is smaller than the effect of FGA. As the authors of the scales have found in their own research (Brandstätter / Renner 1989: 62), the coping quality of both strategies heightens satisfaction, in this case occupational life satisfaction. However, and again as is found in the research of the authors of the scales, TGP is less effective here than FGA, as the former provides more potential for frustration than the latter.

Finally, the two *standards of occupational life* satisfaction have strong positive influences on occupational life satisfaction, as expected. Surprisingly, occupational life satisfaction in 1984 has a standardised effect as strong as the importance of occupation in 1997. Although much has happened in the occupational career between the ages of 30 and 43, satisfaction with the occupational career remains the same to a high degree. Obviously, it is determined by personality dispositions almost as much as by life career changes and continuities.<sup>7</sup>

Seen as a whole, coping strategies and standards of occupational career are responsible for the lion's share of the explained variance. All four variables have significant and fairly strong effects. This is partly due to their more recent measurement, partly to their more strongly subjective character. Furthermore, the standards have stronger influences than the coping strategies. The standards are specifically geared to occupational life while the coping strategies refer to the vicissitudes of life in general - occupational and private.

### *Discussion*

If one looks at all the predictors, the more recent the predictors are located in the life history, the more they affect occupational life satisfaction. Starting conditions in 1969 show only traces of an influence on occupational life satisfaction. Career circumstances between 1969 and 1997 show a somewhat stronger influence. And social position, coping strategies and standards in 1997 have the strongest impact. If one regresses occupational life satisfaction on starting conditions and career circumstances, 8.4% of the variance is explained by 14 variables; furthermore, there is only one change in the regression coefficients in comparison to Table 3: the two unfavourable career circumstances - housewife/househusband and unemployment - have stronger and significant negative influences ( $\beta = -.10$  and  $-.20$ ). If one regresses occupational life satisfaction on current social position, standards and coping strategies, 20.3% of the variance is explained by 9 variables. This means that current conditions do not mediate the effects of starting conditions and career circumstances - with the exception that gender and current employment take over the effects of being a housewife/househusband or being unemployed. If one compares personal standards with the life history overall, the four variables referring to standards and coping strategies explain more variance of satisfaction - 16.5% - than the total of 19 life history variables from starting conditions to current social position - 11.3%. Moreover, the coefficients of the life history do

---

<sup>7</sup> One might argue that the effect of satisfaction in 1984 on satisfaction in 1997 is over-estimated due to the correlation of the residuals of both variables (Markus 1979: 49-53, Finkel 1985: 32-37). However, a Two-Stage-Least-Squares estimation of this effect in which an instrumental variable was constructed by regressing occupational life satisfaction in 1984 on the remaining predictors of Table 3 and on general life satisfaction in 1984, personal life satisfaction in 1984 and importance of occupation in 1984, yielded the same standardized and a somewhat larger unstandardised regression coefficient significant at the 001. level. If there are correlations between the error terms in occupational life satisfaction in 1984 and 1997 at all, they are negative rather than positive; furthermore, the effect is under rather than over-estimated.

not change when the personal standards are no longer in the predictor set. This again means that personal standards do not mediate the influence of the life history. Life history and subjective assessment processes have their impact on occupational life satisfaction independently of each other.

Notwithstanding the overwhelming influences of current positions and personal standards, two starting conditions and career circumstances have an impact on occupational life satisfaction, namely the father's occupational prestige and periods of unemployment. Therefore, our research question of whether life history has an impact on occupational life satisfaction even if current position and personal standards are controlled, can be answered positively. Although satisfaction primarily is assessed according to objective and subjective standards, i.e. to success and personal attitudes, traces of the life history are still visible in the assessment. And this is particularly remarkable for social resources, indicated by the father's occupational prestige. They simultaneously constitute an objective condition favouring attainment and disfavouring satisfaction through heightened aspirations.

## **5 Conclusion: comparing the effects of life history on occupational success and occupational life satisfaction**

We have examined the impact of life histories, current status and personal standards on current occupational success and satisfaction. Life histories comprised two groups of variables: starting conditions and career circumstances. As starting conditions are resources for success and standards of comparison for satisfaction, they should have positive effects on success and negative effects on satisfaction. However, career circumstances and current positions should have the same effects on success and satisfaction: positive if they are favourable, negative if they do not. Personal standards comprised two groups of variables: standards of occupational life satisfaction which are relevant for satisfaction only and should have a positive effect; and coping strategies which should affect success according to, and satisfaction independently of their quality as tenacious or flexible. We compare the effects on success and satisfaction along these hypotheses.

Firstly, starting conditions in one case have the assumed opposite effects. The father's occupational prestige has a small but statistically significant influence persisting over almost 30 years although its range was already restricted in the original sample. As predicted, it heightens occupational attainment and lowers occupational life satisfaction. It operates as a resource and as a standard of comparison. The better one's starting position, the more one attains, but the less one is satisfied. That social resources, indicated by the father's occupational prestige, are the only factor with effects persisting into middle age on success and satisfaction is probably due to their permanent presence during the life course. While grades may be forgotten and test scores never made known, the social resources of the parent family are there and remain. They are at the child's disposal even if they need not be used; and they cannot be circumvented if an evaluation of attainments is required.

Secondly, career circumstances had the assumed effect in the same direction in two cases. Dropping out of university - the first case - simultaneously lowers occupational attainment and occupational life satisfaction. Probably, this reflects the discontinuous stratification of the German education system: more education means less occupational success if one does not graduate from university - graduation being an entry ticket for an occupation and therefore also a 'guarantee' of satisfaction. Periods of unemployment - the second case - simultaneously lower

occupational success and occupational life satisfaction. They reduce the time for learning and advancing in a given occupation, and they are kept in mind as unwelcome experiences.

Thirdly, current positions had the assumed effect in the same direction in one case. Having children heightened success as well as satisfaction. On the one hand, a family with children is an obligation to strive for success - and it may be directly instrumental for occupational success in advanced career stages of our socially privileged sample. On the other hand, familial obligation does not interfere with, but contributes to occupational satisfaction.

Contrary to expectations, however, family position did not interact with gender in determining occupational success or satisfaction. While women had less success, they were more satisfied. This contrasts with the results in 1984. At the age of 30 and within the group who attended university, women had more success and were less satisfied - although both results were not significant. Nevertheless the contrast between both time points is suggestive. During the beginning of the professional careers prevailing in our sample, there was obviously no discrimination against women. Therefore, success may have heightened aspirations and lowered satisfaction. During the advanced stages of the very same professional careers, however, there may have been discrimination against women. Therefore, career obstacles, experienced or anticipated, may have lowered aspirations and heightened satisfaction. Possibly, a 'flexible goal adaptation' not measured in our earlier survey led women to be satisfied with lesser attainments.

Fourthly, coping strategies had no effects on success, but the expected positive effects on satisfaction. Possibly, they were measured too late to have an impact on success. But obviously, satisfaction is not affected by occupational career experiences alone, but by personal standards as well. The fairly high positive influences of the standards of occupational satisfaction tell the same story. More generally, personal attitudes had no impact on success, but a strong impact on satisfaction.

In this study, we have examined two questions: Is occupational prestige determined by starting conditions and career circumstances even if education and current position are controlled? And is occupational life satisfaction determined by starting conditions and career circumstances even if current position and personal standards are controlled? Both questions were answered positively. That is, the life history has an impact over and above the typical determinants of occupational prestige and of occupational life satisfaction. However, life history had a much stronger effect on occupational prestige than on occupational life satisfaction. While one variable of each of the three starting conditions (resources, capabilities and life planning), and both forms of career interruptions (family obligations and unemployment) affected occupational prestige, only father's occupational prestige and periods of unemployment left their mark on occupational life satisfaction. The life history more clearly reflects itself in objective success than in subjective satisfaction. In life history, success is more deeply rooted than one usually looks back to gauge satisfaction.

Occupational success is strongly determined by educational achievements, that is by a legitimate standard. But even if one ignores the blue prints of occupational status furnished by educational achievements and looks at life histories, ready-made influence factors outweigh individual ones: grades have a greater impact than intelligence, and aspirations a greater impact than life goals. The typical influence on occupational success as well as the influences of life history speak in favour of a strong standardisation of life careers. On the other hand, the strong impact of personal standards on occupational life satisfaction even in comparison to the variables of current position demonstrates that satisfaction is a predominantly individual matter. The attitude

to reality more strongly affects satisfaction than reality itself if satisfaction refers to the life history. As much as careers may be standardised, satisfaction may be individualised.

### **References:**

- Amthauer, Rudolf: 1953. Intelligenz-Struktur-Test, 2., erweiterte Auflage. Göttingen: Verlag für Psychologie, Dr. C.J.Hogrefe.
- Behagel, Kathrin, 1994. Kostendämpfung und ärztliche Interessenvertretung. Ein Verbandssystem unter Stress. Frankfurt: Campus.
- Birkelbach, Klaus: 1998. Berufserfolg und Familiengründung. Opladen: Westdeutscher Verlag.
- Brandstätter, Jochen / Greve, Werner: 1994. The Aging Self: Stabilizing and Protective Processes. *Developmental Review* 14: 52-80.
- Finkel, Steven E., 1995. Causal Analysis with Panel Data. Beverly Hills, CA: Sage University Papers.
- Datenreport 1994. Zahlen und Fakten über die Bundesrepublik Deutschland. Ed. by Statistisches Bundesamt. Bonn: Bundeszentrale für politische Bildung.
- Ingenkamp, Karl-Heinz, (ed.) 1976. Die Fragwürdigkeit der Zensurengebung. Texte und Untersuchungsberichte. 6., überarbeitete und erweiterte Auflage. Weinheim: Beltz.
- Markus, George B., 1979. Analyzing Panel Data. Beverly Hills, CA: Sage University Papers.
- Meulemann, Heiner: 1979. Soziale Herkunft und Schullaufbahn. Frankfurt: Campus
- Meulemann, Heiner: 1996. Die Geschichte einer Jugend. Lebenserfolg und Erfolgsdeutung ehemaliger Gymnasiasten zwischen dem 15. und 30. Lebensjahr Opladen: Westdeutscher Verlag.
- Treiman, Donald J.: 1977 Occupational Prestige in Comparative Perspective. New York: Academic Press.
- Wegener, Bernd, 1988. Kritik des Prestiges. Opladen: Westdeutscher Verlag.